Using a social-ecological model to examine obesity interventions

Susan Lee Brown

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Using a social-ecological model to examine obesity interventions for children and adolescents

by

Susan L. Brown

A dissertation submitted to the graduate faculty
in partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

Major: Kinesiology (Behavioral Basis of Physical Activity)

Program of Study Committee:
Katherine Thomas Thomas, Co-major Professor
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Iowa State University
Ames, Iowa
2011

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DEDICATION

In honor and memory of my grandfather, Dr. Ronald G. Weber
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GENERAL INTRODUCTION

Obesity is now considered the most significant public health problem in the United States (Wechsler, McKenna, Lee, & Dietz, 2004). Overweight and obesity, once considered problems of adults, are increasingly prevalent among children and adolescents. The Nutrition and Physical Activity Program to Prevent Obesity and Other Chronic Diseases (NAPO) at the Centers for Disease Control and Prevention (CDC) employs a five-level Social-Ecological Model (SEM) to address and understand the issues of overweight and obesity (Hamre et al., 2006). The SEM, credited to Urie Brofenbrenner, is a highly adaptable framework which demonstrates that there are distinct yet interrelated factors which affect human behavior. The model suggests that there are multiple levels of influence, and that effective prevention and reduction programs should address each of those levels. The five levels of the SEM used by the NPAO are the individual, interpersonal, organizational, community and society. The model also serves as a reminder that individual knowledge is not sufficient for behavior change; increasing knowledge, training skills and creating a supportive environment are all important components of behavior change.

The five levels are organized as follows:

- Individual interventions deal with changing one’s knowledge, attitudes, beliefs and ultimately, behaviors. The interaction between a child working with a physician or other health professional (nutritionist or dietician, physical educators, counselor, etc.) would be considered action at the individual level.
- The key to an interpersonal group (as opposed to an organization) is that support and reinforcement among members is generally informal; actions are neither mandated nor governed by rules or guidelines. In overweight and
obesity research, the family unit is the most common target for interpersonal interventions.

- At the organizational level, groups can educate members about nutrition and physical activity and assist them in making better personal choices. This assistance can take on many different forms, including organizational policies, rules of membership and the establishment of environments which reinforce positive behavior. Weight Watchers is an example of an intervention at this level. Participants are offered tools to assist in their weight loss management; there are requirements for membership (regular weigh-ins, fees) and success in managing weight loss or maintenance is reinforced (a member who obtains/maintains his/her goal weight is eligible for free lifetime membership).

- The CDC defines a community as “like a large organization, able to make changes to policy and the environment to give residents the best possible access to healthful foods and places to be physically active. Changes to zoning ordinances, improvements to parks and recreation facilities, creating ways to distribute free or inexpensive fruits and vegetables” (Centers for Disease Control and Prevention, n.d.). The policies and programs of a city or university are examples of action at the community level.

- Societal or macro-level interventions are those interventions that operate on the grandest scale. National media campaigns (got milk?), wellness legislation, and federally- and state-mandated school wellness policies are all examples. Societal variables like ethnicity and socioeconomic status have been identified as significant in the study of childhood overweight.
The percentages of children and adolescents who are overweight have increased two- and three-fold respectively since 1980 (Hedley et al., 2004; Ogden, Flegal, Carroll, & Johnson, 2002). There are many negative health implications associated with being obese. Among these are high cholesterol, high blood pressure and type 2 diabetes and more than 60% of overweight children and adolescents suffer from one of these weight-related conditions (Freedman, Dietz, Srinivasan, & Berenson, 1999). Childhood obesity is also a risk factor for advanced sexual maturation (Frisch & Revelle, 1971), characterized by advanced bone age and increased levels of sex hormones (DeSimone et al., 1995). Hormonal imbalances and excess body weight have been identified as risk factors for growth plate injuries (Wilcox, Weiner, & Leighley, 1988).

Beyond the physiological effects, obesity is also a social and economic problem. Children who are overweight are more likely to have lower self-esteem and to report being targets of discrimination (Dietz, 1998; Strauss, 2000). Obesity (in children and adults) cost approximately $117 billion in the year 2000 alone (U.S. Department of Health and Human Services, 2001). These costs come in the form of medical expenses and lost wages due to obesity-related illnesses and disabilities.

There is evidence of tracking of weight status from childhood into adulthood (Dietz, 1994). Further, the older the overweight child, the more likely he or she will become an overweight adult. Approximately one in three overweight children of preschool age will become overweight adults. Half of overweight school-age children carry overweight status into adulthood and approximately 75% of overweight adolescents will become overweight adults (Whitaker, Wright, Pepe, Seidel, & Dietz, 1997; Serdula et al., 1993).

BMI is the preferred method for evaluating weight status for children ages 2-19 (Krebs et al., 2007). Due to the issues of growth and development, a healthy weight-to-
height ratio varies throughout childhood. BMI-for-age charts take this into account and evaluate weight status based on norms for a child specific to age and gender. BMI ratings are expressed as percentiles, and those percentiles rather than the raw score are then compared to cutpoints. For children, a BMI-for age below the 5th percentile would be classified as underweight. A BMI-for-age between the 5th and 85th percentiles is considered normal weight, and a BMI-for-age between the 85th and 95th percentiles is considered overweight. A child with a BMI-for-age exceeding the 95th percentile is would be classified as obese (Centers for Disease Control and Prevention, 2009b). Fluctuations in a child’s calculated BMI are expected throughout childhood and adolescence, but do not necessarily speak to changes in his weight status. Changes in a child’s percentile ranking allow for tracking of weight status over time. In a study examining the relationship between BMI-for-age percentile and risk factors for chronic disease, BMI-for age only identified two thirds of the children with three or more risk factors. The addition of waist circumference as a measure of body size significantly improved the relationship between measures of weight status and disease risk (Katzmarzyk et al., 2004).

The biological causes of obesity are well understood. Overweight and obesity are the results of an energy imbalance. Specifically, individuals become overweight when they regularly intake more calories than they utilize. The solution is simple; restore the caloric or energy balance to a state in which caloric intake and output are equal (to maintain weight) or one in which caloric expenditure exceeds caloric intake (to lose weight). Caloric intake and energy expenditure through physical activity are two components of energy balance over which individuals have control. One way to restore energy balance is by increasing physical activity. An alternative method would be to reduce caloric intake. A combination of these strategies (expending additional calories through increased levels of physical activity and
consuming fewer calories) represents the most effective way for an individual to maintain or lose weight.

Levels of physical activity are low among children and adolescents, and these levels decline further with age (Centers for Disease Control and Prevention, 2003). Studies have suggested that levels of physical activity during childhood and adolescence track into adulthood (Raitakari, Porkka, Taimele, Telama, & Rasanen, 1994; Malina, 1996; Pate, Baranowski, Dowda, & Trost, 1996). Unfortunately, these same studies also produced evidence of tracking of sedentary behavior from childhood into adulthood. Sedentary youth tend to become sedentary adults. Inadequate levels of physical activity unfavorably affect the energy balance, resulting in increased risk for obesity.

The American Heart Association recommends that the diet of children aged 2 years or older should be comprised primarily of fruits and vegetables, whole grains, dairy products (low or non-fat), beans, fish and lean meats (Kavey et al., 2003; Fisher, van Horn, & McGill, 1997) and there are additional recommendations limiting the intake of saturated and trans fat, cholesterol, sugar (with specific mention of juice and soft drinks) and salt (Gidding et al., 2006).

The most recent data available from the CDC’s annual Youth Risk Behavior Surveillance System (YRBSS) indicated only 21.4% of adolescents reported consuming the recommended 5 or more daily servings of fruits and vegetables during the survey period. Less than 40% of all children and adolescents meet the recommendations for saturated fat intake (Centers for Disease Control and Prevention, 2008b). Only 39% of children aged 2-17 years-old met dietary recommendation for fiber intake (U.S. Department of Agriculture, 1998) while sodium intake far exceeds recommended levels and median intakes of
important micronutrients like potassium and calcium are below recommended levels (Wright, Wang, Kennedy-Stephenson, & Ervin, 2003).

Physical activity only accounts for only about 20% of energy expenditure in sedentary adults (Bouchard & Despres, 1995), but negative energy balance (weight loss) due to increased levels of physical activity is more likely to reflect loss of body fat (Bouchard et al., 1990). When negative energy balance is achieved primarily through reduction of caloric intake, lean tissue loss can account for as much as 50% of total weight lost (Tremblay, Despres, & Bouchard, 1985). A combination of both increased physical activity and reduced caloric intake still represents the most promising means to desirable energy balance and studies on children’s energy consumption provide ample evidence of areas for improvement.

**Rationale for the Current Research**

Due to the magnitude of the problem of overweight and obesity in children and adolescents, abundant attention is being devoted to developing and implementing prevention and treatment programs. Despite these efforts, the incidence and prevalence of childhood overweight is on the rise (Ogden et al., 2002; Troiano, Flegal, Kuczmarski, Campbell, & Johnson, 1995). No single prevention or treatment program has emerged as the cure-all people so desperately desired, reinforcing the CDC’s position that efficacy of prevention and treatment efforts is maximized by addressing the problem at multiple levels. Therefore, this researcher conducted two studies to determine the efficacy and quality of programs at different levels of the Social-Ecological Model which target childhood overweight. First, *Trim Kids* (Sothern, von Almen & Schumacher, 2001) was selected because it was highly adaptable to implementation at many levels and purported to be research-based and theory-driven; however, little data exist to support whether the program
was effective in reducing children’s BMI. Second, with nearly 90% of U.S. children receiving a public education (Collins, 2009), schools have an unrivaled opportunity to influence children’s health-related knowledge, attitudes and skills. Are there effective health education curricula in place to make this influence a positive one?

**Dissertation Organization**

This dissertation is comprised of two studies prepared for publication in journals. The studies are preceded by this general introduction and general literature review, and followed by general conclusions, appendix materials and general references. References cited in each study are included at the end of the chapter; references cited in other chapters are listed at the end of the dissertation.

Susan L. Brown, Graduate student in Kinesiology at Iowa State University, is the primary researcher and author for both studies. Dr. Katherine T. Thomas served as the student's Major Professor and is currently an Associate Professor at the University of North Texas. Dr. Thomas is the author for correspondence for both studies. Dr. Max D. Morris, Professor at Iowa State University, provided statistical support for study one.
GENERAL REVIEW OF LITERATURE

Obesity is now considered the most significant public health problem in the United States (Wechsler, McKenna, Lee, & Dietz, 2004). Once considered problems of adults, overweight and obesity are increasingly prevalent among children and adolescents. The Centers for Disease Control and Prevention (CDC) employ a five-level social-ecological model (SEM) to address and understand the issues of overweight and obesity (Hamre et al., 2006). Credited to Urie Brofenbrenner, the SEM is a highly adaptable framework which demonstrates that there are distinct yet interrelated factors which affect human behavior. The model suggests that there are multiple levels of influence, and that effective prevention and reduction programs should address each of these levels. The five levels of the SEM used by the Nutrition and Physical Activity Program to Prevent Obesity and Other Chronic Diseases (NPAO) are the individual, interpersonal, organizational, community, and society. The model also serves as a reminder that individual knowledge is not sufficient for behavior change; increasing knowledge, skills training, and creating a supportive environment are all important components in a behavior change model.

Childhood overweight and obesity are multi-faceted issues. This review presents the current data on children’s rates of overweight, problems associated with overweight and obesity, factors contributing to weight gain, the issues of prevention and treatment of overweight, as well as a discussion of different prevention and treatment programs at various levels of the NPAO social-ecological model.

The percentages of children and adolescents who are overweight have increased twofold and threefold, respectively, since 1980 (Hedley et al., 2004; Ogden, Flegal, Carroll & Johnson, 2002). There are many negative health implications associated with being obese. Among these are high cholesterol, high blood pressure, and type 2 diabetes, and more than
60% of overweight children and adolescents suffer from one of these weight-related conditions (Freedman, Dietz, Srinivasan, & Berenson, 1999).

Beyond its physiological effects, obesity is also a social and economic problem. Children who are overweight are more likely to have lower self-esteem and report being discriminated against (Dietz, 1998; Strauss, 2000). Obesity (in children and adults) cost approximately $117 billion in the year 2000 alone (U.S. Department of Health and Human Services, 2001). These costs are in the form of medical expenses and lost wages due to obesity-related illnesses and disabilities.

The biological causes of obesity are well understood. Overweight and obesity are the results of an energy imbalance. Specifically, individuals become overweight when they regularly intake more calories than they burn. The solution is simple; restore the caloric or energy balance to a state in which caloric intake and output are equal (to maintain weight) or one in which caloric expenditure exceeds caloric intake (to lose weight). Caloric intake and energy expenditure through physical activity are only two of the three primary components of energy balance; the third component involves the biological processes (and corresponding energy demands) necessary for growth and development, and to sustain life. This third component is a significant factor in the energy balance discussion, especially during times of growth as in childhood, but it is largely unmodifiable. For this reason, the focus of energy balance interventions typically focus only on those factors that are changeable. One way to restore energy balance is by increasing physical activity. An alternative method would be to reduce caloric intake. A combination of these strategies (expending additional calories through increased levels of physical activity and consuming fewer calories) represents the most effective way for an individual to maintain or lose weight.
Weight gain throughout childhood is both expected and necessary. In the first year of life, an infant's body weight increases by 300% on average. That same infant will likely have grown 10 inches (25 centimeters); the weight gain is necessary to keep up with the tremendous physical demands of growth and development. Increases in stature and mass slow considerably after the first year, but a healthy child will continue to grow taller and gain weight. The dynamic process of growth and development can make identifying a weight problem that much more challenging. For this reason, weight status of children is evaluated using Body Mass Index (BMI)-for-age. The calculation of BMI is the same for both children and adults (Centers for Disease Control and Prevention, 2009b); BMI is equal to an individual's weight in kilograms divided by his height in meters squared (Weight (kg)/Height(m)^2). Adult weight status is then evaluated by comparing that BMI to established cutpoints. The CDC offers a four-level system for evaluating adult weight status (Centers for Disease Control and Prevention, 2009a). An individual with a BMI below 18.5 is considered underweight. An individual with a BMI between 18.5 and 24.9 is considered normal weight, while a person with a BMI between 25 and 29.9 is considered overweight. An individual with a BMI is 30 or above is classified as obese. Other agencies have introduced additional classifications. For example, the National Heart, Lung and Blood Institute (NHLBI) of the National Institutes of Health (NIH) subdivides the obese classification into three categories: class I (30.0-34.9), class II (35.0-39.9) and extreme (40.0 and above) obesity. Since these classifications are not used to evaluate the weight status of children, it is not important to discuss the merits of these additional classifications at this time. It is important to consider that adult BMI is evaluated without regard for age or gender; all adults are evaluated using the same cutpoints.
It is important to remember that BMI is not a direct measure of body fatness, only total body size, but is the preferred method for evaluating weight status for children ages 2-19 (Krebs et al., 2007). Weight status is determined by comparisons with the CDC’s age-and gender-specific growth charts (Krebs et al., 2007). Historically, the term “obese” was not used for children to avoid potential stigmatization (Krebs et al., 2007), but is now included among the CDC’s classifications of children’s weight status. Due to the issues of growth and development, a healthy weight-to-height ratio varies throughout childhood. BMI-for-age charts take this into account and evaluate weight status based on norms for a child specific to age and gender. BMI ratings are expressed as percentiles, and those percentiles rather than the raw score are then compared to cutpoints. For children, a BMI-for-age below the 5th percentile is considered “underweight”. A BMI-for-age between the 5th and 85th percentiles is considered “normal weight”, and a BMI-for-age between the 85th and 95th percentiles is considered “overweight”. A child with a BMI-for-age exceeding the 95th percentile is considered “obese” (Centers for Disease Control and Prevention, 2009b). Fluctuations in a child’s calculated BMI are expected throughout childhood and adolescence, but do not necessarily speak to changes in his weight status. Changes in a child’s percentile ranking allow for tracking of weight status over time. Complete sets of the CDC’s growth charts from the year 2000 are available from the CDC (2009c).

To demonstrate this concept, consider the following example. A BMI of 20 for a 6-year-old girl is very high. This young lady would be classified as obese, with a BMI-for-age exceeding the 97th percentile. Boys and girls experience a growth spurt immediately preceding the onset of puberty, typically between 9 and 11 years of age (Thomas & Thomas, 2008). If this young lady maintains a BMI of 20, her BMI-for-age would place her at approximately the 90th and 80th percentiles at 9- and 11-years-old. Female growth typically
concludes by 15 or 16 years of age (Thomas & Thomas, 2008). A 16-year-old female with a BMI of 20 ranks below the 50th percentile. Reporting that this child has a BMI of 20 is not inherently meaningful; the BMI-for-age percentile ranking provides a better framework through which to examine an individual’s weight status throughout childhood.

Levels of physical activity are low among children and adolescents, and these levels decline further with age (Centers for Disease Control and Prevention, 1992). Twenty-three percent of children aged 9-13 years engaged in no free-time physical activity during the last seven days (Centers for Disease Control and Prevention, 2003). Nearly half of young people aged 12-21 years are not vigorously active on a regular basis (U.S. Department of Health and Human Services, 1997). One third of adolescents do not participate in sufficient amounts of either moderate or vigorous physical activity (as indicated by self-report of behavior in the seven days prior to survey), and more than 11% reported participating in no physical activity at all within the previous seven days (Centers for Disease Control and Prevention, 2004).

In their review of self-esteem and physical activity in children, Whitehead and Corbin (1997) discussed the importance of intrinsic motivation and perceived competence in an individual’s decision to participate in physical activity. In other words, children must find an activity inherently valuable and believe that they are good at it if they are to continue that behavior. In a longitudinal study by De Bourdeaudhuij, Sallis, and Vandelanotte (2002), modest tracking was demonstrated for total and moderate-intensity levels of physical activity ($r = .34, .41$) among young adult women. There was no evidence to support tracking of actual physical activity behaviors among young men, but tracking scores for perceived benefits and barriers to physical activity were higher, suggesting that cognitions related to physical activity tend to persist even when levels of actual activity do not (De Bourdeaudhuij
et al., 2002). Other studies have suggested stronger tracking of physical activity levels throughout childhood and adolescence and into adulthood (Malina, 1996; Pate, Baranowski, Dowda & Trost, 1996; Raitakari, Porkka, Taimele, Telama, & Rasanen, 1994). Unfortunately, evidence for tracking of sedentary behavior has been far more consistent in many of these same studies. Sedentary youth tend to become sedentary adults, and these deficiencies in physical activity participation affect the energy balance, resulting in increased risk for obesity.

Physical activity only accounts for only about 20% of energy expenditure in sedentary adults (Bouchard & Despres, 1995), but negative energy balance (weight loss) due to increased levels of physical activity is more likely to reflect loss of body fat (Bouchard et al., 1990). Reduction in lean tissue, accounting for as much as 50% of total weight lost, is more likely when negative energy balance is achieved primarily through reduction of caloric intake (Tremblay, Despres & Bouchard, 1985). A combination of both increased physical activity and reduced caloric intake still represents the most promising means to desirable energy balance and studies on children’s energy consumption provide ample evidence of areas for improvement.

The American Heart Association recommends that the diet of children aged 2 years or older should be comprised primarily of fruits and vegetables, whole grains, dairy products (low or non-fat), beans, fish and lean meats (Fisher, van Horn & McGill, 1997; Kavey et al., 2003). Specific cautions are offered about limiting the intake of saturated and trans fat, cholesterol, sugar (with specific mention of juice and soft drinks) and salt (Gidding et al., 2006). The dietary needs of infants and young toddlers (less than two years of age) are unique and are not discussed in this review and research.
The most recent data available from the CDC’s annual Youth Risk Behavior Surveillance System (YRBSS) indicated that, in 2007, only 21.4% of adolescents reported consuming the recommended five or more daily servings of fruits and vegetables during the survey period. Less than 40% of all children and adolescents meet the recommendations for saturated fat intake (Centers for Disease Control and Prevention, 2008b), despite the fact that levels of saturated fat and cholesterol have decreased as a percentage of total caloric intake (Gidding et al., 2006). Whole grains, dried beans and fruits and vegetables are primary sources of fiber, and only 39% of children aged 2-17 years old met dietary recommendation for fiber intake (U.S. Department of Agriculture, 1998). This is consistent with the pattern of median intakes of important micronutrients (like potassium and calcium) below recommended levels while sodium intake far exceeds recommended levels (Wright, Wang, Kennedy-Stephenson, & Ervin, 2003).

The Gidding (2006) group summarized these and other adverse characteristics of children’s food consumption. Children are eating more meals away from home, which likely accounts at least, in part, for an increase in the consumption of fried and other nutrient-poor foods. Portion sizes have increased, and children are consuming a larger percentage of their total calories from snacks. Dairy product consumption has decreased while consumption of sweetened beverages has increased. Fewer children report regularly having breakfast.

Recommended caloric intake varies by age, gender and activity level. Energy intake can be subdivided into essential and discretionary calories. Essential calories are those necessary to meet recommended nutrient intakes, while discretionary calories are those required to meet the demands of energy expenditure through physical activity and the energy required for growth (Gidding et al., 2006). Subdividing energy consumption in this
way highlights the fact that children’s energy needs are highly individual based on a multitude of factors.

The discussion of weight maintenance and/or loss introduces the concepts of prevention and treatment. Overweight and obesity among youth are increasing in both incidence and prevalence (Ogden, Flegal, Carroll, & Johnson, 2002; Troiano, Flegal, Kuczmarski, Campbell & Johnson, 1995). Incidence is the number of new cases of overweight; preventing children from becoming overweight is the key to reducing incidence. The total number of overweight children is reflected in prevalence statistics; treatment programs which aim to help children return to a healthy weight are the means to reducing the prevalence of overweight in youth.

**Obesity and the Social-Ecological Model**

The Nutrition and Physical Activity Program to Prevent Obesity and Other Chronic Diseases recommended that the prevention and treatment of overweight is best achieved by addressing the issue at the individual, interpersonal, organizational, community and societal levels (Hamre et al., 2006). The levels within a social-ecological model are often depicted as nesting dolls; each subsequent level is inclusive of those that came before. The distinction between levels is not always clear. At what point does an interpersonal group become an organization? How large can an organization be before it is considered a community fixture? Since the whole is more important than the specifics of each part, it is not essential that there be complete agreement on the level to which a certain type of intervention be assigned. A basic understanding of each level is necessary to further investigate the question of effective behavior change and will be offered as follows.
Individual

Considering the degree of influence adults have over children’s lives, there is arguably no purely individual level of influence for childhood overweight. Individual interventions deal with changing one’s knowledge, attitudes, beliefs and ultimately, behaviors. The interaction between a child working with a physician or other health professional (nutritionist or dietician, physical educators, counselor, etc.) would be considered action at the individual level. By definition, these efforts are highly individualized, so little data exist to support the effectiveness of overweight prevention or treatment interventions at the individual level. Even in the absence of results of individualized interventions, there are clear recommendations as to how professionals can contribute.

Literature discussing intervention at the individual level is typically directed at physicians. Research in adult populations has indicated that patients with whom physicians have discussed concerns about his/her (the patient’s) weight are more likely to initiate weight management efforts (Krebs, 2005). Many models of behavior change identify readiness for change as an important factor. Physician intervention has also been recognized as a means to prompting individuals from one stage to the next, even if there are no immediate changes in behavior (Krebs, 2005). A study involving youth patients found that 69% of children and adolescents (ages 10-18) reported that they would try to change their nutrition and physical activity patterns if advised to do so by their physician. Younger children (ages 10-14) were more agreeable to changing their nutrition and physical activity patterns than older children (ages 15-18). Children with BMIs exceeding the 85th percentile were more likely to report a willingness to try to change their physical activity patterns, and 67% of the sample population reported that they considered their physician’s counseling as “helpful” or “very helpful” (Taveras et al., 2007). In this study, 69% of children reported that
their physician discussed weight and physical activity with them, but nationwide statistics are not as strong. It is estimated that approximately 50% of pediatricians do not routinely discuss the importance of maintaining a healthy weight with their patients, and nearly 40% do not counsel their young charges about the importance of a physically active lifestyle (Galuska et al., 2002). This is a missed opportunity. Physicians reported feeling as though their counsel on these matters would not have any effect on their patients; multiple studies have since been conducted to remove barriers and improve physician confidence in this area (Story et al., 2002; Perrin et al., 2008).

In terms of prevention, the American Academy of Pediatrics recommends that physicians calculate and plot the BMI of all children at least once per year. BMI-for-age data would provide concrete evidence of whether weight gain is appropriately proportional to growth rather than simply relying on “visual impressions” (Krebs, 2005). Furthermore, physicians can better serve their patients by tracking both BMI and waist circumference. In a study examining the relationship among BMI, waist circumference and the presence of risk factors for chronic disease associated with overweight and obesity including cardiovascular disease and type 2 diabetes, researchers found that a BMI-for-age exceeding the 85th percentile only identified two thirds of the children with three or more risk factors. In other words, one third of all children with three or more risk factors for chronic disease (low high-density lipoproteins (HDL) cholesterol levels, high low-density lipoprotein (LDL) cholesterol levels, high triglyceride levels, high plasma glucose levels, high plasma insulin levels and high blood pressure) were still maintaining normal body mass indices. In addition, nearly two thirds of the children with BMIs exceeding the 85th percentile did not have three or more risk factors. The addition of waist circumference as a measure of body size significantly
improved the relationship between measures of weight status and disease risk (Katzmarzyk et al., 2004).

Despite the dynamic nature of growth and development and the tremendous effect that process has on BMI, there are specific recommendations for treatment related to a child’s weight status. A child who maintains his current weight while growing taller will decrease his BMI. For this reason, weight maintenance is the recommendation for overweight children who are between the ages of 2 and 7 years old (BMIs between the 85th and 95th percentile). This is also the recommendation for older overweight children (older than 7) as long as they do not currently have any of the previously discussed risk factors. Weight maintenance is also the recommendation for young children (ages 2-7) who are currently obese (BMIs exceeding the 95th percentile) without medical complications (risk factors). Weight loss is the recommendation for obese children over the age of 7 regardless of the presence of risk factors. Weight loss is also recommended for younger obese children with risk factors, as well as for older children who are overweight and already experiencing medical complications (Fowler-Brown & Kahwati, 2004).

**Interpersonal**

Interpersonal groups are any collection of people who share a relationship. Friends and families are the most common examples of an interpersonal group, but some interpretations allow for the inclusion of more formal groups and clubs as well. The key to an interpersonal group (as opposed to an organization) is that support and reinforcement among members is generally informal; actions are neither mandated nor governed by rules or guidelines. In overweight and obesity research, the family unit is the most common target for interpersonal interventions.
Evidence of family-based treatment of childhood overweight dates back more than twenty-five years (Epstein, Paluch, Roemmich, & Beecher, 2007). It can be difficult to compare more recent interventions with their predecessors as standards for weight status have changed, but certain trend data on the efficacy of family-based interventions does exist. In a review of eight published studies involving family-based interventions, Epstein and colleagues (2007) found that six and twelve months post-intervention, younger children (younger than a median age of 10.33 years) were more successful in reducing their BMIs than were older children. In addition, there was a relationship between the parent’s BMI reduction and that of their child. The greater the BMI change of the parent, the greater the BMI change in the child. Long-term results (five and ten years post-intervention) demonstrated that the parent-child BMI reduction relationship persisted; children with parents achieving greater BMI reduction (reported as z-score effect sizes) reduced their own BMIs more than children whose parents did not achieve as significant a reduction in BMI. Girls showed greater long-term BMI reductions at 5 and 10 years than boys (ES = -.80 and -.85 (girls) and -.27 and -.38 (boys), respectively). Only one of the eight studies examined BMI reduction among children with and without parental involvement (control and experimental groups), but that study demonstrated that children who participated with their parents had more significant long-term BMI reductions than did children who participated independently. It is important to note a significant limitation of this review; all of the studies included were conducted by two of the review’s primary authors. Other findings from reviews of family-based interventions have revealed a positive association between treatment outcomes and longer treatments, although this introduces the challenge of participant attrition (Goldfield, Raynor, & Epstein, 2002). Defining treatment success also emerged as
an important measurement issue; is any reduction of BMI to be considered a success if there is no corresponding reduction in risk for chronic disease (Foster et al., 2004).

Other research has examined interpersonal effects in far less established groups. A study by Salvy, Kieffer, and Epstein (2008) revealed that social context was an important factor in food selection for overweight youth. In the study, children had access to both healthy (baby carrots, grapes) and unhealthy (potato chips, cookies) snacks and were given opportunities to consume snacks alone or in the company of an unfamiliar peer. Overweight children consumed far more calories ($m=519.4$ kcals) when alone than they did when in the presence of a peer ($m=359.13$ kcals). Caloric consumption by the normal weight children did not follow this pattern. In fact, normal weight children actually ate more ($m=348.59$ kcals) with a peer than they did alone ($m=319.87$ kcals), though the disparity was not significant. In addition, overweight children were more likely to select the healthy snack if a peer first selected the healthy snack. In this example, the mere presence of another person affected individual behavior, despite the lack of an interpersonal relationship between the two people. The findings of the study have implications for the importance of having healthy snacks available to children, modeling positive food choices and the benefits of families eating together.

**Organizational**

At the organizational level, groups can educate members about nutrition and physical activity and assist them in making better personal choices. This assistance can take on many different forms, including organizational policies, rules of membership and the establishment of environments which reinforce positive behavior. It is a blurry line between an interpersonal group and an organization. Both serve to reinforce the positive choices of
members, with interpersonal groups relying more heavily on informal reinforcement practices and organizations using a blend of both formal and informal methods.

*Trim Kids* is a 12-week behavior change plan designed to help children between the ages of 5 and 17 years old “achieve a healthier weight” (Sothern, von Almen, & Schumacher, 2001). Trim Kids is a program, an organization and a textbook all-in-one; it is designed to be a versatile resource easily adapted to fit one’s personal circumstances. Trim Kids was developed in Louisiana over a 15 year time span and claims a 90% short-term and 65-70% long-term success rate (Sothern et al., 2001). As is customary in popular media, there are no references provided to support these statistics, and the authors offer no explanation as to what constitutes “success”. There are three main components to the Trim Kids program: (1) overall behavior change, and developing knowledge, attitudes and skills specific to (2) healthy eating; and (3) living a physically active lifestyle. The program requires the participant of not only the child, but all members of the child’s immediate family. The program includes elements of several major psychological theories of behavior change. Readiness for change, much like the transtheoretical model developed by James Prochaska and colleagues in the late 1970s and early 1980s, is assessed at program onset. The child and all members of his or her immediate family are asked to rate their readiness to take action on a scale from 0 to 100. Groups with average scores below 50 are encouraged to take some time to reassess their commitment to beginning the program, stressing the importance of readiness for change as essential to success. Participants are also asked to identify benefits and barriers to behavior change, with the suggestion that those who perceive the benefits as outweighing the barriers are more likely to be successful. These are two major constructs of the Health Belief Model conceptualized by Irwin Rosenstock in 1966. There are weekly readings throughout the 12-week curriculum and each lesson is
divided into four parts: *Time to Stop and Think*, *Time to Get Active*, *Time to Dine* and *Time to Sum Up*. Assignments include both reading and writing tasks (included in the book), as well as free-living activities related to eating and activity behaviors. Participants are encouraged to take field trips to locations like the grocery store and local restaurants to learn how to apply their newfound knowledge.

Emphasis is placed on providing recognition for positive choices and participants are consistently reminded that “there is no finish line”. Participants are cautioned to expect, but not despair over, setbacks. Backsliding is a normal part of progress, but healthy choices and changes should gradually become the new norm. Despite the fact that there is no reference to the specific stages of the transtheoretical model, the description of the process of behavior modification sounds very much like an explanation of progress through Prochaska’s stages of change.

An internet search revealed Trim Kids chapters operating throughout the United States, but little data are offered to support their effectiveness. Obesity as a significant burden has led people to seek out new treatments for childhood overweight. The ability to distinguish sound programming from opportunistic scam is critical for families seeking to improve a child’s health and wellness.

**Community**

The CDC defines a community as “like a large organization, able to make changes to policy and the environment to give residents the best possible access to healthful foods and places to be physically active. Changes to zoning ordinances, improvements to parks and recreation facilities, creating ways to distribute free or inexpensive fruits and vegetables” (Centers for Disease Control and Prevention, n.d.). Public schools in the United States serve 89% of the nation’s children and adolescents (Collins, 2009), representing
unprecedented influence over children’s lives. Based on this unrivaled opportunity to affect children’s lives, schools were challenged to take action in the prevention and treatment of children’s overweight by the Surgeon General in 2001 (Thomas, 2004). Unfortunately, this challenge was not accompanied by resources, and schools continue to struggle to identify the best uses of personnel, time, money, facilities, equipment and materials to achieve that end.

Despite the lack of dependable and consistent funding, the literature is inundated with the details of numerous large-scale school initiatives with goals of improving children’s nutrition and/or promoting physical activity. BEACHES, CATCH, CHIC, PLAY, the Bogalusa Heart Study, Family Health Project, Healthy Heart, Heart Smart, Know Your Body, and New Moves are a sample of the school-based interventions that have appeared in the literature. School-health initiatives initially focused on one of three primary components; school health instruction, school health services and the school health environment (Means, 1975). Contemporary initiatives have introduced numerous additional opportunities for intervention, including physical education, counseling services, school food service (meals and vending), school-to-work promotional programs, and integrated school and community programming (Stone, Perry, & Luepker, 1989). The Heart Smart intervention involved changes to the school lunch and physical education programs, as well as measurement of risk factors for cardiovascular disease (anthropometrics, blood pressure, cholesterol). Participants showed increases in cardiovascular knowledge, made healthier food choices at lunch (with corresponding improvements in cholesterol), and improved fitness (Arbeit et al., 1992; Johnson et al., 1991). Cardiovascular Health in Children (CHIC) involved dissemination of a curriculum intended to affect knowledge and attitudes related to cardiovascular health and a specialized physical activity program (Frauman, Criswell, & Harrell, 1998). A 3-year follow-
up with the Child and Adolescent Trial for Cardiovascular Health (CATCH) schools demonstrated that intervention groups were still consuming a smaller percentage of calories from fat (grades 5 and 8), reported significantly higher levels of vigorous physical activity, and maintained advantages in nutrition knowledge and intentions (grade 8) (Nader et al., 1999). Participants felt positively about New Moves, but the initiative did not elicit many of the intended results (Neumark-Sztainer, Story, Hannan, Stat, & Rex, 2003). PLAY increased the physical activity level of 4th grade children, especially young girls, but had no significant effect on BMI (Pangrazi, Beighle, Vehige, & Vick, 2003). Go For Health reported statistically significant changes among participants in the areas of salt use, diet behavioral capability, exercise behavioral capability, frequency of participation in aerobic activity and self-efficacy (Parcel, Simons-Morton, O’Hara, Baranowski, & Wilson, 1989; Simons-Morton, Parcel, Baranowski, Forthofer, & O’Hara, 1991). Among the results of the Bogalusa Heart Study were evidence that children who do not have physical education in school are less physically active overall (Myers, Strikmiller, Webber, & Berenson, 1996). Additional initiatives have demonstrated exercise and education programs providing a protective effect against increased systolic and diastolic blood pressure among high-school students (McMurray et al., 2002), improvements in knowledge, attitudes, intentions, activity levels, BMI and body composition after a 20-week classroom (information only) intervention on cardiovascular risk-reduction (Killen et al., 1988), and improvements in physical activity levels and boys’ BMIs after a two-year school-wide intervention involving physical education, cafeteria meals and school stores (Sallis et al., 2003). Numerous review papers have attempted to identify and synthesize the results of these and many other studies (Kahn et al., 2002; Richter et al., 2000; Stice, Shaw & Marti, 2006; Stone, 1985; Stone, McKenzie, Welk, & Booth, 1998). The results are dizzying.
School-based interventions have employed numerous combinations of these variables, and measurements and results have been reported in terms of knowledge, attitudes, beliefs, actions and physiological markers. Despite a shared interest in children's nutrition and physical activity, consensus on the effectiveness of these initiatives is difficult to reach due to the overwhelming scope of material covered. From a practical perspective, the benefits were generally modest and the costs (in terms of money, time and effort) were significant, suggesting these interventions were not the silver bullet for childhood obesity.

The Health Education Curriculum Analysis Tool (HECAT) was developed by the Centers for Disease Control and Prevention’s (CDC) National Center for Chronic Disease Prevention and Health Promotion. The HECAT provides a framework for the comprehensive and consistent evaluation of health education curricula based on the National Health Education Standards and the CDC’s Characteristics of Effective Health Education Curricula. The HECAT includes specific modules for various health topics. Current HECAT modules include Alcohol and Other Drugs, Healthy Eating, Mental and Emotional Health, Personal Health and Wellness, Physical Activity, Safety, Sexual Health, Tobacco and Violence Prevention. A comprehensive health education curriculum should include all of these topics, but one of the HECAT’s strengths is that it can be customized to meet specific curriculum or community needs.

The eight National Health Education Standards (NHES) were developed by the CDC’s National Center for Chronic Disease Prevention and Health Promotion and the American Cancer Society and are provided as a School Health Education Resource (SHER). The standards are intended to serve as a framework to be used in the development of health education curricula, instructional techniques and assessments. The focus is on health promotion at the individual, family and community levels, and standards are written to
explain what the health-promoting child should know and be able to do at various grade levels. Performance indicators are provided at each grade level to track a child’s progress towards achievement of the standard. Standards relate to:

1. understanding the concepts of health promotion and disease prevention;
2. the ability to identify and influence sources of influence (family, media, etc.);
3. the ability to access valid health information, products and services;
4. interpersonal communication skills and their role in promoting health/reducing health risk;
5 & 6. the abilities to use (5) decision-making and (6) goal-setting skills to enhance health;
6. the ability to practice health-enhancing behaviors and those that reduce health risks; and
7. the ability to be an advocate for the health of their families, communities and selves. (The Joint Committee of National Health Education Standards, 2007)


Well-written standards can help shape an effective curriculum, but the CDC has gone one step further in identifying those qualities characteristic of an effective health education curriculum. Like the NHES, the Characteristics of an Effective Health Education Curriculum are also included among the SHER. Based on the advice of experts and reviews of existing curricula, the CDC has identified 14 characteristics of an effective health curriculum. An effective health education curriculum must clearly identify goals and articulate behaviors which demonstrate progress towards or achievement of said goals. Curricula should be theory-driven and based on research. The curriculum must present information
that is accurate, complete, and directly contributes to health-promoting behaviors. The curriculum should be able to be individualized to maximize student engagement, and be age, developmentally and culturally appropriate. The curriculum should address personal values as well as group norms, and address the influence (both positive and negative) of peers. There should be a focus on the student’s awareness of both risky and reinforcing behaviors and skills practice to build student competence, confidence and efficacy to handle these challenges. Students should have opportunities to build positive relationships with influential others, including their families, friends and adult role models. There must be adequate time for instruction and learning, including time devoted to the reinforcement of previously learned knowledge, skills and behaviors. Lastly, professional development must be available and training provided to enrich teacher instruction and student learning. A complete list and descriptions of the characteristics of effective health education curricula are available from the CDC (2008a).

Societal

Societal or macro-level interventions are those interventions that operate on the grandest scale. National media campaigns (got milk?), wellness legislation, and federally- and state-mandated school wellness policies are all examples. Societal variables like ethnicity and socioeconomic status have been identified as significant in the study of childhood overweight. Studies have identified a possible association between low socioeconomic status and increased body fat (Wolfe, Campbell, Frongillo, Haas, & Melnik, 1994) and decreased levels of physical activity (Macera, Croft, Brown, Ferguson & Lane, 1995). Nationwide data have demonstrated significant differences in the prevalence of overweight among children and adolescents. For children ages 12-19, prevalence of overweight was similar for non-Hispanic black (18.5%) and white (17.4%) boys, but far
higher among Mexican-American boys (22.1%). Among 12-19 year old females, non-Hispanic black girls have the highest prevalence rates (27.7%), followed by Mexican-American (19.9%) and non-Hispanic white girls (14.5%) (Ogden, Carroll, & Flegal, 2008). In a study that demonstrated a relationship between “screen time” (television viewing, playing video games) and BMI, adjusting for ethnicity and socioeconomic status eliminated the significant effect (McMurray et al., 2000). Numerous additional studies have identified differences in specific nutrition behaviors and societal variables (Dibsdall, Lambert, Bobbin & Frewer, 2003; Edmonds, Baranowski, Baranowski, Cullen & Myres, 2001; Kirby, Baranowski, Reynolds, Taylor, & Binkley, 1995; Morland, Wing & Diez Roux, 2002), but no clear evidence has demonstrated a direct relationship between macro-level interventions and population overweight and obesity (Faith, Fontaine, Baskin, & Allison, 2007). Intuitively, incompatible environments represent a potentially significant barrier to positive behavior change.

The standards individual states have for the health education provided in their schools are another example of a macro-level intervention. The delivery of said programs would take place at the community level, but the mandate must come from above. State standards might seem unnecessary in light of the fact that there are national standards, but the NHES are simply recommendations; neither schools nor states have any obligation to adopt these standards. Most states do require health education in the schools, but the quality and quantity of these programs varies tremendously.

At this time, the following is known about childhood overweight and obesity:

- Overweight and obesity are significant health problem among U.S. children and adolescents.
• Weight status for children is evaluated and reported as a percentile ranking and classification (underweight, normal weight, overweight and obese) based on age and gender.

• The CDC recommends a multilevel systems approach to prevention and treatment of childhood overweight and the levels in the CDC model are the individual, interpersonal, organizational, community and societal.

• There is evidence in the literature of overweight initiatives/interventions operating at every level. Programming differences and lack of consistent structure have made it difficult to address the efficacy of many programs.

• The development of the HECAT is based on the NHES and Characteristics of Effective Health Education Curricula and provides a framework by which overweight initiatives/interventions may be evaluated.

• Trim Kids is a versatile program which can be adapted for use by an individual, interpersonal groups and organizations. It also recognizes the impact/influence of community and societal factors, addressing all of the levels identified by the CDC's systems model.

• Schools offer an unrivaled opportunity to impact children's lives as nearly 90% of all U.S. children attend public school, but state standards for school health education are inconsistent.

• Trim Kids and school health education should be further explored for future overweight prevention and treatment programs. First, it is important to identify the efficacy of programs like Trim Kids.

• Second, the HECAT should be used to evaluate the comprehensiveness of Trim Kids and state health education curricula (using their published standards).
Finally, it is important to compare the quality and effectiveness of programs like Trim Kids and the state-specific standards for health education. Quality of programs can be evaluated using the HECAT tool. Effectiveness can be measured using BMI-change (Trim Kids) and prevalence of overweight among children data (state health education programs).
STUDY 1. EVALUATION OF THE EFFECTIVENESS OF A COMMUNITY-BASED INTERVENTION IN IMPROVING WEIGHT STATUS IN CHILDREN

A paper to be submitted to the American Journal of Health Education

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ABSTRACT

The Nutrition and Physical Activity Program to Prevent Obesity and Other Chronic Diseases of the Centers for Disease Control and Prevention uses a Social-Ecological Model (SEM) as a framework for examining the problem of childhood overweight and obesity (Hamre et al., 2006). Trim Kids (Sothern, von Almen, & Schumacher, 2001) is a program aimed at improving the health status of children and includes elements at the individual, interpersonal and organizational levels. In this study, data from eleven sessions of the Trim Kids program were examined to determine the effectiveness of the program in improving weight status as indicated by reductions in mass, BMI, BMI-for-age percentile or waist circumference. Statistically significant reductions were detected for BMI with small effect sizes in all variables. The results of this study suggest that increases in stature may have been more influential than reduction in mass in reducing BMI. Trim Kids and other behavior-change programs would benefit from recording stature data as a critical component in tracking weight status in children. Trim Kids is a program that does not require expert leadership or expensive equipment and may have benefits in engaging families and slowing the progression of obesity.

INTRODUCTION

Reducing obesity is a challenge because individuals do not live in isolation. Individuals are influenced by family and friends, the media and many factors that can impact
nutrition and physical activity and thereby obesity. Those factors are reflected in the use of a five-level Social-Ecological Model (SEM) by the Nutrition and Physical Activity Program to Prevent Obesity and Other Chronic Diseases at the Centers for Disease Control and Prevention (Hamre et al., 2006). The most effective interventions acknowledge and address contributing factors at the individual, interpersonal, organizational, community and social levels. Childhood obesity has become an issue of particular concern because of its potential physiological and psychological consequences. More than 60% of overweight children and adolescents suffer from high cholesterol, high blood pressure and/or type 2 diabetes (Freedman, Dietz, Srinivasan, & Berenson, 1999). Children who are overweight or obese are more likely to have lower self-esteem and to report being targets of discrimination (Dietz, 1998; Strauss, 2000). Obesity is also a significant economic problem. Obesity (in children and adults) cost approximately $117 billion in the year 2000 alone (U.S. Department of Health and Human Services, 2001). These costs come in the form of medical expenses and lost wages due to obesity-related illnesses and disabilities. Overweight children are likely to become overweight adults (Dietz, 1994) furthering the development of these and other physical, psychological and economic consequences.

Children cannot be the sole target population when aiming to reduce childhood obesity. Children, especially younger children, have limited knowledge of concepts of nutrition and the benefits of physical activity. They also have less control over some behaviors and their environments than do most adults. In their 2006 report on pediatric overweight interventions, the American Dietetic Association (ADA) reported that interventions which required parental involvement consistently demonstrated statistically significant reductions in weight status and/or adiposity in children less than 13 years of age (American Dietetic Association, 2006). In addition, children of normal weight parents were
more likely to maintain weight loss than children with at least one overweight parent. Results were not as strong for similar interventions targeting adolescents, possibly reflecting the increased independence of this age group. Based on these findings, the ADA (2006) recommends that interventions for childhood overweight “include the promotion of physical activity, parent training/modeling, behavioral counseling and nutrition education” (p. 1).

Individual interventions deal with changing one’s knowledge, attitudes, beliefs and ultimately, behaviors. Interpersonal groups are any collection of people who share a relationship. Friends and families are the most common examples of an interpersonal group, but some interpretations allow for the inclusion of more formal groups and clubs as well. At the organizational level, groups can educate members about nutrition and physical activity and assist them in making better personal choices. This assistance can take on many different forms, including organizational policies, rules of membership and the establishment of environments that reinforce positive behavior. Many programs blur the distinction between levels. *Trim Kids* is an example of a program that blurs the distinction between levels, blending elements of individual, interpersonal and organizational interventions (Sothern et al., 2001).

*Trim Kids* is a 12-week behavior change plan designed to help children between the ages of 5 and 17 years old “achieve a healthier weight” (Sothern et al., 2001). *Trim Kids* is a program, an organization (in its delivery) and a textbook all-in-one; it is designed to be a versatile resource easily adapted to fit one’s personal circumstances. *Trim Kids* was developed in Louisiana over a 15 year time span and claims a 90% short-term and 65-70% long-term success rate (Sothern et al., 2001). The method to determine how these success rates were calculated was not described in the *Trim Kids* text and a literature search failed to yield any publications reporting the results of a *Trim Kids* intervention.
authors (Sothern, von Almen and Schumacher) have published numerous papers related to pediatric overweight interventions with various colleagues (Sothern et al., 1993; Suskind et al., 1993; Sothern et al., 2000a; Sothern et al., 2000b; Sothern, Udall, Suskind, Vargas, & Blecker, 2000; Sothern, Schumacher, von Almen, Carlisle, & Udall, 2002). Early interventions evaluated weight status based on percent above ideal body weight (IBW), although it was unclear how IBW was determined. All programs included detailed exercise and diet prescriptions, and generally reported statistically significant weight reductions for participants with some evidence of maintenance of weight loss (Suskind et al., 1993; Sothern et al., 1993, 2002). One published study (Sothern et al., 2002) describes an intervention called “Committed to Kids”. Through subsequent correspondence with Trim Kids primary author, Dr. Sothern indicated that Committed to Kids and Trim Kids are the same program. Committed to Kids and Trim Kids share many of the same elements, including color-coded classification levels stratified by BMI percentile, weekly meetings of similar structure, parental involvement, nutrition and physical activity education and behavior modification training; however, Committed to Kids also included measurement of body composition using dual energy x-ray absorptiometry (DEXA), VO₂max testing using indirect calorimetry and either a hypocaloric or protein-modified fast diet. The principles on which the programs are based are consistent with one another, but the Trim Kids program is written and presented with the end-user (specifically families) in mind; Committed to Kids is presented as a clinical intervention. The simplicity of Trim Kids is one of its strengths; program implementation does not require expensive equipment, numerous highly trained personnel or complex calculations of exercise intensity or nutrient breakdown. Trim Kids is essentially the field version of the Committed to Kids clinical intervention. The purpose of
this study was to demonstrate whether Trim Kids is effective in replicating the documented success of Committed to Kids.

Trim Kids requires the participation of not only the child, but all members of the child’s immediate family. Assignments include both reading and writing tasks (included in the book), as well as free-living activities related to eating and physical activity behaviors. Participants are encouraged to take field trips to locations like the grocery store and local restaurants to learn how to apply their newfound knowledge. These activities represent recognition of the importance of factors operating at the community and societal levels within the curriculum.

There are Trim Kids chapters operating throughout the United States. According to an article written by the publishers of Trim Kids, “more than 100 medical and health professional groups throughout the United States, Europe, Central and South America, and Asia” have been trained in the use of Trim Kids’ techniques and there are ten official affiliate programs operating in Arizona, Louisiana, Missouri, Texas, Washington, Illinois, and Ohio (Sothern et al., 2001). An internet search reveals the existence of chapters not included on the “affiliate programs” list, including one in central Iowa; however, no publications document the effectiveness of the Trim Kids program when executed by independent organizations.

In 2004, an Iowa pediatrician organized the first Trim Kids program in central Iowa. Twenty-eight children enrolled in the first 12-week session. One year later, the program began operating out of the downtown location of the YMCA of Greater Des Moines. The earliest participants were primarily referred to the program by their pediatricians, although physician referral was not required for enrollment. Grant-funding from various sources has subsidized the program since its inception, and enrollment fees are negligible (scholarships
are available for those who still cannot afford the tuition). Trim Kids meets once per week for approximately one-to-two hours. During one half of each session, children engage in physical activity while parents meet for a presentation or discussion on topics such as nutrition, physical activity and behavior change. During the second hour, children and parents participate in a joint activity or discussion, again focusing on nutrition, physical activity and behavior change in general. There is no formal diet or prescribed exercise plan, although recommendations for healthy eating and living an active lifestyle are major tenets of the program.

Since 2004, demand for and enrollment in the Trim Kids program has increased steadily. The YMCA has hired a dedicated Trim Kids Coordinator, and the program has been offered at six different locations in the greater Des Moines area. Trim Kids sessions are now offered year-round. It is estimated that 375 children have participated in the program between 2004 and 2009.

Obesity as a significant burden has led people to seek out new treatments for childhood overweight. Identifying sound programming and appropriate documentation of program effectiveness is critical for families seeking to improve a child’s health and wellness.

**Statement of the Problem**

Trim Kids is a highly adaptable program with applications at the individual, interpersonal and organizational levels of the SEM. The program makes claims of both short- and long-term success in “helping children achieve a healthy weight” (Sothern et al., 2001), but it remains unknown whether programs without trained leadership result in long- or short-term success. The purpose of this study was to determine whether an unaffiliated Trim Kids program was an effective weight management program for children. Success was
defined by four criteria for evaluating program outcomes; those were mass, raw BMI, BMI-for-age percentile and waist circumference.

**Hypotheses**

The hypothesis for this study was that pre- to post-program measurements would reflect an improvement in weight status, as indicated by decrease in or maintenance of one or more of four outcome measures; mass, BMI, BMI-for-age percentile and/or waist circumference.

**METHOD**

**Participants**

In this study, data were collected for children \( n = 249 \) who first enrolled in one of eleven Trim Kids sessions in the greater-Des Moines area between 2005 and 2009. Visual inspection of the data revealed numerous missing data points. To be included in this study, complete data had to be available for the participant during his or her initial enrollment in a Trim Kids program. Complete data included child’s age and gender, duration of participation in the program over at least ten weeks (programs sessions ranged from ten to twelve weeks long), and pre- and post-program measures of stature and mass. A fourth study variable requires pre- and post-measures of waist circumference, but participants were not excluded from the study for incomplete waist circumference data. These criteria significantly reduced the number of participants in the study \( n = 40 \). Participants ranged from 6 to 16 years of age, with an average age of 10.64 years at the conclusion of their programs. Males \( n = 22 \) outnumbered females \( n = 18 \) in the study sample. Complete demographic data for all children who enrolled in a Trim Kids session are available in Table 1.1.
Procedures

The work reported in this study represents a secondary data analysis. Trim Kids sessions were offered and operated by the YMCA; local program personnel collected all measurements using their own equipment. The data were presented to this researcher for analysis. Weekly measures of mass were used as the indicator of duration of participation. During a few sessions, stature and waist circumference were measured mid-session, but these data were not gathered in the majority of sessions. Individual BMIs and BMI-for-age percentiles were calculated by entering the child's stature and mass (BMI) and BMI, age and gender (BMI-for-age) into the Centers for Disease Control and Prevention's (CDC) Child and Teen BMI Calculator (Division of Nutrition, Physical Activity and Obesity, Centers for Disease Control and Prevention, n.d.). For this research, data from five of the eleven sessions were gathered and assembled to create one database. There were no complete data available from the other six sessions.

Design and Analysis

This study was a pre-post design using a sample of convenience. Dependent t-tests were used to test hypothesis one. Dependent variables were mass, BMI, BMI-for-age percentile, and waist circumference.

RESULTS

The nature of the program would suggest that the data might not meet the assumption of normality. To assess this, skewness and kurtosis were calculated for mass, BMI and waist circumference. Initial skewness and kurtosis values for mass (0.44, -.30), BMI (0.41, 1.45) and waist circumference (0.59, 1.48) were within acceptable limits for the assumption of normality. The calculation of BMI-for-age percentile reduces the potential range of values and standardizes scores by age. For this reason, normality of data is not an
issue. Data from the same participants was used in multiple analyses, therefore Bonferroni was applied to alpha (\(0.05/4 = \alpha\) of 0.0125).

**Hypothesis 1: Pre-post decreases in mass, BMI, BMI-for-age percentile and waist circumference**

Four dependent t-tests were calculated to determine the success of the intervention in reducing mass, BMI, BMI-for-age percentile and waist circumference. Statistically significant differences were detected for BMI [\(t(39) = 5.15, p < .0001\)]. No significant difference were detected for mass [\(t(39) = 1.36, p = .18\)] or BMI-for-age percentile [\(t(39) = 2.55, p = .02\)]. Waist circumference data for 26 participants did not reach statistical significance [\(t(25) = 1.380, p = 0.18\)]. Effect sizes were small for all dependent variables; mass (\(ES = 0.03\)), BMI (\(ES = 0.21\)), BMI-for-age (\(ES = 0.36\)) and waist circumference (\(ES = 0.11\)). A fifth t-test was then conducted for stature. There was a statistically significant difference in stature from pre- to post-test measurements [\(t(39) = -6.65, p < .001\)], but the effect size was small (\(ES = -0.23\)). Descriptive statistics including means and standard deviations for stature and each of the four dependent variables are available in Table 1.2.

Univariate analyses of variance were performed to identify effects by age category (younger and older categories created by a split at the mean age), gender or an age-by-gender interaction on changes in three of the dependent variables (BMI-for-age was excluded from this analysis as age and gender are used to calculate the score). There were no significant age, gender or interaction effects for mass, BMI or waist circumference. Complete statistics are presented in Table 1.3.

**DISCUSSION**

Participation in Trim Kids did result in a statistically significant reduction in BMI, but no significant reduction in mass suggests that the decrease in BMI is more appropriately
attributed to increases in stature. Statistically, the significant increase in stature during the program appears to account for the reduction in BMI, but there is no way to determine whether participation in the program helped individuals negate or minimize gains in mass during this period of growth. Descriptive data demonstrated mean reductions in all four dependent variables and an increase in stature, but only BMI and stature achieved statistical significance.

These findings highlight the important distinction between practical and statistical significance. Weight loss of less than 0.5 of a kilogram may not seem practically significant, but modest weight loss or even maintenance of current weight might be considered a success for an overweight child who otherwise may have gained. Further, weight maintenance or loss while growing serves to reduce BMI. This study demonstrated that a population can achieve statistically significant reductions in BMI despite statistically insignificant reductions in mass.

This study demonstrated the importance of sound data collection to track improvements and conduct program evaluations. At minimum, programs need to accurately measure baseline stature, mass and waist circumference and repeat these measurements at the program’s end. Many of the sessions represented in the original data set recorded and used a single stature measurement. The use of only a pre-program measurement of stature made it impossible to analyze the effects of the program on those participants’ BMI and BMI-for-age percentile. Participants who were actually measured at baseline and program’s end grew as much as 7 centimeters; this has the potential to dramatically impact an individual’s BMI and BMI-for-age percentile. It is difficult, if not impossible, to evaluate the effectiveness of a program without any indicators of participant adherence. At minimum, programs need to reliably record attendance as an indicator of whether participants are
being exposed to program content. In addition, it is equally important and easy to record birthdates and gender of all participants. Without these demographics, BMI-for-age percentiles cannot be calculated. Mass, BMI and BMI-for-age are all related, but the results of this study indicated that they can change independently.

Finally, it is encouraging to know that a program requiring a minimal time commitment (fewer than 2 hours per week per family) may help participants improve BMI in a period as brief as ten weeks. Statistically, it appears that increases in stature, rather than decreases in mass, better account for reductions in BMI. While Trim Kids cannot purport to have any influence on increases in stature, it may serve to slow weight gain during this time of growth. Further, improved nutrition and increased physical activity are potential benefits independent of weight loss. Trim Kids does not require extensive training, elaborate facilities, or expensive equipment. Program coordinators present information and lead discussions, but participants generally self-manage behavior. This suggests that interventions at the core of the Social-Ecological Model have potential for success in health behavior change. Trim Kids failed to replicate the results of Committed to Kids. Participants in Trim Kids demonstrated limited improvements in weight status (only BMI improved), and no indication that weight status got worse. This alone may represent a success for an overweight or obese child.

REFERENCES


Table 1.1.

**Demographic and Descriptive Data (Gender, Age, Stature, Mass, BMI, BMI-for-Age Percentile, Waist Circumference and Number of Sessions) for All Initial Enrollments in Trim Kids Sessions Between 2005-2009 Grouped by All participants and Participants with Complete Data**

<table>
<thead>
<tr>
<th>Variable</th>
<th>All participants</th>
<th>Participants with complete data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total no.</td>
<td>249</td>
<td>40</td>
</tr>
<tr>
<td>No. of males</td>
<td>105 (42.2%)</td>
<td>22 (55.0%)</td>
</tr>
<tr>
<td>No. of females</td>
<td>144 (57.8%)</td>
<td>18 (45.0%)</td>
</tr>
<tr>
<td>Mean (SD) age at enrollment</td>
<td>11.11 (2.55)</td>
<td>10.40 (2.15)</td>
</tr>
<tr>
<td></td>
<td>$n = 228^a$</td>
<td>$n = 40$</td>
</tr>
<tr>
<td>Mean (SD) stature (m) at enrollment</td>
<td>1.51 (0.14)</td>
<td>1.46 (0.13)</td>
</tr>
<tr>
<td></td>
<td>$n = 220^b$</td>
<td>$n = 40$</td>
</tr>
<tr>
<td>Mean (SD) mass (kg) at enrollment</td>
<td>71.87 (25.52)</td>
<td>65.92 (21.44)</td>
</tr>
<tr>
<td></td>
<td>$n = 249$</td>
<td>$n = 40$</td>
</tr>
<tr>
<td>Mean (SD) BMI at enrollment</td>
<td>30.08 (6.61)</td>
<td>29.91 (5.55)</td>
</tr>
<tr>
<td></td>
<td>$n = 220^b$</td>
<td>$n = 40$</td>
</tr>
<tr>
<td>Mean (SD) BMI-for-age percentile at enrollment</td>
<td>96.16 (9.94)</td>
<td>97.93 (3.03)</td>
</tr>
<tr>
<td></td>
<td>$n = 217^a$</td>
<td>$n = 40$</td>
</tr>
<tr>
<td>Mean (SD) waist circumference (cm) at enrollment</td>
<td>96.52 (17.43)</td>
<td>93.37 (16.46)</td>
</tr>
<tr>
<td></td>
<td>$n = 216^c$</td>
<td>$n = 26^c$</td>
</tr>
</tbody>
</table>

$^a$Reduced sample size reflects missing age data for some participants. $^b$Reduced sample size reflects missing stature data for some participants. $^c$Reduced sample size reflects missing waist circumference data for some participants.
Table 1.2.

*Pre- to Post-Session Data for Mass, BMI, BMI-for-Age, Waist Circumference and Stature for Participants with Complete Data Collected During One of the Last Two Weeks of Session*

<table>
<thead>
<tr>
<th>Variable (units)</th>
<th>n</th>
<th>Pre</th>
<th>Post</th>
<th>Effect size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mass (kg)</td>
<td>40</td>
<td>65.92</td>
<td>65.37</td>
<td>0.03</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(21.44)</td>
<td>(21.92)</td>
<td></td>
</tr>
<tr>
<td>BMI</td>
<td>40</td>
<td>29.91</td>
<td>28.76</td>
<td>0.21</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(5.55)</td>
<td>(5.56)</td>
<td></td>
</tr>
<tr>
<td>BMI-for-age percentile</td>
<td>40</td>
<td>97.93</td>
<td>96.85</td>
<td>0.36</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(3.03)</td>
<td>(5.54)</td>
<td></td>
</tr>
<tr>
<td>Waist circumference (cm)</td>
<td>26</td>
<td>93.37</td>
<td>91.59</td>
<td>0.11</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(16.46)</td>
<td>(15.73)</td>
<td></td>
</tr>
<tr>
<td>Stature (m)</td>
<td>40</td>
<td>1.46</td>
<td>1.49</td>
<td>-0.23</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(0.13)</td>
<td>(0.13)</td>
<td></td>
</tr>
</tbody>
</table>

*Note.* In all cases, Levene’s Test for Equality of Variance demonstrated no significant difference between variances, so the t-test for equality of means was used.
Table 1.3.

*Effects of Age, Gender, and Age-by-Gender Interaction on Changes in Mass, BMI and Waist Circumference*

<table>
<thead>
<tr>
<th>Variable</th>
<th>Factor</th>
<th>Categories</th>
<th>n</th>
<th>df</th>
<th>F</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mass</td>
<td>Age category*</td>
<td>Younger</td>
<td>21</td>
<td>1</td>
<td>0.90</td>
<td>0.35</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Older</td>
<td>19</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Gender</td>
<td>Male</td>
<td>22</td>
<td>1</td>
<td>0.32</td>
<td>0.58</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Female</td>
<td>18</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Age*Gender</td>
<td></td>
<td>40</td>
<td>1</td>
<td>0.03</td>
<td>0.87</td>
</tr>
<tr>
<td>BMI</td>
<td>Age category</td>
<td>Younger</td>
<td>21</td>
<td>1</td>
<td>1.07</td>
<td>0.31</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Older</td>
<td>19</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Gender</td>
<td>Male</td>
<td>21</td>
<td>1</td>
<td>0.02</td>
<td>0.90</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Female</td>
<td>19</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Age*Gender</td>
<td></td>
<td>40</td>
<td>1</td>
<td>0.56</td>
<td>0.46</td>
</tr>
<tr>
<td>Waist circumference</td>
<td>Age category</td>
<td>Younger</td>
<td>13</td>
<td>1</td>
<td>1.77</td>
<td>0.20</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Older</td>
<td>13</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Gender</td>
<td>Male</td>
<td>16</td>
<td>1</td>
<td>0.18</td>
<td>0.68</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Female</td>
<td>10</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Age*Gender</td>
<td></td>
<td>26</td>
<td>1</td>
<td>0.15</td>
<td>0.70</td>
</tr>
</tbody>
</table>

*Age categories (younger, older) created around the mean age (11.05) of all participants with at least two data points.
STUDY 2. EVALUATION OF HEALTH EDUCATION CURRICULA IN TEN STATES USING THE NATIONAL HEALTH EDUCATION STANDARDS AND HECAT

A paper to be submitted to the *Journal of School Health*

Susan L. Brown and Katherine T. Thomas

**ABSTRACT**

Health Education has been a key strategy to reduce health risk and obesity. The National Health Education Standards (NHES) and the Heath Education Curriculum Analysis Tool (HECAT) were developed to guide school health education programs. Ten states with state level health education curricula were selected to represent diversity in obesity rates and geographic regions. Two modules (physical activity and nutrition) of HECAT were used to examine the content associated with the NHES. Vertical articulation of the curriculum and the remaining standards (2-8) were analyzed. No significant differences were noted based on state obesity rates and modest trends for geographic regions were found. The states varied widely in HECAT scores and adherence to the NHES. HECAT scores were at or above the 50% mark for the ten states. There was less variability in the HECAT scores for standards 2-8 (those focus on skills) than on the concept coverage. Recommendations to improve the guidance state health education curricula provide to schools include: inclusion of teacher and evaluation materials, clear outlines of content for specific areas (e.g., nutrition), shifting to NHES organization and inclusion of all NHES standards, particularly advocacy. Training, additional materials and minor revision of HECAT modules are also suggested.
INTRODUCTION

Health education has been an important strategy to reduce health risk and improve health in the U.S. population as evidenced by the Coordinated School Health (CSH) model, national health education objectives, national health education standards and a health curriculum evaluation tool. Healthy People 2010 included an objective to increase the proportion of elementary, middle and high schools that provide comprehensive health education from 28% in 1994 to 70% in 2010 (U.S. Department of Health and Human Services, 2000). By 2006 most schools reported student learning goals related to the National Health Education Standards (NHES) and Healthy People 2020 included an objective for all schools to address the NHES (U.S. Department of Health and Human Services, n.d.). The specific content related to unhealthy dietary patterns and inadequate physical activity was addressed in Healthy People 2010 and again in 2020. The 2006 baseline for unhealthy dietary patterns was 84.3% and for inadequate physical activity 79.2%, these represent little progress from 1994 baselines of 84 and 78% respectively. Health Education has been a critical strategy in the Comprehensive School Health Model, and the assault on childhood obesity. The seven of eight NHES were designed around skills and behaviors and one around content knowledge. However, the specific content knowledge was not addressed. Thus, schools could address the eight national standards and not address certain content, for example physical activity or nutrition. The Health Education Curriculum Analysis Tool (HECAT) was developed to assess health curricula using the NHES and modules for specific content areas (Centers for Disease Control and Prevention, 2007) such as healthy eating and physical activity.

Shortly after the national mandate for educational goals in 1994, three recommendations to implement standards-based education emerged; conduct ongoing
research, organize to inform standards-based efforts across states and curricular areas, and address systemic inequities (McLaughlin & Shepard, 1995). Recently, a standards-based common core was backed by National Governors Association and the Council of Chief School Officers for math and language (Kober & Rentmer, 2011). However, the adoption of the core in just those two curriculum areas has been identified as a slow process taking until 2013 or later for many states, with eight states not participating in the survey. States have been tasked with monitoring implementation of goals at the school level. The standards individual states have for the health education provided in their schools are an example of an intervention at the societal level. State standards might seem unnecessary in light of the fact that there are national standards, but the NHES are simply recommendations; neither schools nor states have any obligation to adopt these standards.

The Health Education Curriculum Analysis Tool (HECAT) was developed by the Centers for Disease Control and Prevention’s National Center for Chronic Disease Prevention and Health Promotion and provides a framework for the comprehensive and consistent evaluation of health education curricula based on the National Health Education Standards and the CDC’s Characteristics of Effective Health Education Curricula (Centers for Disease Control and Prevention, 2007). The HECAT includes specific modules for various health topics. Current HECAT modules include Alcohol and Other Drugs, Healthy Eating, Mental and Emotional Health, Personal Health and Wellness, Physical Activity, Safety, Sexual Health, Tobacco and Violence Prevention (Centers for Disease Control and Prevention, 2007). A comprehensive health education curriculum could include all of these topics, but one of the HECAT’s strengths is that it can be customized to meet specific curriculum or community needs.
Numerous school-based interventions targeting factors related to nutrition, physical activity and weight management exist and many have been systematically evaluated. BEACHES, CATCH, CHIC, PLAY, the Bogalusa Heart Study, Family Health Project, Healthy Heart, Heart Smart, Know Your Body, and New Moves; these are just a small sample of these school-based interventions. Significant positive results in the areas of knowledge, attitudes, intentions, behaviors/skills, physical activity, physical fitness and changes in BMI, body fatness and physiological markers (blood pressure, cholesterol levels) spot the literature (Johnson et al., 1991; Arbeit et al., 1992; Frauman, Criswell & Harrell, 1998; Nader et al., 1999; Neumark-Sztainer, Story, Hannan & Rex, 2003; Pangrazi, Beighle, Vehige & Vick, 2003; Parcel, Simons-Morton, O’ Hara, Baranowski & Wilson, 1989; Simons-Morton, Parcel, Baranowski, Forthofer & O’Hara, 1991; Myers, Strikmiller, Webber & Berenson, 1996; McMurray et al., 2002; Killen et al., 1988; Sallis et al., 2003; Kahn et al., 2002; Richter et al., 2000; Stone, 1985; Stone, McKenzie, Welk & Booth, 1998; Stice, Shaw & Marti, 2006), but little consensus on the effectiveness of these initiatives has been reached due to the overwhelming scope of material covered. From a practical perspective, the benefits were generally modest and the costs (in terms of money, time and effort) were significant. Schools continue to struggle to identify the best uses of personnel, time, money, facilities, equipment and materials to improve the health education programming. However, school health education remained a cost effective approach. Schools have access to many children, but access alone has not been enough to reduce the burden of obesity.

Statement of the Problem

Schools have an opportunity to educate children about health-promoting knowledge, attitudes and skills. The National Health Education Standards (NHES) were developed to assist states in the development of effective health education curricula, and could serve to
provide consistency across states. Some states have no standards for health education and others have standards that may not align with NHES. For example, Iowa leaves most of these decisions to local school districts while California regulates content extensively. The NHES did not specify content, thus a curriculum could have been based on those standards and not include physical activity or nutrition content. The purpose of this study was to evaluate a sample of states’ curricula using the Health Education Curriculum Analysis Tool (HECAT), to determine whether or not the curriculum was NHES based, whether physical activity and nutrition were covered and whether the curricula demonstrated vertical articulation.

**Hypothesis**

HECAT evaluation will demonstrate that the standards of a geographically diverse sample of states with high youth obesity rates would not meet the criteria for “appropriate and effective health education” (Centers for Disease Control and Prevention, 2007) when compared to a similar sample of states with low youth obesity rates.

**METHOD**

**Instruments**

For this investigation, the Healthy Eating and Physical Activity modules of the Health Education Curriculum Analysis Tool (HECAT) were used to evaluate selected states’ health education curricula. Modules used the National Health Education Standards (NHES) as the framework for analysis. The eight National Health Education Standards are that students will:

1. Comprehend concepts related to health promotion and disease
2. Analyze the influence of family, peers, culture, media, technology and other factors on health behaviors
3. Demonstrate the ability to access valid information and products and services to enhance health
4. Demonstrate the ability to use interpersonal communication skills to enhance health and avoid or reduce health risks
5. Demonstrate the ability to use decision-making skills to enhance health
6. Demonstrate the ability to use goal-setting skills to enhance health
7. Demonstrate the ability to practice health-enhancing behaviors and avoid or reduce health risks
8. Demonstrate the ability to advocate for personal, family, and community health.

Healthy Eating and Physical Activity were the HECAT modules most closely associated with the Healthy People 2020 objectives and most likely to impact obesity.

Standard 1 addresses the coverage of subject matter concepts. Standard 1 is scored by determining the percent of concepts covered at each of four grade levels. That percentage was then converted to a score between 0 and 4 (0% coverage=0, 1-33% =1, 34-66%=2, 67-99%=3, 100%=4). For standards 2 through 8, two scores between 0-4 were assigned based on the responses to four yes or no questions related to student skill learning and teacher instruction and skill assessment. In this investigation, HECAT was used to “review of state health education standards or frameworks” (Centers for Disease Control and Prevention, 2007) on stated HECAT purpose. Further, the HECAT was intended to evaluate content and skills in a health education curriculum, not health content in other subjects such as family and consumer sciences and physical education. Overlapping content in health, physical education, family and consumer sciences serves to reinforce important skills and concepts. For those interested in performing a more global assessment of a school's health content,
the CDC recommends using a tool that can be used to evaluate multiple components of a coordinated school health program such as the School Health Index (SHI).

**Procedure**

Profiles of each of the 50 states were constructed with five components; percentage of adolescent overweight and obesity, whether state health standards were identified as based on the National Health Education Standards, the level of mandate for use of state health education standards (no expectations, encouraged, required), the availability and accessibility of internet links to state standards and/or supplemental health education information and the year standards were last updated (see Appendix Table 2.1). Official department of education websites for each state were used to determine the existence of standards for health education for each state. The 2007 Youth Risk Behavior Surveillance Survey (YRBSS) was the primary source for adolescent overweight and obesity data (Centers for Disease Control and Prevention, 2008). There were six states that did not participate in data collection for the YRBSS. Adolescent overweight and obesity data for these states were gathered from alternate sources (Full references and citations for all data sources are available in the footnotes of Appendix Table 2.1.).

Most states (74%) adapted the National Health Education Standards, with 13 states providing no state standards (CO, IA, NE, OH) or their own standards (MN, MO, MS, NH, NY, VA, VT, WA, WI) for use in the schools. Most states required the use of health standards, while 22% recommended the use of standards (CA, CT, IA, KS, MS, MN, ND, NH, OH, SD, WI). Standards and curricular requirements were revised regularly so that 22 states posted information within the previous 5 years (2006-2010), 15 states within the previous 10 years (AL, AR, CA, HI, ID, IN, LA, MI, NH, NY, OK, PA, RI, VT, VA), eight
states (AZ, CO, MA, NJ, SC, SD, TX, WY) are likely due for revision (latest posting 1990-2000), and five states do not have dated information (IL, MD, NE, NV, OH).

A subset of states was selected based on population, obesity, and health standards. The U.S. population is divided into four geographic census regions; Northeast (18%), Midwest (22%), South (36%) and West (23%) (U.S. Census Bureau, 2000). Alaska and Hawaii were excluded from these regions due to their geographic dissimilarity from the contiguous 48 states for this study. States were selected to roughly approximate this population distribution, resulting in the selection of four southern states and two states each from the northeast, Midwest and west. Within each region, states were ranked from highest to lowest obesity rate, and the one or two states with the lowest and highest obesity rates were selected. There were three exceptions made to these selection criteria. As previously mentioned, Hawaii was excluded from detailed analyses due to its dissimilarity with other states in the region. In this instance, the Western state with the next highest obesity rate (Washington) was selected. Colorado had the lowest overweight and obesity rates in the West, but does not have state health standards. For this reason, Utah was selected instead of Colorado. In the Midwest, Minnesota was not selected because current obesity data were not available. North and South Dakota had similar obesity rates, but North Dakota was selected because those standards were more recent by eight years. All other states were selected using the specified criteria. Thus, ten states (CT, FL, IN, LA, MD, MS, ND, PA, UT, WA) were selected for additional evaluation using U.S. population and obesity information (Appendix Table 2.2). The low obesity states were Maryland (28.3%), Florida (26.4%), Connecticut (25.6%), North Dakota (23.7%) and Utah (20.8%).

The total percentage of overweight and obese adolescents ranged from 20.8% to 28.3% in the low obesity states and 29.1% to approximately 36% in the high obesity states.
Obesity rates were generally higher in the Southern states, with 11 of 16 states reporting prevalence rates over 30.0%. Conversely, no states in the other three regions reported prevalence rates over 30.0%. The overrepresentation of overweight and obesity in the Southern states prevented greater separation between the low and high obesity states. Selecting states with more disparate overweight and obesity prevalence data would have introduced a geographical bias (all of the high obesity states and none of the low obesity states) would have been from the Southern region. Nine of ten states described their curriculum as NHES based, the exception was Washington. Only Connecticut and North Dakota encouraged the use of the state curriculum, all other states required the state curriculum.

The curriculum evaluator was blind to the identity of the states selected for detailed evaluation. Any information that could be used to identify the state being evaluated was removed prior to the evaluation. Three evaluations were completed on each state curriculum. First, a detailed evaluation of each state health education curriculum was completed to determine whether or not state standards were based on the National Health Education Standards (NHES). This determination was made based on the standards around which content were organized, not the content itself. For example, NHES 6 states that “students will demonstrate the ability to use goal-setting skills to enhance health” (Centers for Disease Control and Prevention, 2007, p.5). A state with a standard pertaining to goal-setting was at least initially classified as NHES-based (assuming other state standards also align with NHES). A state with a standard about nutrition and inclusion of goal-setting as integral skill within that standard was not classified as NHES-based. Both curricula include the skill, but the NHES classification reflected organization of standards only, not content. Second, scope and sequence models reflecting standards and benchmarks specific to the
content of interest, namely nutrition and physical activity, were then constructed for each state (These models are available in Appendix B). Content was then evaluated using the Healthy Eating and Physical Activity modules of the HECAT. Finally, the vertical alignment of each state was assessed using the HECAT content from standard 1. A second evaluator completed HECAT and vertical alignment analyses on two randomly selected states to determine accuracy prior to revealing the state identities to the primary evaluator and prior to analyses. Inter-rater agreement was above 90% and therefore deemed reliable.

The intent of each HECAT module was to determine the likelihood that a student would master the essential concepts/knowledge (Standard 1) and skills (Standards 2-8) of the module. Standard 1 presents topic-specific concepts organized by grade level (Pre-K-2, 3-5, 6-8 and 9-12). Standards 2-8 are not presented by grade level and are the same for all modules (e.g., physical activity, healthy eating). Standards 2-8 are evaluated using four yes or no questions pertaining to Student Skill Learning/Application and Teacher Instruction and Skill Assessment (8 total questions). Each curriculum was evaluated in its entirety for Standards 2-8, though it appears that the developers of the HECAT intended for these standards to be evaluated separately for each of the four grade levels. The grade level indicators provided for standard 1 are not represented in standards 2 through 8; however, the overall score sheets includes three columns in which one might record grade level scores for these standards (Centers for Disease Control and Prevention, 2007, p. 3-3).

The use of the HECAT had to be adapted in certain circumstances based on curricular organization. For example, Louisiana presented benchmarks at the K-4, 6-8 and 9-12 levels. These do not match the HECAT’s Pre-K-2, 3-5, 6-8 and 9-12 grade levels. In this example, concepts coverage for HECAT levels Pre-K-2 and 3-5 were based on the Louisiana K-4 benchmarks. Concept coverage for the Pre-K-2 and 3-5 grade levels were
based on the content in the K-4 benchmarks. All other states had at least four levels, but some required minor modifications to grade level concept evaluation (notes of exception appear on scope and sequence models). The judgments were organized to favor the state.

Among those states with benchmarks and at least four grade levels, there was variation in the levels at which benchmarks were assigned (Appendix Table 2.3). The most common organization of standards involved assignment of individual benchmarks for Pre-Kindergarten or Kindergarten through 8th grades (five states), followed by benchmarks for grades 9 through 12 combined. Two additional states had individual benchmarks for grades Kindergarten through 3rd grade (followed by 7/8 and 9/10 clusters) and Kindergarten through 6th grade (benchmarks for 9 through 12 collectively). The remaining two states offered benchmarks at four levels (3, 6, 9, 12 and K, 4, 8, 12).

**Design and Analysis**

For this descriptive study, a sample of state standards for health education was evaluated. The results are largely qualitative, providing evaluation of the curricula currently available and providing recommendations as to how these can be improved.

**RESULTS**

The results are organized in five sections; concept coverage between higher and lower obesity states, concept coverage by geographic region, concept coverage (standard 1) for the Healthy Eating and Physical Activity Modules of HECAT by state, vertical alignment of curricular concepts and HECAT scores by state. Teacher coverage was not evaluated because of the limited amount of data available. Out of 560 possible points available for teacher coverage in HECAT [four possible points x seven standards x ten states x two modules (HE/PA)], these ten states earned 39 teacher instruction and skill assessment points. These points represent sporadic inclusion of assessment criteria, a
scoring rubric or detailed information about the steps necessary for skill acquisition. No state earned more than a single point for any of the seven standards (2 through 8) for either module for teacher coverage. Complete data for teacher instruction and skill assessment is available in Appendix B, Tables B11-B24.

Coverage by Higher and Lower Obesity States

Standard 1 of the Healthy Eating and Physical Activity modules consisted of 62 and 53 concepts respectively, each unevenly divided among four grade levels. For all analyses the summed number of concepts covered was used rather than percentage or ratings, number of concepts covered and percentages are reported in Table 2.1 (Healthy Eating) and 2.2 (Physical Activity). Complete Healthy Eating and Physical Activity data for all concepts (standard 1) and the student skill learning scores for standards 2-8 by state are presented in Appendix B. State coverage of concepts for each module (number of concepts covered) was tested to determine normality of data before further analysis. Skewness and kurtosis were within acceptable limits for assumptions of normality for both healthy eating (skewness=-0.501, kurtosis=-.499) and physical activity (skewness=-0.867, kurtosis=-0.157).

The analysis of primary interest to test the hypothesis was a t-test comparing high (IN, LA, MS, PN, WA) and low (CT, FL, MD, ND, UT) obesity states based on concept coverage for the two modules. Alpha was set at .025 because the same states were used in two analyses. For Healthy Eating, the t-test was not statistically significant \[t (8)=-.22, p=.83\] in concept coverage between high \((m=27.80, sd=15.06)\) and low \((m=25.60, sd=16.47)\) obesity states \(ES=.14\). Although the groups were not statistically different, the groups cannot be declared the same because the respective 95% upper and lower confidence interval boundaries for low and high obesity state concept coverage were 5-46 and 9-47
respectively. The results were similar for Physical Activity concepts, with no significant differences \( t(8)=.37, p=.72 \) between high \( (m=26.00, sd=13.47) \) and low \( (m=28.40, sd=5.03) \) obesity states \( (ES=-0.24) \). The 95% confidence intervals for coverage of physical activity concepts of the high obesity states (lower boundary 9 and upper boundary 43) completely encompassed the confidence intervals for the lower obesity states (lower boundary 22 and upper boundary 35) indicating that concept coverage was essentially the same high and low obesity states.

**Concept Coverage by Geographic Region**

Visual inspection of the data was used to determine the influence of geographic region on concept coverage (standard 1). Geographic region provided diverse coverage profiles in Healthy Eating concept coverage. Average coverage of Western (WA, UT, \( m=69.4\% \)) states more than doubled that of Northeastern (CT, PN, \( m=24.2\% \)) states, with Midwestern (IN, ND, \( m=48.4\% \)) and Southern (FL, LA, MD, MS, \( m=36.7\% \)) states falling in between. Geographic averages for Physical Activity module coverage of Standard 1 from high to low were Western (WA, UT, \( m=71.8\% \)) states, Midwestern (IN, ND, \( m=59.4\% \)) states and Northeastern (CT, PN, \( m=58.5\% \)) states and Southern (FL, LA, MD, MS, \( m=34.4\% \)) states. Thus, for both modules the western states tended toward higher coverage and the southern states tended toward lower concept coverage.

**Concept Coverage of the Healthy Eating and Physical Activity Modules by State**

One quarter of the 62 healthy eating concepts \( (n = 16, 25.80\%) \) were covered by only one state or not at all (Table 2.1). Four of the 62 concepts (6.45%) were covered by nine or ten of the states; those were

- (Pre-K-2) Explain the importance of choosing healthy foods and beverages,
• (Grades 6-8) Describe the relationship between what people eat, their physical
activity levels and their body weight, and
• (Grades 9-12) Describe the relationship between nutrition and overall health
• (Grades 9-12) Describe the importance of healthy eating and physical activity in
  maintaining a healthy weight.

Among physical activity concepts (Table 2.2), only five (9.43%) were ignored entirely or
covered by only one state, those were

• (Pre-K-2) Describe recommended amount of physical activity for children
• (Grades 6-8) Describe the health risks of using performance-enhancing drugs
• (Grades 9-12) Summarize recommended amounts and types of physical activity for
  adolescents and adults.
• Describe effects of hydration and dehydration on physical performance.
• Discuss the dangers and legal issues related to using performance-enhancing drugs.

Nine (16.98%) PA concepts were addressed in the curricula of nine or ten states as follows:

• (Pre-K-2) Describe the benefits of being physically active.
• Describe how being physically active can help a person feel better.
• (Grades 3-5) Explain the positive outcomes for being physically active.
• Identify basic safety precautions to help prevent injury during physical activity.
• Discuss the benefits of drinking water before, during and after physical activity.
• (Grades 6-8) Summarize how physical activity and eating habits can contribute to
  maintaining a healthy body weight.
• Describe ways to reduce risk of injuries from participation in sports and other
  physical activities.
• (Grades 9-12) Describe the importance of a healthy diet and physical activity in maintaining healthy weight.

• Explain ways to reduce the risk of injuries from participation in sports and other physical activities.

**Vertical Alignment of Concepts**

Vertical alignment examined the extent to which concepts are covered across levels (grades) of the curriculum. The first step in assessing vertical alignment was to align the HECAT concepts for the two modules (Healthy Eating and Physical Activity). Scope and sequence models were constructed for each of the modules. The number of topics represented the breadth or scope of the module’s concepts; the degree to which similar concepts could be strung together across grade levels indicates sequence. Fifty-one of the 62 Healthy Eating concepts were organized into twenty one “strings” (similar concepts for at least two grade levels), with 11 concepts that did not articulate across grade levels. Vertical alignment for the Physical Activity concepts produced 18 themes using 52 of the 53 concepts. One concept in the physical activity module for grades 6-8 could not be aligned with any other, “describe how using tobacco could hurt one’s goals for physical fitness and athletic performance” (Centers for Disease Control and Prevention, 2007). Complete scope and sequence models for HECAT modules and vertical alignment data are available in Appendix Tables 2.8 and 2.9.

The state curricula were then compared to the HECAT vertical alignment models described above and the number of concepts in sequence was calculated for each state. Seven of the 18 physical activity concepts were vertically aligned in at least half the states (Table 2.3). Benefits as an outcome of physical activity was articulated in HECAT as follows: Pre-K-2 Describe the benefits of being physically active; grades 3-5 Identify the
short and long term benefits of moderate and vigorous physical activity, such as improving cardiovascular health, strength, endurance, and flexibility and reducing the risk for chronic disease; Grades 6-8 Analyze the short-term and long-term physical benefits of moderate and vigorous physical activity including improving cardiovascular health, strength, endurance, and flexibility and reducing the risks for chronic diseases; Grades 9-12 Evaluate the short-term and long-term physical benefits of moderate and vigorous physical activity including improving cardiovascular health, strength, endurance, and flexibility and reducing the risks for chronic diseases. Five states (CT, MD, PA, WA, UT) demonstrated full articulation, and the remaining states covered the concept at one or more grade level. Hydration and the amount of activity recommended were not fully articulated in any state. Hydration was presented in HECAT as follows: Grades 3-5 Discuss the benefits of drinking water before, during and after physical activity; Grades 6-8 Summarize the benefits of drinking water before, during, and after physical activity; Grades 9-12 Describe effects of hydration and dehydration on physical performance (CDC, 2007). WA and IN covered this concept at one level, no other states addressed hydration.

The articulation of Healthy Eating concepts (Table 2.4) varied by state where LA and CT had no fully aligned concepts from HECAT while most states had eight or more fully articulated concepts. The benefits of healthy eating were included at four levels in the HECAT module as follows; Pre-K-2 Explain the importance of choosing healthy foods and beverages; 3-5 Summarize the benefits of healthy eating; 6-8 Analyze the benefits of healthy eating; 9-12 Analyze the benefits of healthy eating (Centers for Disease Control and Prevention, 2007). This concept was articulated at all grade levels in eight states and at one grade level in LA and CT. The concept of hunger (Pre-K-2 Describe body signals that tell people when they are hungry and when they are full; grades 3-5 Summarize body signals
that tell people when they are hungry and when they are full) was not covered in nine states and was not articulated as modeled in HECAT in the tenth state (IN).

**Organization and Analysis of State Curricula to NHES**

Nine of the 10 states selected for evaluation were self-identified as being National Health Education Standards-based curricula; Washington did not claim to be NHES-based. State identity was unknown to the evaluator, therefore NHES affiliation was not known to the evaluator. Initial assessment of curricula resulted in disparities between self-report and evaluator assessment of NHES alignment (Appendix Table 2.3 and 2.4). This evaluation confirmed the self-report of six (Connecticut, Florida, Indiana, Louisiana, Mississippi, North Dakota) states as NHES; while three (Utah, Pennsylvania and Maryland) of the nine self-identified NHES-based states were categorized by the evaluator as not being based on the NHES. Alignment with the NHES was determined by side-by-side comparison of state curricula with the eight standards of the NHES. States with multiple standards which overlapped National Health Education Standards were determined to be NHES-based. It was not necessary for states to have all eight of the National Health Standards; however, a state’s curricular content had to be organized into standards included among the NHES. For example, North Dakota did not have NHES standard 7 but was confirmed as NHES based. The NHES were primarily organized by skills (goal setting, decision making, advocacy, etc.) that could be applied in numerous specific content areas (nutrition, substance abuse, personal hygiene, etc.). States identified by the evaluator as not being NHES-based typically organized curriculum around content modules (e.g., substance abuse, physical activity) rather than general skills. For example, Maryland’s curriculum was organized into seven standards, including Mental and Emotional Health (standard 1), Alcohol, Tobacco and other Drugs (standard 2), Safety and Injury prevention (standard 5) and Nutrition and Fitness
NHES skills appeared within the content, but organization was based on specific health content areas rather than general knowledge, skills or behaviors.

States with NHES-based curricula averaged less complete Healthy Eating concept coverage \((n = 6, m = 18.33, sd = 12.50)\) than non-NHES based states \((n = 4, m = 39.25, sd = 7.59)\). Closer inspection of the data revealed that two of the NHES-based states (Connecticut and Louisiana) covered only one and six concepts respectively. These states represent a third of the NHES-based group, significantly lowering the group’s average concept coverage. Coverage of Physical Activity concepts was similar with non-NHES states covering a higher mean number of concepts \((n = 4, m = 33.75, sd = 4.35)\) than NHES-based states \((n = 6, m = 22.83, sd = 9.99)\). In this case, NHES-based Mississippi and Louisiana had considerably lower concept coverage scores when compared with the group (9 and 14 concepts respectively) with the next lowest coverage 27 concepts (North Dakota).

**HECAT Scores by State**

HECAT assessed all eight standards, for two modules there were 60 total points possible. All ten states had at least half of the points (minimum 36, maximum 51). For Standard 1, states covered more of the physical activity concepts (51%) than healthy eating concepts (43%). Combining the concepts in both modules less than half of the concepts were covered (46.9%). For both modules the state average coverage for Standard 2-8 was higher (73%), and states were generally consistent in their coverage of these standards for each module (Table 2.5).

**DISCUSSION**

The hypothesis, that states with lower obesity rates would have higher HECAT Scores when compared to states with higher obesity rates was not supported. The scoring of HECAT favors close adherence to the National Health Education Standards (NHES)
model. All states scored at least half of the points on the two HECAT modules. However, the concept coverage (standard 1) demonstrated less coverage than standards 2-8. This could have “masked” the statistical effect because the variability was lower on the total HECAT than on the concepts for either module. The two highest obesity states (Louisiana and Mississippi) had two of the lowest concept coverage (13 and 32% respectively) scores, while one low obesity state (Connecticut) had similarly low concept coverage. While the concept coverage varied more and was generally lower than the coverage for standards 2-8, there is not a clear pattern. States may have responded to high obesity rates by providing a comprehensive health education program in physical activity and healthy eating. Conversely, states with lower obesity rates or at different points in the revision cycle may not need to focus on PA and HE or will respond in the future. This analysis did suggest that state curricula could benefit from self-study using HECAT. Results could be used to guide future state model curricula. The HECAT does not have a “passing standard” or a score at which a curriculum is deemed to provide good coverage of a health topic or skill.

Overall, the states covered 43.1% (26.7/62) of the Healthy Eating concepts. Further analysis of the Healthy Eating concept coverage revealed that 25% of healthy eating concepts were covered by only one state or not at all. Nutrient and food-specific standards (those pertaining specifically to consumption of water, fat, sugar, fiber, whole grains and iron) were the primary concepts omitted. While this information can change more frequently than the curricula are revised, states could refer to either the Dietary Guidelines for Americans (U.S. Department of Health and Human Services and U.S. Department of Agriculture, 2005) or other nationally recognized sources (Institute of Medicine, 2011) for specific nutrient recommendations. Many of the state’s standards were written in very generic language (students will eat healthy foods and be active), explaining the omission of
these more specific content items. Free and readily available resources from government agencies could facilitate coverage of healthy eating content. The majority of states covered the concepts of choosing healthy foods and beverages and understanding the relationship between eating, physical activity and weight maintenance.

Concept coverage was slightly better for physical activity at 51% (27.2 out of 53, 51.3%). There were also far fewer concepts covered by only one state or not at all (5 concepts, 9.4%). Four of the five commonly omitted concepts could be assigned to one of two categories, recommended amounts of physical activity and the use of performance-enhancing drugs. In the area of physical activity, national recommendations have recently been adopted (U.S. Department of Health and Human Services, 2008). The current recommendations were not approved and made public at the time these states created or revised their curricula. This may explain the lack of specificity for some curricular elements. This identifies two clear areas for further curriculum development. Nine of the 52 concepts (17.0%) were covered by the majority of the states (nine or ten). Eight of these nine concepts could be tied back to themes of positive outcomes/benefits of physical activity, the relationship among nutrition, physical activity and weight maintenance and safety/injury prevention. There were additional concepts that followed these same themes but required more specific information (identify the safety equipment needed for a particular activity; identify ways to evaluate body weight/composition) that were not as well covered, again suggesting that more generic concepts were more likely to be addressed in state curricula. This presents an excellent opportunity for states to build on their existing standards by increasing the specificity of healthy eating and physical activity information provided. National standards and the HECAT modules were developed by recognized experts to guide states and schools. Several of the state curricula were completed prior to the
availability of HECAT. Using the information in HECAT has the potential to improve state
and school level concepts (standard 1).

Average coverage of skill standards (Standards 2 through 8) was consistent, with
scores ranging from 2.9 to 3.3 (out of 4) for six of the seven standards for both modules. A
score of 3.0 typically represented a state which provided information to students about the
skills needed to meet the standard and provided more than one opportunity to practice the
skill. A score of 4.0 represented achievement of the previously stated criteria and providing
opportunities for students to assess their own skill progress. While average coverage of
standards was strong, few states earned maximum points on the majority of standards.
Washington earned the highest scores for coverage of Standards 2 through 8, earning
maximum scores for five Healthy Eating and six Physical Activity standards. No other state
fully covered more than two standards. Four states (Connecticut, Maryland, Mississippi and
Florida) earned all available points for two Physical Activity standards; two states (Maryland
and Florida) achieved top scores for two Healthy Eating standards. Average total skill
standard coverage scores were identical between the modules (20.6 out of 28 possible per
points or 2.94 points per standard), but maximum coverage scores were slightly higher
among Physical Activity skill standards (15 out of 70) than among Healthy Eating skill
standards (12 out of 70).

The strength of skill standard coverage is not clear from these data. One could
reasonably argue that 73.5% coverage of all components of all standards is strong. Stated
otherwise, maximal coverage of only 17.1% (Healthy Eating) and 21.4% (Physical Activity)
of skill standards suggest much room for improvement. Blending both statistics, states are
doing a fair job addressing the scope of the skill-based standards, but there is room for
improvement, especially in the area of student self-assessment. One must also consider
whether the presence of skill standards within a curriculum transfers to application of those skills in real-life settings. A further concern was whether skills transfer across concept areas, for example advocating in substance abuse may or may not transfer to advocating for healthy eating.

HECAT examines concepts (standard 1) separately from the skills (standards 208). The NHES do not mandate concept areas, thus a challenge was to assure that appropriate concepts are mastered within the NHES. Four states (MD, PA, WA, UT) were not judged in this study to be NHES based and the content coverage for PA and HE was relatively high in these states (54-74% of concepts covered). This might have been expected as the organization tends to be around content in states judged not to be NHES. Logically these states might be lower in skills defined in standards 2-8. Three of the four (MD, PA, UT) were in the bottom half of HECAT scores and relatively low on Standards 2-8. WA self-reported not to be NHES. WA had the highest coverage of concepts, but also scored the highest on HECAT for these two modules. Thus, not organizing by NHES tended to be a disadvantage to skill development standards and HECAT score.

One standard was noticeably different than the rest. Scores for standard 8, student's ability to demonstrate influence and support other (advocacy), averaged only 2.0 (Healthy Eating) and 1.9 (Physical Activity), representing the primary opportunity for improvement among these standards across all states. The primary components of advocacy lie in influencing and supporting others (family, peers, etc.) and it is reasonable to suggest that it has only recently been identified as an important area for intervention.

One strength of the HECAT is that it can be used to evaluate states with very different needs and priorities. While sufficiently detailed to identify specific components of nutrition and being active, some concepts are written in such a way that curricula can apply
in a way that is very meaningful for the intended audience. For example, during the review of one state, numerous references to water safety were noted. After the states were revealed, the evaluator learned that state was Florida. It is logical that Florida included multiple references to aquatic safety but made no mention of preventing downhill skiing injuries. The evaluation concept pertained to basic safety precautions and reducing the risk associated with physical activity. States are provided the flexibility to address concepts in a manner consistent with the needs and interests of their communities.

**Vertical Articulation**

The results of the analysis of vertical alignment were only partially consistent with those of the overall HECAT. Vertical alignment is important for two reasons. One, learning often requires multiple exposures to the same concept; individuals do not immediately grasp all concepts after a single introduction. Second, vertical alignment of concepts allows for introduction of increasingly complex content related to a topic. For example, young children might be taught to recognize that consuming fruits and vegetables is a healthy choice while older children should be able to incorporate the ideas of vitamins, mineral and calories in explaining why it is a healthy choice.

There were 21 possible opportunities for states to demonstrate vertical alignment among Healthy Eating concepts. Two states did not have a single concept that aligned across multiple grade levels, but the states averaged alignment of 9.3 out of the 21 strings (44.3%). There were 18 identified strings among the physical activity concepts and states averaged vertical alignment of 6.1 out of 18 (33.9%). The notion of vertical articulation was a challenge, for example the scope and sequence using the HECAT modules produced several concepts that appeared only once or appeared in non-contiguous levels. Providing guidance across grades or levels that maximizes the chances a concept will be covered is
important for schools because often teachers at different levels (i.e., elementary, middle and high school) do not have an opportunity to communicate. A well aligned curriculum provides information to individual teachers about what should have been covered and learned previously and what will come next.

**Instruments**

As the primary evaluation tool, the HECAT must be a valid and reliable tool for the data it yields to have value. There were several concerns with the instrument. First, there was questionable vertical alignment of concepts within the Healthy Eating module. Eleven of the module’s 62 concepts (17.7%) were “hanging”, meaning that they could not be aligned with concepts appearing at other grade levels. One might question how the tool can evaluate vertical alignment within a curriculum if the tool itself is not cohesive. An additional concern surrounding concept coverage was that some concepts appeared in both the Healthy Eating and Physical Activity modules, but were introduced at different grade levels. For example, the benefits of drinking water appear at the Pre-K-2 level in Healthy Eating, but not until grades 3-5 (benefits of drinking water before, during and after physical activity) in the Physical Activity module.

The inconsistency between the methods of assessing standard 1 versus standards 2 through 8 was a source of confusion for this evaluator. Each module was presented in its own chapter. The organization of that chapter clearly indicated that standard 1 was to be evaluated at four levels, but that standards 2 through 8 could be evaluated only once (only one physical location to record scores). A person evaluating a K-12 curriculum could record the standard 1 scores directly into the chapter but would have to make additional copies of the standards 2 through 8 pages in order to record all data. Adding an additional response field in which one would record the grade level being evaluating would serve to alleviate this
confusion. This might provide valuable information to a district looking to evaluate the effectiveness of its elementary or secondary health education curriculum, but did not appear to offer sufficiently valuable additional information in this global comparison of multiple curricula.

Recommendations

The overview of all states and the in depth review of 10 states produced seven recommendations, as follows:

- States would likely benefit from a self-study of their health education curricula using HECAT.
- States were aware of the NHES, but often did not organize the standards and benchmarks around student skills and knowledge. States and schools should shift from content organization to NHES organization with careful attention to content associated with standard 1. Concepts for healthy eating and physical activity must be clearly delineated for school at each level. The goal is to avoid gaps in concept coverage.
- There is no compelling evidence as to transfer of the skills identified in standards 2-8. Therefore, research on transfer is recommended and until that is complete the skills should be “practiced” within content areas (e.g., healthy eating and physical activity).
- Training and informing regarding current information, such as national physical activity recommendations and new nutrition guidelines, should occur with states and then in schools for continuous improvement of the curriculum at both levels.
- Assistance to states and schools through materials and training to address standard 8 seems appropriate. Advocacy was not well covered in the state models.
• This represents an opportunity for HECAT developers to return to the content and evaluate cohesion and continuity of concepts. In addition, topics with ties to multiple modules (for example, the dual roles of nutrition and physical activity in maintaining a healthy weight) are introduced at different grade levels between modules. HECAT developers could assist users of the tool by explaining why introduction at different grade levels is appropriate or by consistently introducing topics at one grade level.

• Few states’ standards offer any guidance to teachers in how to deliver effective health education. Standards should provide teachers information about health-specific content, the steps required to learn and teach necessary skills, assistance in how to model a skill, strategies for assessing students’ abilities to demonstrate skill and examples of appropriate assessments. The persons involved in development of standards and selection of curriculum are most likely to be experts in the area of health education. The responsibility to provide adequate references and resources must start at the top so that end-users are equipped with the knowledge and skills to effectively deliver health education content.

Conclusion

Most states were aware of the National Health Education Standards. State standards and benchmarks in this sample covered at least half of the benchmarks associated with Healthy Eating and Physical Activity Modules of HECAT. Some states claim to be based on NHES but organize their curriculum around concepts or content rather than the skill that serve as a foundation for the NHES. States are addressing skill-based standards (goal-setting, decision-making, etc.), but curricula must be continually reviewed and revised to reflect emerging concepts (like advocacy). Vertical alignment of concepts has been demonstrated as a significant factor in curriculum development. There were a number of
concepts within the HECAT’s Healthy Eating module that do not relate to any other concept or benchmark. Little guidance was provided by states in their curricula to guide teachers, this was a clear weakness of all state models. There was little coordination between the modules as similar concepts were introduced at different levels in the two modules. A strength of the HECAT is that it is an objective tool that still allows for differences among curricula. The HECAT was not unfairly biased against states whose standards are not based on the National Health Education Standards and allows for meaningful application of concepts and skills to reflect the priorities of a given area.

REFERENCES


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Table 2.2. *HECAT* Physical Activity Module Concept Coverage (Standard 1) by Level* and State

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Table 2.3. Vertical Alignment of Physical Activity Concepts by State In Which 52 of 53 Concepts from Standard 1 Are Aligned into 18 Themes and Summed by State, Producing Totals That Represent Sequence (Vertical Alignment) of the Physical Activity Concept Coverage

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States with maximum alignment

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Note. Bold numbers indicated maximum number possible attained.
Table 2.4. Vertical Alignment of Healthy Eating Concepts by State In Which 51 of 62 Concepts from Standard 1 Are Aligned into 21 Themes and Summed by State Producing Totals That Represent Sequence (Vertical Alignment) of the Healthy Eating Concept Coverage

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<th>Classification 3</th>
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<th>Breakfast</th>
<th>Hunger</th>
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GENERAL CONCLUSIONS

The Nutrition and Physical Activity Program to Prevent Obesity and Other Chronic Diseases at the Centers for Disease Control and Prevention employs a five-level Social-Ecological Model (SEM) to address and understand the issues of overweight and obesity (Hamre et al., 2006). The model suggests that there are multiple levels of influence, and that effective prevention and reduction programs should address each of these levels. The five levels of the SEM used by the Nutrition and Physical Activity Program to Prevent Obesity and Other Chronic Diseases (NPAO) are the individual, interpersonal, organizational, community and society.

These studies evaluated the effectiveness of programs and institutions with an emphasis on reducing childhood overweight and obesity. Study one evaluated the effectiveness of the Trim Kids program (Sothern, von Almen & Schumacher, 2001), a program with applications at the individual, interpersonal and organizational levels. The hypothesis that Trim Kids would help children achieve a healthier weight through a reduction in mass, BMI, BMI-for-age percentile or waist circumference was only partially supported. Participants did see a statistically significant reduction in BMI, but the effect size was low and a concurrent statistically significant increase in stature appeared to account for the reduction.

In the second study, a macro-level initiative was evaluated, namely the health education curricula of ten states. The hypothesis, that states with lower obesity rates would have higher HECAT Scores when compared to states with higher obesity rates was not supported. Most states were aware of the National Health Education Standards (NHES). Some states claimed to be based on NHES but their curricular organization did not reflect this. Despite this inconsistency, HECAT scores demonstrated that the tool is not unfairly
biased against states whose standards are not based on the *National Health Education Standards* and allows for meaningful application of concepts and skills to reflect the priorities of a given area.

The lack of support for either hypothesis demonstrates that there is much more research to be done in the area of program and curricular development aimed at reducing childhood overweight and obesity. Both Trim Kids and many states’ curricula provided good nutrition and physical activity concept coverage, demonstrating that knowledge alone is not sufficient for behavior change. The results of both studies suggest that strong leadership and accurate measures of actual behavior are important. Trim Kids was unable to replicate the success of the expert-led, closely-monitored success of the similar *Committed to Kids* program. States varied widely in their data collection methods and typically only reported outcome (prevalence rates of obesity) rather than process data.
APPENDIX A. STUDY 2 SUPPLEMENTAL TABLES

Table A1. State Profiles Including Adolescent Obesity Data, NHES Standards Status, Links to State Standard and Year of Last Update

Table A2. Descriptive Data for 10 Selected States Including Census Region, (Percent) Adolescent Obesity, State Self-Reported Use of NHES, State Requirements for Use of the Standards and the Year of the Last Revision

Table A3. Overview of Standards Compared to National Health Education Standards 1-8, the Grade Levels for Health, Physical Activity, and Health/Physical Education Combined Benchmarks

Table A4. Alignment of State Standards (n = 6) and National Health Education Standards by Number Based on All Content in the State Curricula, Including Content Beyond Healthy Eating and Physical Activity

Table A5. Healthy Eating and Physical Activity Concept Coverage by State from Highest to Lowest Obesity Percentage

Table A6. Summary of Healthy Eating Concept Coverage Across All States

Table A7. Summary of Physical Activity Concept Coverage Across All States

Table A8. Scope and Sequence of the 62 Healthy Eating Concepts (Standard 1) Across Grade Levels

Table A9. Scope and Sequence of the 53 Physical Activity concepts (Standard 1) Across Grade Levels
### Table A1.
State Profiles Including Adolescent Obesity Data, NHES Standards Status, Links to State Standard and Year of Last Update

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<td>17.2</td>
<td>17.1</td>
<td>15.9</td>
<td>9.5</td>
<td>12.8</td>
<td>29.9</td>
<td>Yes</td>
<td>R</td>
<td><a href="http://www.ncpublicschools.org/curriculum/healthliving/scos/">http://www.ncpublicschools.org/curriculum/healthliving/scos/</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td>North Dakota</td>
<td>16.0</td>
<td>11.2</td>
<td>13.7</td>
<td>11.8</td>
<td>8.0</td>
<td>10.0</td>
<td>23.7</td>
<td>Yes</td>
<td>E</td>
<td><a href="http://www.dpi.state.nd.us/standard/content/health/index.shtm">http://www.dpi.state.nd.us/standard/content/health/index.shtm</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ohio</td>
<td>15.4</td>
<td>14.6</td>
<td>15.0</td>
<td>16.0</td>
<td>8.5</td>
<td>12.4</td>
<td>27.4</td>
<td>No</td>
<td>No</td>
<td>No health education standards – PE Academic Content Standards only</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oregon</td>
<td>14.7</td>
<td>9.6</td>
<td>24.3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Yes</td>
<td>R</td>
<td><a href="http://www.ode.state.or.us/search/page/?id=1745">http://www.ode.state.or.us/search/page/?id=1745</a></td>
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<td></td>
</tr>
<tr>
<td>State</td>
<td>Overweight Male</td>
<td>Overweight Female</td>
<td>Overweight Total</td>
<td>Obese Male</td>
<td>Obese Female</td>
<td>Obese Total</td>
<td>Total % overweight &amp; obese</td>
<td>Req(R)/Encourage (E) districts/schools to follow guidelines</td>
<td>Year updated</td>
<td>(a) Link to state HED standards</td>
<td>(b) Link to supplemental state HED information</td>
<td></td>
</tr>
<tr>
<td>------------------</td>
<td>-----------------</td>
<td>-------------------</td>
<td>------------------</td>
<td>------------</td>
<td>--------------</td>
<td>-------------</td>
<td>-----------------------------</td>
<td>------------------------------------------------</td>
<td>--------------</td>
<td>--------------------------------</td>
<td>-----------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>Virginia²⁺</td>
<td>15.7</td>
<td>15.2</td>
<td>15.5</td>
<td>16.7</td>
<td>11.7</td>
<td>14.7</td>
<td>31.7</td>
<td>Yes R</td>
<td>2003</td>
<td><a href="http://www.doe.virginia.gov/VDOE/Instruction/PE/k-12healthTAG.html">http://www.doe.virginia.gov/VDOE/Instruction/PE/k-12healthTAG.html</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Washington</td>
<td>18.4</td>
<td>11.1</td>
<td>17.0</td>
<td>11.7</td>
<td>10.1</td>
<td>14.7</td>
<td>29.5</td>
<td>No R</td>
<td>2008</td>
<td><a href="http://www.k12.wa.us/CurriculumInstruct/healthfitness/Standards.aspx">http://www.k12.wa.us/CurriculumInstruct/healthfitness/Standards.aspx</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td>West Virginia</td>
<td>15.0</td>
<td>19.0</td>
<td>17.0</td>
<td>17.6</td>
<td>11.7</td>
<td>14.7</td>
<td>31.7</td>
<td>Yes R</td>
<td>?</td>
<td><a href="http://wvde.state.wv.us/osshp/main/CSOContentPage.html">http://wvde.state.wv.us/osshp/main/CSOContentPage.html</a> (combination of two below?)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>State</td>
<td>Overweight Male</td>
<td>Overweight Female</td>
<td>Overweight Total</td>
<td>Obese Male</td>
<td>Obese Female</td>
<td>Obese Total</td>
<td>Overweight &amp; Obese Total</td>
<td>(a) Link to state HED standards Update Year</td>
<td>(b) Link to supplemental state HED information</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>----------</td>
<td>-----------------</td>
<td>-------------------</td>
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<td>--------------------------</td>
<td>---------------------------------------------</td>
<td>-----------------------------------------------</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Wyoming</td>
<td>12.7</td>
<td>10.0</td>
<td>11.4</td>
<td>11.8</td>
<td>6.6</td>
<td>9.3</td>
<td>20.7</td>
<td>Have to purchase!</td>
<td><a href="http://dpi.wi.gov/pubsales/health_1.html">http://dpi.wi.gov/pubsales/health_1.html</a></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Note.** Section I: All data in regular font are from the 2007 Youth Risk Behavior Surveillance Survey (high-school aged adolescents). Overweight = Percentage of students who were overweight (at or above the 85th percentile but less than the 95th percentile for BMI by age and sex based on reference data); Obese = Percentage of students who were obese (at or above the 95th percentile by age and sex based on reference data); links to state-by-state data available from CDC (n.d.). Most data in italicized font are from the National Survey for Children’s Health (n.d.); see individual state notes for exceptions. 

a2005. bIncludes charter schools. c2003 CalTEENS Survey; data reported as whole numbers, summed values may appear incorrect due to rounding, full report is available from the California Department of Public Health (2004). These data are slightly higher than the NSCH data, which had total overweight at 15.5%, total obese at 15.0% for a total overweight/obesity prevalence rate of 30.5% (different age groupings). dPut Active Play in Every Child’s Day: Louisiana’s Report Card on Physical Activity & Health for Children and Youth: 2008 Report Card (2003, data for youth ages 10-17); values are approximate, based on data presented in a bar graph (p. 14). The total overweight/obesity prevalence rate is consistent with the NSCH total of 35.9%. eMinnesota does not appear to have youth overweight/obesity data. “Overweight and Obesity” (2009); still using old youth BMI classifications (“at risk for overweight” and “overweight”), and only child data are from PEDNSS (children ages 2-5 served by WIC). fOregon had very limited data available in Promoting Physical Activity and Healthy Eating Among Oregon’s Children (2007, p. 6). The document reports overweight and obesity prevalence rates of “1 in 4” for 8th graders and 11th graders (uses old CDC classifications of at-risk and overweight). This is consistent with the NSCH data. gPennsylvania has published a “Pennsylvania Child Wellness Plan 2007-2008.” Three statewide goals are presented in this document: increase PA, increase nutritious food consumption and decrease number of overweight/obese children (with and without weight-related chronic diseases) in Pennsylvania. The first recommendation towards achievement of these goals is to gather health-related data. Pennsylvania recognized that they were only one of six states not participating in the CDC’s Youth Risk Behavior Surveillance System (YRBS) which was the primary source for the data presented in this table. Pennsylvania applied for an implementation grant which was approved and began participating in the YRBS survey in Spring 2009.
Table A2.  
*Descriptive Data for 10 Selected States Including Census Region, (Percent) Adolescent Obesity, State Self-Reported Use of NHES, State Requirements for Use of the Standards and the Year of the Last Revision*

<table>
<thead>
<tr>
<th>State region</th>
<th>State name</th>
<th>Total % overweight &amp; obese</th>
<th>NHES-based (self-report)</th>
<th>Curriculum required (R)/ encouraged (E)</th>
<th>Last revised</th>
</tr>
</thead>
<tbody>
<tr>
<td>South</td>
<td>Louisiana (LA)</td>
<td>~36</td>
<td>Yes</td>
<td>R</td>
<td>2003</td>
</tr>
<tr>
<td>South</td>
<td>Mississippi (MS)</td>
<td>35.8</td>
<td>Yes</td>
<td>R</td>
<td>2006</td>
</tr>
<tr>
<td>Northeast</td>
<td>Pennsylvania (PA)</td>
<td>29.6</td>
<td>Yes</td>
<td>R</td>
<td>2002</td>
</tr>
<tr>
<td>West</td>
<td>Washington (WA)</td>
<td>29.5</td>
<td>No</td>
<td>R</td>
<td>2008</td>
</tr>
<tr>
<td>Midwest</td>
<td>Indiana (IN)</td>
<td>29.1</td>
<td>Yes</td>
<td>R</td>
<td>2007</td>
</tr>
<tr>
<td>South</td>
<td>Maryland (MD)</td>
<td>28.3</td>
<td>Yes</td>
<td>R</td>
<td>Unknown</td>
</tr>
<tr>
<td>South</td>
<td>Florida (FL)</td>
<td>26.4</td>
<td>Yes</td>
<td>R</td>
<td>2008</td>
</tr>
<tr>
<td>Northeast</td>
<td>Connecticut (CT)</td>
<td>25.6</td>
<td>Yes</td>
<td>E</td>
<td>2006</td>
</tr>
<tr>
<td>Midwest</td>
<td>North Dakota (ND)</td>
<td>23.7</td>
<td>Yes</td>
<td>E</td>
<td>2008</td>
</tr>
<tr>
<td>West</td>
<td>Utah (UT)</td>
<td>20.8</td>
<td>Yes</td>
<td>R</td>
<td>97-2009</td>
</tr>
</tbody>
</table>
Table A3.
Overview of Standards Compared to National Health Education Standards 1-8, the Grade Levels for Health, Physical Activity, and Health/Physical Education Combined Benchmarks

<table>
<thead>
<tr>
<th>State</th>
<th>NHES-based</th>
<th>Curricular organization and levels for benchmarks by grade</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(state</td>
<td>Health</td>
</tr>
<tr>
<td></td>
<td>reported)</td>
<td></td>
</tr>
<tr>
<td>Connecticut</td>
<td>Yes</td>
<td>4, 8, 12</td>
</tr>
<tr>
<td>Florida</td>
<td>Yes</td>
<td>Same Levels</td>
</tr>
<tr>
<td>Indiana</td>
<td>Yes</td>
<td>K, 1, 2, 3, 4, 5, 6, 7, 8, 9-12, Advanced</td>
</tr>
<tr>
<td>Louisiana</td>
<td>Yes</td>
<td>K-4, 5-8, 9-12</td>
</tr>
<tr>
<td>Maryland</td>
<td>Yes</td>
<td>Pre-K, K, 1, 2, 3, 4, 5, 6, 7, 8, HS</td>
</tr>
<tr>
<td>Mississippi</td>
<td>Yes</td>
<td>3, 6, 9, 12</td>
</tr>
<tr>
<td>North Dakota</td>
<td>Yes</td>
<td>3-8, Fitness for Life</td>
</tr>
<tr>
<td>Pennsylvania</td>
<td>Yes</td>
<td>(May be combined – hard to determine for curricula not based on NHES)</td>
</tr>
<tr>
<td>Utah</td>
<td>Yes</td>
<td>3, 4, 5, 6, 7/8</td>
</tr>
<tr>
<td>Washington</td>
<td>No</td>
<td>(May be combined – hard to determine for curricula not based on NHES)</td>
</tr>
</tbody>
</table>
Table A4.

Alignment of State Standards (n = 6) and National Health Education Standards by Number Based on All Content in the State Curricula, Including Content Beyond Healthy Eating and Physical Activity

<table>
<thead>
<tr>
<th>National Health Education Standard</th>
<th>State Standard language</th>
<th>1 Concepts</th>
<th>2 Influence</th>
<th>3 Valid information</th>
<th>4 Interpersonal communication</th>
<th>5 Decision-making</th>
<th>6 Goal-setting</th>
<th>7 Practice health-enhancing behaviors</th>
<th>8 Advocate</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connecticut</td>
<td>Content standard number</td>
<td>1</td>
<td>4</td>
<td>2</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>3</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>Florida</td>
<td>Strand: Concepts (C), Responsible behavior (RB), Promotion (P); Standard</td>
<td>C1</td>
<td>C2</td>
<td>RB1</td>
<td>RB2</td>
<td>RB3</td>
<td>RB4&lt;sup&gt;a&lt;/sup&gt;</td>
<td>P1</td>
<td>P2</td>
<td></td>
</tr>
<tr>
<td>Indiana</td>
<td>Standard number</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>Louisiana</td>
<td>Standard number</td>
<td>1</td>
<td>4</td>
<td>2</td>
<td>5</td>
<td>X&lt;sup&gt;b&lt;/sup&gt;</td>
<td>X&lt;sup&gt;b&lt;/sup&gt;</td>
<td>3</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Mississippi</td>
<td>Competency number</td>
<td>1</td>
<td>4</td>
<td>2</td>
<td>5</td>
<td>6&lt;sup&gt;c&lt;/sup&gt;</td>
<td>6&lt;sup&gt;c&lt;/sup&gt;</td>
<td>3</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>North Dakota</td>
<td>Standard number</td>
<td>2</td>
<td>3</td>
<td>6</td>
<td>4</td>
<td>5&lt;sup&gt;d&lt;/sup&gt;</td>
<td>5&lt;sup&gt;d&lt;/sup&gt;</td>
<td>x&lt;sup&gt;b&lt;/sup&gt;</td>
<td>7</td>
<td></td>
</tr>
</tbody>
</table>

<sup>a</sup> NHES 6 does not appear in the standards until grade 2.
<sup>b</sup> NHES 5 and 6 are not represented in this state’s standards.
<sup>c</sup> The content of NHES 5 and 6 are combined in state standard 6.
<sup>d</sup>The content of NHES 5 and 6 are combined in state standard 5.
<sup>e</sup> NHES 7 is not represented in this state’s standards.
Table A5.
Healthy Eating and Physical Activity Concept Coverage by State from Highest to Lowest Obesity Percentage

<table>
<thead>
<tr>
<th>State</th>
<th>Total % overweight &amp; obese</th>
<th>HE concept coverage (62)</th>
<th>PA concept coverage (53)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Louisiana</td>
<td>~36%</td>
<td>6</td>
<td>9</td>
</tr>
<tr>
<td>Mississippi</td>
<td>35.8%</td>
<td>23</td>
<td>14</td>
</tr>
<tr>
<td>Pennsylvania</td>
<td>29.6%</td>
<td>29</td>
<td>33</td>
</tr>
<tr>
<td>Washington</td>
<td>29.5%</td>
<td>47</td>
<td>38</td>
</tr>
<tr>
<td>Indiana</td>
<td>29.1%</td>
<td>34</td>
<td>36</td>
</tr>
<tr>
<td>Maryland</td>
<td>28.3%</td>
<td>42</td>
<td>28</td>
</tr>
<tr>
<td>Florida</td>
<td>26.4%</td>
<td>20</td>
<td>22</td>
</tr>
<tr>
<td>Connecticut</td>
<td>25.6%</td>
<td>1</td>
<td>29</td>
</tr>
<tr>
<td>North Dakota</td>
<td>23.7%</td>
<td>26</td>
<td>27</td>
</tr>
<tr>
<td>Utah</td>
<td>20.8%</td>
<td>39</td>
<td>36</td>
</tr>
</tbody>
</table>

Mean concept coverage of all 10 states  26.7          27.2
Table A6. Summary of Healthy Eating Concept Coverage Across All States

<table>
<thead>
<tr>
<th>Grade level</th>
<th>Covered by 0–1 state</th>
<th>Covered by 9–10 states</th>
</tr>
</thead>
<tbody>
<tr>
<td>PreK-2</td>
<td>3 Identify the benefits of drinking plenty of water</td>
<td>1 Explain the importance of choosing healthy foods and beverages</td>
</tr>
<tr>
<td>(8 concepts)</td>
<td>6 Describe body signals that tell people when they are hungry and when they are full</td>
<td></td>
</tr>
<tr>
<td>3–5</td>
<td>7 Summarize the benefits of drinking plenty of water</td>
<td>None</td>
</tr>
<tr>
<td>(16 concepts)</td>
<td>9 Identify foods that are high in fat and low in fat</td>
<td></td>
</tr>
<tr>
<td></td>
<td>10 Identify foods that are high in added sugars</td>
<td></td>
</tr>
<tr>
<td></td>
<td>11 Describe the benefits of limiting the consumption of fat and added sugar</td>
<td></td>
</tr>
<tr>
<td></td>
<td>16 Explain how eating disorders impact proper nutrition</td>
<td></td>
</tr>
<tr>
<td>6–8</td>
<td>11 Identify foods that are high in fiber</td>
<td>17 Describe the relationship between what people eat, their physical activity levels and their body weight</td>
</tr>
<tr>
<td>(23 concepts)</td>
<td>12 Identify food preparation methods that add less fat to food</td>
<td></td>
</tr>
<tr>
<td></td>
<td>13 Identify examples of whole grain foods</td>
<td></td>
</tr>
<tr>
<td></td>
<td>15 Describe the benefits of eating a variety of foods high in iron</td>
<td></td>
</tr>
<tr>
<td></td>
<td>22 Summarize how eating disorders impact proper nutrition</td>
<td></td>
</tr>
<tr>
<td>9–12</td>
<td>7 Analyze the benefits of drinking water before, during and after physical activity</td>
<td>2 Describe the relationship between nutrition and overall health</td>
</tr>
<tr>
<td>(15 concepts)</td>
<td>8 Explain how to incorporate foods that are high in fiber into a healthy daily diet</td>
<td></td>
</tr>
<tr>
<td></td>
<td>10 Explain how to incorporate an adequate amount of iron into a healthy daily diet</td>
<td>12 Describe the importance of healthy eating and physical activity in maintaining a healthy weight</td>
</tr>
<tr>
<td></td>
<td>11 Identify how to make a vegetarian diet healthy</td>
<td></td>
</tr>
<tr>
<td>Grade level</td>
<td>Covered by 0–1 state</td>
<td>Covered by 9–10 states</td>
</tr>
<tr>
<td>-------------</td>
<td>----------------------</td>
<td>------------------------</td>
</tr>
</tbody>
</table>
| PreK-2 (5 concepts) | 1 Describe recommended amount of physical activity for children. | 4 Describe the benefits of being physically active.  
5 Describe how being physically active can help a person feel better. |
| 3-5 (12 concepts) | None | 2 Explain the positive outcomes for being physically active.  
9 Identify basic safety precautions to help prevent injury during physical activity.  
10 Discuss the benefits of drinking water before, during and after physical activity. |
| 6-8 (19 concepts) | 14 Describe the health risks of using performance-enhancing drugs. | 7 Summarize how physical activity and eating habits can contribute to maintaining a healthy body weight.  
17 Describe ways to reduce risk of injuries from participation in sports and other physical activities. |
| 9-12 (17 concepts) | 6 Summarize recommended amounts and types of physical activity for adolescents and adults.  
9 Describe effects of hydration and dehydration on physical performance.  
11 Discuss the dangers and legal issues related to using performance-enhancing drugs. | 12 Describe the importance of a healthy diet and physical activity in maintaining healthy weight.  
14 Explain ways to reduce the risk of injuries from participation in sports and other physical activities. |
### Table A8.

**Scope and Sequence of the 62 Healthy Eating Concepts (Standard 1) Across Grade Levels**

<table>
<thead>
<tr>
<th>Concept</th>
<th>PreK-2 ($n = 8$)</th>
<th>Grades 3-5 ($n = 16$)</th>
<th>Grades 6-8 ($n = 23$)</th>
<th>Grades 9-12 ($n = 15$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Benefits of healthy eating/ consequence on poor dietary behaviors</td>
<td>1 Explain the importance of choosing healthy foods and beverages</td>
<td>4 Summarize the benefits of healthy eating</td>
<td>4 Analyze the benefits of healthy eating</td>
<td>4 Analyze the benefits of healthy eating</td>
</tr>
<tr>
<td></td>
<td></td>
<td>6 Describe the benefits of eating plenty of fruits and vegetables</td>
<td>8 Summarize the benefits of eating plenty of fruits and vegetables</td>
<td>2 Describe the relationship between nutrition and overall health 3 Describe the relationship between diet and chronic diseases such as heart disease, cancer, diabetes, hypertension and osteoporosis</td>
</tr>
<tr>
<td>2. Food identification/classification</td>
<td>2 Identify a variety of healthy snacks</td>
<td>2 Explain the importance of eating a variety of foods from all the food groups</td>
<td>1 Name the food groups and a variety of nutritious food choices for each food group</td>
<td>1 Summarize a variety of nutritious food choices for each food group</td>
</tr>
<tr>
<td></td>
<td></td>
<td>6 Describe the importance of eating a variety of the appropriate foods to meet daily nutrient and caloric needs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Concept</td>
<td>PreK-2 ( (n = 8) )</td>
<td>Grades 3-5 ( (n = 16) )</td>
<td>Grades 6-8 ( (n = 23) )</td>
<td>Grades 9-12 ( (n = 15) )</td>
</tr>
<tr>
<td>------------------------------------------------------------------------</td>
<td>-----------------------</td>
<td>-----------------------------</td>
<td>-----------------------------</td>
<td>-----------------------------</td>
</tr>
<tr>
<td>8 Identify nutritious and non-nutritious beverages</td>
<td></td>
<td>10 Differentiate between nutritious and non-nutritious beverages</td>
<td>6 Explain the similarities and differences among proteins, fats and carbohydrates regarding nutritional value and food sources</td>
<td>5 Explain food sources that provide key nutrients</td>
</tr>
<tr>
<td>6 Explain the similarities and differences among proteins, fats and carbohydrates regarding nutritional value and food sources</td>
<td></td>
<td>5 Explain food sources that provide key nutrients</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Recommended servings &amp; portion control</td>
<td>5 Describe the type of foods and beverages that should be limited</td>
<td>3 Identify the number of servings of food from each food group that a child needs daily</td>
<td>2 Classify the number and appropriate size of servings of food from each food group that a person needs each day</td>
<td>3 Explain why some food groups have a greater number of recommended portions than other food groups</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5 Explain the concept of eating in moderation</td>
<td>7 Describe the benefits of eating in moderation</td>
<td>5 Describe the federal dietary guidelines for teens</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 Describe the recommendations of Dietary Guidelines for Americans</td>
<td>13 Explain how the Dietary Guidelines for Americans are useful in planning a healthy diet</td>
<td></td>
</tr>
<tr>
<td>Concept</td>
<td>PreK-2 ($n = 8$)</td>
<td>Grades 3-5 ($n = 16$)</td>
<td>Grades 6-8 ($n = 23$)</td>
<td>Grades 9-12 ($n = 15$)</td>
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</tr>
<tr>
<td>4. Water/hydration</td>
<td>3 Identify the benefits of drinking plenty of water</td>
<td>7 Summarize the benefits of drinking plenty of water</td>
<td>9 Analyze the benefits of drinking plenty of water</td>
<td>7 Analyze the benefits of drinking water before, during and after physical activity</td>
</tr>
<tr>
<td>5. Breakfast</td>
<td>4 Describe the benefits of eating breakfast every day</td>
<td>12 Conclude that breakfast should be eaten every day</td>
<td></td>
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</tr>
<tr>
<td>6. Perceptions of hunger</td>
<td>6 Describe body signals that tell people when they are hungry and when they are full</td>
<td>13 Summarize body signals that tell people when they are hungry and when they are full</td>
<td></td>
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</tr>
<tr>
<td>7. Food preparation &amp; safety</td>
<td>7 Describe how to keep food safe from harmful germs</td>
<td>14 Describe methods to keep food safe from harmful germs</td>
<td>23 Summarize food safety strategies that can control germs that cause food borne illness</td>
<td></td>
</tr>
<tr>
<td>8. Weight maintenance</td>
<td>8 Identify eating behaviors that contribute to maintaining a healthy weight</td>
<td>15 Explain that both eating habits and level of physical activity can affect a person’s weight</td>
<td>17 Describe the relationship between what people eat, their physical activity levels and their body weight</td>
<td>12 Describe the importance of healthy eating and physical activity in maintaining a healthy weight</td>
</tr>
<tr>
<td>9. Nutrient-specific recommendations</td>
<td>9 Identify foods that are high in fat and low in fat</td>
<td></td>
<td>12 Identify food preparation methods that add less fat to food</td>
<td></td>
</tr>
<tr>
<td>Concept</td>
<td>PreK-2 (n = 8)</td>
<td>Grades 3-5 (n = 16)</td>
<td>Grades 6-8 (n = 23)</td>
<td>Grades 9-12 (n = 15)</td>
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<td>10 Identify foods that are high in added sugars</td>
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<tr>
<td>11 Describe the benefits of limiting the consumption of fat and added sugar</td>
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<tr>
<td>16 Summarize the benefits of limiting the consumption of fat and added sugar</td>
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</tr>
<tr>
<td>11 Identify foods that are high in fiber</td>
<td>8 Explain how to incorporate foods that are high in fiber into a healthy daily diet</td>
<td></td>
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<tr>
<td>13 Identify examples of whole grain foods</td>
<td>9 Explain how to incorporate an adequate amount of calcium into a healthy daily diet</td>
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<tr>
<td>14 Describe the benefits of consuming an adequate amount of calcium and a variety of foods high in calcium</td>
<td>10 Explain how to incorporate an adequate amount of iron into a healthy daily diet</td>
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</tr>
<tr>
<td>15 Describe the benefits of eating a variety of foods high in iron</td>
<td>11 Identify how to make a vegetarian diet healthy</td>
<td></td>
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</tr>
<tr>
<td>10. Eating disorders &amp; body image</td>
<td>16 Explain how eating disorders impact proper nutrition</td>
<td>22 Summarize how eating disorders impact proper nutrition</td>
<td>15 Explain the effects of eating disorders on healthy growth and development</td>
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<tr>
<td></td>
<td>20 Differentiate between a positive and negative body image and state the importance of a positive body image</td>
<td></td>
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<tr>
<td>Concept</td>
<td>PreK-2 ($n = 8$)</td>
<td>Grades 3-5 ($n = 16$)</td>
<td>Grades 6-8 ($n = 23$)</td>
<td>Grades 9-12 ($n = 15$)</td>
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<tr>
<td>21 Describe the signs, symptoms and consequences of common eating disorders</td>
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</tr>
</tbody>
</table>
Table A9. 
Scope and Sequence of the 53 Physical Activity Concepts (Standard 1) Across Grade Levels

<table>
<thead>
<tr>
<th>PreK–2 (n = 5)</th>
<th>Grades 3–5 (n = 12)</th>
<th>Grades 6–8 (n = 19)</th>
<th>Grades 9–12 (n = 17)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Frequency/ amount of physical activity</strong></td>
<td>1 Describe recommended amount of physical activity for children</td>
<td>1 Summarize the recommended amount of physical activity for children</td>
<td>5 Describe the recommended amounts and types of moderate and vigorous physical activity for adolescents and adults</td>
</tr>
<tr>
<td></td>
<td>2 Explain ways to be active every day</td>
<td>6 Identify ways to increase daily physical activity</td>
<td>1 Explain that incorporating daily moderate or vigorous physical activity into one’s life does not require a structured exercise plan or special exercise equipment</td>
</tr>
<tr>
<td><strong>2. Types of physical activity (classifications of activity, components of fitness)</strong></td>
<td>3 Describe behaviors that are physically active and physically inactive</td>
<td>6 Identify ways to increase daily physical activity and decrease inactivity</td>
<td>3 Discuss ways to increase physical activity and decrease inactivity</td>
</tr>
<tr>
<td></td>
<td>3 Describe the importance of choosing a variety of ways to be physically active</td>
<td>2 Differentiate between physical activity, exercise, health-related fitness and skill-related fitness</td>
<td>8 Describe physical activities that contribute to maintaining or improving the components of health-related fitness as cardiorespiratory fitness, muscular strength, endurance, flexibility, and body composition</td>
</tr>
<tr>
<td>3. Activity outcomes (benefits of activity, consequences of being sedentary)</td>
<td>Grades PreK–2 ($n = 5$)</td>
<td>Grades Grades 3–5 ($n = 12$)</td>
<td>Grades Grades 6–8 ($n = 19$)</td>
</tr>
<tr>
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<tr>
<td>4. Weight maintenance</td>
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<tr>
<td>5. Environmental factors affecting physical activity</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>PreK–2 (n = 5)</td>
<td>Grades 3–5 (n = 12)</td>
<td>Grades 6–8 (n = 19)</td>
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</tr>
<tr>
<td>6. Safety &amp; injury prevention (equipment, warm-up/cool down)</td>
<td>9 Identify basic safety precautions to help prevent injury during physical activity</td>
<td>11 Describe how to ride a bike, skateboard, scooter and inline skate safely</td>
<td>17 Describe ways to reduce risk of injuries from participation in sports and other physical activities</td>
</tr>
<tr>
<td></td>
<td></td>
<td>12 Identify personal protection equipment needed for sports and recreational activities such as mouthpieces, pads and helmets</td>
<td>18 Summarize how to safely ride a bike and scooter, and use a skateboard or inline skates</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>19 Analyze the importance of using helmets and other safety gear for biking, riding a scooter, skateboarding and inline skating</td>
</tr>
<tr>
<td></td>
<td></td>
<td>12 Explain the importance of warming up before and cooling down after physical activity</td>
<td>16 Describe the use of safety equipment for specific physical activities</td>
</tr>
<tr>
<td>7. Hydration</td>
<td>10 Discuss the benefits of drinking water before, during and after physical activity</td>
<td>9 Summarize the benefits of drinking water before, during, and after physical activity</td>
<td>9 Describe effects of hydration and dehydration on physical performance</td>
</tr>
<tr>
<td>8. Substance Use</td>
<td>13 Describe how using tobacco could hurt one’s goals for physical fitness and athletic performance</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>PreK–2 (n = 5)</td>
<td>Grades 3–5 (n = 12)</td>
<td>Grades 6–8 (n = 19)</td>
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</tr>
<tr>
<td>14</td>
<td></td>
<td></td>
<td>Describe the health risks of using performance-enhancing drugs</td>
</tr>
<tr>
<td>11</td>
<td></td>
<td></td>
<td>11 Discuss the dangers and legal issues related to using performance-enhancing drugs</td>
</tr>
</tbody>
</table>
APPENDIX B. STATE SCOPE AND SEQUENCE MODELS

Table B1. State of Connecticut Concepts and Skills for Physical Activity
Table B2. State of Connecticut Concepts and Skills for Healthy Eating
Table B3. State of Florida Concepts and Skills for Healthy Eating and Physical Activity for Grades K–4
Table B4. State of Florida Benchmarks for Healthy Eating and Physical Activity for Grades 5–12
Table B5. State of Indiana Concepts and Skills for Healthy Eating and Physical Activity for Grades K–5
Table B6. State of Indiana Concepts and Skills for Healthy Eating and Physical Activity for Grades 6–Advanced
Table B7. State of Louisiana Benchmarks for Healthy Eating and Physical Activity for Grades K–12
Table B8. State of Maryland Benchmarks for Healthy Eating and Physical Activity for Grades PreK–4
Table B9. State of Maryland Suggested Objectives for Healthy Eating and Physical Activity for Grades 5–12
Table B10. State of Mississippi Suggested Objectives for Physical Activity for Grades K–4
Table B11. State of Mississippi Suggested Objectives for Physical Activity for Grades 5–12
Table B12. State of Mississippi Suggested Objectives for Healthy Eating for Grades K–4
Table B13. State of Mississippi Suggested Objectives for Healthy Eating for Grades 5–12
Table B14. State of North Dakota Concepts and Skills for Physical Activity for Grades K–4
Table B15. State of North Dakota Concepts and Skills for Physical Activity for Grades 5–12
Table B16. State of North Dakota Concepts and Skills for Healthy Eating for Grades K–4
Table B17. State of North Dakota Concepts and Skills for Healthy Eating for Grades 5–12
Table B18. State of Pennsylvania Concepts and Skills for Physical Activity for Grades 3, 6, 9, and 12
Table B19. State of Pennsylvania Concepts and Skills for Healthy Eating for Grades 3, 6, 9, and 12
Table B20. State of Utah Concepts and Skills for Physical Activity for Grades K–4
Table B21. State of Utah Concepts and Skills for Physical Activity for Grades 5–10
Table B22. State of Utah Concepts and Skills for Healthy Eating for Grades K–4
Table B23. State of Utah Concepts and Skills for Healthy Eating for Grades 5–10
Table B24. State of Washington Benchmarks for Physical Activity for Grades K–5
Table B25. State of Washington Concepts and Skills for Physical Activity for Grades 6–HS2
Table B26. State of Washington Benchmarks for Healthy Eating for Grades K–5
Table B27. State of Washington Concepts and Skills for Healthy Eating for Grades 6–HS2
## Table B1. State of Connecticut Concepts and Skills for Physical Activity

<table>
<thead>
<tr>
<th>Grade K</th>
<th>Grade 4</th>
<th>Grade 8</th>
<th>Grade 12</th>
</tr>
</thead>
<tbody>
<tr>
<td>List personal health behaviors (daily physical activity)</td>
<td>Describe relationships between personal health behaviors and individual well-being</td>
<td>Explain the relationship between positive health behaviors and prevention of injury, illness, disease and premature death</td>
<td>Analyze how behaviors can affect health maintenance and disease prevention</td>
</tr>
<tr>
<td>Identify ways injuries can be prevented</td>
<td>Describe the interrelationship of mental, emotional, social and physical health during childhood; develop an appreciation of one’s own body</td>
<td>Describe the interrelationship of mental, emotional, social and physical health during pre-adolescence/adolescence</td>
<td>Describe the interrelationship of mental, emotional, social and physical health throughout adulthood</td>
</tr>
<tr>
<td>Demonstrate coordination in gross motor and fine motor tasks using control, balance, strength and coordination; and demonstrate progress toward the mature form of selected fundamental motor skills</td>
<td>Examine how physical, social and emotional environments influence personal health</td>
<td>Explain how health is influenced by the growth and interaction of body systems</td>
<td>Evaluate the impact of personal health behaviors on the functioning of body systems</td>
</tr>
<tr>
<td>Demonstrate the ability to stop and start on a signal; combine sequences of several motor skills in an organized way; and move through an environment with body control</td>
<td>Explain how childhood injuries can be prevented or treated</td>
<td>Describe how pathogens, family history, individual decisions and other risk factors are related to the cause or prevention of disease and other health problems</td>
<td>Use and evaluate appropriate strategies to promote well-being, delay onset and reduce risks of potential health problems during adulthood</td>
</tr>
<tr>
<td>Demonstrate an understanding of body awareness concepts by identifying large and small body parts; show understanding of quality of movement concepts and apply them to psychomotor skills (e.g., demonstrating momentary stillness in balance activities, distinguishing when to kick a ball softly or with force); and show understanding of space concepts by identifying and demonstrating personal and general space</td>
<td>Recognize how family history, individual decisions, and other risk factors are related to cause and prevention of disease and other health problems</td>
<td>Demonstrate developmentally mature form in the fundamental movement skills: locomotor, nonlocomotor and manipulative, in a closed environment (skills in isolation)</td>
<td>Maintain and further develop the fundamental movement skills in open environments</td>
</tr>
<tr>
<td>Demonstrate understanding that different movements are performed by different body parts, singly and in combination (e.g., kicking with foot, throwing with hand)</td>
<td>Demonstrate developmentally mature form in the fundamental movement skills: locomotor, nonlocomotor and manipulative, in a closed environment (skills in isolation)</td>
<td>Demonstrate an understanding of what the body does, where the body moves, and relationships that occur in movement</td>
<td>Demonstrate competence in applying basic locomotor, nonlocomotor and manipulative skills in the execution of more complex skills</td>
</tr>
<tr>
<td>Combine a sequence of several motor skills in an organized way</td>
<td>Demonstrate simple applications combining locomotor, nonlocomotor and manipulative skills to participate in developmentally appropriate movement and fitness activities</td>
<td>Demonstrate an understanding of what the body does, where the body moves, how the body performs the movement and relationships that occur in movement</td>
<td>Use complex movements and patterns within a variety of dynamic environments</td>
</tr>
<tr>
<td>Demonstrate understanding that different physical activities have different effects on the body (e.g., running, walking and sitting cause heartbeat and breathing to be faster, not as fast, and slow, respectively)</td>
<td>Demonstrate knowledge of rules, safety practices and procedures of specific activities</td>
<td>Demonstrate increasing competence in more advanced specialized skills</td>
<td>Develop advanced skills in selected physical activities</td>
</tr>
<tr>
<td>Developmentally appropriate recognition of the effects of physical activity and exercise</td>
<td>Demonstrate an understanding of what the body does, where the body moves, how the body performs the movement and relationships that occur in movement</td>
<td>Demonstrate an understanding of what the body does, where the body moves, how the body performs the movement and relationships that occur in increasingly more complex movement and game forms</td>
<td>Demonstrate an understanding of what the body does, where the body moves, how the body performs the movement and relationships that occur in increasingly more complex movement and game forms</td>
</tr>
<tr>
<td>Demonstrate recognition that physical activity is beneficial to good health</td>
<td>Recognize critical performance skill elements in self and others using movement vocabulary</td>
<td>Demonstrate knowledge of rules, safety practices and procedures as they apply to an increasing range of movement situations</td>
<td>Apply, evaluate and analyze critical elements of physical activity concepts to increasingly complex game forms</td>
</tr>
<tr>
<td>Recognize the difference between physical activity levels in different children’s tasks (e.g., sitting at sand table compared to playing tag)</td>
<td>Demonstrate an understanding of a variety of movements and how they affect the body</td>
<td>Demonstrate a variety of individual, dual and team tasks, activities, creative movement, dance, play, games and sports</td>
<td>Persist in practicing activities to increase specific skill competence in areas of interest</td>
</tr>
<tr>
<td>Develop individual success and confidence by attempting movement skills and</td>
<td>Demonstrate understanding of the relationship between activities and physical fitness components (e.g., cardiorespiratory endurance, muscular endurance, flexibility)</td>
<td>Apply an understanding of the connections between the purposes of movement and fitness activities</td>
<td>Analyze how behaviors can affect health maintenance and disease prevention</td>
</tr>
<tr>
<td>Develop an understanding of body awareness concepts by identifying large and small body parts; show understanding of quality of movement concepts and apply them to psychomotor skills (e.g., demonstrating momentary stillness in balance activities, distinguishing when to kick a ball softly or with force); and show understanding of space concepts by identifying and demonstrating personal and general space</td>
<td>Demonstrate developmentally mature form in the fundamental movement skills: locomotor, nonlocomotor and manipulative, in a closed environment (skills in isolation)</td>
<td>Demonstrate an understanding of what the body does, where the body moves, and relationships that occur in movement</td>
<td>Analyze how behaviors can affect health maintenance and disease prevention</td>
</tr>
<tr>
<td>Demonstrate understanding that different movements are performed by different body parts, singly and in combination (e.g., kicking with foot, throwing with hand)</td>
<td>Demonstrate simple applications combining locomotor, nonlocomotor and manipulative skills to participate in developmentally appropriate movement and fitness activities</td>
<td>Demonstrate increasing competence in more advanced specialized skills</td>
<td>Describe the interrelationship of mental, emotional, social and physical health throughout adulthood</td>
</tr>
<tr>
<td>Combine a sequence of several motor skills in an organized way</td>
<td>Demonstrate knowledge of rules, safety practices and procedures of specific activities</td>
<td>Demonstrate a variety of individual, dual and team tasks, activities, creative movement, dance, play, games and sports</td>
<td>Evaluate the impact of personal health behaviors on the functioning of body systems</td>
</tr>
<tr>
<td>Demonstrate understanding that different physical activities have different effects on the body (e.g., running, walking and sitting cause heartbeat and breathing to be faster, not as fast, and slow, respectively)</td>
<td>Demonstrate an understanding of what the body does, where the body moves, how the body performs the movement and relationships that occur in movement</td>
<td>Apply an understanding of the connections between the purposes of movement and fitness activities</td>
<td>Use complex movements and patterns within a variety of dynamic environments</td>
</tr>
<tr>
<td>Developmentally appropriate recognition of the effects of physical activity and exercise</td>
<td>Demonstrate recognition that physical activity is beneficial to good health</td>
<td>Develop an understanding of the relationship between activities and physical fitness components (e.g., cardiorespiratory endurance, muscular endurance, flexibility)</td>
<td>Demonstrate an understanding of what the body does, where the body moves, how the body performs the movement and relationships that occur in increasingly more complex movement and game forms</td>
</tr>
<tr>
<td>Demonstrate recognition that physical activity is beneficial to good health</td>
<td>Recognize the difference between physical activity levels in different children’s tasks (e.g., sitting at sand table compared to playing tag)</td>
<td>Demonstrate understanding of the relationship between activities and physical fitness components (e.g., cardiorespiratory endurance, muscular endurance, flexibility)</td>
<td>Persist in practicing activities to increase specific skill competence in areas of interest</td>
</tr>
</tbody>
</table>
activities with teacher guidance
• Demonstrate safe behavior for self and toward others by following established class rules, procedures and safe practices with teacher guidance and reinforcement

strength and endurance, flexibility, nutritional status and body composition)
• Recognize physiological indicators (e.g., heart rate, body temperature, perspiration, thirst) of exercise during and after physical activity
• Understand the results of formal fitness testing and correctly associate these results with overall physical fitness, nutritional levels and personal health status
• Understand that practicing activities increases specific skill competence

ments and their effect on fitness
• Apply the understanding of physical activity concepts to increasingly complex movement and game forms
• Demonstrate the skills and knowledge to assess levels of physical fitness and participate in activities that develop and maintain each component
• Assess physiological responses to exercise associated with one’s level of physical fitness and nutritional balance
• Analyze the results of one or more components of health-related fitness
• Use physical activity as a positive opportunity for social and group interaction and development of leadership skills
• Realize that physical activity and challenges present opportunities for personal growth

Standard 2. Students will analyze the influence of family, peers, culture, media, technology and other factors on health behaviors

• Identify how families can influence personal health
• Discuss their roles in the family and the roles of their parents/guardians
• Recognize how media and technology can influence their lives
• Discuss how families and school influence personal health

• Explore how families can influence personal health
• Describe how family and culture influence personal health behaviors
• Explain how media and technology influence personal and health behaviors
• Explain how family, school and peers influence personal health
• Identify and explain how the media may influence messages one may receive about body image

• Examine how families and peers can influence the health of adolescents
• Analyze ways in which the environment and personal health are interrelated
• Examine the influence of family beliefs and cultural beliefs on personal health behaviors
• Analyze how media, technology and other factors influence personal health behaviors
• Analyze how family, school and peers influence personal health

• Analyze how families, peers and community members can influence the health of individuals
• Analyze ways in which the environment influences the health of the community
• Analyze how family and cultural diversity enriches and affects personal health behaviors
• Evaluate the effects of media, technology and other factors on personal, family and community health
• Evaluate how information from family, school, peers and the community influences personal health
• Assess how public health policies and government regulations can influence health promotion and disease prevention

Standard 3. Students will demonstrate the ability to access valid information and products and services to enhance health

• Demonstrate the ability to seek health information from trusted adults (e.g. common health and safety concerns, roles and responsibilities of community helpers)
• Demonstrate the ability to seek help from trusted adults (e.g. dial 911, ask for help from firefighters or police officers)
• Identify characteristics of a trusted adult

• Demonstrate the ability to locate valid health information, products and services
• Demonstrate the ability to locate resources from home, school and community that provide valid health information
• Describe factors that may influence the selection of health information, products and services

• Analyze the validity of health information and the cost of products and services
• Demonstrate the ability to locate and use resources from home, school and community that provide valid health information, products and services
• Examine factors that may influence the personal selection of health information, products and services

• Evaluate the validity of health information and the cost of products and services
• Demonstrate the ability to access and evaluate resources from home, school and community that provide valid health information and services for themselves and others
• Evaluate factors that may influence the personal selection of health products and services
Standard 4. Students will demonstrate the ability to use interpersonal communication skills to enhance health and avoid or reduce health risks

- Practice using words to communicate as a means of enhancing health
- Describe characteristics of a responsible individual
- Identify healthy ways to express needs, wants and feelings
- Demonstrate caring and empathy for others
- Identify ways to deal with conflict
- List examples of conflict
- Engage in developing solutions to resolve conflicts and seek help when necessary
- Respond to cues and problem-solve as well as use whole self in personal and general space
- Use words, symbols and other media to express feelings and sensations about physical activity
- Collect, describe and record feelings and observations about physical activity and its effects on the body and on how one feels during and after exercise, and before, during and after eating
- Interact appropriately with peers and familiar adults (e.g., sharing, taking turns, following rules) with teacher guidance and reinforcement; stay on task for short periods with teacher supervision; listen quietly without interruption for short periods with teacher reinforcement; and exhibit self-control in group situations
- Demonstrate willingness to play with any child in the class; and recognize similarities and appreciate differences in people
- Use age-appropriate conflict resolution strategies; seek help from adults or peers when conflict arises; and engage in developing solutions and work to resolve conflicts
- Use words to express feelings and emotions; begin to develop positive feelings about being physically active; and with teacher encouragement, make connections between physical activity and fun
- Participate in creative movement and dance; identify several activities that are personally enjoyable; and use a variety of means for self-expression
- Practice verbal and nonverbal communication as a means of enhancing health
- Demonstrate characteristics needed to be a responsible individual within their group, school, family and community
- Describe emotions and how they can affect an individual’s behavior
- Identify and demonstrate healthy ways to express needs, wants and feelings
- Identify, discuss and demonstrate ways to communicate care, consideration and respect for themselves and others without bias, abuse, discrimination or harassment based on physical disability
- Demonstrate active listening skills to build and maintain healthy relationships with peers and family members
- Demonstrate avoidance and refusal skills to enhance health
- Identify possible causes of conflict
- Demonstrate family, peer, school and community strategies to prevent, manage and resolve conflicts and identify adults who might assist, when appropriate
- Work independently or cooperatively and productively with partners or in small groups to complete assigned tasks
- Express and identify feelings about participating in physical activity and begin to make choices based on those feelings
- Demonstrate behaviors that are sensitive to individual differences (e.g., physical, gender, cultural/ethnic, social and emotional) that can affect group activities
- Develop skills needed for resolving conflicts peacefully
- Apply effective verbal and nonverbal communication skills as a means of enhancing health
- Use characteristics needed to be a responsible individual within their peer group, school, family and community
- Identify ways in which emotions may affect communication, behavior and relationships
- Compare and contrast healthy ways to express needs, wants and feelings
- Demonstrate ways to communicate care, empathy, respect and responsibility for others without bias, abuse, discrimination or harassment based on physical disability
- Use communication skills to build and maintain healthy relationships
- Demonstrate avoidance, refusal and negotiation skills to enhance healthy relationships
- Examine the possible causes of conflict among youth in schools and communities
- Demonstrate strategies to prevent, manage and resolve conflicts in healthy ways and identify adults and peers who might assist, when appropriate
- Use self, peer, teacher and technological resources to recognize and suggest performance improvements in self and others
- Continue to develop skills to participate productively in groups, in both cooperative and competitive activities
- Develop strategies for including all persons, despite individual differences, in physical activity settings
- Apply appropriate skills for resolving conflicts peacefully
- Compare and contrast skills for communicating effectively with family, peers and others
- Apply and evaluate characteristics needed to be a responsible individual within their peer group, school, family, and community
- Demonstrate the ability to identify positive and negative emotions and analyze the impact on behavior
- Analyze situations and demonstrate healthy ways to express needs, wants and feelings
- Demonstrate care, empathy, respect and responsibility for others without bias, abuse, discrimination or harassment based on physical disability
- Prioritize and demonstrate strategies for maintaining healthy relationships and solving interpersonal conflicts
- Demonstrate avoidance, refusal, negotiation and collaboration skills to enhance healthy relationships
- Analyze the possible causes of conflict in families, among peers, and in schools and communities
- Demonstrate strategies used to prevent, manage and resolve conflict in healthy ways and identify adults and peers and community resources that might assist, when appropriate
- Apply safe practices, rules, procedures etiquette and good sportsmanship in all physical activity settings, and take initiative to encourage others to do the same (Standard 8)
- Demonstrate leadership and cooperation in order to accomplish the goals of different physical activities
- Develop and demonstrate initiative in implementing strategies for including all persons, despite individual differences, in physical activity settings
- Demonstrate initiative in using appropriate skills for resolving conflicts peacefully and encouraging others to do the same
• Demonstrate appropriate social interactions with peers during physical activity (e.g., sharing, taking turns, following rules, playing cooperatively) with teacher guidance and reinforcement

**Standard 5. Students will demonstrate the ability to use decision-making skills to enhance health**

- Discuss choices that enhance health
- Identify adults who can assist in making health-related decisions
- Discuss reasons to make and results of making healthy choices
- Apply problem-solving skills in movement-related activities by solving simple movement challenges involving body parts in isolation or in combination
- Recognize that some movements, activities and noises are appropriate for indoors/small spaces, and some for outdoors/large spaces

- Demonstrate the ability to apply a decision-making process to enhance health
- Explain when to ask for assistance in making health-related decisions
- Predict outcomes of positive health decisions
- Explore and adapt fundamental movement skills in a variety of dynamic environments
- Understand, participate in the development of, and follow classroom rules; follow activity-specific rules, safety practices and procedures; and demonstrate etiquette and good sportsmanship in a variety of physical activity settings

- Use a decision-making process to enhance health
- Describe and analyze how health-related decisions are influenced by using resources from family, school and community
- Predict how decisions regarding health behaviors have consequences for themselves and others
- Understand, participate in the development of, and follow classroom rules; follow activity-specific rules, safety practices and procedures; and apply safe practices, rules, procedures, etiquette and good sportsmanship in all physical activity settings

- Make decisions about participating in different physical activities based on feelings and interests
- Demonstrate the ability to apply the collaborative decision-making process
- Predict the immediate and long-term impact of health decisions on the individual, family and community
- Use self, peer, teacher and technological resources as tools to implement performance improvements in self and others
- Demonstrate understanding of how rules, and safety practices and procedures need to be adjusted for different movement situations
- Assess and adjust activities to maintain or improve personal level of health-related fitness
- Use physiological data to adjust levels of exercise and nutrient intake to promote wellness
- Use the results of fitness assessments to guide changes in her or his personal programs of physical activity (Standard 6)

**Standard 6. Students will demonstrate the ability to use goal-setting skills to enhance health**

- Define a healthy goal
- Demonstrate the ability to apply the goal-setting process to enhance health
- Use the goal-setting process to enhance health
- Plan a wellness program demonstrating an understanding of basic exercise (e.g., frequency, intensity, duration) and nutritional principles designed to meet personal wellness goals

- Demonstrate various strategies when making decisions to enhance health
- Demonstrate the ability to make health-enhancing decisions using the collaborative decision-making process
- Predict the immediate and long-term impact of health decisions on the individual, family and community
- Use self, peer, teacher and technological resources as tools to implement performance improvements in self and others
- Demonstrate understanding of how rules, and safety practices and procedures need to be adjusted for different movement situations
- Assess and adjust activities to maintain or improve personal level of health-related fitness
- Use physiological data to adjust levels of exercise and nutrient intake to promote wellness
- Use the results of fitness assessments to guide changes in her or his personal programs of physical activity (Standard 6)

- Make decisions and implement plans to participate in different physical activities based on interests and positive feelings of accomplishment in daily living (Standard 6)
Design and implement a personal wellness program based upon information obtained from the fitness assessment and in accordance with appropriate training and nutritional principles

Standard 7. Students will demonstrate the ability to practice health-enhancing behaviors and avoid or reduce health risks

- Identify healthy behaviors
- Identify personal behaviors that are health-enhancing
- Identify personal health behaviors that need to be changed
- Understand and follow rules and routines
- Acquire initial gross- and fine-motor skills needed for engagement in developmentally appropriate tasks, activities, creative movement, dance and play
- Follow safety and age-appropriate classroom and playground rules and procedures
- Engage in physical activities when presented with opportunities and with teacher encouragement.
- Engage in a wide variety of gross-motor activities that are child-selected and teacher-initiated
- Participate in healthy physical activity, and demonstrate understanding that physical activity is beneficial to good health
- Identify responsible health behaviors
- List personal health needs
- Compare behaviors that are safe to those that are risky or harmful
- Demonstrate strategies to improve or maintain personal health by examining influences and rules that affect decisions
- Develop and practice safety techniques to avoid and reduce injury and disease
- Participate in a variety of modified games, developmentally appropriate tasks, activities, creative movement, dance and play
- Engage in a variety of moderate to vigorous developmentally appropriate physical activities on a regular basis
- Apply the understanding of physical activity concepts to developing movement sequences and game strategies
- Engage in appropriate physical activity during and outside of school that promotes the development and improvement of physical fitness level
- Maintain a wellness log including exercise and food intake for a set period of time
- Use physical activity as a means of self-expression
- Use physical activity as a positive opportunity for social and group interaction
- Experience personal challenges through physical activity
- Experiment with new physical activities
- Explain the importance of assuming responsibility for personal health behaviors
- Examine personal health status to determine needs
- Distinguish between safe, risky or harmful behaviors involving themselves and/or others
- Apply strategies to improve or maintain personal and family health by examining influences, rules and legal responsibilities that affect decisions
- Examine and apply safety techniques to avoid and reduce injury and prevent disease
- Use appropriate strategies to prevent/reduce risks and promote well-being
- Engage in an increased variety of moderate to vigorous developmentally appropriate physical activities on a regular basis
- Engage in a variety of appropriate physical activities during and outside of school that promote the development and improvement of physical fitness level
- Demonstrate willingness to attempt a variety of new physical activities
- Use physical activity as a means of self- and group expression
- Value the skill competence that results from practice
- Assess the importance of assuming responsibility for personal health behaviors
- Analyze personal health status to determine needs
- Distinguish between safe, risky or harmful behaviors affecting themselves and others in the community
- Apply and assess strategies to improve or maintain personal, family and community health by examining influences, rules and legal responsibilities that affect decisions
- Use and evaluate safety techniques to avoid and reduce injury and prevent disease
- Participate in a wide variety of activities, including dance, games, sports and lifetime physical activities
- Regularly engage in moderate to vigorous physical activities of their choice on a regular basis
- Apply characteristics of performance in a variety of activities for purposeful, recreational, skill and fitness outcomes
- Use physical activity as a means of creative expression
- Use physical activity as a positive opportunity for social and group interaction and development of lifelong skills and relationships
- Seek personally challenging experiences through physical activity as a means to personal growth
- Experiment with new physical activities as part of a personal improvement plan
### Standard 8. Students will demonstrate the ability to advocate for personal, family and community health

- Use language to convey healthy behaviors
- Use language to express opinions about health topics
- Name trusted adults at home, in school and in the community
- Identify ways to encourage others to make positive health choices
- Participate in small and large group activities, interacting cooperatively with one or more children
- Discuss positive ways to show care, consideration and concern for others
- Describe a variety of methods to convey accurate health information, concepts and skills
- Express opinions about health issues based on accurate health information
- Identify and describe community agencies that advocate for healthy individuals, families and communities
- Describe ways to encourage and support others in making positive health choices
- Identify ways to work cooperatively in small groups when advocating for healthy individuals, families and schools
- Promote positive, healthy interpersonal relationships with respect and appreciation for each other
- Analyze various methods to accurately express health information, concepts and skills
- Support a healthy position with accurate information
- Analyze community agencies that advocate for healthy individuals, families and communities
- Encourage and support others in making positive health choices
- Demonstrate the ability to work cooperatively in small groups when advocating for healthy individuals, families and schools
- Evaluate the effectiveness of methods for accurately expressing health information, concepts and skills
- Support and defend a position with accurate health information
- Engage the support of community agencies that advocate for healthy individuals, families and communities
- Use the ability to influence and support others in making positive health choices
- Demonstrate the ability to work cooperatively in larger, more diverse groups when advocating for healthy communities

*Note. HECAT evaluation levels are modified for this state. Assessments based on grades K, 4, 8 and 12 instead of 2, 5, 8 and 12. Standard 1: Essential concepts get lost in a dizzying array of generic, repetitive and overly specific concepts. Concept coverage is only average despite large number of benchmarks and additional standards pertaining specifically to skill, physical activity and fitness. Standards 2, 3 & 8: Comprehensive coverage of generic sub-skills, no specific applications for physical activity. Standards 4, 5, 6 & 7: Comprehensive coverage of generic sub-skills and at least two examples of specific physical activity applications (some examples are still somewhat vaguely worded).*
<table>
<thead>
<tr>
<th>Table B2. State of Connecticut Concepts and Skills for Healthy Eating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grade K</td>
</tr>
<tr>
<td><strong>Standard 1. Students will comprehend concepts related to health promotion and disease prevention</strong></td>
</tr>
<tr>
<td>• List personal health behaviors (e.g. making healthy food choices)</td>
</tr>
<tr>
<td><strong>Standard 2. Students will analyze the influence of family, peers, culture, media, technology and other factors on health behaviors</strong></td>
</tr>
<tr>
<td>• Recognize how media and technology can influence their lives</td>
</tr>
<tr>
<td>• Discuss how families and school influence personal health</td>
</tr>
<tr>
<td>• Identify how families can influence personal health</td>
</tr>
<tr>
<td>• Identify how families can influence personal health</td>
</tr>
<tr>
<td><strong>Standard 3. Students will demonstrate the ability to access valid information and products and services to enhance health</strong></td>
</tr>
<tr>
<td>• Identify characteristics of a trusted adult</td>
</tr>
<tr>
<td>• Demonstrate the ability to seek health information from trusted adults (e.g. common health and safety concerns, roles and responsibilities of community helpers)</td>
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</tbody>
</table>
## Standard 4. Students will demonstrate the ability to use interpersonal communication skills to enhance health and avoid or reduce health risks

- Practice using words to communicate as a means of enhancing health
- Practice verbal and nonverbal communication as a means of enhancing health
- Apply effective verbal and nonverbal communication skills as a means of enhancing health
- Compare and contrast skills for communicating effectively with family, peers and others

## Standard 5. Students will demonstrate the ability to use decision-making skills to enhance health

- Discuss choices that enhance health
- Discuss reasons to make and results of making healthy choices
- Demonstrate the ability to apply a decision-making process to enhance health
- Predict outcomes of positive health decisions
- Use a decision-making process to enhance health
- Predict how decisions regarding health behaviors have consequences for themselves and others
- Describe and analyze how health-related decisions are influenced by using resources from family, school and community
- Demonstrate various strategies when making decisions to enhance health
- Predict the immediate and long-term impact of health decisions on the individual, family and community
- Demonstrate the ability to make health-enhancing decisions using the collaborative decision-making process

## Standard 6. Students will demonstrate the ability to use goal-setting skills to enhance health

- Define a healthy goal
- Demonstrate the ability to apply the goal-setting process to enhance health
- Use the goal-setting process to enhance health
- Demonstrate various strategies when making goal-setting decisions to enhance health

## Standard 7. Students will demonstrate the ability to practice health-enhancing behaviors and avoid or reduce health risks

- Identify personal behaviors that are health-enhancing
- Identify personal health behaviors that need to be changed
- Compare behaviors that are safe to those that are risky or harmful
- Demonstrate strategies to improve or maintain personal health by examining influences and rules that affect decisions
- Explain the importance of assuming responsibility for personal health behaviors
- Apply strategies to improve or maintain personal and family health by examining influences, rules and legal responsibilities that affect decisions
- Use appropriate strategies to prevent/reduce risks and promote well-being
- Assess the importance of assuming responsibility for personal health behaviors
- Apply and assess strategies to improve or maintain personal, family and community health by examining influences, rules and legal responsibilities that affect decisions
- Use and evaluate appropriate strategies to promote well-being, delay onset and reduce risks of potential health problems during adulthood
**Standard 8. Students will demonstrate the ability to advocate for personal, family and community health**

- Use language to convey healthy behaviors
- Use language to express opinions about health topics
- Identify ways to encourage others to make positive health choices
- Describe a variety of methods to convey accurate health information, concepts and skills
- Express opinions about health issues based on accurate health information
- Identify and describe community agencies that advocate for healthy individuals, families and communities
- Describe ways to encourage and support others in making positive health choices
- Analyze various methods to accurately express health information, concepts and skills
- Support a healthy position with accurate information
- Analyze community agencies that advocate for healthy individuals, families and communities
- Encourage and support others in making positive health choices
- Evaluate the effectiveness of methods for accurately expressing health information, concepts and skills
- Support and defend a position with accurate health information
- Engage the support of community agencies that advocate for healthy individuals, families and communities
- Use the ability to influence and support others in making positive health choices

**Note.** HECAT evaluation levels are modified for this state. Assessments based on grades K, 4, 8 and 12 instead of 2, 5, 8 and 12. Standard 1: This state has organized its standards by content standard (1-14), essential question and curricular outcomes. The first eight content standards align with the eight NHES (although the order is different). Standards 9 through 14 do not include any nutritional content. Curricular outcomes for these eight standards are written in very general language so as to be applicable to a multitude of specific health topics including nutrition, human growth and development, community and environmental health, human sexuality, injury and disease prevention, and many more. The only specific mention of a nutrition concept is the mention of making healthy food choices as an example for listing healthy behaviors. Standards 2, 3, 7 & 8: Comprehensive coverage of the generic sub-skills; no specific healthy eating examples. Standards 4 & 6: Incomplete coverage of sub-skills; no specific applications provided Standard 5: Majority of sub-skills addressed; no specific healthy eating examples
### Table B3. State of Florida Concepts and Skills for Healthy Eating and Physical Activity for Grades K–4

<table>
<thead>
<tr>
<th>Grade K</th>
<th>Grade 1</th>
<th>Grade 2</th>
<th>Grade 3</th>
<th>Grade 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard 1. Students will comprehend concepts related to health promotion and disease prevention</td>
<td></td>
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</tbody>
</table>

- Recognize the physical dimension of health (exercise, eating habits)
- Identify healthy behaviors (eating breakfast, exercising)
- Describe ways to prevent common communicable diseases (washing hands, not sharing food and utensils)
- Identify ways to prevent childhood injuries (water safety, pedestrian safety, bicycle safety)
- Recognize health consequences for not following rules (injuries)
- Recognize the physical, mental/ emotional and social dimensions of health (exercising)
- Describe ways to prevent childhood injuries (following bus/playground rules)
- Describe healthy behaviors that affect personal health (exercising regularly, avoiding junk food)
- Identify the relationship between healthy behaviors and personal health (choosing healthy foods for optimal growth and development, wearing helmet for injury prevention)
- Identify examples of mental/ emotional, physical, and social health (participate in a daily physical activity)
- Describe ways to prevent common childhood injuries and health problems (following pedestrian/vehicle/ bicycle safety rules)
Standard 2. Students will analyze the influence of family, peers, culture, media, technology and other factors on health behaviors

- Identify members of the school and community that support personal health practices and behaviors
- Name various types of media and technology that influence health
- Identify how children learn health behaviors from family and friends (parents/family encouraging physical activity together, family limiting television time)
- Identify what the school and community does to support personal health practices and behaviors (cafeteria/food standards)
- Name examples of media messages that relate to health behaviors (fast food commercials, milk commercials, candy commercials, food commercials that make you hungry, unhealthy snack commercials)
- Describe how family rules and practices influence health behaviors (families playing together, modeling of food sanitation practices in home)
- Describe how the media and technology can influence health behaviors (advertisements, beverages, breakfast cereals, toys)
- Explore how different family traditions and customs may influence health behaviors (family diet)
- Explore how friends' various traditions and customs may influence health behavior (sports and play, new foods)
- Identify classroom and school rules that promote health and disease prevention (wash hands, don't ride bike on school campus)
- Discuss the positive and negative impacts media may have on health (positives: choosing healthy foods, exercising; negatives: unhealthy fast foods, "couch potato" inactivity)
- Discuss the positive and negative impacts technology may have on health (using a pedometer, playing electronic games)
- Discuss how the community can influence healthy and unhealthy behaviors (places to exercise)
- Describe how the media influences the selection of health information, products, and services (cereal boxes)
- Explain the importance of family on health practices and behaviors (diet, hygiene practices, physical activity)
- Explain the important roles that school and community play on health practices and behaviors (school breakfast programs)
- Recognize types of school rules and community laws that promote health and disease prevention (helmet law)
<table>
<thead>
<tr>
<th>Standard 3. Students will demonstrate the ability to access valid information and products and services to enhance health</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Recognize advertisements for health products</td>
</tr>
<tr>
<td>• Determine the meaning of warning labels and signs on hazard</td>
</tr>
<tr>
<td>• Examine the content of advertisements for healthy,</td>
</tr>
<tr>
<td>• Locate resources from home, school, and community that</td>
</tr>
<tr>
<td>• Describe characteristics of valid health information,</td>
</tr>
<tr>
<td>• Examine resources from home, school, and community that</td>
</tr>
<tr>
<td>• Construct criteria for selecting health resources, products</td>
</tr>
<tr>
<td>• Compare a variety of technologies to gather health</td>
</tr>
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<td>• Compare a variety of technologies to gather health</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Standard 4. Students will demonstrate the ability to use interpersonal communication skills to enhance health and avoid or reduce health risks</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Recognize healthy ways to express needs, wants, and feelings</td>
</tr>
<tr>
<td>• Identify healthy ways to express needs, wants, and feelings (food choices, follow rules)</td>
</tr>
<tr>
<td>• Demonstrate healthy ways to express needs, wants, and feelings (food choices, follow rules)</td>
</tr>
<tr>
<td>• Identify effective verbal and nonverbal communication skills to enhance health</td>
</tr>
<tr>
<td>• Explain effective verbal and nonverbal communication skills to enhance health</td>
</tr>
<tr>
<td>• Discuss nonviolent strategies to manage or resolve conflict (physical activities)</td>
</tr>
</tbody>
</table>
Standard 5. Students will demonstrate the ability to use decision-making skills to enhance health

- Name situations when a health-related decision can be made individually or when assistance is needed (recreational water facility activities)
- Recognize healthy options to health-related issues or problems (PFDs, obey safety rules)
- Recognize the consequences of not following rules/practices when making healthy and safe decisions (drowning, self-injury, injury to others)
- Describe situations when a health-related decision can be made individually or when assistance is needed (food choices)
- Identify healthy options to health-related issues or problems (wearing bike helmet)
- Explain the consequences of not following rules/practices when making healthy and safe decisions (personal injury)
- Differentiate between situations when a health-related decision can be made individually or when assistance is needed (physical activity, food choices)
- Name healthy options to health-related issues or problems (use of safety equipment)
- Compare the consequences of not following rules/practices when making healthy and safe decisions (accidents, injuries)
- Recognize circumstances that can help or hinder healthy decision making
- List healthy options to health-related issues or problems (nutrition options)
- Discuss the potential short-term personal impact of each option when making a health-related decision (benefits of eating healthy foods)
- Find a healthy option when making a decision for yourself (healthy food, physical activity, screen time)
- Identify circumstances that can help or hinder healthy decision-making
- Examine when assistance is needed to make a health-related decision (participation in physical activity)
- Itemize healthy options to health-related issues or problems (physical activity)
- Predict the potential short-term impact of each option on self and others when making a health-related decision (physical activity, tobacco use)
- Examine the outcomes of a health-related decision (preventable injuries that occur when safety equipment is not used)

Standard 6. Students will demonstrate the ability to use goal-setting skills to enhance health

- Establish a short-term personal health goal as a class and take action toward achieving the goal (daily physical activity, eating more fruits and vegetables, handwashing, playground safety, tobacco awareness)
- Select a personal health goal and track progress toward achievement (daily physical activity, seat belt and helmet use, limited media time)
- Create a personal health goal and track progress toward achievement (eating habits/snacks, safety habits)
- Categorize resources that could assist in achieving a small group personal health goal (nutrition resource guide)
### Standard 7. Students will demonstrate the ability to practice health-enhancing behaviors and avoid or reduce health risks

<table>
<thead>
<tr>
<th>Behavior</th>
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</thead>
<tbody>
<tr>
<td>• Identify healthy practices and behaviors to maintain or improve personal health</td>
</tr>
<tr>
<td>• Demonstrate good personal health habits</td>
</tr>
<tr>
<td>• Tell about behaviors that avoid or reduce health risks (use helmet, use seat belt)</td>
</tr>
<tr>
<td>• Demonstrate health behaviors to maintain or improve personal health (food choices, physical activity)</td>
</tr>
<tr>
<td>• Show behaviors that avoid or reduce health risks (weather safety)</td>
</tr>
<tr>
<td>• Describe the outcomes of a health-related decision (strong muscles, self-confidence, food refrigeration and proper food temperature)</td>
</tr>
<tr>
<td>• Practice responsible personal health behaviors (daily physical activity)</td>
</tr>
<tr>
<td>• Investigate a variety of behaviors that avoid or reduce health risks (weather safety)</td>
</tr>
<tr>
<td>• Choose a healthy option when making decisions for yourself and/or others (use of safety equipment such as bike helmets, food choices at restaurant)</td>
</tr>
<tr>
<td>• Illustrate responsible personal health behaviors (sun safety)</td>
</tr>
<tr>
<td>• Illustrate a variety of healthy practices and behaviors to maintain or improve personal health (participate in regular physical activity)</td>
</tr>
<tr>
<td>• Illustrate a variety of behaviors that avoid or reduce health risks (include follow playground rules)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Choose a healthy option when making decisions for yourself and/or others (use of safety equipment such as bike helmets, food choices at restaurant)</td>
</tr>
<tr>
<td>• Illustrate responsible personal health behaviors (sun safety)</td>
</tr>
<tr>
<td>• Illustrate a variety of healthy practices and behaviors to maintain or improve personal health (participate in regular physical activity)</td>
</tr>
<tr>
<td>• Illustrate a variety of behaviors that avoid or reduce health risks (include follow playground rules)</td>
</tr>
</tbody>
</table>

### Standard 8. Students will demonstrate the ability to advocate for personal, family and community health

<table>
<thead>
<tr>
<th>Behavior</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Help others to make positive health choices (play outside)</td>
</tr>
<tr>
<td>• Encourage others to make positive health choices (select healthy foods)</td>
</tr>
<tr>
<td>• Support peers when making positive health choices</td>
</tr>
<tr>
<td>• Suggest others make positive health choices (select healthy foods, follow playground rules)</td>
</tr>
<tr>
<td>• Assist others to make positive health choices (model water safety rules)</td>
</tr>
</tbody>
</table>

**Note.** State standards are written in generic language (not specific to individual health topics), so the healthy eating and physical activity scope and sequence models are combined. Specific references to healthy eating and physical activity examples are included in bold type.
Table B4. State of Florida Benchmarks for Healthy Eating and Physical Activity for Grades 5–12

<table>
<thead>
<tr>
<th>Grade 5</th>
<th>Grade 6</th>
<th>Grade 7</th>
<th>Grade 8</th>
<th>Grades 9–12</th>
</tr>
</thead>
</table>

**Standard 1. Students will comprehend concepts related to health promotion and disease prevention**

- Identify the effects of healthy and unhealthy behaviors on personal health (portion control and weight management)
- Describe how the physical, mental/emotional, social, and intellectual dimensions of health are interrelated (nutrition/mental alertness, hunger/solving problems)
- Identify environmental factors that affect personal health (air quality, availability of sidewalks, contaminated food)
- Identify health problems and concerns common to adolescents including reproductive development (eating disorders)
- Examine the likelihood of injury or illness if engaging in unhealthy/risky behaviors (obesity related to poor nutrition and inactivity)
- Predict the short- and long-term consequences of engaging in health risk behaviors (lack of exercise, poor diet)
- Compare and contrast the effects of healthy and unhealthy behaviors on personal health, including reproductive health (caloric balance)
- Explain how physical, mental/emotional, social, and intellectual dimensions of health are interrelated (self-esteem/body weight)
- Analyze how environmental factors affect personal health (food refrigeration)
- Describe ways to reduce or prevent injuries and adolescent health problems (helmet use)
- Explain how appropriate health care can promote personal health (registered dietician to plan healthy meals)
- Analyze the relationship between healthy behaviors and personal health
- Analyze the interrelationship between healthy behaviors and the dimensions of health; physical, mental/emotional, social, and intellectual
- Predict how environmental factors affect personal health (heat index, air quality)
- Investigate strategies to reduce or prevent injuries and other adolescent health problems
- Analyze how appropriate health care can promote personal health (sports physicals)
- Anticipate the likelihood of injury or illness if engaging in unhealthy/risky behaviors
- Identify major chronic diseases that impact human body systems (cancer, hypertension and coronary artery disease, asthma, diabetes)
- Predict how healthy behaviors can affect health status (healthy fast food selections, regular physical activity)
- Interpret the interrelationships of mental/emotional, intellectual, physical, and social health (eating disorders)
- Evaluate how environment and personal health are interrelated (food options within a community, availability of recreational facilities)
- Propose strategies to reduce or prevent injuries and health problems (improve inspection of food sources)
- Analyze strategies for prevention, detection, and treatment of communicable and chronic diseases (obesity)
Standard 2. Students will analyze the influence of family, peers, culture, media, technology and other factors on health behaviors

- Predict how families may influence various health practices of children (involvement in youth sports, eating out patterns)
- Predict how the school and community influence various health practices of children (after-school activities, variety and nutrition of school lunch)
- Give examples of school/public health policies that influence health promotion and disease prevention (helmet laws)
- Determine how media influences family health behaviors and the selection of health information, products, and services (severe weather alerts, television cooking shows)
- Discuss how various cultures can influence personal health beliefs (foods that are "good" or "bad" for you, health risks from tobacco use)
- Examine how family influences the health of adolescents (family controls media viewing)
- Identify health information conveyed to students by the school and community (healthy body composition: BMI)
- Investigate school and public health policies that influence health promotion and disease prevention (fitness reports for students)
- Examine how media influences peer and community health behaviors (sport beverage commercials)
- Propose ways that technology can influence peer and community health behaviors (heart rate monitors)
- Determine how social norms may impact healthy and unhealthy behavior (walking/biking vs. riding in a vehicle to a close by location)
- Investigate cultural changes related to health beliefs and behaviors (school breakfast programs, fast food menus, nutritional guidelines for snack machines, fitness programs)
- Explain the influence of personal values and beliefs on individual health practices and behaviors (participating in sports)
- Examine how family health behaviors influence health of adolescents (family meals together)
- Examine how peers may influence the health behaviors of adolescents (modeling self-confidence, trying new food)
- Examine how the school and community may influence the health behaviors of adolescents (healthy foods in vending machines)
- Analyze how messages from media influence health behaviors (sports figures promoting fast food)
- Evaluate the influence of technology in locating valid health information (CDC, NIH, NIDA)
- Evaluate how changes in social norms impact healthy and unhealthy behavior (menu items at restaurants)
- Determine how cultural changes related to health beliefs and behaviors impact personal health (Americanization of fast food across the globe)
- Assess the role of family health beliefs on the health of adolescents (importance of physical activity)
- Assess how the health beliefs of peers may influence adolescent health (perception of healthy body composition)
- Analyze how the school and community may influence adolescent health (availability of recreational facilities/programs)
- Research marketing strategies behind health-related media messages (promotion of thinness as the best body type)
- Explain how the perceptions of norms influence healthy and unhealthy behaviors
- Analyze how the family influences the health of individuals (nutritional management of meals)
- Compare how peers influence healthy and unhealthy behaviors (students' recommendations for school vending machines)
- Assess how the school and community can affect personal health practice and behaviors (healthier foods in vending machines)
- Analyze how culture supports and challenges health beliefs, practices, and behaviors (various cultures' dietary patterns)
### Standard 3. Students will demonstrate the ability to access valid information and products and services to enhance health

- Discuss characteristics of valid health information, products, and services
- Evaluate criteria for selecting health resources, products, and services
- Demonstrate the use of a variety of technologies to gather health information *(scale)*
- Examine the validity of health information, products, and services
- Describe valid health information from home, school, and community *(labels)*
- Determine valid and reliable health products and services *(nutrition labels)*
- Determine the cost of health products and services in order to assess value *(individual fitness plan vs. gym membership, private lessons vs. recreational play)*
- Analyze the validity of health information, products, and services
- Access valid health information from home, school, and community
- Access valid and reliable health products and services
- Access a variety of technologies to gather health information
- Evaluate the validity of health information, products, and services
- Access valid health information from home, school, and community
- Access valid and reliable health products and services
- Access a variety of technologies to gather health information
- Verify the validity of health information, products, and services *(diet/nutritional supplement, energy drink, exercise video or equipment, fitness club, environmentalists)*
- Critique valid and reliable health products and services

### Standard 4. Students will demonstrate the ability to use interpersonal communication skills to enhance health and avoid or reduce health risks

- Illustrate techniques of effective verbal and nonverbal communication skills to enhance health
- Determine strategies to improve effective verbal and nonverbal communication skills to enhance health
- Use skills for communicating effectively with family, peers, and others to enhance health
- Illustrate skills necessary for effective communication with family, peers, and others to enhance health
- Explain skills needed to communicate effectively with family, peers, and others to enhance health
Standard 5. Students will demonstrate the ability to use decision-making skills to enhance health

- Investigate circumstances that can help or hinder healthy decision-making (family eating habits)
- Assess the outcomes of a health-related decision (injury risk reduction)
- Predict when health-related situations require the application of a thoughtful decision-making process (selecting nutritious foods)
- Compare circumstances that can help or hinder healthy decision-making
- Distinguish between healthy and unhealthy alternatives to health-related issues or problems (self esteem)
- Propose the potential outcome of each option when making a health-related decision
- Critique the potential outcomes of a health-related decision (eating disorders)
- Determine when health-related situations require the application of a thoughtful prepared plan of action
- Explain circumstances that can help or hinder healthy decision-making
- Distinguish when individual or collaborative decision-making is appropriate (weight management)
- Categorize healthy and unhealthy alternatives to health-related issues or problems (physical activity)
- Compile the potential outcomes of each option when making a health-related decision
- Adopt healthy alternatives over unhealthy alternatives when making a decision (healthy nutrition)
- Evaluate the outcomes of a health-related decision (weight management from proper nutrition)
- Determine the value of applying a thoughtful decision-making process in health-related situations
- Examine barriers that can hinder healthy decision-making
- Assess whether individual or collaborative decision-making is needed to make a healthy decision (purchasing the family's groceries for the week, plan the weekly menu)
- Generate alternatives to health-related issues or problems (health benefits of menu options, physical activity options)
- Appraise the potential short-term and long-term outcomes of each alternative on self and others (nutrition plan based on personal needs and preferences)

Standard 6. Students will demonstrate the ability to use goal-setting skills to enhance health

- Specify a personal health goal and track progress toward achievement (physical activity, eating habits, safety habits, computer use)
- Develop an individual goal to adopt, maintain, or improve a personal health practice (physical activity, eating habits, safety habits, computer use)
- Determine strategies and skills needed to attain a personal health goal (journaling, daily checklists, calorie counting, use of pedometers, participation in support groups, injury prevention measures)
- Monitor progress toward attaining a personal health goal
- Devise an individual goal to adopt, maintain, or improve a personal health practice (participation in organized activities/sports, eating breakfast, safety habits, computer use)
- Explain strategies and skills needed to attain/maintain a personal health goal (journaling, daily checklists, calorie counting, use of pedometers)
- Assess progress toward attaining a personal health goal
- Assess personal health practices (physical activity, injury prevention)
- Design an individual goal to adopt, maintain, or improve a personal health practice (physical activity, eating habits)
- Apply strategies and skills needed to attain a personal health goal (increase physical activity, nutrition modification)
- Describe how personal health goals can vary with changing abilities, priorities, and responsibilities (weight reduction, cost of healthier food, availability of exercise equipment, general health)
- Formulate a plan to attain a personal health goal that addresses strengths, needs, and risks (weight management, comprehensive physical fitness)
- Implement strategies and monitor progress in achieving a personal health goal
- Formulate an effective long-term personal health plan (weight management, healthier eating habits, improved physical fitness)
Standard 7. Students will demonstrate the ability to practice health-enhancing behaviors and avoid or reduce health risks

- Select a healthy option when making decisions for yourself and/or others (use safety equipment)
- Model responsible personal health behaviors (limit television time, choose healthy foods)
- Apply a variety of healthy practices and behaviors to maintain or improve personal health (healthy foods)
- Demonstrate a variety of behaviors that avoid or reduce health risks (bicycle safety, create healthy menus)
- Choose healthy alternatives over unhealthy alternatives when making a decision (limit sedentary activity)
- Use various methods to measure personal health status (BMI, surveys, heart rate monitors, pedometer, blood pressure cuff)
- Explain the importance of assuming responsibility for personal health behaviors
- Demonstrate healthy practices and behaviors that will maintain or improve personal health
- Examine a variety of behaviors that avoid or reduce health risks (fitness)
- Select healthy alternatives over unhealthy alternatives when making a decision
- Analyze personal beliefs as they relate to health practices (weight management through physical activity)
- Examine the importance of assuming responsibility for personal health behaviors (physical activity, eating habits)
- Analyze healthy practices and behaviors that will maintain or improve personal health
- Differentiate a variety of behaviors that avoid or reduce health risks
- Generate healthy practices and behaviors that will maintain or improve personal health (participate in various physical activities)
- Propose a variety of behaviors that avoid or reduce health risks (healthy food choices)
- Employ the healthiest choice when considering all factors in making a decision
- Evaluate personal health practices and overall health status to include all dimensions of health (physical fitness)
- Analyze the role of individual responsibility in enhancing health (fast food choices, future impact of lifestyle choices)
- Demonstrate a variety of healthy practices and behaviors that will maintain or improve health (healthy diet)
- Critique a variety of behaviors that avoid or reduce health risks

Standard 8. Students will demonstrate the ability to advocate for personal, family and community health

- Persuade others to make positive health choices (encourage use of safety equipment)
- State a health-enhancing position on a topic and support it with accurate information
- Practice how to influence and support others when making positive health choices (encourage others to read food labels, promote physical activity)
- Work cooperatively to advocate for healthy individuals, families, and schools
- Identify ways health messages and communication techniques can be targeted for different audiences
- Articulate a position on a topic and support it with accurate health information (nutritional choices)
- Utilize others’ influence and support to promote positive health choices
- Work cooperatively to advocate for healthy individuals, peers, and families
- Analyze ways health messages and communication techniques can be targeted for different audiences
- Justify a health-enhancing position on a topic and support it with accurate information
- Promote positive health choices with the influence and support of others
- Work cooperatively to advocate for healthy individuals, peers, families, and schools
- Evaluate ways health messages and communication techniques can be targeted for different audiences
- Utilize current, accurate data/information to formulate a health-enhancing message
- Demonstrate how to influence and support others in making positive health choices
- Work cooperatively as an advocate for improving personal, family and community health
- Adapt health messages and communication techniques to a specific target audience

Note. Health Education Standards are organized using the following structure:

<table>
<thead>
<tr>
<th>Strand</th>
<th>Standard</th>
<th>Benchmark</th>
<th>Remarks/Examples</th>
</tr>
</thead>
</table>

Most of the standards are written in generic language (not specific to individual health topics), so the healthy eating and physical activity scope and sequence models are combined. Many of the standards include a specific reference to a healthy eating and/or physical activity concept; these module-specific benchmarks are highlighted in bold type.
Table B5. *State of Indiana Concepts and Skills for Healthy Eating and Physical Activity for Grades K–5*

<table>
<thead>
<tr>
<th>Grade K</th>
<th>Grade 1</th>
<th>Grade 2</th>
<th>Grade 3</th>
<th>Grade 4</th>
<th>Grade 5</th>
</tr>
</thead>
</table>

**Standard 1. Students will comprehend concepts related to health promotion and disease prevention**

- Name healthy behaviors (eat breakfast)
- Identify that physical health is one dimension of health and wellness (exercise, eat well)
- Tell how healthy behaviors impact personal health and wellness
- Identify places to play to prevent common childhood injuries (recognize safe places to play)
- Identify that healthy behaviors affect personal health (describe that exercise and healthy eating keep the body strong and healthy)
- List ways to prevent common childhood injuries (list safety rules and equipment to make playing sports activities safe)
- Identify the link between healthy choices and being healthy
- Give examples of physical and emotional health (explain how exercising and eating well help people feel emotionally better)
- Identify how a safe and healthy school environment promotes personal health (tell how the school supports healthy eating behaviors)
- Explain the connection between behaviors and personal health
- Summarize ways in which a safe and healthy community environment can promote health
- Explain ways to prevent common health problems (explain safety rules and equipment to reduce the risk of swimming injuries and drowning)
- Identify the relationship between healthy behaviors and personal health
- Describe the relationship between healthy behaviors and personal health
- Identify examples of emotional, intellectual, physical and social health
- Describe ways in which a safe and healthy school and community environment can promote personal health (explain how bike paths, walking trails, sidewalks, etc. can promote physical activity)

**Standard 2. Students will analyze the influence of family, peers, culture, media, technology and other factors on health behaviors**
Identify how the family influences personal health practices (name physical activities in which you have seen family members participate)

Recall what the school can do to support personal health practices

State how the media influences behaviors (name words (slogans, jingles, etc.) used in commercials to see food items)

Describe how the family influences personal health behaviors (describe a family member modeling healthy behavior (eating healthy foods) and/or state the physical activities that a family does together and how this influences the health of family members)

Recognize what the school can do to support personal health behaviors

Identify how the media can influence health behaviors (identify how television commercials and magazine advertisements influence food purchases)

Describe how the family influences personal health practices and behaviors (tell the physical activities that family members do to enhance health and wellness)

Identify what the school can do to support personal health practices and behaviors

Describe how the media can influence health behaviors (describe how a nutrition-related media message can entice a person to buy a food item)

Recall how the family influences personal health and wellness practices

Observe the influence of culture on health practices

State how peers can influence healthy behaviors (tell ways to invite or include peers when playing at recess or after school)

Discuss how the school can support personal health behaviors (discuss how physical education teachers encourage children to be physically active)

Identify how the community can support personal health practices (list ways the community provides opportunities for children to participate in physical activity)

Describe how media and technology influence health behaviors (describe how television commercials and magazine advertisements influence food purchases)

Identify how the family influences personal health and behaviors

Illustrate the influence of culture on health and behaviors (draw and label meals from different cultures)

Determine how peers can influence unhealthy behaviors and promote wellness (give examples of how peers can influence an inactive peer to be more physically active)

Identify how the community can support personal health practices (list ways the community provides opportunities for children to participate in physical activity)

Describe how the school and community can support personal health practices and behaviors (explain how school and community support physical activities through physical education, recess, intramural sports, parks, bike/walk paths, skate parks, etc.)

Explain how the media influences thoughts, feelings and health behaviors

Describe ways technology can influence personal health (analyze ways the internet impacts health (limiting time for activity, abundance of resources creating difficulty identifying valid and reliable health information))
Standard 3. Students will demonstrate the ability to access valid information and products and services to enhance health

- Name a person who can help promote health and wellness
- Choose a professional who can help promote health and wellness
- Identify trusted adults and professionals who can help promote health (determine who to go to when you have a playground injury)
- Identify ways to locate school and community health helpers
- State characteristics of valid health products and services
- Name resources from home and school that provide valid health information
- Recognize characteristics of valid health information and services
- Identify resources from the community that provide valid health and wellness information (demonstrate the ability to use the internet to find government sources of nutrition information)
- Identify characteristics of valid health information, products and services
- Locate resources from home, school and community that provide valid health information

Standard 4. Students will demonstrate the ability to use interpersonal communication skills to enhance health and avoid or reduce health risks

- Identify healthy ways to express needs
- State listening skills
- Describe healthy ways to express needs, wants and feelings
- Identify listening skills related to health
- Demonstrate healthy ways to express needs, wants and feelings
- Demonstrate listening skills to enhance health
- Name effective nonverbal communication skills to enhance health and wellness
- Identify refusal strategies that reduce health risks (tell how to politely refuse a snack or second helping when feeling full)
- Explain effective verbal communication skills to enhance health
- Show refusal skills that avoid health risks
- Model how to ask for support to enhance personal health and wellness
- Demonstrate effective verbal and nonverbal communication skills to enhance health
- Demonstrate refusal skills that avoid or reduce health risks (demonstrate how to refuse a food)
- Demonstrate nonviolent strategies to manage or resolve conflict (propose a compromise when two classmates want to use the same equipment or disagree about game rules)
- Demonstrate how to ask for assistance to enhance personal health
### Standard 5. Students will demonstrate the ability to use decision-making skills to enhance health

- Identify health-related situations
- Describe a health-related decision (describe the difference between an “always” and a “sometimes” snack)
- Identify situations when a health-related decision is needed (identify how the food guide pyramid can be used to select a snack, safe walking practices)
- Indicate routine health-related situations
- Tell options to health-related issues or problems (state ways to get friends to be physically active during recess)
- Indicate the possible consequences of each choice when making a health-related decision
- Identify a healthy choice when making a decision (identify a healthy after-school snack)
- Explain situations that may require a thoughtful health-related decision
- Identify healthy alternatives to health-related issues or problems (tell how to exercise safely in a variety of weather conditions)
- Describe the possible outcomes of each option when making a health-related decision (describe the possible outcomes of strategies for practicing swimming safety (swim with a buddy, dive only where permitted))
- Determine a healthy alternative when making a decision (determine a healthy option from a list of party foods)
- Identify health-related situations that may require a thoughtful decision
- List healthy options to health-related issues or problems (list suggestions for lifelong physical activities)
- Predict the possible outcomes of each option when making a health-related decision (predict the consequences of various safety practices when riding a bike (helmet use, hand signals, etc.)
- Choose a healthy option when making a decision (make a healthier selection when eating at a fast food restaurant)
- Describe the outcomes of a health-related decision

### Standard 6. Students will demonstrate the ability to use goal-setting skills to enhance health

- Name personal health and wellness goals (daily physical activity, eating a balanced diet)
- Name who can help achieve a personal health goal (who can help when planning to be physically active after school)
- Name actions to take toward achieving a short-term health goal (state a goal to eat five or more fruits and vegetables per day and use a chart to track intake)
- Identify who can help achieve a personal health goal (identify who can help in achieving a goal related to healthy eating)
- Identify a short-term personal health goal and take action toward achieving the goal
- Identify who can help when assistance is needed to achieve a personal health goal
- Select a personal health goal and track progress
- Recognize resources to achieve a personal goal (Standard 2)
- Plan a personal health goal and how to monitor its progress (plan a goal to consume more fruits and vegetables and use a chart to track intake)
- Discuss resources to help achieve a personal health goal (Standard 2)
- Set a personal health goal and track progress towards its achievement
- Identify resources to assist in achieving a personal health goal (Standard 2)
### Standard 7. Students will demonstrate the ability to practice health-enhancing behaviors and avoid or reduce health risks

- Identify healthy behaviors to improve personal health and wellness **(draw a picture of how family members can stay strong by being physically active)**
- Describe healthy practices to maintain personal health and wellness
- Describe behaviors that reduce health risks
- Demonstrate healthy practices and behaviors to maintain or improve personal health
- Demonstrate behaviors that avoid or reduce health risks **(demonstrate bicycle safety skills)**
- Name healthy behaviors (Standard 1)
- Identify a healthy practice to maintain personal health and wellness
- Recognize actions to avoid health risks
- Describe behaviors to reduce health risks
- Demonstrate healthy practices and behaviors to maintain or improve personal health
- Demonstrate behaviors that avoid or reduce health risks **(demonstrate bicycle safety skills)**
- Identify responsible personal health behaviors (Standard 1)**(illustrate behaviors (proper eating) that prevent the spread of disease)**
- Demonstrate a variety of healthy practices and behaviors to maintain or improve personal health
- Demonstrate a variety of behaviors to avoid or reduce health risks

### Standard 8. Students will demonstrate the ability to advocate for personal, family and community health

- Repeat rules that promote personal health
- Tell how peers can make positive choices
- Identify ways to promote health and wellness **(tell how to be safe when participating in wheeled activities)**
- Assist peers to make positive choices
- Make requests to promote personal health **(ask a parent to walk to school to increase physical activity or to make a healthy meal at home)**
- Encourage peers to make positive health choices **(design a poster to encourage peers to eat healthy snack foods)**
- Share correct information about a health issue **(illustrate the benefits of being physically active)**
- Tell how to help others make positive choices **(create a rhyme to encourage others to eat healthy snacks, use stairs)**
- Give accurate information about a health issue **(illustrate how to assist others to make positive health choices)**
- Express opinions and give accurate information about health issues
- Encourage others to make positive health choices

*Note.* State standards are written in generic language (not specific to individual health topics), so the healthy eating and physical activity scope and sequence models are combined. Specific references to healthy eating and physical activity examples are included in bold type. **HECAT notes.** Benchmarks are written in very general terms so that they can be applied for multiple topics (nutrition, physical activity, substance use/abuse, human sexuality). A specific application is offered for each benchmark, but these examples are far from comprehensive. Fundamental concepts of nutrition are not covered in the standards; general skills and strategies are covered.
Table B6. State of Indiana Concepts and Skills for Healthy Eating and Physical Activity for Grades 6–Advanced

<table>
<thead>
<tr>
<th>Grade 6</th>
<th>Grade 7</th>
<th>Grade 8</th>
<th>Grades 9–12</th>
<th>Advanced health and wellness</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Standard 1. Students will comprehend concepts related to health promotion and disease prevention</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- Compare how healthy behaviors and personal health are linked
- Examine how one’s surroundings impact health and wellness
- Identify how family culture or beliefs can impact personal health (Standard 2)
- List ways to reduce or prevent injuries (list equipment and safety steps to use when participating in any wheeled sport activity)
- Identify the benefits of practicing healthy behaviors
- Describe the likelihood of injuries or illnesses if engaging in unhealthy behaviors
- Examine how healthy behaviors influence personal health (examine results of personal fitness plan and importance of exercise in maintaining optimal health and wellness)
- Summarize the interrelationships of emotional, social and physical health in adolescence
- Discover how the environment can impact personal health
- Cite how family heredity can impact personal health
- List ways to reduce or prevent injuries (list equipment and safety steps to use when participating in any wheeled sport activity)
- Identify the benefits of practicing healthy behaviors
- Describe the likelihood of injuries or illnesses if engaging in unhealthy behaviors
- Analyze the relationship between healthy behaviors and personal health (investigate relationship between physical activity and healthy eating to maintain/enhance personal health)
- Describe the interrelationships of emotional, intellectual, physical and social health in adolescence
- Analyze how the environment impacts personal health
- Describe how family history can impact personal health
- Describe ways to reduce or prevent adolescent health problems and injuries
- Describe the benefits of and barriers to practicing healthy behaviors
- Examine the likelihood of injury or illness if engaging in unhealthy behaviors
- Document how personal behaviors can impact health
- Explain the interrelationships of emotional, social and physical health in adolescence
- Explain how the environment and health are connected
- Examine the impact that genetics can have on personal health
- Formulate ways to prevent or reduce the risk of health problems
- Summarize the benefits and barriers to practicing healthy behaviors
- Predict susceptibility to injury or illness if engaging in unhealthy behaviors
- Discover the severity of illness if engaging in unhealthy behaviors
- Summarize the benefits and barriers to practicing healthy behaviors
- Predict how healthy behaviors can impact health status
- Describe the interrelationships of emotional, intellectual, physical and social health
- Analyze how environment and personal health are interrelated
- Analyze how genetics and family history can affect personal health
- Propose ways to reduce or prevent injuries and health problems
- Compare and contrast the benefits of and barriers to practicing a variety of healthy behaviors (compare and contrast benefits and barriers of working out at gym vs. home)
- Analyze personal susceptibility to injury, illness or death if engaging in unhealthy behaviors
- Analyze the potential severity of injury or illness if engaging in unhealthy behaviors
Standard 2. Students will analyze the influence of family, peers, culture, media, technology and other factors on health behaviors

- Identify how family practices influence the health of adolescents
- Identify the influence of culture on health beliefs and practices
- Explain how peers influence healthy behaviors
- Identify how the community can affect personal health practices and behaviors
- Discuss how media messages influence health behavior
- Explain the influences of technology on family health
- Identify norms that influence health behaviors (eating fast food)
- List the influence of personal values on health practices
- Identify how some health choices influence unhealthy behaviors (Standard 5)
- Describe how school policies can influence health promotion (describe changes in the school lunch menu and vending machines as a result of implementing School Wellness Policy)

- Describe how family values and behaviors influence the health of adolescents
- Discuss the influence of culture on health behaviors (identify how culture conveys messages about body image)
- Discuss how peers influence unhealthy behaviors
- Identify how the school can affect personal health practices and behaviors
- Examine how information from the media influences health behaviors (describe how media sends mixed messages about nutrition (indulge vs. thin is in))
- Interpret the influence of technology on personal health (interpret how new technology can help people monitor individual health (home cholesterol, blood pressure kits))
- Indicate how the perceptions of norms influence healthy and unhealthy behaviors
- Describe the influence of personal beliefs on health practices and behaviors
- Identify how public health policies can influence disease prevention
- Examine how family influences the health of adolescents
- Describe the influence of culture on health beliefs, practices and behavior
- Describe how peers influence healthy and unhealthy behaviors
- Analyze how the school and community can affect personal health practices and behaviors
- Analyze how messages from the media influence health behaviors (analyze approaches used to convey messages through media to influence eating behaviors and food selection)
- Analyze the influence of technology on personal and family health
- Explain how the perceptions of norms influence healthy and unhealthy behaviors
- Explain the influence of personal values and beliefs on individual health practices and behaviors
- Describe the influence of personal health policies and behaviors can influence health promotion and disease prevention (identify healthier food choices that students make as a result of School Wellness Policy)
- Examine how the family impacts the health of individuals
- Examine how society supports and challenges health beliefs, practices and behaviors (describe how societal/cultural beliefs influence vegetarian diets)
- Examine how adolescents influence healthy and unhealthy behaviors
- Assess how the school and community can influence health practices and behaviors
- Analyze the effect of media on personal health
- Analyze the impact of technology on personal and family health
- Explain how norms influence health-related behaviors (recognize how perceived norms may not reflect actual health behaviors (physical activity))
- Determine the influence of personal values on health practices and behaviors (discover how personal values influence eating and exercise behaviors)
- Examine how public health policies and government regulations can influence health promotion and disease prevention
- Analyze how the family influences the health of individuals
- Analyze how culture supports and challenges health beliefs, practices and behaviors
- Analyze how peers influence healthy and unhealthy behaviors
- Evaluate how the school and community can impact personal health practices and behaviors
- Evaluate the effect of media on personal health
- Identify norms that influence health behaviors (eating fast food)
- List the influence of personal values on health practices
- Identify how some health choices influence unhealthy behaviors (Standard 5)
- Describe how school policies can influence health promotion (describe changes in the school lunch menu and vending machines as a result of implementing School Wellness Policy)
Standard 3. Students will demonstrate the ability to access valid information and products and services to enhance health

- Indicate the validity of health products
- Find valid health information from home
- List the accessibility of health-related products (list where a user/consumer could find protective gear for wheeled sport activities)
- Recognize circumstances that may require professional health services
- Find valid and reliable health services

- Explain the validity of health information
- Locate valid health information from school or community
- Identify how to access products that enhance health
- Determine situations that require health services
- Select valid and reliable health products

- Analyze the validity of health information, products and services (analyze quality of weight loss programs (gradual weight loss, qualified staff, promote healthy eating/physical activity))
- Access valid health information from home, school or community
- Determine the accessibility of products that enhance health (determine the vitamin and mineral supplements that have been approved by the FDA)
- Describe situations that may require professional health services
- Locate valid and reliable health products and services

- Assess how to determine the validity of health information, products and services
- Utilize resources from school and community that provide valid health information
- Investigate the accessibility of products and services that enhance health (investigate accessibility of school and community programs, spaces and facilities for physical activity)
- Examine when professional health services may be required (identify when eating/weight loss techniques may not be positive and require professional health services)
- Select valid and reliable health products and services

- Evaluate the validity of health information, products and services
- Use resources from home, school and community that provide valid health information
- Determine the accessibility of products and services that enhance health
- Determine when professional health services may be required (determine when a friend has problems with unhealthy eating behaviors and help him/her seek professional health services)
- Access valid and reliable health products and services (access valid and reliable health products and services in the community and on the internet (healthy diets, weight management, nutritional supplements, nutritionists, etc.))

Standard 4. Students will demonstrate the ability to use interpersonal communication skills to enhance health and avoid or reduce health risks

- Investigate effective communication skills to enhance health
- Choose refusal skills to avoid or reduce health risks
- Choose how to ask for assistance to enhance the health of self
- Demonstrate effective communication skills to enhance health
- Model refusal and negotiation skills to avoid or reduce health risks
- Model how to ask for assistance to enhance the health of others

- Apply effective verbal and non-verbal communication skills to enhance health
- Demonstrate refusal and negotiation skills to avoid or reduce health risks
- Demonstrate how to ask for assistance to enhance the health of self and others

- Model skills for communicating effectively with others to enhance health
- Apply refusal, negotiation and collaboration skills to enhance health and avoid or reduce health risks
- Illustrate how to offer assistance to enhance the health of self and others

- Use skills for communicating effectively with family, peers and others to enhance health
- Demonstrate refusal, negotiation and collaboration skills to enhance health and avoid or reduce health risks
- Demonstrate how to ask for and offer assistance to enhance the health of self and others (demonstrate how a friend can seek professional assistance for an eating disorder)
Standard 5. Students will demonstrate the ability to use decision-making skills to enhance health

- Name conditions that can help or hinder healthy decision making (list how wearing safety equipment when skating or 4-wheeling can assist with making a health-enhancing decision)
- Explain when health-related situations require a thoughtful decision-making process
- Explain when individual or adult-supported decision making is appropriate (family meal planning)
- Identify healthy and unhealthy options to health-related issues or problems
- Describe the short-term impact of each choice on self and others
- Distinguish healthy options over unhealthy options when making a decision (distinguish between nutrient dense and foods that are low in nutrients when selecting a snack)
- Predict the results of a health-related decision

- Describe situations that can help or hinder healthy decision-making
- Recognize when health-related situations require a thoughtful decision-making process
- Determine when independent or collaborative decision making process is appropriate (determine nutrition decisions that can be made individually and those that require input from others (what to purchase from a vending machine vs. what to stock in the vending machine))
- Explain the potential short-term impact of each option on self and others
- Choose healthy alternatives over unhealthy alternatives when making a decision (choose a balanced/nutritious meal when selecting breakfast and/or lunch items at school)
- Analyze how some health risk behaviors can influence the likelihood of engaging in unhealthy behaviors

- Identify circumstances that can help or hinder healthy decision-making
- Determine when health-related situations require a thoughtful decision-making process
- Distinguish when independent or collaborative decision making is appropriate (debate the school food policy)
- Predict the potential short-term impact of each alternative on self and others
- Choose healthy alternatives over unhealthy alternatives when making a decision
- Describe how some health risk behaviors can influence the likelihood of engaging in unhealthy behaviors

- Determine barriers to healthy decision making
- Outline the value of applying a thoughtful decision-making process to a health-related situation
- Assess when independent or collaborative decision making is appropriate
- Propose alternative choices to health-related issues or problems
- Analyze the potential short and long-term outcomes of each alternative on self and others
- Determine the health-enhancing choice when making decisions

- Examine barriers that can hinder healthy decision making
- Determine the value of applying a thoughtful decision-making process in health-related situations
- Justify when individual or collaborative decision making is appropriate
- Generate alternatives to health-related issues or problems
- Predict the potential short and long-term impact of each alternative on self and others
- Defend the healthy choice when making decisions

- Evaluate the effectiveness of health-related decisions
- Analyze how some health risk behaviors can influence the likelihood of engaging in unhealthy behaviors

- Assess the decision of how to help a friend who has an eating disorder
- Examine how some health risk behaviors can influence the likelihood of taking part in other unhealthy behaviors
### Standard 6. Students will demonstrate the ability to use goal-setting skills to enhance health

- Examine personal health behaviors (examine current physical activity behaviors (type, frequency, intensity, etc.))
- Identify a goal to adopt a personal health practice (adopt a personal health practice for safety during wheeled sport activities (helmet, pads, proper clothing, etc.))
- Develop strategies to achieve a personal health goal (develop a goal to drink at least eight glasses of water per day)
- Explain how personal health goals can vary with priorities (explain how dietary goals might be modified due to a cultural or religious holiday)
- Analyze the effectiveness of personal health practices
- Select a goal to improve a personal health practice
- Demonstrate skills needed to attain a personal health goal
- Discuss how personal health goals can vary with changing abilities or responsibilities (preparing a meal)
- Assess personal health practices
- Develop a goal to adopt, maintain or improve a personal health practice
- Apply strategies needed to attain a personal health goal
- Apply strategies and skills to replace 30 minutes of television/screen time with physical activity (develop plan, establish support network, build in rewards)
- Describe how personal health goals can vary with changing abilities, priorities and responsibilities (describe how physical activity goals might need to be modified due to illness or injury)
- Evaluate personal health practices and overall health
- Formulate a plan to achieve a health goal that addresses strengths, needs and risks
- Formulate a plan to maintain recommended levels of physical activity based on strengths, needs and risks (interests, equipment, space, environmental barriers, etc.)
- Demonstrate strategies and document progress to achieve a personal health goal
- Determine an effective long-term personal health plan
- Assess personal health practices and overall health status (assess a plan for achieving a healthy eating habits goal by referring to the Healthy Eating Index through the USDA)
- Develop a plan to attain a personal health goal that addresses strengths, needs and risks
- Implement strategies and monitor progress in achieving a personal health goal
- Formulate an effective long-term personal health plan

### Standard 7. Students will demonstrate the ability to practice health-enhancing behaviors and avoid or reduce health risks

- Identify the importance of being responsible for health behaviors (state how eating, physical activity can impact future health)
- Indicate healthy behaviors that will maintain or improve the health of self and others (show how being physically active can increase the likelihood of being a non-smoker)
- Identify practices to avoid or reduce health risks to self and others
- Show the importance of being accountable for personal health behaviors
- Describe healthy practices and behaviors that will maintain or improve the health of self and others (describe a personal fitness program and the benefits of such a program (strength and endurance, flexibility, FIT))
- Describe behaviors to avoid or reduce health risks to self and others
- Explain the importance of assuming responsibility for personal health behaviors (predict how today’s choices can influence one’s health (exercise-obesity, diabetes))
- Demonstrate healthy practices and behaviors that will maintain or improve the health of self and others
- Demonstrate behaviors to avoid or reduce health risks to self or others (develop plan to avoid risks of cancer (low fat diet))
- Examine individual responsibility for improving health (participate in personal health assessments (BMI, fitness, nutrition))
- Illustrate a variety of healthy practices that will maintain or improve health
- Model behaviors to reduce health risks
- Analyze the role of individual responsibility for enhancing health (make inferences from personal health assessments to determine possible strategies for enhancing one’s health)
- Demonstrate a variety of healthy practices and behaviors that will maintain or improve the health of self and others
- Demonstrate a variety of behaviors that avoid or reduce health risks to self and others
Standard 8. Students will demonstrate the ability to advocate for personal, family and community health

- State a health position and support it with accurate information (write a PSA that supports healthy eating (eat more fruits and vegetables, eat calcium rich foods, etc.))
- Show how to support others to make positive health choices
- Plan with others to advocate for healthy individuals
- State ways that health messages can be altered for different age groups
- Select a health-enhancing position and support it with accurate information
- Demonstrate how to influence and support others to make positive health choices (create a banner to encourage others to be physically active)
- Work with others to advocate for healthy individuals and families
- Explain ways that health messages can be altered for different audiences (create posters for the cafeteria encouraging students to make healthy eating choices while respecting personal values)
- State a health-enhancing position on a topic and support it with accurate information
- Demonstrate how to influence and support others to make positive health choices
- Work cooperatively to advocate for healthy individuals, families and schools
- Identify ways that health messages and communication techniques can be altered to different audiences (use paper grocery sacks to present facts/illustrations promoting physical activity)
- Apply accurate peer and societal norms to formulate a health-enhancing message
- Model how to influence and support others to make positive health choices
- Work with others to advocate for improving personal, family and community health (work with peers to develop a petition to advocate for healthier vending and concession stand choices)
- Modify health messages and communication techniques to a specific target audience
- Use accurate peer and societal norms to formulate a health-enhancing message
- Demonstrate how to influence and support others to make positive health choices
- Work cooperatively as an advocate for improving personal, family and community health (work with classmates to create a presentation for the school board to advocate for access to school spaces and facilities for physical activity during non-school hours)
- Adapt health messages and communication techniques to a specific target audience

Note. The majority of this state’s standards are written in generic language (not specific to individual health topics), so the healthy eating and physical activity scope and sequence models are combined. Specific references to healthy eating and physical activity examples are included in bold type.

HECAT notes. Healthy Eating—Standard 1: Standards are written in general terms, with random examples of how a benchmark might be applied for individual health content areas (example, nutrition, physical activity, alcohol and drug use, sexual health, stress, etc.); checked boxes reflect concepts that are specifically mentioned, but it should be noted that there is little continuity or progression among benchmarks and standards. Standards 2 through 8: Scores reflect that this state’s standards do an excellent job identifying the skills necessary to meet each standard and offer at least two specific applications of use of these skills for healthy eating topics; as with the content, there is no continuity or progression among these skill examples. Physical Activity—Standard 1: Consistent with the coverage of healthy eating topics, specific concepts of physical activity appear intermittently throughout the standards. Standards 2 through 8: Without exception, the sub-skills for each standard are comprehensively included and addressed; there are at least two specific examples of application of the skill relative to physical activity for each standard. Benchmarks for Standard 7 include mention of self-assessment; self-assessment resources are not available for any of the other standards.

Summary. This state clearly has chosen to utilize the National health Education Standards as a framework and does an excellent job including the sub-skills through which one might demonstrate achievement of the standard. Unfortunately, the state has made a limited effort to apply these standards and benchmarks (skills) to specific health content areas. The burden is on teachers, schools and districts to identify resources, strategies and evaluation materials specific to health topics (in this case, healthy eating) to meet each standard. This document provides little to no information that is not already available in the NHES or HECAT.
Table B7. *State of Louisiana Benchmarks for Healthy Eating and Physical Activity for Grades K–12*

<table>
<thead>
<tr>
<th>Grades K-4</th>
<th>Grades 5-8</th>
<th>Grades 9-12</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Standard 1. Students will comprehend concepts related to health promotion and disease prevention</strong></td>
<td><strong>Evaluate healthy and unhealthy lifestyles (e.g., preventive health measures, physical fitness, nutrition, obesity, eating disorders, stress, etc.)</strong></td>
<td><strong>Analyze the impact of behavior on health maintenance and disease prevention</strong> <strong>Explain the impact of personal health behaviors on the functioning of body systems</strong></td>
</tr>
<tr>
<td>• Demonstrate personal health habits that promote optimal health (i.e., good nutrition, brushing teeth, washing hands, exercise, etc.)</td>
<td>• Evaluate healthy and unhealthy lifestyles (e.g., preventive health measures, physical fitness, nutrition, obesity, eating disorders, stress, etc.)</td>
<td>• Analyze the impact of behavior on health maintenance and disease prevention <strong>Explain the impact of personal health behaviors on the functioning of body systems</strong></td>
</tr>
<tr>
<td><strong>Standard 2. Students will analyze the influence of family, peers, culture, media, technology and other factors on health behaviors</strong></td>
<td><strong>Identify how media influences the selection of health information and products</strong> <strong>Examine the effectiveness of health products and services (e.g., sun blocks, cosmetics, over-the-counter medicines, etc.).</strong> <strong>Investigate the impact of media (e.g., television, newspaper, billboards, magazines, Internet) on positive and negative health behaviors;</strong></td>
<td><strong>Describe the influence of family, peers, and community on the health of individuals</strong> <strong>Investigate how cultural diversity and economy enrich and challenge health behaviors</strong> <strong>Evaluate the impact of technology and media on personal, family, community, and world health</strong> <strong>Explain how information from peers, family and community influence health</strong></td>
</tr>
<tr>
<td>• Explain how physical, social and emotional environments influence personal health</td>
<td>• Identify how media influences the selection of health information and products</td>
<td>• Describe the influence of family, peers, and community on the health of individuals</td>
</tr>
<tr>
<td>• Explain how media influences the selection of health information, products, and services</td>
<td>• Examine the effectiveness of health products and services (e.g., sun blocks, cosmetics, over-the-counter medicines, etc.).</td>
<td>• Investigate how cultural diversity and economy enrich and challenge health behaviors</td>
</tr>
<tr>
<td>• Describe how culture influences personal health behaviors</td>
<td>• Investigate the impact of media (e.g., television, newspaper, billboards, magazines, Internet) on positive and negative health behaviors;</td>
<td>• Evaluate the impact of technology and media on personal, family, community, and world health</td>
</tr>
<tr>
<td>• Explain how media influences thoughts, feelings, and health behaviors</td>
<td>• Describe the ways that technology affects health (e.g., video games, computers, high-technological medical equipment, etc)</td>
<td>• Explain how information from peers, family and community influence health</td>
</tr>
<tr>
<td>• Demonstrate ways that home health care technology can influence personal health (blood glucose level monitors, blood pressure monitors, <strong>diet evaluation software, on-line medical sites, etc.</strong>);</td>
<td>• Assess ways in which various media influence buying decisions (e.g., health products, medicines, <strong>food</strong>).</td>
<td></td>
</tr>
<tr>
<td>• Discuss how information from school and family influences health</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Standard 3. Students will demonstrate the ability to access valid information and products and services to enhance health</strong></td>
<td><strong>Identify characteristics of valid health information and health-promoting products and services;</strong></td>
<td><strong>Evaluate the validity of health information, products, and services using a variety of resources</strong></td>
</tr>
<tr>
<td>• Locate valid health information using various sources (e.g., Internet, videos, print, television, etc.)</td>
<td>• Demonstrate the ability to locate resources from home, school and community that provide valid health information</td>
<td>• Identify school and community health services available for self and others;</td>
</tr>
<tr>
<td></td>
<td>• Demonstrate the ability to locate school and community health resources.</td>
<td>• Examine mental, social, and physical conditions requiring professional health services (e.g., obesity, eating disorders, suicidal tendencies, depression, drug/alcohol abuse, diabetes, heart attack, burns, etc.).</td>
</tr>
</tbody>
</table>
### Standard 4. Students will demonstrate the ability to use interpersonal communication skills to enhance health and avoid or reduce health risks

- Demonstrate refusal skills to enhance health
- Demonstrate refusal and conflict resolution skills to develop and maintain healthy relationships with peers, family and others in socially acceptable ways
- Plan and demonstrate refusal, negotiation, and collaboration skills to avoid potentially harmful situations

### Standard 5. Students will demonstrate the ability to use decision-making skills to enhance health

- Apply a decision-making process to address personal health issues and problems
- Demonstrate positive decision-making and problem-solving skills
- Demonstrate the ability to use critical thinking when making decisions related to health needs and risks of young adults
- Predict immediate and long-term impact of health decisions on the individual, family and community

### Standard 6. Students will demonstrate the ability to use goal-setting skills to enhance health

- Establish personal health goals and track progress toward its achievement
- Identify personal health needs and develop long-term goals for a healthy lifestyle
- Develop strategies and skills for attaining personal health goals.
- Identify personal goals for improving or maintaining lifelong personal health
- Formulate a plan and evaluate the progress for attaining personal health goals

### Standard 7. Students will demonstrate the ability to practice health-enhancing behaviors and avoid or reduce health risks

- Identify personal health needs
- Demonstrate responsible personal health behaviors
- Illustrate safety/injury prevention techniques related to daily activities
- Examine physical fitness assessments and their role in developing a personal wellness program
- Describe the role of individual responsibility for enhancing health by analyzing the short-term and long-term consequences of behaviors throughout the life span (safe, high-risk, and harmful behaviors)
- Evaluate a personal health survey to determine strategies for health enhancement and risk reduction

### Standard 8. Students will demonstrate the ability to advocate for personal, family and community health

- Recognize basic job functions of community and school health service providers
- Demonstrate the ability to communicate information that promotes positive health choices.
- Develop strategies to encourage and influence others in making positive health choices (e.g., healthy food choices, abstaining from alcohol, tobacco, and illegal drug use, etc.).
- Demonstrate the ability to work cooperatively when advocating for healthy individuals, families, and schools
- Effectively communicate concerns and information about immediate and/or long-term impact of health decisions in order to influence others
- Demonstrate techniques that influence and support others in making positive health choices (positive peer pressure)

Note. HECAT evaluation levels are modified for this state; assessments based on grades 4, 8 and 12 instead of 2, 5, 8 and 12. Standards 1-8: All of the NHES standards are represented within this curriculum. Benchmarks are written in very vague terms; there is only one benchmark that applies specifically to a concept of physical activity (benchmark for standard 7, grades 5-8). All other benchmarks are written in generic terms, with limited references to healthy eating or physical activity applications (specific references in only 5 benchmarks).
<table>
<thead>
<tr>
<th>Standard</th>
<th>Grade PreK</th>
<th>Grade K</th>
<th>Grade 1</th>
<th>Grade 2</th>
<th>Grade 3</th>
<th>Grade 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Responses to Food</td>
<td>1. Identify the relationship between food and the senses</td>
<td>- Recognize that foods have different tastes such as sweet, sour, bitter and salty</td>
<td>E. Food and Health</td>
<td>1. Recognize the relationship between food and health</td>
<td>- Tell why the body needs food</td>
<td></td>
</tr>
<tr>
<td>A. Responses to Food</td>
<td>1. Identify the relationship between food and the senses</td>
<td>- Compare foods that have different smells</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B. Food Production</td>
<td>1. Tell the source of different foods</td>
<td>- Identify foods that come from different sources such as plant and animal</td>
<td>C. Manners</td>
<td>1. Define proper eating manners</td>
<td>- Demonstrate proper eating manners such as chew with your mouth closed, don't talk with your mouth full, don't reach across the table and don't grab food from others' plates</td>
<td></td>
</tr>
<tr>
<td>E. Food and Health</td>
<td>1. Explain how food affects the body</td>
<td></td>
<td>F. Nutrition and Physical Activity Guidelines</td>
<td>1. Recognize that foods are categorized into groups</td>
<td>- Recognize the My Pyramid as an outline for healthy eating</td>
<td>- Explain the location of the food groups on the My Pyramid</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>- Explain how to improve or maintain personal health</td>
<td>- Describe ways to promote dental health such as brushing and flossing teeth, visiting dentist and eating healthy foods (PCH)</td>
</tr>
</tbody>
</table>

### D. Nutrients

1. Define nutrient
- List the six major nutrients: water, fat, vitamins, minerals, carbohydrates and protein
- Name a food source for each nutrient

### E. Food and Health

1. Explain the relationship between personal fitness and a healthy lifestyle
- Discuss the importance of physical fitness and what it means to each individual

### F. Nutrition and Physical Activity Guidelines

2. Analyze the Nutrition Facts Label
- Identify the information provided on the nutrition facts label
- Compare the relationship between serving size and servings per container

### G. Body Image

1. Identify and describe body image
- Define body image
- Explain how internal and external influences impact body image

### I. Goal Setting

1. Apply information from the My Pyramid to choose a healthy breakfast
- Explain the importance of breakfast in relation to a healthy body

### F. Nutrition and Physical Activity Guidelines
Standard 2. Students will analyze the influence of family, peers, culture, media, technology and other factors on health behaviors

<table>
<thead>
<tr>
<th>E. Food and Health</th>
<th>1. Recognize the relationship between food and health</th>
<th>Discuss how media influences food choices</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2. Discuss strategies to stay safe on a bike or skates by following traffic signs and wearing a helmet (SIP)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>C. Components of Personal Well-being</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1. Identify how the emotional and physical human needs such as shelter, food, water and love (MEH)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>D. Caffeine</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1. Identify caffeine as a drug</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- List products that contain caffeine</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Suggest alternative products which do not contain caffeine (ATD)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>F. Nutrition and Physical Activity Guidelines</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1. Summarize the Dietary Guidelines for Americans</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Explain each of the dietary guidelines</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2. Analyze the Nutrition Facts Label</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Examine the nutrition facts label to locate specific components</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Compare nutrient information on a variety of food labels</td>
<td></td>
</tr>
<tr>
<td></td>
<td>G. Body Image</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1. Identify and describe body image</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Explain how internal and external influences impact body image</td>
<td></td>
</tr>
<tr>
<td></td>
<td>B. Information, Products and Services</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1. Locate resources that provide valid health information concerning consumer health issues and services</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Identify various advertising techniques used in different media sources to sell health products (PCH)</td>
<td></td>
</tr>
</tbody>
</table>

Procedures

1. Identify ways to stay safe outdoors |
2. Discuss factors that affect a person’s weight such as age, gender, height, family, society, activity level and illness |

D. Decision Making |
1. Examine the steps in the decision-making process |
2. Explain how decisions are influenced by individuals, families and communities (MEH) |

B. Prevention Practices |
1. Identify ways to reduce risk for becoming sick |
- Describe when hands should be washed such as before preparing/eating food, after restroom use and other appropriate times (PCH) |

C. Components of Personal Well-being |
1. Identify the components to promote personal well-being |
- Discuss factors that affect a person’s weight such as age, gender, height, family, society, activity level and illness |

D. Caffeine |
1. Identify caffeine as a drug |
- List products that contain caffeine |
- Suggest alternative products which do not contain caffeine (ATD)
Standard 3. Students will demonstrate the ability to access valid information and products and services to enhance health

<table>
<thead>
<tr>
<th>B. Information, Products and Services</th>
<th>F. Nutrition and Physical Activity Guidelines</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Identify health services available in the school - List people in the school that provide care such as school nurse, counselors, doctors and clinic workers (PCH)</td>
<td>2. Analyze the Nutrition Facts Label - Explain why the nutrition facts label is a valid source of information</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>B. Information, Products and Services</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Locate resources that provide valid health information concerning consumer health issues and services - Identify the health services available in the school and community - Analyze various media messages for valid health information - Identify various advertising techniques used in different media sources to sell health products - Identify and recognize product label information (PCH)</td>
</tr>
</tbody>
</table>

Standard 4. Students will demonstrate the ability to use interpersonal communication skills to enhance health and avoid or reduce health risks

<table>
<thead>
<tr>
<th>A. Communication</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Recognize methods of communication - Demonstrate positive communication among peers (MEH)</td>
</tr>
<tr>
<td>1. Recognize methods of communication - Define ways to communicate with family and friends such as eye-contact and tone of voice (MEH)</td>
</tr>
<tr>
<td>1. Recognize appropriate methods of communication - Identify methods of communication appropriate for specific situations - Demonstrate appropriate methods of communication (MEH)</td>
</tr>
<tr>
<td>1. Recognize different types of communication skills - Practice verbal and non-verbal methods of communication (MEH)</td>
</tr>
<tr>
<td>1. Recognize effective communication skills - Identify verbal and non-verbal methods of communication (MEH)</td>
</tr>
</tbody>
</table>
### Standard 5. Students will demonstrate the ability to use decision-making skills to enhance health

<table>
<thead>
<tr>
<th>A. Responses to Food</th>
<th>A. Responses to Food</th>
<th>D. Decision Making</th>
<th>I. Goal Setting</th>
<th>F. Nutrition and Physical Activity Guidelines</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Identify the relationship between food and the senses</td>
<td>1. Identify the relationship between food and the senses</td>
<td>1. Identify choices available in order to make a good decision</td>
<td>1. Apply information from the My Pyramid to choose a healthy breakfast</td>
<td>1. Summarize the Dietary Guidelines for Americans</td>
</tr>
<tr>
<td>- Tell why food appearance affects food choices, such as color, shape and texture</td>
<td>- Differentiate how the five senses affect food choices</td>
<td>- Choose factors that influence making decisions (MEH)</td>
<td>- Apply the My Pyramid including the food groups, number of servings and serving sizes to breakfast choices</td>
<td>- Identify factors that influence food choices</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>D. Decision Making</td>
<td>D. Decision Making</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1. Examine the steps of the decision-making process</td>
<td>1. Examine the steps in the decision-making process</td>
<td>1. Examine the steps in the decision-making process</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Compare the difference between positive and negative consequences in age appropriate situations</td>
<td>- Explain how decisions are influenced by individuals, families and communities</td>
<td>- Compare variations of the decision-making process (MEH)</td>
</tr>
</tbody>
</table>

### Standard 6. Students will demonstrate the ability to use goal-setting skills to enhance health
Standard 7. Students will demonstrate the ability to practice health-enhancing behaviors and avoid or reduce health risks

F. Nutrition and Physical Activity Guidelines
1. Recognize that foods are categorized into groups
-Demonstrate why it is important to eat at least five servings of fruits and vegetables a day such as Fruits and Veggies: More Matters

F. Nutrition and Physical Activity Guidelines
1. Demonstrate that foods are categorized into groups
-Classify foods into groups according to My Pyramid
-Specify the number of servings recommended per day from each group
-Illustrate a serving from each food group

B. Safety Rules and Procedures
1. Identify ways to stay safe outdoors
-Demonstrate the ability to play safely on playground equipment (SIP)

E. Food and Health
1. Analyze the Nutrition Facts Label
-Compare nutrient information on a variety of food labels

F. Nutrition and Physical Activity Guidelines
1. Summarize the Dietary Guidelines for Americans
-Compare personal food choices to the dietary guidelines

I. Goal Setting
1. Apply information from the My Pyramid to choose a healthy breakfast
-Create a breakfast menu using My Pyramid

Standard 8. Students will demonstrate the ability to advocate for personal, family and community health

Note. State curriculum is organized by 7 content standards:

1.0 Mental and Emotional Health (MEH) – Students will demonstrate the ability to use mental and emotional health knowledge, skills and strategies to enhance wellness.

2.0 Alcohol, Tobacco and Other Drugs (ATD) – Students will demonstrate the ability to use drug knowledge, decision-making skills, and health-enhancing strategies to address the use, non-use and abuse of medications, alcohol, tobacco and other drugs.

3.0 Personal and Consumer Health (PCH) – Students will demonstrate the ability to use consumer knowledge, skills and strategies to develop sound personal health practices involving the use of health care products, services and community resources.

4.0 Family Life and Human Sexuality (FLHS) – Students will demonstrate the ability to use human development knowledge, social skills and health-enhancing strategies to promote positive relationships and human growth and development throughout the life cycle.

5.0 Safety and Injury Prevention (SIP) – Students will demonstrate the ability to apply prevention and intervention knowledge, skills and processes to promote safe living in the home, school and community.

6.0 Nutrition and Fitness – Students will demonstrate the ability to use nutrition and fitness knowledge, skills and strategies to promote a healthy lifestyle.

7.0 Disease Prevention and Control (DPC) – Students will demonstrate the ability to apply prevention and treatment knowledge, skills and strategies to reduce susceptibility and manage disease.

Since the state combines nutrition and fitness into one content standard, the scope and sequence models for Healthy Eating and Physical Activity are combined. Benchmarks in bold are pulled directly from the Nutrition and Fitness standard. Applicable benchmarks from other standards are included in regular font with the source included in parentheses. (For example, a standard pulled from the Disease Prevention and Control standard would be followed by (DPC).
Table B9. State of Maryland Suggested Objectives for Healthy Eating and Physical Activity for Grades 5–12

<table>
<thead>
<tr>
<th>Grade 5</th>
<th>Grade 6</th>
<th>Grade 7</th>
<th>Grade 8</th>
<th>High School</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>E. Food and Health</strong></td>
<td><strong>B. Food Production</strong></td>
<td><strong>D. Nutrients</strong></td>
<td><strong>F. Steroids</strong></td>
<td><strong>E. Food and Health</strong></td>
</tr>
<tr>
<td>1. Examine the relationship among food intake, physical activity and weight management</td>
<td>1. Discuss ways to prevent food borne illness</td>
<td>1. Explain the role of nutrients</td>
<td>1. Determine appropriate and inappropriate use of steroids and the consequences of each</td>
<td>1. Analyze the benefits of maintaining a healthy weight</td>
</tr>
<tr>
<td>-Compare the relationship between caloric intake and output during activity/inactivity</td>
<td>-Discuss the components of a food sanitation plan such as <strong>Fight Bac Campaign</strong></td>
<td>-Describe the major functions of the six major nutrients</td>
<td>-Discuss what constitutes a healthful weight based on the Body Mass Index (BMI) or waist to hip circumference</td>
<td>-Discuss what constitutes a healthful weight based on the Body Mass Index (BMI)</td>
</tr>
<tr>
<td><strong>C. Body Image</strong></td>
<td><strong>G. Body Image</strong></td>
<td><strong>F. Nutrition and Physical Activity Guidelines</strong></td>
<td><strong>H. Eating Disorders</strong></td>
<td><strong>G. Body Image</strong></td>
</tr>
<tr>
<td>1. Identify how body image affects eating habits</td>
<td>1. Describe various factors that influence body image</td>
<td>1. Investigate the differences in the <strong>Dietary Guidelines for Americans</strong> related to culture and age groups</td>
<td>1. Examine various kinds of eating disorders</td>
<td>1. Examine body image, how it is developed and how it is influenced</td>
</tr>
<tr>
<td>-Identify factors that affect eating habits, including body image</td>
<td>-Distinguish between body composition and body image</td>
<td>-Compare different nutritional requirements for various age groups</td>
<td>-Investigate the three most common eating disorders; Bulimia Nervosa, Anorexia Nervosa and Binge Eating Disorder</td>
<td>-Describe a variety of eating disorders and the relationship between eating and the body</td>
</tr>
<tr>
<td>-Describe harmful eating habits</td>
<td>-Recognize and examine the factors that contribute to personal eating behaviors such as hunger vs. appetite, stress, environment, family/culture, media and peers</td>
<td>-Investigate additional forms of physical activity that will lead to 60 minutes of moderate to vigorous physical activity every day</td>
<td>-Summarize causes, symptoms and treatment for the three most common eating disorders</td>
<td>-Evaluate risk factors and behaviors that contribute to the development of illness</td>
</tr>
<tr>
<td><strong>I. Goal Setting</strong></td>
<td><strong>H. Self Image</strong></td>
<td><strong>H. Eating Disorders</strong></td>
<td><strong>D. Risk Factors and Behaviors</strong></td>
<td></td>
</tr>
<tr>
<td>1. Apply information from the Food Guide Pyramid to choose healthy snacks</td>
<td>1. Compare internal and external influences on self image</td>
<td>1. Examine various kinds of eating disorders</td>
<td>1. Evaluate risk factors and behaviors that contribute to the development of illness</td>
<td></td>
</tr>
<tr>
<td>-Demonstrate how healthy snacking fits into one’s daily diet</td>
<td>-Analyze how self image is influenced by internal forces such as heredity, interests and likes/dislikes (MEH)</td>
<td>-Investigate the three most common eating disorders; Bulimia Nervosa, Anorexia Nervosa and Binge Eating Disorder</td>
<td>-Identify the role played by each of the following in causing illness: family history, lifestyle choices, environment and genetics (PCH)</td>
<td></td>
</tr>
</tbody>
</table>

**Standard 1. Students will comprehend concepts related to health promotion and disease prevention**

- Compare the relationship between caloric intake and output during activity/inactivity
- Compare the relationship between food intake, physical activity and weight management

**G. Body Image**

1. Identify how body image affects eating habits
   - Describe harmful eating habits

1. Describe various factors that influence body image
   - Distinguish between body composition and body image
   - Recognize and examine the factors that contribute to personal eating behaviors such as hunger vs. appetite, stress, environment, family/culture, media and peers

**I. Goal Setting**

1. Apply information from the Food Guide Pyramid to choose healthy snacks
   - Demonstrate how healthy snacking fits into one’s daily diet

1. Apply the **Dietary Guidelines for Americans** in meal planning
   - Explain how to create a healthy meal plan using the Food Guide Pyramid and **Dietary Guidelines for Americans**

1. Examine various kinds of eating disorders
   - Investigate the three most common eating disorders; Bulimia Nervosa, Anorexia Nervosa and Binge Eating Disorder
   - Summarize causes, symptoms and treatment for the three most common eating disorders
Standard 2. Students will analyze the influence of family, peers, culture, media, technology and other factors on health behaviors

D. Decision Making
1. Apply the decision-making process to personal issues and problems
   - Explain how decisions are influenced by individuals, families and communities (MEH)

B. Safety Rules and Procedures
1. Identify safety rules that prevent injury or accidents
   - Distinguish between safe and unsafe behaviors at school such as behaviors in the hallway, outside activities, transitions, cafeteria/auditorium/gymnasium and restroom
   - Illustrate techniques for vehicular and recreational safety in activities such as bicycling, skating, ATVs, automobile and water/boating

G. Body Image
1. Describe various factors that influence body image
   - Recognize and examine the factors that contribute to personal eating behaviors such as hunger vs. appetite, stress, environment, family/culture, media and peers

D. Decision Making
1. Apply the decision-making process to personal issues and problems
   - Analyze how decisions are influenced by external conditions including culture and the media (MEH)

H. Self Image
1. Compare internal and external influences on self image
   - Analyze how self image is influenced by external forces such as media, friends, family and role models (MEH)

2. Analyze internal and external influences that may lead to eating disorders
   - Distinguish between internal and external influences
   - Demonstrate how knowledge of eating disorders impacts real life situations

F. Nutrition and Physical Activity Guidelines
1. Investigate the differences in the Dietary Guidelines for Americans related to culture and age groups
   - Compare healthy eating plans from other cultures

G. Body Image
1. Compare healthy eating plans from other cultures

2. Analyze internal and external influences that may lead to eating disorders
   - Distinguish between internal and external influences
   - Demonstrate how knowledge of eating disorders impacts real life situations

H. Eating Disorders
2. Analyze internal and external influences that may lead to eating disorders
   - Distinguish between internal and external influences
   - Demonstrate how family relationships influence personal habits

A. Family Unit
1. Explore how family members influence the development of adolescents

E. Food and Health
2. Analyze influences on eating and activity behaviors
   - Investigate the influences on personal eating and activity behaviors
   - Determine strategies to maximize positive influences and minimize negative influences

G. Body Image
1. Analyze the impact of the media on body image

A. Personal Health Maintenance
1. Evaluate and practice health enhancing behaviors and reduce health risks
   - Evaluate how factors such as culture, media and peers influence health information, perceptions, behaviors and product and service selection
   - Examine the impact of technology, research and medical advances on personal, family and community health (PCH)
Standard 3. Students will demonstrate the ability to access valid information and products and services to enhance health

B. Information, Products and Services
1. Locate resources from home and school that provide valid health information concerning consumer health issues and services
   - Identify current health care issues and the health services available in the school (PCH)

F. Nutrition and Physical Activity Guidelines
2. Describe and analyze the nutrition facts label
   - Analyze the information on a nutrition facts label

B. Information, Products and Services
1. Access and compare health information, products and services in order to become health literate consumers
   - Appraise health care products, services and resources based on valid criteria
   - Describe health care services such as physicians/specialists, local health departments, hospitals, rehabilitation facilities and holistic medicines (PCH)

B. Information, Products and Services
1. Access and evaluate health information, products and services in order to become health literate consumers
   - Describe society’s responsibility for maintaining and improving the quality and availability of health care from health clinics, physicians, Medicaid/Medicare, governmental agencies and community-based organizations (PCH)

A. Personal Health Maintenance
1. Evaluate and practice health enhancing behaviors and reduce health risks
   - Demonstrate the ability to access school and community health services for self and others
   - Analyze situations requiring professional health services

B. Information, Products and Services
1. Investigate resources that provide valid health information concerning consumer health issues and services
   - Evaluate the validity, cost and accessibility of health information, products and services
   - Locate and utilize resources from home, school, community and technological sources that provide valid information concerning health issues, services and careers (PCH)
**Standard 4. Students will demonstrate the ability to use interpersonal communication skills to enhance health and avoid or reduce health risks**

<table>
<thead>
<tr>
<th>A. Communication</th>
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<tbody>
<tr>
<td>1. Recognize and apply effective communication skills</td>
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<td>1. Recognize and apply effective communication skills</td>
</tr>
<tr>
<td>-Model verbal and non-verbal methods of communication (MEH)</td>
<td>-Demonstrate effective listening skills</td>
<td>-Identify reasons for advocacy including for needs and rights of others, healthy social environment and fairness</td>
<td>-Analyze barriers to effective communication</td>
</tr>
<tr>
<td></td>
<td>-Demonstrate effective speaking skills (MEH)</td>
<td>-Demonstrate effective advocacy skills in oral and written forms (MEH)</td>
<td>-Utilize/model strategies to overcome barriers when communicating information, ideas and opinions</td>
</tr>
<tr>
<td><strong>E. Food and Health</strong></td>
<td><strong>G. Conflict Resolution</strong></td>
<td><strong>I. Goal Setting</strong></td>
<td><strong>D. Decision Making</strong></td>
</tr>
<tr>
<td>2. Analyze influences on eating and activity behaviors</td>
<td>1. Recognize the nature of conflict and conflict-resolution</td>
<td>1. Apply the Dietary Guidelines for Americans in meal planning</td>
<td>1. Apply the decision-making process to personal issues and problems</td>
</tr>
<tr>
<td>-Argue the impact of influences on nutrition and activity choices</td>
<td>-Identify sources of conflict</td>
<td>-Apply the Dietary Guidelines for Americans in making healthy food choices at home meals, school meals, fast food restaurants, restaurants, parties/events and movies</td>
<td>-Explain how decisions are influenced by individuals, families and communities</td>
</tr>
<tr>
<td>-Demonstrate effective advocacy skills in oral and written forms (MEH)</td>
<td>-Identify solutions for conflict (MEH)</td>
<td>D. Decision Making</td>
<td>-Predict how decisions regarding behavior have consequences for self and others</td>
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<td></td>
<td>-Predict how decisions related to health needs and risks of young adults</td>
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<td>-Analyze health concerns that require collaborative decision-making</td>
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<td>-Predict immediate and long-term impact of health decisions on the individual, family and community (MEH)</td>
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<td>-Demonstrate the ability to utilize strategies when making decisions related to health needs and risks of young adults</td>
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<td>-Analyze health concerns that require collaborative decision-making</td>
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<td>-Predict immediate and long-term impact of health decisions on the individual, family and community (MEH)</td>
</tr>
</tbody>
</table>

**Standard 5. Students will demonstrate the ability to use decision-making skills to enhance health**

<table>
<thead>
<tr>
<th>D. Decision Making</th>
<th>D. Decision Making</th>
<th>I. Goal Setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Apply the decision-making process to personal issues and problems</td>
<td>1. Apply the decision-making process to personal issues and problems</td>
<td>1. Apply the Dietary Guidelines for Americans in meal planning</td>
</tr>
<tr>
<td>-Explain how decisions are influenced by individuals, families and communities</td>
<td>-Predict how decisions related to health needs and risks of young adults</td>
<td>-Apply the Dietary Guidelines for Americans in making healthy food choices at home meals, school meals, fast food restaurants, restaurants, parties/events and movies</td>
</tr>
<tr>
<td>-Dramatize the decision-making process in various situation (MEH)</td>
<td>-Analyze health concerns that require collaborative decision-making</td>
<td></td>
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</tbody>
</table>
Standard 6. Students will demonstrate the ability to use goal-setting skills to enhance health

<table>
<thead>
<tr>
<th>I. Goal Setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Apply the Dietary Guidelines for Americans in meal planning</td>
</tr>
<tr>
<td>-Develop and assess a healthy eating plan based on the Dietary Guidelines</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>C. Components of Personal Well-Being</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Apply the components of personal well-being to develop lifelong wellness skills and strategies</td>
</tr>
<tr>
<td>-Compose a personal health goal and measure progress towards its achievement (MEH)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>I. Personal Goals</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Implement a strategy and evaluate progress toward achieving personal goals</td>
</tr>
<tr>
<td>-Identify the importance of setting goals</td>
</tr>
<tr>
<td>-Explain how changing information, abilities, priorities and responsibilities influence personal goals</td>
</tr>
<tr>
<td>-Evaluate strategies, skills and resources that are used to achieve personal goals</td>
</tr>
<tr>
<td>-Develop a goal to adopt, maintain or improve a personal wellness habit</td>
</tr>
<tr>
<td>-Construct a plan to achieve a personal wellness goal (MEH)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>D. Decision making</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Apply the decision-making process to personal issues and problems</td>
</tr>
<tr>
<td>-Apply strategies and skills needed to attain personal health goals</td>
</tr>
<tr>
<td>-Formulate an effective plan for lifelong health (MEH)</td>
</tr>
</tbody>
</table>
Standard 7. Students will demonstrate the ability to practice health-enhancing behaviors and avoid or reduce health risks

E. Food and Health
1. Examine the relationship among food intake, physical activity and weight management
   - Investigate caloric value of personal meal plan in relation to physical activity
I. Goal Setting
1. Apply information from the Food Guide Pyramid to choose healthy snacks
   - Demonstrate how healthy snacking fits into one’s daily diet

D. Nutrients
1. Explain the role of nutrients
   - Investigate food sources/groups for nutrients that have a positive and negative effect on the four common chronic diseases and being overweight or obese
F. Nutrition and Physical Activity Guidelines
3. Illustrate the Physical Activity Pyramid as it relates to physical activity level
   - Compare personal physical activity level to the components of the Physical Activity Pyramid

I. Goal Setting
1. Apply the Dietary Guidelines for Americans in meal planning
   - Apply the Dietary Guidelines for Americans in making healthy food choices at home meals, school meals, fast food restaurants, restaurants, parties/events and movies
   - Develop and assess a healthy eating plan based on the Dietary Guidelines

C. Components of Personal Well-Being
1. Apply the components of personal well-being to develop lifelong wellness skills and strategies
   - Devise a plan that addresses personal strengths, needs and health risks (MEH)

E. Food and Health
2. Analyze influences on eating and activity behaviors
   - Determine strategies to maximize positive influences and minimize negative influences

3. Analyze eating and activity behaviors that need improvement
   - Identify areas of personal eating behaviors that need improvement
   - Assess personal fitness and identify areas of personal physical activity behaviors that need improvement
   - Determine a plan of action to address areas targeted for improvement

G. Body Image
1. Explain body image, how it is developed and how it is influenced
   - Implement strategies to counteract negative influences on body image

D. Risk Factors and Behaviors
1. Evaluate risk factors and behaviors that contribute to the development of illness
   - Determine a plan of action to reduce personal health risks and/or improve personal health through regular medical/dental check-ups, immunizations and screening (vision, hearing), diet and weight management, exercise and rest and environmental exposure (loud music) (PCH)
Standard 8. Students will demonstrate the ability to advocate for personal, family and community health

A. Communication
1. Recognize and apply effective communication skills
   - Demonstrate effective advocacy skills in oral and written forms (MEH)
### Table B10. State of Mississippi Suggested Objectives for Physical Activity for Grades K–4

<table>
<thead>
<tr>
<th>Grade K</th>
<th>Grade 1</th>
<th>Grade 2</th>
<th>Grade 3</th>
<th>Grade 4</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Standard 1. Students will comprehend concepts related to health promotion and disease prevention</strong></td>
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<td></td>
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</tr>
<tr>
<td>• Describe relationships between personal health behaviors and individual well-being.</td>
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<tr>
<td>• Describe ways to prevent injury</td>
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<tr>
<td>• Recognize and describe the relationship between personal health behaviors and individual well-being.</td>
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<tr>
<td>• Identify a relationship between health behaviors and individual well-being</td>
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</tbody>
</table>

| **Standard 2. Students will analyze the influence of family, peers, culture, media, technology and other factors on health behaviors** |
| • Introduce technologies that influence health. |
| • Describe how the media (i.e., Terrance the Rat) influences health choices. |
| • Describe how culture influences personal health behaviors. Analyze how the media influences thoughts, feelings, and health behavior. |
| • Identify ways that health care technology can enhance personal health. |

| **Standard 3. Students will demonstrate the ability to access valid information and products and services to enhance health** |
| • Identify health products and services used by adults/children. |
| • Identify healthy helpers in the community. |
| • Demonstrate an ability to recognize health services in the community (i.e., firefighter, sanitation worker, police officer, paramedics, etc.). |
| • Explain the roles of various types of workers in the field of health. |
| • Identify sources of health products and services in the community. |
| • Identify differences among health products and services. |
| • Describe the roles of various community resources (i.e., hospital, Department of Health, voluntary health agency, home health) that aid in preventing illness |
| • Investigate how the availability of health services affects the community. |
| • Identify characteristics of valid health information and health promoting products and services |
| • Demonstrate the ability to locate resources from home, school and community that provide valid health information. |
| • Distinguish between fact and opinion in health information. |

<p>| <strong>Standard 4. Students will demonstrate the ability to use interpersonal communication skills to enhance health and avoid or reduce health risks</strong> |
| • Describe the difference in verbal and nonverbal communication. |
| • Demonstrate refusal skills (i.e., just say no, don’t talk to strangers) to enhance health. |</p>
<table>
<thead>
<tr>
<th>Standard 5. Students will demonstrate the ability to use decision-making skills to enhance health</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Demonstrate healthy choices (i.e., engaging in activity).</td>
</tr>
<tr>
<td>• Explain the potential results (i.e., accidents, nutrition, physical activity, drug use) of health choices.</td>
</tr>
<tr>
<td>• Explain how goal-setting affects decision-making.</td>
</tr>
<tr>
<td>• Demonstrate the ability to practice healthy choices.</td>
</tr>
<tr>
<td>• Compare various factors influencing health.</td>
</tr>
<tr>
<td>• Apply a decision-making process to address personal health issues and problems.</td>
</tr>
<tr>
<td>• Identify factors that influence decision-making.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Standard 6. Students will demonstrate the ability to use goal-setting skills to enhance health</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Explain how to set personal health goals and track progress toward achievement.</td>
</tr>
<tr>
<td>• Set a personal health goal and track progress toward its achievement.</td>
</tr>
<tr>
<td>• Work collaboratively in small groups to achieve a common goal.</td>
</tr>
<tr>
<td>• Identify the benefits of making healthy choices (i.e., alternative choice for unhealthy decisions).</td>
</tr>
<tr>
<td>• Develop a personal health plan and track progress toward achievement.</td>
</tr>
<tr>
<td>• Identify proper ways to achieve health goals.</td>
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<table>
<thead>
<tr>
<th>Standard 7. Students will demonstrate the ability to practice health-enhancing behaviors and avoid or reduce health risks</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Explain ways family members work together to obtain and maintain healthy behaviors.</td>
</tr>
<tr>
<td>• Explore a variety of physical activities.</td>
</tr>
<tr>
<td>• Demonstrate healthy choices outside the school environment.</td>
</tr>
<tr>
<td>• Illustrate safety and injury prevention techniques.</td>
</tr>
<tr>
<td>• Investigate the effects of exercise on well-being.</td>
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<table>
<thead>
<tr>
<th>Standard 8. Students will demonstrate the ability to advocate for personal, family and community health</th>
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</thead>
<tbody>
<tr>
<td>• Discuss the importance of influencing others to make healthy choices.</td>
</tr>
<tr>
<td>• Understand the importance of influencing others to make healthy choices.</td>
</tr>
<tr>
<td>• Demonstrate an ability to influence others to make healthy choices.</td>
</tr>
<tr>
<td>• Communicate information (i.e., nutrition, physical activity, drug use, peer choices) that promotes positive health choices.</td>
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<tr>
<td>• Discuss ways that individuals can contribute to community well-being.</td>
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<tr>
<td>Grade 5</td>
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<td>---------</td>
</tr>
<tr>
<td><strong>Standard 1. Students will comprehend concepts related to health promotion and disease prevention</strong></td>
</tr>
<tr>
<td>Describe how participation in physical activity affects the body</td>
</tr>
<tr>
<td>• Describe how participation in physical activity affects the body</td>
</tr>
<tr>
<td>• Explore the characteristics of habits and how habits affect personal health.</td>
</tr>
<tr>
<td>• Analyze how health education and promotion benefits individuals (i.e., reduces number of doctor visits, premature deaths, and chronic diseases).</td>
</tr>
<tr>
<td>• Identify how a properly balanced diet and <strong>exercise</strong> influence healthy body weight.</td>
</tr>
<tr>
<td>• Identify healthy ways to manage stress.</td>
</tr>
<tr>
<td>• Identify ways individuals can reduce risk factors related to communicable and chronic diseases.</td>
</tr>
<tr>
<td><strong>Standard 2. Students will analyze the influence of family, peers, culture, media, technology and other factors on health behaviors</strong></td>
</tr>
<tr>
<td>Describe the way technology (i.e., video games, computers, and medical equipment) affects health.</td>
</tr>
<tr>
<td>• Describe the way technology (i.e., video games, computers, and medical equipment) affects health.</td>
</tr>
<tr>
<td>• Analyze ways in which the media influences buying decisions regarding health products, medicine, and food.</td>
</tr>
<tr>
<td>• Describe the benefits and threats of technological advances to healthy living.</td>
</tr>
<tr>
<td>• Relate how information presented in the news media affects the attitude of our population toward health related issues.</td>
</tr>
<tr>
<td>• Describe the influence of culture on the use of health behaviors.</td>
</tr>
<tr>
<td>• Analyze how the media and other sources influence health behavior.</td>
</tr>
<tr>
<td>• Evaluate the influence of technology and other resources on personal and family health.</td>
</tr>
<tr>
<td>• Examine how information from peers influences health.</td>
</tr>
<tr>
<td>• Analyze the positive and negative influences of technology and media on personal and family health.</td>
</tr>
<tr>
<td>• Describe the influence of cultural beliefs on health behaviors.</td>
</tr>
<tr>
<td>• Understand the relationship between peer association and health decisions.</td>
</tr>
<tr>
<td>• Analyze how health related decisions are influenced by individuals, family, and community values.</td>
</tr>
<tr>
<td>• Evaluate the implications of modern technology on societal health.</td>
</tr>
<tr>
<td>• Analyze the influences of different cultural beliefs on health behaviors.</td>
</tr>
<tr>
<td>• Define the role of the family in the transmission of values, attitudes, behavior, personalities, and responsibilities of its members.</td>
</tr>
<tr>
<td><strong>Standard 3. Students will demonstrate the ability to access valid information and products and services to enhance health</strong></td>
</tr>
<tr>
<td>Locate and evaluate the functions of community agencies and health care professionals.</td>
</tr>
<tr>
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</tr>
<tr>
<td>• Identify and discuss the use and impact of health products (i.e., sunscreen, toothpaste)</td>
</tr>
<tr>
<td>• Evaluate the reliability of various health information sources</td>
</tr>
<tr>
<td>• Research current health promoting products and services.</td>
</tr>
<tr>
<td>• Critique sources of information regarding health products and services to determine if they are reliable/unreliable.</td>
</tr>
<tr>
<td>• Distinguish between advertisements and medical information.</td>
</tr>
<tr>
<td>• Distinguish differences among various health care professionals.</td>
</tr>
<tr>
<td>• Explain an individual’s responsibility in choosing health products and services.</td>
</tr>
<tr>
<td>• Differentiate between nonprofessional and professional medical services.</td>
</tr>
<tr>
<td>• Identify websites regarding sources that provide valid health information.</td>
</tr>
<tr>
<td><strong>Standard 4. Students will demonstrate the ability to use interpersonal communication skills to enhance health and avoid or reduce health risks</strong></td>
</tr>
<tr>
<td>Demonstrate strategies to manage conflict in healthy ways</td>
</tr>
<tr>
<td>• Demonstrate strategies to manage conflict in healthy ways.</td>
</tr>
<tr>
<td>• Examine how to handle difficult interpersonal situations through effective communication.</td>
</tr>
<tr>
<td>• Analyze various communication methods that accurately express health opinions and issues.</td>
</tr>
<tr>
<td>• Demonstrate various forms of effective communication.</td>
</tr>
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Standard 5. Students will demonstrate the ability to use decision-making skills to enhance health

- Understand positive and negative reinforcement and how they relate to decision-making.
- Demonstrate practices of making safe choices.
- Demonstrate the ability to apply decision-making models to health issues and problems.
- Identify factors that influence individual decisions during adolescence.
- Predict how decisions regarding health behaviors have consequences for self and others.
- Define a value system and identify the relationship of values to actions.

Standard 6. Students will demonstrate the ability to use goal-setting skills to enhance health

- Identify personal health needs and develop long-term goals for a healthy lifestyle.
- Identify health goals and their importance to well being.
- Evaluate strategies and skills for attaining personal health goals.
- Apply strategies and skills needed to attain goals that will contribute to a healthy lifestyle.
- Describe how personal health goals are influenced by changing information, abilities, priorities, and responsibilities.
- Practice realistic personal goal-setting in the areas of family, school, extra-curricular activities and life-time experiences.

Standard 7. Students will demonstrate the ability to practice health-enhancing behaviors and avoid or reduce health risks

- Examine health and fitness assessments and their role in developing a personal wellness program.
- Demonstrate an awareness of safety through modeling.
- Demonstrate practices of making safe choices.
- Develop a plan that addresses personal strengths, values, needs, and health risks.
- Create a personal health plan that encourages an active lifestyle.
- Develop a plan that addresses commitment and self-control.
- Develop strategies to encourage and influence others in making healthy choices (i.e., healthy food choices, abstaining from alcohol, tobacco, and illegal drug use).
- Employ the ability to encourage and support others in making healthy choices.
- Propose ways to enhance community health.
- Create a personal health plan that encourages an active lifestyle.

Standard 8. Students will demonstrate the ability to advocate for personal, family and community health

- Develop and implement a campaign to influence and support others in making choices that reduce the risks of intentional or unintentional injury.
- Demonstrate the ability to work cooperatively when advocating for healthy individuals.
<table>
<thead>
<tr>
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<tbody>
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<td><strong>Grade K</strong></td>
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<tr>
<td>• Describe relationships between personal health behaviors and individual well-being.</td>
</tr>
<tr>
<td>• Identify the food groups of the Pyramid.</td>
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<tr>
<td>• Introduce technologies that influence health.</td>
</tr>
<tr>
<td>• Identify ways that health care technology can impact personal health</td>
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<tr>
<td>• Identify health products and services used by adults/children.</td>
</tr>
<tr>
<td>• Identify healthy helpers in the community.</td>
</tr>
<tr>
<td>• Demonstrate an ability to recognize health services in the community (i.e., firefighter, sanitation worker, police officer, paramedics, etc.).</td>
</tr>
<tr>
<td>Standard 4. Students will demonstrate the ability to use interpersonal communication skills to enhance health and avoid or reduce health risks</td>
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<tr>
<td>• Describe the difference in verbal and nonverbal communication.</td>
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<tr>
<td>Standard 5. Students will demonstrate the ability to use decision-making skills to enhance health</td>
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<tr>
<td>• Demonstrate an ability to identify healthy food</td>
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<tr>
<td>• Identify guidelines for making wise food choices</td>
</tr>
<tr>
<td>• Explain the potential results (i.e., accidents, nutrition, physical activity, drug use) of health choices</td>
</tr>
<tr>
<td>• Explain how goal-setting affects decision-making</td>
</tr>
<tr>
<td>• Demonstrate the ability to practice healthy choices</td>
</tr>
<tr>
<td>• Compare various factors influencing health</td>
</tr>
<tr>
<td>• Apply a decision-making process to address personal health issues and problems.</td>
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</tr>
<tr>
<td>• Explain how to set personal health goals and track progress toward achievement</td>
</tr>
<tr>
<td>• Set a personal health goal and track progress toward its achievement</td>
</tr>
<tr>
<td>• Work collaboratively in small groups to achieve a common goal</td>
</tr>
<tr>
<td>• Identify the benefits of making healthy choices (i.e., alternative choice for unhealthy decisions).</td>
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<tr>
<td>• Develop a personal health plan and track progress toward achievement</td>
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<tr>
<td>• Identify proper ways to achieve health goals</td>
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<tr>
<td>Standard 7. Students will demonstrate the ability to practice health-enhancing behaviors and avoid or reduce health risks</td>
</tr>
<tr>
<td>• Explain ways family members work together to obtain and maintain healthy behaviors</td>
</tr>
<tr>
<td>• Discuss the importance of influencing others to make healthy choices</td>
</tr>
<tr>
<td>• Understand the importance of influencing others to make healthy choices</td>
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<tr>
<td>• Demonstrate an ability to influence others to make healthy choices.</td>
</tr>
<tr>
<td>• Communicate information (i.e., nutrition, physical activity, drug use, peer choices) that promotes positive health choices</td>
</tr>
<tr>
<td>• Demonstrate healthy choices outside the school environment</td>
</tr>
<tr>
<td>Standard 8. Students will demonstrate the ability to advocate for personal, family and community health</td>
</tr>
<tr>
<td>• Discuss ways that individuals can contribute to community well-being.</td>
</tr>
<tr>
<td>Grade 5</td>
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</tr>
<tr>
<td><strong>Standard 1. Students will comprehend concepts related to health promotion and disease prevention</strong></td>
</tr>
</tbody>
</table>

- **Distinguish between healthy and unhealthy snacks**
- **Explore the characteristics of habits and how habits affect personal health.**

- **Analyze how health education and promotion benefits individuals (i.e., reduces number of doctor visits, premature deaths, and chronic diseases).**
- **Identify how a properly balanced diet and exercise influence healthy body weight.**
- **Identify healthy ways to manage stress.**
- **Identify ways individuals can reduce risk factors related to communicable and chronic diseases.**
- **Identify essential nutrients needed by the body and the nutrient sources.**
- **Analyze how nutrition affects physical, mental, and emotional development.**
- **Compare or identify the inter-relationship between the amount of food consumed to obtain ideal weight and the amount of food consumed in obese individuals.**
- **Identify the relationship between psychological factors and eating disorders.**
- **Interpret the role of nutrition and nutrients in maintaining health.**

- **Explore various eating habits (i.e., fast food, cooking ingredients) and how they relate to family backgrounds and lifestyles.**
- **Describe the way technology (i.e., video games, computers, and medical equipment) affects health.**
- **Analyze ways in which the media influences buying decisions regarding health products, medicine, and food.**
- **Describe the benefits and threats of technological advances to healthy living.**
- **Relate how information presented in the news media affects the attitude of our population toward health related issues.**
- **Describe the influence of culture on the use of health behaviors.**
- **Analyze how the media and other sources influence health behavior.**
- **Evaluate the influence of technology and other resources on personal and family health.**
- **Examine how information from peers influences health.**
- **Analyze the influence of culture on the use of health behaviors.**
- **Describe the influence of cultural beliefs on health behaviors.**
- **Understand the relationship between peer association and health decisions.**
- **Analyze how health related decisions are influenced by individuals, family, and community values.**
- **Examine how information from peers influences health.**
- **Analyze the positive and negative influences of technology and media on personal and family health.**
- **Describe the influence of cultural beliefs on health behaviors.**
- **Define the role of the family in the transmission of values, attitudes, behavior, personalities, and responsibilities of its members.**

- **Locate and evaluate the functions of community agencies and health care professionals.**
- **Identify and discuss the use and impact of health products (i.e., sunscreen, toothpaste).**
- **Evaluate the reliability of various health information sources.**
- **Research current health promoting products and services.**
- **Critique sources of information regarding health products and services to determine if they are reliable/unreliable.**
- **Distinguish between advertisements and medical information.**
- **Distinguish differences among various health care professionals.**
- **Explain an individual’s responsibility in choosing health products and services.**
- **Differentiate between nonprofessional and professional medical services.**
- **Identify websites regarding sources that provide valid health information.**
**Standard 4. Students will demonstrate the ability to use interpersonal communication skills to enhance health and avoid or reduce health risks**

- Demonstrate strategies to manage conflict in healthy ways
- Examine how to handle difficult interpersonal situations through effective communication.
- Analyze various communication methods that accurately express health opinions and issues.
- Demonstrate various forms of effective communication.
- Demonstrate refusal and negotiation skills to enhance health
- Examine ways to promote positive behavior when dealing with individual differences.
- List several types of defense mechanisms and discuss their limitations in solving problems.

**Standard 5. Students will demonstrate the ability to use decision-making skills to enhance health**

- Understand positive and negative reinforcement and how they relate to decision-making.
- Demonstrate practices of making safe choices.
- Demonstrate the ability to apply decision-making models to health issues and problems.
- Identify factors that influence individual decisions during adolescence.
- Predict how decisions regarding health behaviors have consequences for self and others.
- Define a value system and identify the relationship of values to actions.

**Standard 6. Students will demonstrate the ability to use goal-setting skills to enhance health**

- Identify personal health needs and develop long-term goals for a healthy lifestyle
- Identify health goals and their importance to well being.
- Evaluate strategies and skills for attaining personal health goals.
- Apply strategies and skills needed to attain goals that will contribute to a healthy lifestyle.
- Describe how personal health goals are influenced by changing information, abilities, priorities, and responsibilities.
- Practice realistic personal goal-setting in the areas of family, school, extra-curricular activities and life-time experiences.

**Standard 7. Students will demonstrate the ability to practice health-enhancing behaviors and avoid or reduce health risks**

- Examine health and fitness assessments and their role in developing a personal wellness program.
- Compare and contrast various diet plans and how they relate to personal health.
- Demonstrate practices of making safe choices.
- Develop a plan that addresses personal strengths, values, needs, and health risks.
- Develop a plan that addresses commitment and self-control.
- Create a personal health plan that encourages an active lifestyle.
- Develop and implement a campaign to influence and support others in making choices that reduce the risks of intentional or unintentional injury.
- Demonstrate the ability to work cooperatively when advocating for healthy individuals.
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<td>• Explain how healthy behaviors impact personal, emotional, social, and physical health (e.g., following new food pyramid guidelines - better nutrition and healthy weight, physical activity - more energy, sleep-energy and attention span, hygiene-self-esteem)</td>
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<td>• Describe safe behaviors one can use to reduce the risk of injury (e.g., wearing seat belts, using protective equipment such as helmets, obeying pedestrian rules, checking traffic before crossing a road, calling 911, fire safety—stop, drop and roll)</td>
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<td>• Describe how individuals can promote and protect their health (e.g., healthy eating-planned meal, daily physical activity, wellness plan, sleep-regular patterns, personal hygiene-daily routine, avoiding second hand smoke)</td>
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<td>• Describe how personal health behaviors (e.g., grooming habits, wellness exams, proper nutrition, health fitness) affect individual well-being Describe factors related to intellectual, emotional, social, and physical health (e.g., having trusted person to talk to, being physically active every day)</td>
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<td>• Identify ways in which the family influences and supports personal health practices and behaviors (e.g., preparing family meals using new food guide pyramid, portion control, basic hygiene, media/technology time, littering)</td>
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<td>• Identify different types of healthful community activities (e.g., hobb-ies, clubs, reading, physical activities, volunteering)</td>
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Table B14. State of North Dakota Concepts and Skills for Physical Activity for Grades K–4
**Standard 3. Students will demonstrate the ability to access valid information and products and services to enhance health**

- Identify the basic tasks of community health service providers (e.g., doctors, nurses, firefighters, police)
- Explain from whom (e.g., doctors, nurses, firefighters, police, school counselors, school nurses) and where (e.g., nurse's office, counselor's office, fire station) to seek health-related assistance at school and in the community
- Identify resources from home, school, and community that provide valid health information, (e.g., school counselor, health care providers, teachers, family members)
- Explain how to use resources from home, school, and community that provide valid health information (e.g., making an appointment with the school counselor, providing pertinent information to health care workers) Identify ways to manage money in health-related decisions (e.g., fruit/candy, water/soda, roller blades/motorized scooter)
- Describe the characteristics or valid health information, products, and services (e.g., food pyramid, USDA, FDA, nutrition labels, CDC) Describe ways to budget time and money to make health related decisions (e.g., recreation centers/movie, swimming/television) Describe the different types of health-related advertisements and commercials in the media (e.g., testimonials, bandwagon)

**Standard 4. Students will demonstrate the ability to use interpersonal communication skills to enhance health and avoid or reduce health risks**

- Identify positive ways to get along with others (e.g., follow classroom and playground rules)

**Standard 5. Students will demonstrate the ability to use decision-making skills to enhance health**

**Standard 6. Students will demonstrate the ability to use goal-setting skills to enhance health**

- Develop a long term plan to achieve a personal health goal (e.g., eating the Draper servings from each group in the food pyramid)
- Describe a short-term personal health goal (e.g., nutritious choices, physical activity time per day)
- Set a short-term personal health goal (e.g., daily physical activity, watching less television, eating healthy foods) and describe a plan to achieve it
- Describe the steps of goal setting (e.g., establish goal, explain how goals affect health, describe a plan to reach goal, evaluate progress)
- Describe how to use goal setting to enhance personal health (e.g., increasing activity, making healthy food choices, improving endurance, flexibility, and strength)

**Standard 7. Students will demonstrate the ability to practice health-enhancing behaviors and avoid or reduce health risks**
Standard 8. Students will demonstrate the ability to advocate for personal, family and community health

- Identify positive health choices (e.g., eat fruits and vegetables, physical activity with friends, use medicine safely)
- Identify ways to encourage peers in making positive healthy choices (e.g., food choices, safety practices, saying no to harmful substances, participation in physical activity)
- Describe ways to support peers and others in making positive health choices (e.g., helping a friend or family member choose healthy foods for a meal, physical activities instead of TV/computer/video games)
- Identify ways to promote good health (e.g., positive role model, having a positive attitude about health)
- Explain the importance of being a health advocate (e.g., positive role models, having a positive attitude about health, health fairs, posters)

Notes. This state has seven standards with benchmark expectations (one or more) for each standard. For each benchmark, there are achievement descriptors for novice, partially proficient, proficient or advanced proficient mastery. Benchmark expectations for NHES 4 are written in more general terms. Those that could be easily applied to a healthy eating or physical activity concept were included; those that were clearly intended to address other issues (tobacco or other substance use, bullying, expressing emotions) were excluded. Decision-making benchmarks are focused on topics like first aid, dealing with risky situations, when to seek help from an adult when dealing with a bully and building positive relationships in the lower grades. Grade 6 is the first mention of making decision regarding personal health behaviors like nutrition and physical activity. NHES 7 is not represented among this state's standards. The terms describe, identify, analyze, evaluate explain and apply are used for all of the benchmark expectations, requiring knowledge (and expression) of the pertinent concepts without necessarily demonstrating them. Benchmarks addressing NHES 1 are also applicable here.
Table B15. State of North Dakota Concepts and Skills for Physical Activity for Grades 5–12

<table>
<thead>
<tr>
<th>Grade 5</th>
<th>Grade 6</th>
<th>Grades 7-8</th>
<th>Grades 9-12</th>
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</table>

**Standard 1. Students will comprehend concepts related to health promotion and disease prevention**

- Explain the benefits of nutrition and physical activity as they relate to total wellness
- Explain the maintenance of human body systems (e.g., skeletal: choose foods high in calcium and vitamin D, be physically active)
- Describe strategies for stress management (e.g., breathing and relaxation techniques, avoiding personal stressors, time management, physical activity)
- Identify the causes and prevention of common diseases and other health problems (e.g., asthma, diabetes, obesity, allergies, cardiovascular disease)
- Explain the relationship between healthy behaviors (e.g., riding bikes, skateboards, rollerblades) and health risks (with or without protective equipment)
- Explain how body systems are affected by health behaviors (e.g., the effect of physical activity on the cardiovascular system)
- Develop strategies for managing stress in their own lives (e.g., breathing and relaxation techniques, avoiding personal stressors, time management, physical activity)
- Describe ways (e.g., personal achievement, community involvement, physical activity) to improve self-esteem
- Identify the causes and prevention of common diseases and other health problems (e.g., asthma, diabetes, obesity, allergies, cardiovascular disease)
- Explain the benefits of nutrition and physical activity as they relate to the overall well-being of individuals (e.g., obesity)
- Analyze healthy versus unhealthy behaviors and their relationships to health promotion and disease prevention (e.g., active lifestyle vs. sedentary lifestyle, healthy diet vs. fad diets)
- Explain ways individuals can take responsibility for enhancing their own health (e.g., personal responsibility for dietary choices and reading labels, participating in physical activities, stress reduction, abstinence)
- Explain how personal health behaviors impact the functioning of body systems (e.g., stress weakens the immune system, lack of exercise may lead to obesity, tobacco use may lead to cancer, risky behaviors may lead to HIV/AIDS or STD/STIs)

**Standard 2. Students will analyze the influence of family, peers, culture, media, technology and other factors on health behaviors**

- Identify ways an individual's family, friends, and culture influence personal and community health practices
- Describe ways the media can influence an individual's thoughts, feelings, and health behaviors
- Identify ways in which technology can influence personal health (e.g., health related web sites, blood pressure cuffs, pedometers)
- Describe the factors (e.g., commercials, peers, media) that can influence choices about health care products and services
- Describe ways external factors (e.g., family, peers, culture, media, technology) affect health in positive and negative ways (e.g., advertisements that promote or discourage tobacco and alcohol use; effects of TV, the internet and video games on physical activity)
- Analyze how external factors (e.g., family, peers, culture, media, technology) affect physical, mental, and social health in positive and negative ways (e.g., the effect of advertising on food choices, peer influences on internet usage)
- Describe how cultural diversity enriches and challenges health behaviors (e.g., cultural differences related to health care and the treatment of disease, various food sources of nutrients available in different cultural and ethnic cuisines)
- Explain how public health policies and government regulations (e.g., food and drug labeling, safe food handling and production regulations, community immunization programs, regulations regarding waste disposal) influence health
- Evaluate how a physical environment influences the health of individuals and the community (e.g., the application of pesticides and herbicides on agricultural products; environmental issues that affect the water supply and nutritional quality of food)
- Describe the factors (e.g., commercials, peers, media) that can influence choices about health care products and services
### Standard 3. Students will demonstrate the ability to access valid information and products and services to enhance health

| • Analyze the validity of common health information, products, and services (e.g., brand-name versus generic medicine, health fads, weight loss fads, tanning booths) | • Describe resources (e.g., reputable internet sites such as Centers for Disease Control, Surgeon General, and National Institute of Health, Chamber of Commerce, or public health organizations) to access valid and reliable health information, products, and services both in and outside of the community |
| • Identify local, state, federal, and private agencies (e.g., Food and Drug Administration [FDA], Environmental Protection Agency [EPA], United States Department of Agriculture [USDA], Department of Health, Attorney General's Office, and County Health) that protect and inform consumers |
| • Determine criteria (e.g., costs and benefits, consumer guide, advice from health professionals, the media) used to evaluate health information, products, and services (e.g., research using medical journals, consumer health sources, research institutes) | • Evaluate resources, products, and services based on appropriate criteria (e.g., costs and benefits), consumer guides, and advice from health professionals. |

### Standard 4. Students will demonstrate the ability to use interpersonal communication skills to enhance health and avoid or reduce health risks

| • Describe effective verbal and nonverbal communication skills to enhance health (e.g., passive, assertive and aggressive behaviors) | • Apply effective verbal and nonverbal communication skills to enhance health (e.g., send clear messages about the effects of tobacco use on health) |
| • Apply refusal, negotiation, and collaboration skills to enhance health and avoid or reduce health risks |
Standard 5. Students will demonstrate the ability to use decision-making skills to enhance health

- Describe the consequences of decisions regarding health behaviors (e.g., tobacco, alcohol, drugs, nutrition and physical activity) for oneself and others
- Identify the steps (e.g., clarify, consider, choose) of the decision-making process (e.g., going to a game or doing your homework)
- Apply the decision making process (e.g., gathering facts, assessing the alternatives, implementing a decision, evaluating the outcome) as it relates to a healthy lifestyle
- Compare the short and long term impacts of alternative choices (e.g., pop vs. water, smoking vs. nonsmoking, wearing a seatbelt vs. not wearing a seatbelt, abstinence vs. sexual activity) in health-related situations

Standard 6. Students will demonstrate the ability to use goal-setting skills to enhance health

- Develop and implement short term and long term personal goals that enhance health (e.g., nutrition journal, fitness plan)
- Develop goals to sustain or improve personal health practices
- Identify ways in which personal health goals can be influenced by abilities, priorities, and responsibilities (e.g., maturation, peers, values, and family)
- Develop a life-long plan to sustain personal health (e.g., remaining drug-free, maintaining safe levels of cholesterol and blood pressure)

Standard 7. Students will demonstrate the ability to practice health-enhancing behaviors and avoid or reduce health risks

- Identify people and groups who advocate for health (e.g., health and physical education teachers, police officers, nurses, American Cancer Society, local community organizations)
- Identify ways to convey accurate health information and ideas to individuals and groups (e.g., setting an example as a role-model, health fairs, posters, school and community presenters)
- Identify strategies (e.g., compromise, active listening, knowledge of facts and myths, assertiveness) to influence and support others in making positive health choices
- Describe ways to convey (e.g., Power Point presentation, group projects, posters) health information and ideas to individuals and groups

Standard 8. Students will demonstrate the ability to advocate for personal, family and community health

- Identify strategies (e.g., compromise, active listening, knowledge of facts, assertiveness) to influence and work cooperatively with others to advocate for healthy individuals, families, and communities
- Describe strategies (e.g., compromise, active listening, knowledge of facts, assertiveness) to influence and work cooperatively with others to advocate for healthy individuals, families, and communities
- Explain how an individual can improve or sustain community health initiatives and or services (e.g., exercising voting privileges on health-related matters; assisting in the development of health policies or laws; evaluating community health services and presenting concerns to legislators)
- Develop strategies to influence and support others in making positive health choices (e.g., working as a peer trainer, counseling others on health issues, gaining support of school administrators and community leaders, service learning and health fair projects)
- Apply strategies to influence and support others in making positive health choices (e.g., working as a peer trainer, counseling others on health issues, gaining support of school administrators and community leaders, service learning and health fair projects)
• Apply strategies (e.g., utilizing peer and societal norms, data, surveys) to express information and opinions about health issues
• Evaluate the effectiveness of a communication method (e.g., public service announcements, television or magazine advertisements, web sites) used to deliver health information

Notes. See notes for Table B14.
Table B16. *State of North Dakota Concepts and Skills for Healthy Eating for Grades K–4*

<table>
<thead>
<tr>
<th>Grade K</th>
<th>Grade 1</th>
<th>Grade 2</th>
<th>Grade 3</th>
<th>Grade 4</th>
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</thead>
<tbody>
<tr>
<td><strong>Standard 1. Students will comprehend concepts related to health promotion and disease prevention</strong></td>
<td><strong>Standard 1. Students will comprehend concepts related to health promotion and disease prevention</strong></td>
<td><strong>Standard 1. Students will comprehend concepts related to health promotion and disease prevention</strong></td>
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<tr>
<td>• Identify behaviors that contribute to emotional, social, and physical health (e.g., healthy eating, physical activity, sleep, personal hygiene, avoiding second hand smoke)</td>
<td>• Explain how healthy behaviors impact personal, emotional, social, and physical health (e.g., following new food pyramid guidelines - better nutrition and healthy weight, physical activity-more energy, sleep-energy and attention span, hygiene-self-esteem)</td>
<td>• Describe how individuals can promote and protect their health (e.g., healthy eating-planned meal, daily physical activity, wellness plan, sleep-regular patterns, personal hygiene-daily routine, avoiding second hand smoke)</td>
<td>• Describe how personal health behaviors (e.g., grooming habits, wellness exams, proper nutrition, health fitness) affect individual well-being</td>
<td>• Explain the relationship between food choices and personal health (e.g., unhealthy food choices contribute to high cholesterol, diabetes, heart disease, high risk of cancer, high blood pressure)</td>
</tr>
<tr>
<td>• Explain the effects of healthy and unhealthy foods on the body (e.g., healthy foods provide nutrients for growth and development; unhealthy foods contribute to a lack of energy and obesity)</td>
<td>• Identify basic human body systems and their functions (i.e., skeletal: gives body support and shape; muscular: helps body move; circulatory: moves blood throughout the body; respiratory: helps the body use the air we breathe; digestive: helps the body use food to make energy; nervous: controls all body actions)</td>
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</tr>
</tbody>
</table>
### Standard 2. Students will analyze the influence of family, peers, culture, media, technology and other factors on health behaviors

- Identify ways in which the family influences and supports personal health practices and behaviors (e.g., preparing family meals using new food guide pyramid, portion control, basic hygiene, media/technology time, littering)
- Identify ways the media can influence health behaviors (e.g., advertisements for food, product placement in television programs, product backing by athletes, noise pollution)
- Explain how health careers (e.g., dietician, doctor, nurse) benefit an individual's community
- Explain the purposes of advertisements and commercials for health-related products and services (e.g., motivate the consumer, promote goods and services)

### Standard 3. Students will demonstrate the ability to access valid information and products and services to enhance health

- Identify the basic tasks of community health service providers (e.g., doctors, nurses, firefighters, police)
- Explain from whom (e.g., doctors, nurses, firefighters, police, school counselors, school nurses) and where (e.g., nurse's office, counselor's office, fire station) to seek health-related assistance at school and in the community
- Identify resources from home, school, and community that provide valid health information, (e.g., school counselor, health care providers, teachers, family members)
- Explain how to use resources from home, school, and community that provide valid health information (e.g., making an appointment with the school counselor, providing pertinent information to health care workers) Identify ways to manage money in health-related decisions (e.g., fruit/candy, water/soda, roller blades/motorized scooter)
- Describe the characteristics of valid health information, products, and services (e.g., food pyramid, USDA, FDA, nutrition labels, CDC)
- Describe the different types of health-related advertisements and commercials in the media (e.g., testimonials, bandwagon)

### Standard 4. Students will demonstrate the ability to use interpersonal communication skills to enhance health and avoid or reduce health risks

- Apply refusal skills (e.g., when to say no, when to walk away) that enhance health

### Standard 5. Students will demonstrate the ability to use decision-making skills to enhance health
### Standard 6. Students will demonstrate the ability to use goal-setting skills to enhance health

- Describe a short term personal health goal (e.g., nutritious choices, physical activity time per day)
- Set a short-term personal health goal (e.g., daily physical activity, watching less television, eating healthy foods) and describe a plan to achieve it
- Describe the steps of goal setting (e.g., establish goal, explain how goals affect health, describe a plan to reach goal, evaluate progress)
- Describe how to use goal setting to enhance personal health (e.g., increasing activity, making healthy food choices, improving endurance, flexibility, and strength)
- Develop a long term plan to achieve a personal health goal (e.g., eating the proper servings from each group in the food pyramid)

### Standard 7. Students will demonstrate the ability to practice health-enhancing behaviors and avoid or reduce health risks

- Identify positive health choices (e.g., eat fruits and vegetables, physical activity with friends, use medicine safely)
- Identify ways to encourage peers in making positive healthy choices (e.g., food choices, safety practices, saying no to harmful substances, participation in physical activity)
- Describe ways to support peers and others in making positive health choices (e.g., helping a friend or family member choose healthy foods for a meal, physical activities instead of TV/computer/video games)
- Identify ways to promote good health (e.g., positive role model, having a positive attitude about health)
- Explain the importance of being a health advocate (e.g., positive role models, having a positive attitude about health, health fairs, posters)

### Notes

See notes for Table B14.
Table B17. State of North Dakota Concepts and Skills for Healthy Eating for Grades 5–12

| Standard 1. Students will comprehend concepts related to health promotion and disease prevention |
|---|---|---|---|
| **Grade 5** | **Grade 6** | **Grades 7-8** | **Grades 9-12** |
| • Explain the benefits of nutrition and physical activity as they relate to total wellness | • Identify the causes and prevention of common diseases and other health problems (e.g., asthma, diabetes, obesity, allergies, cardio-vascular disease) | • Explain how personal values and beliefs influence individual health practices (e.g., nutrition, personal hygiene, abstinence) and behaviors | • Analyze healthy versus unhealthy behaviors and their relationships to health promotion and disease prevention (e.g., active lifestyle vs. sedentary lifestyle, healthy diet vs. fad diets) |
| • Explain the maintenance of human body systems (e.g., skeletal: choose foods high in calcium and vitamin D, be physically active) | • Explain the benefits of nutrition and physical activity as they relate to the overall well-being of individuals (e.g., obesity) | • Explain the causes and prevention of common diseases and other health problems (e.g., asthma, diabetes, obesity, allergies, cardio-vascular disease) | • Explain ways individuals can take responsibility for enhancing their own health (e.g., personal responsibility for dietary choices and reading labels, participating in physical activities, stress reduction, abstinence) |

| Standard 2. Students will analyze the influence of family, peers, culture, media, technology and other factors on health behaviors |
|---|---|---|---|
| **Grade 5** | **Grade 6** | **Grades 7-8** | **Grades 9-12** |
| • Identify ways an individual's family, friends, and culture influence personal and community health practices | • Describe ways the media influence an individual's thoughts, feelings, and health behaviors | • Describe the factors (e.g., commercials, peers, media) that can influence choices about health care products and services | • Describe situations (e.g., diabetes, chronic depression, prenatal and postnatal care, alcohol or drug related problems, child abuse) that require professional health services |
| • Describe ways the media can influence an individual's thoughts, feelings, and health behaviors | • Describe ways external factors (e.g., family, peers, culture, media, technology) affect health in positive and negative ways (e.g., advertisements that promote or discourage tobacco and alcohol use; effects of TV, the internet and video games on physical activity) | • Analyze how external factors (e.g., family, peers, culture, media, technology) affect physical, mental, and social health in positive and negative ways (e.g., the effect of advertising on food choices, peer influences on internet usage) | • Evaluate how a physical environment influences the health of individuals and the community (e.g., the application of pesticides and herbicides on agricultural products; environmental issues that affect the water supply and nutritional quality of food) |
| • Describe the factors (e.g., commercials, peers, media) that can influence choices about health care products and services | • Describe situations (e.g., diabetes, chronic depression, prenatal and postnatal care, alcohol or drug related problems, child abuse) that require professional health services |

| Standard 3. Students will demonstrate the ability to access valid information and products and services to enhance health |
|---|---|---|---|
| **Grade 5** | **Grade 6** | **Grades 7-8** | **Grades 9-12** |
| • Identify situations that require professional health services (e.g., depression, eating disorders, drug or alcohol usage) | • Analyze the validity of common health information, products, and services (e.g., brand-name versus generic medicine, health fads, weight loss fads, tanning | • Identify situations that require professional health services (e.g., depression, eating disorders, drug or alcohol usage) | • Describe situations (e.g., diabetes, chronic depression, prenatal and postnatal care, alcohol or drug related problems, child abuse) that require professional health services |
- Describe effective verbal and nonverbal communication skills to enhance health (e.g., passive, assertive and aggressive behaviors)
- Health services in the areas of prevention, treatment, and rehabilitation
- Describe resources (e.g., reputable internet sites such as Centers for Disease Control, Surgeon General, and National Institute of Health, Chamber of Commerce, or public health organizations) to access valid and reliable health information, products, and services both in and outside of the community
- Identify local, state, federal, and private agencies (e.g., Food and Drug Administration [FDA], Environmental Protection Agency [EPA], United States Department of Agriculture [USDA], State Department of Health, State Attorney General’s Office, and County Health) that protect and inform consumers
- Determine criteria (e.g., costs and benefits, consumer guide, advice from health professionals, the media) used to evaluate health information, products, and services (e.g., research using medical journals, consumer health sources, research institutes)
- Evaluate resources, products, and services based on appropriate criteria (e.g., costs and benefits), consumer guides, and advice from health professionals.

<table>
<thead>
<tr>
<th>Standard 4. Students will demonstrate the ability to use interpersonal communication skills to enhance health and avoid or reduce health risks</th>
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<tbody>
<tr>
<td>• Apply effective verbal and nonverbal communication skills to enhance health (e.g., send clear messages about the effects of tobacco use on health)</td>
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<tr>
<td>• Apply refusal, negotiation, and collaboration skills to enhance health and avoid or reduce health risks</td>
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<table>
<thead>
<tr>
<th>Standard 5. Students will demonstrate the ability to use decision-making skills to enhance health</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Describe the consequences of decisions regarding health behaviors (e.g., tobacco, alcohol, drugs, nutrition and physical activity) for oneself and others</td>
</tr>
<tr>
<td>• Identify the steps (e.g., clarify, consider, choose) of the decision-making process (e.g., going to a game or doing your homework</td>
</tr>
<tr>
<td>• Apply the decision making process (e.g., gathering facts, assessing the alternatives, implementing a decision, evaluating the outcome) as it relates to a healthy lifestyle Compare the short and long term impacts of alternative choices (e.g., pop vs. water, smoking vs. nonsmoking, wearing a seatbelt vs. not wearing a seatbelt, abstinence vs. sexual activity in health-related situations</td>
</tr>
</tbody>
</table>

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Standard 6. Students will demonstrate the ability to use goal-setting skills to enhance health

- Develop and implement short term and long term personal goals that enhance health (e.g., nutrition journal, fitness plan)
- Develop goals to sustain or improve personal health practices
- Identify ways in which personal health goals can be influenced by abilities, priorities, and responsibilities (e.g., maturation, peers, values, and family)
- Develop a life-long plan to sustain personal health (e.g., remaining drug-free, maintaining safe levels of cholesterol and blood pressure)

Standard 7. Students will demonstrate the ability to practice health-enhancing behaviors and avoid or reduce health risks

- Identify people and groups who advocate for health (e.g., health and physical education teachers, police officers, nurses, American Cancer Society, local community organizations) Identify ways to convey accurate health information and ideas to individuals and groups (e.g., setting an example as a role-model, health fairs, posters, school and community presenters)
- Identify strategies (e.g., compromise, active listening, knowledge of facts and myths, assertiveness) to influence and support others in making positive health choices Describe ways to convey (e.g., Power Point presentation, group projects, posters) health information and ideas to individuals and groups
- Describe strategies (e.g., compromise, active listening, knowledge of facts, assertiveness) to influence and work cooperatively with others to advocate for healthy individuals, families, and communities
- Explain how an individual can improve or sustain community health initiatives and or services (e.g., exercising voting privileges on health-related matters; assisting in the development of health policies or laws; evaluating community health services and presenting concerns to legislators)
- Develop strategies to influence and support others in making positive health choices (e.g., working as a peer trainer, counseling others on health issues, gaining support of school administrators and community leaders, service learning and health fair projects)
- Apply strategies to influence and support others in making positive health choices (e.g., working as a peer trainer, counseling others on health issues, gaining support of school administrators and community leaders, service learning and health fair projects)
- Apply strategies (e.g., utilizing peer and societal norms, data, surveys) to express information and opinions about health issues
- Evaluate the effectiveness of a communication method (e.g., public service announcements, television or magazine advertisements, web sites) used to deliver health information

Notes. See notes for Table B14.
• Identify and describe the stages of growth and development
• Identify and know the location and function of the major body organs and systems (muscular, skeletal)
• Identify and use safe practices in physical activity settings (e.g., proper equipment, knowledge of rules, guidelines of safe play, warm-up, cool-down)
• Know the positive and negative effects of regular participation in moderate to vigorous physical activities
• Know and recognize changes in body responses during moderate to vigorous physical activity (heart rate, breathing rate)
• Identify likes and dislikes related to participation in physical activities
• Identify reasons why regular participation in physical activities improves motor skills
• Recognize and use basic movement skills and concepts (locomotor movements (e.g., run, leap, hop), non-locomotor movements (e.g., bend, stretch, twist), manipulative movements (e.g., throw, catch, kick), relationships (e.g., over, under, beside), combination movements (e.g. locomotor, non-locomotor, manipulative), space awareness (e.g., self-space, levels, pathways, directions), effort (e.g., speed, force)
• Recognize and describe the concepts of motor skill development using appropriate vocabulary (form, developmental differences, critical elements, feedback)
• Know the function of practice
• Identify and use principles of exercise to improve movement and fitness activities (frequency/how often to exercise, intensity/how hard to exercise, time/how long to exercise, type/what kind of exercise)
• Know and describe scientific principles that affect movement and skills using
• Describe growth and development changes that occur between childhood and adolescence and identify factors that can influence these changes
• Identify and describe the structure and function of the major body systems (nervous, muscular)
• Analyze nutritional concepts that impact health (relationship of food intake and physical activity (energy output))
• Identify health problems that can occur throughout life and describe ways to prevent them (i.e., maintain proper weight, eat a balanced diet)
• Explain the relationship between personal health practices and individual well-being
• Explain the effects of regular participation in moderate to vigorous physical activity (heart rate monitoring, checking blood pressure, fitness assessment)
• Identify factors that have an impact on the relationship between regular participation in physical activity and the degree of motor skill improvement (success-oriented activities, school-community resources, variety of activities, time on task)
• Identify and apply the concepts of motor skill development to a variety of basic skills (transfer between skills, selecting relevant cues, types of feedback, movement efficiency, product (outcome/result))
• Describe the relationship between practice and skill development
• Describe and apply the principles of exercise to the components of health-related and skill-related fitness (cardiorespiratory endurance, muscular strength, muscular endurance, flexibility, body composition)
• Analyze factors that impact growth and development between adolescence and adulthood (risk factors (e.g., dietary patterns))
• Analyze the interdependence existing among the body systems
• Analyze factors that impact nutritional choices of adolescents (athletic goals)
• Analyze how personal choice, disease and genetics can impact health maintenance and disease prevention
• Analyze the effects of regular participation in moderate to vigorous physical activities in relation to adolescent health improvement (stress management, disease prevention, weight management)
• Analyze factors that affect the responses of body systems during moderate to vigorous physical activities (e.g., climate, altitude, location, temperature, healthy fitness zone, individual fitness status (e.g., cardiorespiratory fitness, muscular endurance, muscular strength, flexibility))
• Analyze factors that impact the relationship between regular participation in physical activity and motor skill improvement (personal choice, developmental differences, amount of physical activity, authentic practice)
• Describe and apply the components of skill-related fitness to movement performance (agility, balance, coordination, power, reaction time, speed)
• Describe and apply concepts of motor skill development that impact the quality of increasingly complex movements (response selection, stages of learning a motor skill (i.e., verbal, cognitive, motor, automatic), types of skill (i.e. discrete, serial, continuous))
• Identify and apply practice strategies for skill improvement
• Identify and describe the principles of
• Evaluate factors that impact growth and development during adulthood and late adulthood
• Evaluate factors that impact the body systems and apply protective/preventive strategies (fitness level)
• Analyze factors that impact nutritional choices of adults (changes in nutritional requirements due to physical activity level)
• Identify and analyze factors that influence the prevention and control of health problems (research, medical advances, technology, government, policies/regulations)
• Analyze the effects of regular participation in a self-selected program of moderate to vigorous physical activities (social, physiological, psychological)
• Evaluate how changes in adult health status may affect the responses of the body systems during moderate to vigorous physical activity (aging, injury, disease)
• Analyze the interrelationships among regular participation in physical activity, motor skill improvement and the selection and engagement in lifetime physical activities
• Apply knowledge of movement skills, skill-related fitness and movement concepts to identify and evaluate physical activities that promote personal lifelong participation
• Incorporate and synthesize knowledge of motor skill development concepts to improve the quality of motor skills (open and closed skills, short-term and long-term memory, aspects of good performance)
• Evaluate the impact of practice strategies on skill development and improvement
• Incorporate and synthesize knowledge of exercise principles, training
<table>
<thead>
<tr>
<th>Standard 1. Students will recognize and describe game strategies and physical activities using appropriate vocabulary.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Identify and use scientific principles that affect basic movement and skills using appropriate vocabulary</strong></td>
</tr>
<tr>
<td><strong>Identify and apply game strategies to basic games and physical activities</strong></td>
</tr>
<tr>
<td><strong>Recognize and describe game strategies (faking/dodging, passing/receiving, moving to be open, defending space, following rules of play)</strong></td>
</tr>
<tr>
<td><strong>Appropriate vocabulary</strong></td>
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</tbody>
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<table>
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<tr>
<th>Standard 2. Students will analyze the influence of family, peers, culture, media, technology and other factors on health behaviors.</th>
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<tbody>
<tr>
<td><strong>Identify media sources that influence health and safety</strong></td>
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<tr>
<td><strong>Explain the media’s effect on health and safety issues</strong></td>
</tr>
<tr>
<td><strong>Describe factors that affect childhood physical activity preferences (enjoyment, personal interest, social experience, opportunities to learn new activities, parental preference, environment)</strong></td>
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</tbody>
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<table>
<thead>
<tr>
<th>Standard 3. Students will demonstrate the ability to access valid information and products and services to enhance health.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Identify health-related information (signs and symbols, terminology, products and services)</strong></td>
</tr>
<tr>
<td><strong>Explain the relationship between health-related information and consumer choices</strong></td>
</tr>
<tr>
<td><strong>Analyze the relationship between health-related information and adolescent consumer choices (weight control products)</strong></td>
</tr>
<tr>
<td><strong>Identify and describe health care products and services that impact adolescent health practices</strong></td>
</tr>
<tr>
<td><strong>Analyze media health and safety messages and describe their impact on personal health and safety</strong></td>
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<table>
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<tr>
<th>Standard 4. Students will demonstrate the ability to use interpersonal communication skills to enhance health and avoid or reduce health risks.</th>
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<tbody>
<tr>
<td><strong>Recognize conflict situations and identify strategies to avoid or resolve (walk away, I statements, refusal skills, adult intervention)</strong></td>
</tr>
<tr>
<td><strong>Recognize positive and negative interactions of small group activities (roles, cooperation/sharing, on-task participation)</strong></td>
</tr>
<tr>
<td><strong>Describe strategies to avoid or manage conflict and violence (anger management, peer mediation, reflective listening, negotiation)</strong></td>
</tr>
<tr>
<td><strong>Identify and describe positive and negative interactions of group members in physical activities (leading, following, teamwork, etiquette, adherence to rules)</strong></td>
</tr>
<tr>
<td><strong>Analyze and apply strategies to avoid or manage conflict and violence (negotiation, assertive behavior)</strong></td>
</tr>
<tr>
<td><strong>Assess factors that impact adult health consumer choices (access to health information, access to health care)</strong></td>
</tr>
<tr>
<td><strong>Evaluate health care products and services that impact adult health practices</strong></td>
</tr>
</tbody>
</table>

**principles and health and skill-related fitness components to create a fitness program for personal use**
### Standard 5. Students will demonstrate the ability to use decision-making skills to enhance health

- Identify the steps in a decision-making process
- Describe and apply the steps of a decision-making process to health and safety issues
- Analyze and apply a decision-making process to adolescent health and safety issues
- Describe and apply strategies for emergency and long-term management of injuries (rescue breathing, water rescue, self-care, sport injuries)
- Examine and apply a decision-making process to the development of short and long-term health goals
- Evaluate factors that affect physical activity and exercise preferences of adults (personal challenge, physical benefits, finances, motivation, access to activity, self-improvement)

### Standard 6. Students will demonstrate the ability to use goal-setting skills to enhance health

- Analyze and engage in physical activities that are developmentally/individually appropriate and support achievement of personal fitness and activity goals
- Examine and apply a decision-making process to the development of short and long-term health goals
- Evaluate and engage in an individualized physical activity plan that supports achievement of personal fitness and activity goals and promotes life-long participation
- Assess and use strategies for enhancing adult group interaction in physical activities (shared responsibility, open communication, goal-setting)
Standard 7. Students will demonstrate the ability to practice health-enhancing behaviors and avoid or reduce health risks

- Identify environmental factors that affect health
- Identify and engage in physical activities that promote physical fitness and health
- Analyze environmental factors that impact health
- Analyze the role of individual responsibility for safety during physical activity
- Identify and engage in moderate to vigorous physical activities that contribute to physical fitness and health
- Explain the interrelationship between the environment and personal health
- Analyze the role of individual responsibility for safety during organized group activities
- Analyze and engage in physical activities that are developmentally/individually appropriate and support achievement of personal fitness and activity goals
- Explain and apply the basic movement skills and concepts to create and perform movement sequences and advanced skills
- Analyze the interrelationship between environmental factors and community health
- Evaluate the benefits, risks and safety factors associated with self-selected life-long physical activities
- Evaluate and engage in an individualized physical activity plan that supports achievement of personal fitness and activity goals and promotes life-long participation

Notes. Standard 1: This state does a good job of addressing concepts such as health-related and skill-related fitness, components of fitness (cardiorespiratory, muscular strength and endurance, flexibility) and addressing the multitude of factors that can influence participation in physical activity (competence, availability/access, costs, nature of activity, enjoyment, etc.); standards are very specific for some concepts (types of movement – locomotor, nonlocomotor, etc.), but other concepts are completely absent (recommendations for activity levels, hydration, etc.). Standards 2, 4 and 7: Comprehensive coverage of general sub-skills, at least two specific skill examples provided. Standard 3: Several important sub-skills are not addressed; one specific application of a skill is provided. Standard 5: Incomplete coverage of sub-skills, but multiple examples of skill application offered. Standard 6: The fundamentals of goal-setting (short- vs. long-term goals, barriers to action, how to create an action plan, strategies to overcome barriers) are absent, but several advanced examples of goal-setting and plan implementation are provided. Standard 8: No attention is paid to this standard or these skills
Table B19. State of Pennsylvania Concepts and Skills for Healthy Eating for Grades 3, 6, 9, and 12

| Standard 1. Students will comprehend concepts related to health promotion and disease prevention |
|---|---|---|---|---|
| **Grade 3** | **Grade 6** | **Grade 9** | **Grade 12** |
| • Identify and know the location and function of the major body organs and systems (circulatory, respiratory, muscular, skeletal, digestive) | • Describe growth and development changes that occur between childhood and adolescence and identify factors that can influence these changes | • Analyze factors that impact growth and development between adolescence and adulthood (relationships, interpersonal communication, risk factors (e.g., physical inactivity, substance abuse, intentional/unintentional injuries, dietary patterns), abstinence, STD and HIV prevention, community) | • Evaluate factors that impact the body systems and apply protective/preventive strategies (fitness level, environment (pollutants, available health care), health status, (physical, mental, social), nutrition) |
| • Explain the role of the food guide pyramid in helping people eat a healthy diet (food groups, number of servings, variety of food, nutrients) | • Identify and describe the structure and function of the major body systems (nervous, muscular, integumentary, urinary, endocrine, reproductive, immune). | • Analyze the interdependence existing among the body systems. | • Analyze factors that impact nutritional choices of adults (cost, food preparation (e.g., time, skills), consumer skills (e.g. understanding food labels, evaluating fads), nutritional knowledge, changes in nutritional requirements (e.g., age, physical activity level)) |
| • Analyze nutritional concepts that impact health (caloric content of foods, relationship of food intake and physical activity (energy output), nutrient requirements, label reading, healthful food selection) | • Identify health problems that can occur throughout life and describe ways to prevent them | • Identify and describe the structure and function of the major body systems (nervous, muscular, integumentary, urinary, endocrine, reproductive, immune). | • Analyze factors that impact nutritional choices of adolescents (cost, food preparation (e.g., time, skills), consumer skills (e.g. understanding food labels, evaluating fads), nutritional knowledge, changes in nutritional requirements (e.g., age, physical activity level)) |
| • Explain the relationship between personal health practices and individual well-being | • Analyze factors that impact nutritional choices of adolescents (body image, advertising, dietary guidelines, eating disorders, peer influence, athletic goals) | • Analyze the relationship between personal health practices and individual well-being | • Compare and contrast the positive and negative effects of the media on adult personal health and safety |

| Standard 2. Students will analyze the influence of family, peers, culture, media, technology and other factors on health behaviors |
|---|---|---|---|
| **Grade 3** | **Grade 6** | **Grade 9** | **Grade 12** |
| • Identify media sources that influence health and safety | • Explain the media’s effect on health and safety issues | • Analyze factors that impact nutritional choices of adolescents (body image, advertising, dietary guidelines, eating disorders, peer influence, athletic goals) | • Compare and contrast the positive and negative effects of the media on adult personal health and safety |
| • Analyze media health and safety messages and describe their impact on personal health and safety | • Analyze the relationship between health-related information and adolescent consumer choices (advertising, peer influence) | • Evaluate factors that impact the body systems and apply protective/preventive strategies (fitness level, environment (pollutants, available health care), health status, (physical, mental, social), nutrition) | |

<p>| Standard 3. Students will demonstrate the ability to access valid information and products and services to enhance health |
|---|---|---|---|
| <strong>Grade 3</strong> | <strong>Grade 6</strong> | <strong>Grade 9</strong> | <strong>Grade 12</strong> |
| • Identify health-related information (signs and symbols, terminology, products and services) | • Explain the relationship between health-related information and consumer choices (dietary guidelines/food) | • Analyze the relationship between health-related information and adolescent consumer choices (tobacco products, | • Assess factors that impact adult health consumer choices (access to health information, access to health care, cost, |</p>
<table>
<thead>
<tr>
<th>Standard 4. Students will demonstrate the ability to use interpersonal communication skills to enhance health and avoid or reduce health risks</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Recognize conflict situations and identify strategies to avoid or resolve (walk away, I statements, refusal skills, adult intervention)</td>
</tr>
<tr>
<td>• Recognize positive and negative interactions of small group activities (roles, cooperation/sharing, on-task participation)</td>
</tr>
<tr>
<td>• Describe strategies to avoid or manage conflict and violence (anger management, peer mediation, reflective listening, negotiation)</td>
</tr>
<tr>
<td>• Analyze and apply strategies to avoid or manage conflict and violence (negotiation, assertive behavior)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Standard 5. Students will demonstrate the ability to use decision-making skills to enhance health</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Identify the steps in a decision-making process</td>
</tr>
<tr>
<td>• Describe and apply the steps of a decision-making process to health and safety issues</td>
</tr>
<tr>
<td>• Analyze and apply a decision-making process to adolescent health and safety issues</td>
</tr>
<tr>
<td>• Examine and apply a decision-making process to the development of short and long-term health goals</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Standard 6. Students will demonstrate the ability to use goal-setting skills to enhance health</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Examine and apply a decision-making process to the development of short and long-term health goals</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Standard 7. Students will demonstrate the ability to practice health-enhancing behaviors and avoid or reduce health risks</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Identify environmental factors that affect health</td>
</tr>
<tr>
<td>• Analyze environmental factors that impact health</td>
</tr>
<tr>
<td>• Explain the interrelationship between the environment and personal health</td>
</tr>
<tr>
<td>• Analyze the interrelationship between environmental factors and community health</td>
</tr>
</tbody>
</table>

| Standard 8. Students will demonstrate the ability to advocate for personal, family and community health |

**Note.** HECAT evaluation levels are modified for this state. Assessments based on grades 3, 6, 9 and 12 instead of 2, 5, 8 and 12. Standard 1: Concept coverage is incomplete; concepts that are mentioned are not covered in depth (someone unfamiliar would require an additional resource). Standard 2: The majority of the sub-skills are mentioned in generic terms, but specific examples of skill demonstration are lacking. Standards 3-9: Standards do not include a comprehensive review of the necessary sub-skills nor are specific examples of how to apply the skill for this topic.
Table B20. State of Utah Concepts and Skills for Physical Activity for Grades K–4

<table>
<thead>
<tr>
<th>Grade K</th>
<th>Grade 1</th>
<th>Grade 2</th>
<th>Grade 3</th>
<th>Grade 4</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Standard 1:</strong> Students will develop a sense of self.</td>
<td><strong>Standard 1:</strong> Students will develop a sense of self.</td>
<td><strong>Standard 1:</strong> Students will develop a sense of self.</td>
<td><strong>Standard 1:</strong> Students will develop a sense of self.</td>
<td><strong>Standard 1:</strong> Students will develop a sense of self.</td>
</tr>
<tr>
<td><strong>Objective 1:</strong> Describe and practice responsible behaviors for health and safety.</td>
<td><strong>Objective 1:</strong> Describe and practice responsible behaviors for health and safety.</td>
<td><strong>Objective 1:</strong> Describe and practice responsible behaviors for health and safety.</td>
<td><strong>Objective 1:</strong> Describe and practice responsible behaviors for health and safety.</td>
<td><strong>Objective 1:</strong> Describe and practice responsible behaviors for health and safety.</td>
</tr>
<tr>
<td>a. Describe proper care of the body</td>
<td>c. Recognize signs of physical activity (e.g., heart rate, breathing, sweat)</td>
<td>e. Practice basic safety and identify hazards.</td>
<td>d. Identify the harmful effects of tobacco on self and others (e.g., death, heart and lung disease, shortness of breath).</td>
<td>e. Recall basic safety (e.g., follow rules, maintain personal space/boundaries, know phone number, address, emergency number)</td>
</tr>
</tbody>
</table>

**Standard 2:** Students will analyze the influence of family, peers, culture, media, technology and other factors on health behaviors

**Objective 1:** Describe the benefits of physical activity.  
c. Relate behaviors that can help prevent disease (fitness)  
d. Identify the harmful effects of tobacco on self and others (e.g., death, heart and lung disease, shortness of breath.)  
e. Adopt basic safety habits (e.g., wear a seatbelt, practice bicycle safety, find adult help in an emergency).

**Objective 2:** Demonstrate ways to strengthen the cardiovascular and respiratory systems.

c. Model ways to show care and acceptance of the body (exercise, balanced diet)

**Objective 3:** Exhibit qualities associated with healthy body image.

c. Model ways to show care and acceptance of the body (exercise, balanced diet)

**Standard 3:** The students will understand and respect self and others related to human development and relationships.

**Objective 1:** Summarize the functions of the cardiovascular and respiratory systems.

a. Review the major body systems and their basic functions.

b. Describe the cardiovascular and respiratory systems.

**Objective 4:** Demonstrate ways to strengthen the cardiovascular and respiratory systems.

**Objective 5:** The students will adopt behaviors to maintain personal health and safety and develop appropriate strategies to resolve conflict.

**Objective 1:** Determine how to participate safely in recreational activities.  
a. List recreational and athletic activities and potential injuries.  
b. Identify safety equipment and procedures needed for various recreational and athletic activities.  
c. Practice safety precautions associated with changes in weather.
Standard 2: Students will develop a sense of self in relation to families and community.
Objective 2: Identify important aspects of community and culture that strengthen relationships.
   a. Describe resources in the community (e.g., police officer, firefighter, library, museum).
   b. Recognize the positive and negative impact of media.

Standard 2: Students will develop a sense of self in relation to families and community.
Objective 2: Examine important aspects of the community and culture that strengthen relationships.
   c. Describe cultural traditions in family and community.
   d. Recognize the positive and negative impact of media.

Standard 7: The students will understand the value of service and effective consumer practices.
Objective 2: Describe the influence of media on making healthy choices. (LA) (LM)
   a. Find health-related messages in media.
   b. Determine the reliability of health messages in the media, including Internet.
   c. Report the effect of media on decision-making.

Standard 4: Students will demonstrate the ability to use interpersonal communication skills to enhance health and avoid or reduce health risks
Standard 5: Students will demonstrate the ability to use decision-making skills to enhance health

Standard 1: The students will learn ways to improve mental health and manage stress.
Objective 1: Demonstrate responsibility for self and actions.
d. Determine how good decision making can help complete responsibilities.

Standard 1: The students will learn ways to improve mental health and manage stress.
Objective 1: Demonstrate effective decision-making based on positive self-worth. *PD
a. Identify characteristics of positive self-worth; e.g., ability to set goals, self efficacy and values, physical, social, mental health.
b. Apply the decision-making process; i.e., identify the problem, gather information, identify alternatives, predict the immediate and long-term consequences, make the best choice, act, evaluate results.
c. Identify factors that may influence decision-making; e.g., media, peers, environment, self-worth.

Standard 5: The students will adopt behaviors to maintain personal health and safety and develop appropriate strategies to resolve conflict.
Objective 2: Make decisions about taking appropriate risks.
a. Analyze dares, risks, and challenges.
b. Predict the outcomes of taking reasonable and unreasonable risks.
c. Apply decision-making skills to dares, risks, and challenges.
Standard 6. Students will demonstrate the ability to use goal-setting skills to enhance health

Objective 3: Set goals to enhance personal health.
   a. Recognize how physical, mental, and social health interrelate.
   b. Evaluate personal health in each of these areas.

Standard 7. Students will demonstrate the ability to practice health-enhancing behaviors and avoid or reduce health risks

Objective 2: Develop and apply skills in fine and gross motor movement.
   a. Participate daily in sustained periods of physical activity that requires exertion (e.g., one to five minutes of walking, jogging, jump roping).
   b. Perform fundamental locomotor and non-locomotor skills in movement sequences and game applications (e.g., walk-hop-skip, run-stretch-skate, run-hop-lay up).
   c. Perform manipulative skills exhibiting a majority of correct technique components (e.g., soccer kick: eyes on ball, step with foot opposite to kicking foot, contact ball with inside of foot, follow through).
   d. Identify components of physical fitness (i.e., strength, endurance, flexibility) and corresponding activities.
   e. Create and perform unique dance movements and sequences that expand physical skills while demonstrating personal and spatial awareness.
Standard 8. Students will demonstrate the ability to advocate for personal, family and community health
Table B21. State of Utah Concepts and Skills for Physical Activity for Grades 5–10

<table>
<thead>
<tr>
<th>Grade 5</th>
<th>Grade 6</th>
<th>Grade 7–8</th>
<th>Grade 9–10</th>
</tr>
</thead>
</table>

**Standard 1. Students will comprehend concepts related to health promotion and disease prevention**

**Objective 1: Examine the consequences of drug use, misuse, and abuse.**

- a. Define the short and long term effects of alcohol, tobacco, and other drugs (e.g., steroids, inhalants, stimulants).

**Objective 2: Use decision-making skills to increase the likelihood of positive outcomes.**

**Objective 3: Summarize the physiological effects of substance use.**

- a. Identify legal age for using some substances and the consequences for underage use.
- b. Examine the benefits of maintaining lifelong fitness and the consequences of inactivity.
- c. Identify and investigate available fitness resources.
- d. Create individual fitness goals.

**Objective 4: Participate in a physical activity that is enjoyable and fosters confidence.**

**Standard 2: The students will adopt health-promoting and risk-reducing behaviors to prevent substance abuse.**

**Objective 2: Use decision-making skills to increase the likelihood of positive outcomes.**

**Objective 3: Summarize the physiological effects of substance use.**

- a. Identify the effects of drug use on the body.

**Objective 4: Participate in a physical activity that is enjoyable and fosters confidence.**

**Standard 3: Students will demonstrate health-promoting and risk-reducing behaviors to prevent substance abuse.**

**Objective 1: Examine the consequences of drug use, misuse, and abuse.**

- a. Define the short and long term effects of alcohol, tobacco, and other drugs (e.g., brain development/function).
- d. Identify legal consequences for the abuse of alcohol, tobacco, and other drugs.

**Objective 2: Analyze how physical activity benefits overall health.**

- a. Describe the components and benefits of proper nutrition.
- b. Develop strategies for maintaining lifelong fitness and avoiding the consequences of inactivity.

**Objective 3: Recognize the importance of a healthy body image and develop appropriate weight management behaviors.**

- a. Explain how caloric intake and energy expenditure affect body weight.
- b. Explore the short and long term effects of poor nutrition and inactivity (e.g., obesity, chronic diseases).
- c. Evaluate the strengths and weaknesses of various body-weight indicators (e.g., Body Mass Index [B.M.I.], waist circumference, body fat percentage calculators).
- d. Examine the causes, symptoms, and the short and long-term consequences of eating disorders.

**Standard 4: Students will demonstrate the ability to apply prevention and safety procedures, and first aid within a variety of circumstances.**

- a. Identify and avoid potential hazards in a variety of situations.

**Standard 5: The students will adopt behaviors to maintain personal health and safety and develop appropriate strategies to resolve conflict.**

- a. Identify and avoid potential hazards in a variety of situations.

**Objective 1: Describe potential hazards, safety procedures, and first aid within a variety of circumstances.**

**Objective 2: Evaluate personal activity level and food intake with the Dietary Guidelines for Americans and plan ways to improve health.**

- a. Compare daily food intake and caloric output with Dietary Guidelines for Americans.
- b. Examine the causes, symptoms, and the short and long-term consequences of eating disorders.

- a. Explain short and long term effects of alcohol, tobacco, and other drugs (e.g., steroids, inhalants, stimulants).
- b. Explore the short and long term effects of poor nutrition and inactivity (e.g., obesity, chronic diseases).
- c. Evaluate the strengths and weaknesses of various body-weight indicators (e.g., Body Mass Index [B.M.I.], waist circumference, body fat percentage calculators).
- d. Examine the causes, symptoms, and the short and long-term consequences of eating disorders.
a. Identify a fun physical activity.
b. Participate in an activity that is challenging and rewarding.
c. Recognize the legal consequences of depressants, prescription painkillers).
Standard 4: Students will demonstrate the ability to apply prevention and intervention knowledge, skills, and processes to promote safety in the home, school, and community.
Objective 1: Identify personal behaviors that contribute to or detract from safety.
b. Explore how participation in healthy lifestyle activities includes safety considerations (e.g., safety equipment, including protective gear and seatbelts, exercise warm-up and cool-down, preparing for exercise in severe weather conditions).
Standard 5: Students will understand and summarize concepts related to health promotion and the prevention of communicable and non-communicable diseases.
Objective 1: Explain the transmission and prevention of communicable diseases.
b. Discuss symptoms of common communicable diseases.
c. Describe methods of prevention and treatment for communicable diseases (e.g., personal hygiene, immunization, balanced diet, exercise, rest, natural body defenses, abstinence from high risk behaviors).
Objective 2: Identify the effects of non-communicable diseases.
a. Recognize common non-communicable diseases (e.g., arthritis, cancer, cardiovascular disease, diabetes, asthma, allergies).
 Standard 2: The students will analyze the influence of family, peers, culture, media, technology and other factors on health behaviors

<table>
<thead>
<tr>
<th>Standard 2: The students will adopt health-promoting and risk-reducing behaviors to prevent substance abuse.</th>
<th>Standard 2: The students will adopt health-promoting and risk-reducing behaviors to prevent substance abuse.</th>
<th>Standard 1: Students will demonstrate the ability to use knowledge, skills, and strategies related to mental and emotional health to enhance self-concept and relationships with others.</th>
<th>Standard 1: Students will demonstrate knowledge, skills, and strategies related to mental and emotional health to enhance self-concept and relationships with others.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objective 2: Use decision-making skills to increase the likelihood of positive outcomes. *PD</td>
<td>Objective 3: Assess the role of positive peer involvement in making healthy</td>
<td>Objective 2: Identify strategies that</td>
<td>Objective 2: Identify strategies that</td>
</tr>
</tbody>
</table>
a. Describe how advertising may influence individual choices.

**Standard 7: The students will understand the value of service and effective consumer practices.**

**Objective 2: Determine the influence of media on individual purchasing. (LM)**

a. Analyze the influence of media on needs and wants.
b. Describe how media strategies may contribute to impulsive buying.

c. Analyze the influence of media on body image.
Standard 4. Students will demonstrate the ability to use interpersonal communication skills to enhance health and avoid or reduce health risks

<table>
<thead>
<tr>
<th>Standard</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard 1: The students will learn ways to improve mental health and manage stress.</td>
<td>Objective 1: Develop strategies for appropriately and safely expressing emotions.</td>
</tr>
<tr>
<td>Standard 2: The students will adopt health-promoting and risk-reducing behaviors to prevent substance abuse.</td>
<td>Objective 3: Assess the role of positive peer involvement in making healthy choices. *PD</td>
</tr>
<tr>
<td>Standard 3: The students will understand and respect self and others related to human development and relationships.</td>
<td>Practice Refusal Skills® in responding to pressure from others.</td>
</tr>
</tbody>
</table>

**Standard 5. Students will demonstrate the ability to use decision-making skills to enhance health**

<table>
<thead>
<tr>
<th>Standard 1: Students will demonstrate knowledge, skills, and strategies related to mental and emotional health to enhance self-concept and relationships with others.</th>
<th>Objective 4: Create and maintain healthy relationships.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard 3: The students will understand and respect self and others related to human development and relationships.</td>
<td>b. Develop and practice effective communication skills.</td>
</tr>
<tr>
<td>Objective 1: Demonstrate qualities that help form healthy interpersonal relationships.</td>
<td>e. Apply interpersonal communication skills (e.g., assertiveness, refusal skills, negotiation, conflict management).</td>
</tr>
<tr>
<td>b. Practice effective communication skills.</td>
<td></td>
</tr>
<tr>
<td>b. Demonstrate ability to communicate affection appropriately.</td>
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</tbody>
</table>

**Standard 6. Students will demonstrate the ability to use goal-setting skills to enhance health**

<table>
<thead>
<tr>
<th>Standard 1: Students will demonstrate the ability to use knowledge, skills, and strategies related to mental and emotional health to enhance self-concept and relationships with others.</th>
<th>Objective 4: Create and maintain healthy relationships.</th>
</tr>
</thead>
<tbody>
<tr>
<td>b. Develop and practice effective communication skills.</td>
<td>e. Apply interpersonal communication skills (e.g., assertiveness, refusal skills, negotiation, conflict management).</td>
</tr>
</tbody>
</table>
Standard 7. Students will demonstrate the ability to practice health-enhancing behaviors and avoid or reduce health risks

Standard 1: The students will learn ways to improve mental health and manage stress.
Objective 1: Summarize how communicating with others can help improve overall health.
- c. Adopt behaviors to help maintain mental health; e.g., reading, exercise, lifelong learning, abstaining from substance abuse.

Standard 3: The students will understand and respect self and others related to human development and relationships.
Objective 1: Practice ways of showing respect for self and others.
- a. Adopt behaviors that contribute to a healthy body image.

Standard 8. Students will demonstrate the ability to advocate for personal, family and community health
Table B22. State of Utah Concepts and Skills for Healthy Eating for Grades K–4

<table>
<thead>
<tr>
<th>Standard 1: Students will comprehend concepts related to health promotion and disease prevention</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objective 1: Describe and adopt behaviors for health and safety.</td>
</tr>
<tr>
<td>a. Explain the importance of balance in a diet.</td>
</tr>
<tr>
<td>b. Relate behaviors that can help prevent disease (e.g., hand washing, good nutrition, fitness).</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Standard 4: The students will understand concepts related to health promotion and disease prevention</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objective 2: Determine the relation between food intake and activity. (PE)</td>
</tr>
<tr>
<td>*NU</td>
</tr>
<tr>
<td>a. Define calories.</td>
</tr>
<tr>
<td>b. Estimate the number of calories needed for growth and body function.</td>
</tr>
<tr>
<td>c. Predict the change in caloric requirements due to participation in activities.</td>
</tr>
<tr>
<td>d. Plan a balanced food intake for one day.</td>
</tr>
<tr>
<td>Objective 3: Summarize how and why bodies differ in shape and size.</td>
</tr>
<tr>
<td>*NU</td>
</tr>
<tr>
<td>a. Describe the role of nutrition in growth and development.</td>
</tr>
</tbody>
</table>
Standard 2. Students will analyze the influence of family, peers, culture, media, technology and other factors on health behaviors

Standard 2: Students will develop a sense of self in relation to families and community.
Objective 2: Identify important aspects of community and culture that strengthen relationships.
d. Describe cultural traditions in family and community.

e. Recognize the positive and negative impact of media.

Standard 7: The students will understand the value of service and effective consumer practices.
Objective 2: Describe the influence of media on making healthy choices. (LA) (LM)
a. Find health-related messages in media.
b. Determine the reliability of health messages in the media, including Internet.
c. Report the effect of media on decision-making.

Standard 3. Students will demonstrate the ability to access valid information and products and services to enhance health

Standard 2: Students will develop a sense of self in relation to families and community.
Objective 2: Identify important aspects of community and culture that strengthen relationships.
a. Describe resources in the community (e.g., police officer, firefighter, library, museum).

Standard 7: The students will understand the value of service and effective consumer practices.
Objective 3: Summarize the role of health services in the community.
a. List various health services.
b. Define the role of each service.
c. Identify situations in which the health services can or should be accessed.

Standard 4. Students will demonstrate the ability to use interpersonal communication skills to enhance health and avoid or reduce health risks
| Standard 5. Students will demonstrate the ability to use decision-making skills to enhance health |
| Standard 1: The students will learn ways to improve mental health and manage stress. |
| Objective 1: Demonstrate responsibility for self and actions. |
| d. Determine how good decision making can help complete responsibilities. |

| Standard 1: The students will learn ways to improve mental health and manage stress. |
| Objective 1: Demonstrate effective decision-making based on positive self-worth. *PD |
| a. Identify characteristics of positive self-worth; e.g., ability to set goals, self efficacy and values, physical, social, mental health. |
| b. Apply the decision-making process; i.e., identify the problem, gather information, identify alternatives, predict the immediate and long-term consequences, make the best choice, act, evaluate results. |
| c. Identify factors that may influence decision-making; e.g., media, peers, environment, self-worth. |

| Standard 6. Students will demonstrate the ability to use goal-setting skills to enhance health |
| Standard 1: The students will learn ways to improve mental health and manage stress. |
| Objective 3: Set goals to enhance personal health. |
| a. Recognize how physical, mental, and social health interrelate. |
| b. Evaluate personal health in each of these areas. |
Standard 7. Students will demonstrate the ability to practice health-enhancing behaviors and avoid or reduce health risks

Standard 6: The students will understand how a healthy diet and exercise can increase the likelihood of physical and mental wellness.

Objective 1: Compare personal eating habits with a balanced diet. *NU
a. Record daily food intake.

Objective 2: Determine the relation between food intake and activity. (PE) *NU
d. Plan a balanced food intake for one day.

Standard 8. Students will demonstrate the ability to advocate for personal, family and community health
<table>
<thead>
<tr>
<th>Standard 1: Students will comprehend concepts related to health promotion and disease prevention</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objective 3: Predict the influence body image may have on body acceptance.</td>
</tr>
<tr>
<td>a. Explain body image and body acceptance.</td>
</tr>
<tr>
<td>b. Recognize influences on body shape and size; e.g., diet, disabilities, exercise, heredity.</td>
</tr>
<tr>
<td>c. Recognize factors that may affect body image; e.g., media, peers, self expectations.</td>
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<table>
<thead>
<tr>
<th>Standard 4: The students will understand concepts related to health promotion and disease prevention</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objective 1: Define viruses and how they are transmitted.</td>
</tr>
<tr>
<td>a. List several diseases caused by viruses.</td>
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</table>

<table>
<thead>
<tr>
<th>Standard 4: The students will understand concepts related to health promotion and disease prevention</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objective 1: Compare viruses to other microorganisms. (SC)</td>
</tr>
<tr>
<td>a. List several types of microorganisms.</td>
</tr>
<tr>
<td>b. Explain how viruses differ from other microorganisms.</td>
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<table>
<thead>
<tr>
<th>Standard 1: Students will demonstrate the ability to use knowledge, skills, and strategies related to mental and emotional health to enhance self-concept and relationships with others.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objective 1: Develop strategies for a healthy self-concept.</td>
</tr>
<tr>
<td>a. Identify ways to build self-esteem including ways to identify strengths and weaknesses.</td>
</tr>
<tr>
<td>b. Analyze how risk and protective factors affect self-concept.</td>
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<table>
<thead>
<tr>
<th>Standard 2: Students will use nutrition and fitness information, skills, and strategies to enhance health.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objective 1: Describe the components and benefits of proper nutrition.</td>
</tr>
<tr>
<td>a. Identify the primary nutrients and describe their functions.</td>
</tr>
<tr>
<td>b. Explain how the United States Department of Agriculture’s Seven Dietary Guidelines and the most recent Food Pyramid can enhance proper nutrition.</td>
</tr>
<tr>
<td>c. Recognize ways to make healthy food choices (e.g., reading food labels, calculating calorie intake).</td>
</tr>
<tr>
<td>d. List school and community nutritional resources.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Standard 3: Recognize the importance of a healthy body image and develop appropriate weight management behaviors.</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Explain how weight control is affected by caloric intake and energy expenditure.</td>
</tr>
<tr>
<td>b. Explore the short and long term effects of poor nutrition and inactivity (e.g., obesity, chronic diseases).</td>
</tr>
<tr>
<td>c. Describe the strengths and weaknesses of various body-weight indicators (e.g., Body Mass Index [B.M.I.], waist circumference, body fat percentage calculators).</td>
</tr>
<tr>
<td>d. Examine the causes, symptoms, and the short and long-term consequences of eating disorders.</td>
</tr>
</tbody>
</table>
Standard 6: The students will understand how a healthy diet and exercise can increase the likelihood of physical and mental wellness.

Objective 1: Predict the impact of the Dietary Guidelines for Americans on health. *NU
a. Know the Dietary Guidelines for Americans.
b. Relate how following the Dietary Guidelines for Americans may impact the health of individuals as well as communities; e.g., obesity, heart disease, cancer, insurance rates, missed work days.

Objective 2: Evaluate personal activity level and food intake with the Dietary Guidelines for Americans and plan ways to improve health. (PE) *NU
a. Analyze food intake and compare to Dietary Guidelines for Americans.
b. Determine how changes in personal activity level and food intake may benefit personal health.

Objective 3: Recognize influences that may affect body types and sizes.
a. Summarize the role of nutrition and exercise in body development.

Standard 5: Students will understand and summarize concepts related to health promotion and the prevention of communicable and noncommunicable diseases.

Objective 1: Explain the transmission and prevention of communicable diseases.
a. Identify pathogens and how they are transmitted.
b. Discuss symptoms of common communicable diseases.
c. Describe methods of prevention and treatment for communicable diseases (e.g., personal hygiene, immunization, balanced diet, exercise, rest, natural body defenses, abstinence from high risk behaviors).

Objective 2: Analyze the effects of non-communicable diseases.
a. Recognize common non-communicable diseases (e.g., arthritis, cancer, cardiovascular disease, diabetes, asthma, allergies).
<table>
<thead>
<tr>
<th>Standard 1: Students will demonstrate the ability to use knowledge, skills, and strategies related to mental and emotional health to enhance self-concept and relationships with others. Objective 2: Identify strategies that enhance mental and emotional health.</th>
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<tbody>
<tr>
<td>Standard 7: Students will understand the value of service and effective consumer practices. Objective 3: Determine ways to be a more effective health consumer.</td>
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<tr>
<td>Standard 2: Students will use nutrition and fitness information, skills, and strategies to enhance health. Objective 3: Recognize the importance of a healthy body image and develop appropriate weight management behaviors.</td>
</tr>
<tr>
<td>Standard 6: Students will demonstrate knowledge of human development, social skills, and strategies to encourage healthy relationships and healthy growth and development throughout life. Objective 2: Describe the interrelationship of mental, emotional, social, and physical health during adolescence.</td>
</tr>
<tr>
<td>Standard 1: Students will learn ways to improve mental health and manage stress. Objective 3: Predict the influence body image may have on body acceptance.</td>
</tr>
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<td>Standard 7: The students will understand the value of service and effective consumer practices. Objective 3: Determine the influence of media on individual purchasing. (LM)</td>
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### Standard 3: Students will demonstrate the ability to access valid information and products and services to enhance health

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<thead>
<tr>
<th>Standard 7: The students will understand the value of service and effective consumer practices.</th>
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<tbody>
<tr>
<td><strong>Objective 3:</strong> Explore a variety of health-related professions.</td>
</tr>
<tr>
<td>a. Research health-related professions.</td>
</tr>
<tr>
<td>b. Select and report on a health-related profession.</td>
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</tbody>
</table>

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<thead>
<tr>
<th>Standard 5: The students will adopt behaviors to maintain personal health and safety and develop appropriate strategies to resolve conflict.</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Identify sources of responsible help for self and others; e.g., parents, grandparents, school counselors, health professionals, clergy.</td>
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</table>

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<th>Standard 7: The students will understand the value of service and effective consumer practices.</th>
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<tr>
<td><strong>Objective 2:</strong> Research and summarize the reliability of health resources and information. (LM)</td>
</tr>
<tr>
<td>a. Identify various types of health resources and information; e.g., pamphlets, journals, Internet, folklore, peers, fact lines, quackery, healthcare professionals, media.</td>
</tr>
<tr>
<td>b. Determine a standard for reliability in health resources and information.</td>
</tr>
<tr>
<td>c. Evaluate the reliability of resources and information based on the established standards.</td>
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</table>

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<tr>
<th>Standard 2: Students will use nutrition and fitness information, skills, and strategies to enhance health.</th>
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<tbody>
<tr>
<td><strong>Objective 1:</strong> Describe the components and benefits of proper nutrition.</td>
</tr>
<tr>
<td>d. Identify and investigate community nutritional resources.</td>
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</tbody>
</table>

### Standard 4: Students will demonstrate the ability to use interpersonal communication skills to enhance health and avoid or reduce health risks

<table>
<thead>
<tr>
<th>Standard 3: The students will understand and respect self and others related to human development and relationships.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Objective 1:</strong> Demonstrate qualities that help form healthy interpersonal relationships.</td>
</tr>
<tr>
<td>b. Practice effective communication skills.</td>
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</tbody>
</table>

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<th>Standard 3: The students will understand and respect self and others related to human development and relationships.</th>
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<tr>
<td><strong>Objective 1:</strong> Practice ways of showing respect for self and others.</td>
</tr>
<tr>
<td>b. Demonstrate ability to communicate affection appropriately.</td>
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</table>

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<th>Standard 1: Students will demonstrate knowledge, skills, and strategies related to mental and emotional health to enhance self-concept and relationships with others.</th>
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<tbody>
<tr>
<td><strong>Objective 4:</strong> Create and maintain healthy relationships.</td>
</tr>
<tr>
<td>b. Develop and practice effective communication skills.</td>
</tr>
<tr>
<td>e. Apply interpersonal communication skills (e.g., assertiveness, refusal skills, negotiation, conflict management).</td>
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Standard 5. Students will demonstrate the ability to use decision-making skills to enhance health

Standard 1: Students will demonstrate the ability to use knowledge, skills, and strategies related to mental and emotional health to enhance self-concept and relationships with others.
Objective 1: Develop strategies for a healthy self-concept.
e. Use decision making skills to solve personal problems.

Standard 6. Students will demonstrate the ability to use goal-setting skills to enhance health

Standard 1: Students will demonstrate the ability to use knowledge, skills, and strategies related to mental and emotional health to enhance self-concept and relationships with others.
Objective 1: Develop strategies for a healthy self-concept.
b. Identify goal-setting strategies and use them to create a plan for reaching a health-related goal.

e. Create personal goal-setting strategies to promote a healthy lifestyle.

Standard 7. Students will demonstrate the ability to practice health-enhancing behaviors and avoid or reduce health risks

Standard 1: The students will learn ways to improve mental health and manage stress.
Objective 1: Summarize how communicating with others can help improve overall health.
c. Adopt behaviors to help maintain mental health; e.g., reading, exercise, lifelong learning, abstaining from substance abuse.

Standard 3: The students will understand and respect self and others related to human development and relationships.
Objective 1: Practice ways of showing respect for self and others.
a. Adopt behaviors that contribute to a healthy body image; e.g., posture, hygiene, exercise, balanced diet.

Standard 6: The students will understand how a healthy diet and exercise can increase the likelihood of physical and mental wellness.
Objective 2: Compare a variety of food preparation techniques. *NU
c. Prepare a nutritionally sound snack.

Standard 8. Students will demonstrate the ability to advocate for personal, family and community health
Table B24. State of Washington Benchmarks for Physical Activity for Grades K–5

<table>
<thead>
<tr>
<th>Grade K</th>
<th>Grade 1</th>
<th>Grade 2</th>
<th>Grade 3</th>
<th>Grade 4</th>
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**Standard 1. Students will comprehend concepts related to health promotion and disease prevention**

- Recognizes movement concepts.
- Understands movement concepts.
- Continued in Standard 7
  - Recognizes concepts of personal and general space while moving safely in a variety of activities.
  - Understands concepts of personal and general space while moving safely in a variety of partner activities.
  - Continued in Standard 7
- Recognizes concepts of pathways while moving safely in a variety of activities.
- Understands concepts of pathways while moving safely in a variety of partner activities.
- Continued in Standard 7
- Recognizes concepts of levels while moving safely in a variety of activities.
- Understands concepts of levels while moving safely in a variety of partner activities.
- Continued in Standard 7
- Recognizes concepts of direction while moving safely in a variety of activities.
- Understands concepts of direction while moving safely in a variety of partner activities.
- Continued in Standard 7
- Recognizes concepts of relationships while moving safely in a variety of activities.
- Understands concepts of relationships while moving safely in a variety of partner activities.
- Continued in Standard 7
- Recognizes concepts of static and dynamic balance while moving safely in a variety of activities.
- Understands concepts of static and dynamic balance while moving safely in a variety of partner activities.
- Continued in Standard 7
- Recognizes concepts of effort while moving safely in a variety of activities.
- Understands concepts of effort while moving safely in a variety of partner activities.
- Continued in Standard 7
Understands safety rules and procedures in a variety of physical activities necessary to maintain a safe-learning environment.

- Describes rules and procedures.
  Example: Freezes on stop signal.
- Describes safe use of equipment when engaged in physical activities.
  Example: Maintains safe personal space when using a jump rope.
- Understands safety rules related to participation in physical activity.
  Example: Turns scooter over when not using.
- Understands when to rest.
  Example: Takes a break when tired and then restarts.
- Understands when to hydrate.
  Example: Drinks water before, during, and after exercise.
- Understands the importance of wearing proper shoes and clothing for safe participation.
  Example: Wears shoes that support physical activity and prevent injury (e.g., no wheels, flip flops, etc.).

Continued in Standard 7
Recognizes strategies necessary for effective participation in physical activities.

- Recognizes the concepts of offense and defense in a variety of activities. Example: Understands the difference between a tagger and a fleer/dodger.

Recognizes strategies necessary for effective participation in physical activities.

- Recognizes the concepts of offense and defense in a variety of individual, partner, and group activities.
  Example: Understands when your group has the ball, you are on offense. When your group does not have the ball, you are defense.

Understands strategies necessary for effective participation in physical activities.

- Understands the concepts of offense and defense in a variety of individual, partner, and group activities.
  Example: Explains defense means guarding or protecting something.

Understands strategies necessary for effective participation in physical activities.

- Understands basic strategies in games and activities.
  Example: Moves to an open space as a receiver.

Continued in Standard 7
Recognizes basic vocabulary and components of health-related fitness.

- Recognizes moderate vs. vigorous physical activity. Example: Recognizes changes in body signals during slow activities vs. fast activities.
- Recognizes cardiorespiratory endurance. Example: Recognizes body signals such as increased pulse.
- Recognizes muscular strength. Example: Recognizes that pushing, pulling, or lifting something heavy a few times develops strength.
- Recognizes muscular endurance. Example: Recognizes that pushing, pulling, or lifting for a long time develops muscular endurance.
- Recognizes flexibility. Example: Recognizes that twisting, bending, and stretching improve flexibility.

Understands basic vocabulary and components of health-related fitness.

- Describes each of the components of health-related fitness. Example: Describes flexibility as bending, twisting, and stretching.
- Describes the benefits of each of the components of health-related fitness. Example: Describes the benefits of playing on monkey bars at recess as muscular strength or muscular endurance.
- Applies components of health-related fitness. Example: Understands jumping rope contributes to the prevention of heart disease.
- Classifies daily activities that require each of the different components of health-related fitness. Example: Understands playing on monkey bars at recess is muscular strength or muscular endurance.
- Classifies a variety of physical activities into their appropriate places on the Activity Pyramid. Example: Gymnastics and tumbling are Activity Pyramid Level 3/Flexibility activities.
- Describes fitness assessments to corresponding components of health-related fitness. Example: Understands sit-and-reach measures flexibility; PACER measures cardiorespiratory endurance.
- Demonstrates proper technique in health-related fitness assessments. Example: Demonstrates proper trunk extension (not raising chin above 12" to protect back from hyperextension).
- Points out benefits of physical activity for the heart, lungs, and muscles. Example: Understands jumping rope contributes to the prevention of heart disease.
- Distinguishes the components of health-related fitness as they relate to the Activity Pyramid. Example: Understands lifestyle activities, such as walking the dog, should be done more frequently than sedentary activities, which do not contribute to health-related fitness.
- Infers how the FITT principle affects development of components of health-related fitness. Example: Understands the importance of playing active games at home frequently, with high intensity, contributes to heart health, as compared to sedentary activities such as surfing the internet for long periods of time.
- Applies components of health-related fitness. Example: Understands that a healthy level of muscular endurance would enable an individual to snowshoe or bicycle for long trips.
- Points out proper technique for health-related fitness assessments. Example: Evaluates a peer’s performance effectively (uses rubric for a correct push-up).

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CBA: Concepts of Health and Fitness; CBA: Welcome to Our School

- Analyzes progress in a fitness log. Example: Compares current fitness score to health standards.
- Distinguishes among lifestyle activities which improve components of health-related fitness. Example: Communicates that power walking improves cardiorespiratory endurance; canoeing/kayaking develops muscular endurance.
- Integrates FITT principle with components of health-related fitness using the Activity Pyramid. Example: Explains flexibility recommendations for Activity Pyramid Level 3 are: Frequency = 3–7 days/week; Intensity = stretch more than normal; Time = how many times (or reps) each day; Type = butterfly, quadriceps stretch.
- Analyzes how the FITT principle affects development of health-related fitness. Example: Compares personal fitness scores with exercise habits (frequency) to determine areas for focus.
- Draws conclusions based on criteria from fitness assessments for effective goal setting. Example: Sets appropriate goal, based on sit-and-reach score.
Recognizes basic vocabulary of the components of skill-related fitness (agility, balance, coordination, power, reaction time, and speed).

• Recognizes agility.
  Example: Recognizes quick movement.
• Recognizes static and dynamic balance.
  Example: Recognizes standing still.
• Recognizes coordination.
  Example: Recognizes eye-hand or eye-foot coordination.
• Recognizes power.
  Example: Recognizes strength.
• Recognizes reaction time.
  Example: Recognizes time needed to act quickly.
• Recognizes speed.
  Example: Recognizes short sprints.

Understands basic vocabulary of the components of skill-related fitness.
• Understands the basic components of skill-related fitness.
  Example: Understands quick movement, standing still, eye-hand or eye-foot coordination, strength, time needed to act quickly, and short sprints.
• Describes the benefits of each of the components of skill-related fitness.
  Example: Starting a race quickly is a benefit of reaction time.
• Gives examples of physical activities which incorporate one or more of the components of skill-related fitness.
  Example: Understands shuttle run is an activity with agility and dynamic balance.

Applies components of skill-related fitness.
• Applies components of skill-related fitness to improve performance in a variety of activities.
  Example: Understands power can increase jumping distance in the standing long jump.
• Relates components of skill-related fitness to daily activities.
  Example: Understands coordination may be improved when raking the leaves.

Analyzes components of skill-related fitness.
CBA: Concepts of Health and Fitness
• Distinguishes among lifetime activities which improve components of skill-related fitness.
  Example: Understands kayaking improves coordination, dynamic balance, and power.
Understands dimensions and indicators of health (emotional, physical, intellectual, and social).
- Understands well and not well.
- Discusses ways to care for body (skin, hair, teeth). Example: Brushes teeth at least twice daily.

Understands dimensions and indicators of health.
- Discusses clues that indicate well and not well. Example: Clues may include feeling energetic is well; feeling tired is not well.

Understands dimensions and indicators of health.
- Discusses various life choices and their effects on health. Example: Understands that not going to bed on time (life choice) might mean not ready to learn (effect).

Understands dimensions and indicators of health.
- Discusses wellness. Example: Wellness is when one has health in all dimensions.
- Explains how being well reduces health risks. Example: Understands that sleeping, eating well, and exercising reduce risk of becoming diabetic.
- Explains ways to improve health and wellness. Example: Understands that being active during free time improves health.

Understands the structure and function of body systems (circulatory, respiratory, skeletal, muscular, digestive, and nervous).
- Names the five senses and their functions.

Recognizes the structure and function of body systems.
- Recognizes the basic function of the muscular system. Example: Muscles move the body.
- Recognizes the basic function of heart and lungs; understands the heart pumps the blood to body parts; the lungs help with breathing.
- Identifies parts of the five sensory organs and their basic function. Example: Recognizes taste buds help taste different flavors.

Recognizes the structure and function of body systems.
- Identifies function of body systems. Example: Muscles move the body. Recognizes that the skeleton cannot move without muscles. Describes major muscles and their role in movement. Example: Describes that the biceps pull; quadriceps extend. Recogizes that the skeleton cannot move without muscles.

Recognizes the structure and function of body systems.
- Recognizes heart rate and breathing are affected by exercise. Example: Recognizes when exercising, the heart pumps faster and breathing rate increases.
- Recognizes the pathway food takes through the body. Example: Traces the food pathway through the digestive system using a diagram.
- Recognizes the pathway food takes through the body. Example: Traces the food pathway through the digestive system using a diagram.

Understands the structure and function of body systems.
- Describes connections between muscular and skeletal systems. Example: Describes that the skeleton cannot move without muscles.
- Describes major muscles and their role in movement. Example: Describes that the biceps pull; quadriceps extend.
- Describes the endocrine system. Example: Understands the endocrine system regulates growth and development.
- Describes how healthy habits contribute to overall health. Example: Understands that showing respect improves healthy friendships.
- Discusses strategies for improving dimensions of health. Example: Builds healthy friendships, makes healthy food choices, and spends time reading instead of playing videogames.
Recognizes how to prevent or reduce the risks of noncommunicable disease.
• Identifies personal health habits that reduce the risk of noncommunicable diseases.
  Example: Understands importance of regular exercise (to avoid heart disease) and balanced nutrition (to avoid diabetes).

Recognizes negative and positive effects of stress and stress management techniques.
• Identifies what stress feels like to the body.
  Example: Identifies worry or excitement.
• Identifies a technique to manage stress.
  Example: Talks to an adult.

Understands positive and negative effects of stress and stress management techniques.
• Describes ways to cope with and manage stress.
  Example: Understands if a friend doesn’t want to play any more (stress); invite someone else to play with you (cope).

Understands how to prevent or reduce the risks of noncommunicable disease.
• Defines allergies.
• Identifies common allergens and allergy symptoms.
  Example: Recognizes peanut allergy symptoms might include scratchy throat and difficulty breathing.
• Identifies ways to minimize exposure to allergens.
  Example: Understands if allergic to grass, don’t play on a recently mowed field.

Understands positive and negative effects of stress and stress management techniques.
• Describes stress and constructive ways to reduce it.
  Example: Forgets lunch (stress); tells the teacher (solution).

Understands how to prevent or reduce the risks of noncommunicable disease.
• Understands noncommunicable diseases are not transmitted from one person to another.
  Example: Understands a person can’t catch cancer from someone else.
• Describes asthma.
• Explains the triggers of an asthma attack.
  Example: Understands cold air is a trigger of an asthma attack.

Understands positive and negative effects of stress and stress management techniques.
• Explains how bodies react to stress.
  Example: Breathes faster, hands get moist, mouth gets dry.
• Explains steps to managing stress.
  Example: Identifies the stressor, creates strategies to resolve the problem, and asks for help.

Understands positive and negative effects of stress and stress management techniques.
• Explains helpful ways to manage stress on a daily basis.
  Example: Uses regular exercise, plenty of rest and sleep to manage stress.
• Explains how attitude affects stress.
  Example: Understands negative attitude can lessen ability to manage stress and reach personal goals. Positive attitude can provide more solutions to stressful situations.

Understands positive and negative effects of stress and stress management techniques.
• Explains how to prevent or reduce the risks of noncommunicable disease.
  Example: Describes flu vs. stroke.

Understands how to prevent noncommunicable disease.
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• Describes how family history can affect personal health.
  Example: Understands ways to prevent high blood pressure or sickle cell anemia.

Recognizes how to prevent or reduce the risks of noncommunicable disease.

Recognizes how to prevent or reduce the risks of noncommunicable disease.

Recognizes how to prevent or reduce the risks of noncommunicable disease.
None

Understands issues and risks related to drug use and abuse.
- Defines the word **drug**.
- Identifies various substances as drugs. Identifies medicine and alcohol.
- Understands the effects of environmental and external factors on personal, family, and community health.
- Understands how positive health behaviors contribute to a healthy environment.
- Describes routes of exposure (breathing, ingesting, and dermal exposure).
- Understands how environmental factors affect health.
- Understands how environmental factors affect personal health.
- Understands dose and exposure.
- Describes harmful effects of caffeine, alcohol, and tobacco.
- Describes harmful effects of tobacco, alcohol, and caffeine.
- Describes ways smoking and second hand smoke harm health.
- Explains differences between legal and illegal drugs.
- Describes harmful effects of illegal drugs.
- Describes ways to resist pressure to use drugs.
- Understands issues and risks related to drug use and abuse.
- Understands dose and exposure.
- Understands environmental factors affect health.
- Understands the effects of environmental and external factors on personal, family, and community health.
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- Describes harmful effects of illegal drugs.
- Describes ways to resist pressure to use drugs.
- Understands issues and risks related to drug use and abuse.
- Understands dose and exposure.
- Understands environmental factors affect health.
Recognizes daily health and fitness habits.
- Recognizes how home activities can influence fitness and healthy living.
  Example: Rides a bike after school to develop a healthy heart.
- Understands daily health and fitness habits.
- Describes how daily activities can influence fitness and healthy living.
  Example: Stretches in the morning to help muscles move better.
- Summarizes daily activities and describes how they positively affect fitness and healthy living.
  Example: Plays on monkey bars to increase strength.
- Explains how daily activities can influence specific components of health-related fitness and healthy living.
  Example: Rakes the leaves to improve muscular endurance.
- Gives examples of lifetime activities.
  Example: Identifies Ultimate, badminton, hiking
- Explains how daily activities can influence specific components of health-related fitness and healthy living.
  Example: Carries the groceries home to improve muscular endurance.
- Describes the effects of exercise on the body.
  Example: Exercises to improve mood and reduce stress.
- Describes how much sleep is needed each night to stay healthy.
  Example: Understands K-3rd graders need ten hours of sleep; 4th graders and up need nine hours of sleep.

**Standard 2. Students will analyze the influence of family, peers, culture, media, technology and other factors on health behaviors**

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<tbody>
<tr>
<td>• Describes healthy habits.</td>
<td>• Describes how various family members contribute to a family’s health habits.</td>
<td>• Describes how family members help one another.</td>
<td>• Describes how to adjust to family changes in healthful ways.</td>
<td>• Describes ways a family might influence the health of its members.</td>
</tr>
<tr>
<td>Example: Eats fruits and vegetables.</td>
<td>Example: Understands a family member provides healthy food choices for a meal.</td>
<td>Example: Reminds each other to wear sunscreen when outdoors.</td>
<td>Example: Holds a family meeting regarding arrival of a new sibling.</td>
<td>Example: Understands family members encourage appropriate rest and physical activity.</td>
</tr>
<tr>
<td>Example: Some people are adopted; others live with a grandparent or other guardian, two biological parents, two moms or dads, a single parent, and/or in two households.</td>
<td>Example: Understands the relationship between a healthy family and personal health.</td>
<td>Example: Describes ways family members help one another.</td>
<td>Example: Understands when grandparent moves in, family members share increased workload.</td>
<td>Example: Describes how cultural factors affect health.</td>
</tr>
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<td>Understands a family that exercises together will promote individual health.</td>
<td>Understands a family and cultural factors affect health.</td>
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<td>Understands appropriate strategies to support healthy family/cultural habits on a personal level.</td>
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<td>Analyzes daily health and fitness habits.</td>
<td>Applies daily health and fitness habits.</td>
<td>Understands how family and cultural factors affect health.</td>
<td>Describes appropriate strategies to support healthy family/cultural habits on a personal level.</td>
<td>Describes activities in which families could cooperate.</td>
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<td>CBA: Get Fit Summer; CBA: Welcome to Our School</td>
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## Standard 3. Students will demonstrate the ability to access valid information and products and services to enhance health

<table>
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<tr>
<th>Skill</th>
<th>Examples</th>
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</thead>
<tbody>
<tr>
<td>Recognizes reliable sources of health and fitness information.</td>
<td>Identifies school nurse or PE teacher.</td>
</tr>
<tr>
<td>Identifies reliable sources of health and fitness information.</td>
<td>Example: Identifies doctor or teacher.</td>
</tr>
<tr>
<td>Understands reliable sources of health and fitness information.</td>
<td>Gives examples of how advertisements give reliable and unreliable information about commercial products. Example: Understands children’s cereal ads stretch the truth.</td>
</tr>
<tr>
<td>Analyzes reliable sources of health and fitness information.</td>
<td>Points out ways to get health and fitness information. Example: Uses library or fitness teacher’s website.</td>
</tr>
<tr>
<td>Analyzes health and fitness messages in the media.</td>
<td>Analyzes hidden messages in advertising. Example: Understands “slimmer” or “join the crowd” are hidden messages.</td>
</tr>
</tbody>
</table>

## Standard 4. Students will demonstrate the ability to use interpersonal communication skills to enhance health and avoid or reduce health risks

<table>
<thead>
<tr>
<th>Skill</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Applies social skills necessary for effective participation in physical activities.</td>
<td>Demonstrates cooperative behaviors in physical activities. Example: Invites others to join group.</td>
</tr>
<tr>
<td>Demonstrates cooperative behaviors in physical activities. Example: Encourages others in a relay race.</td>
<td></td>
</tr>
<tr>
<td>Applies social skills necessary for effective participation in physical activities.</td>
<td>Demonstrates cooperation in small and large group activities. Example: Invites everyone in the group to share ideas. Allows girls to join the game with boys.</td>
</tr>
<tr>
<td>Demonstrates positive sportsmanship. Example: High-fives an opponent after an activity.</td>
<td></td>
</tr>
<tr>
<td>Analyzes health and fitness messages in the media.</td>
<td>Analyzes hidden messages in advertising. Example: Understands “slimmer” or “join the crowd” are hidden messages.</td>
</tr>
<tr>
<td>Points out rule violations and resolution strategies. Example: Calls own fouls (uses rock, paper, and scissors to resolve conflicts).</td>
<td></td>
</tr>
</tbody>
</table>

## Standard 5. Students will demonstrate the ability to use decision-making skills to enhance health
<table>
<thead>
<tr>
<th>Standard 6. Students will demonstrate the ability to use goal-setting skills to enhance health</th>
</tr>
</thead>
</table>
| **Identifies decision-making skills.**  
- Recognizes the importance of honesty when talking to trusted adults.  
  Example: Recognizes if dishonest one time, might not be believed when truth is told. |
| **Understands decision-making skills.**  
- Demonstrates steps for making responsible decisions.  
  Example: Brainstorms options for making a responsible decision.  
- Describes how to get help from a parent or trusted adult when made to feel uncomfortable or unsafe.  
  Example: Gets an adult’s attention right away, makes sure they’re listening, and tells them you have something important to say about your safety. |
| **Demonstrates decision-making skills.**  
- Demonstrates refusal skills.  
  Example: Demonstrates looking at the person and saying “no” in a firm voice. |
| **Applies decision-making skills.**  
- Describes steps for conflict resolution.  
  Example: Gives examples of steps which may include clarify, choice, consequences, and choose. |
| **Applies decision-making skills.**  
- Demonstrates steps for conflict resolution.  
  Example: Role plays “clarifying the problem” |
| **CBA: A Cartoon Role Model; CBA: New Kid on the Block; CBA: Welcome to Our School**  
- Demonstrates ways to express anger and resolve conflict without violence.  
  Example: Explains feelings calmly.  
- Demonstrates who to enlist for help with mediation of a conflict.  
  Example: Identifies adults to go to when there is conflict. |
| **Standard 6. Students will demonstrate the ability to use goal-setting skills to enhance health** |
| **Applies goals for improving health and fitness practices.**  
- Uses a basic fitness log, portfolio, or journal to record physical activity.  
  Example: Illustrates Monday = ten minutes of jumping rope.  
- Discovers personal health behaviors and sets a goal for changing behavior.  
  Example: Wants healthy teeth (no cavities) = needs to brush teeth more often/better. |
| **Applies goals for improving health and fitness practices.**  
- Uses a fitness log, portfolio, or journal to record physical activity.  
  Example: Illustrates Monday = 20 minutes of rope jumping and 40 minutes of soccer practice.  
- Implements a plan for participation in regular physical activities at home, school, or in the community.  
  Example: Rides bike 20 minutes a day.  
- Uses a personal health checklist to record personal health habits.  
  Example: Uses a calendar: Monday = went to bed on time.  
- Discovers individual health behaviors and creates a health plan for improvement.  
  Example: Lacks vegetables—will eat three servings every day. |
| **Applies goals for improving health and fitness practices.**  
- Uses a fitness log, portfolio, or journal to record physical activity.  
  Example: Illustrates Monday = 20 minutes of rope jumping and 40 minutes of soccer practice.  
- Implements a plan for participation in regular physical activities at home, school, or in the community.  
  Example: Rides bike 20 minutes a day.  
- Uses a personal health checklist to record personal health habits.  
  Example: Uses a calendar: Monday = went to bed on time.  
- Discovers individual health behaviors and creates a health plan for improvement.  
  Example: Lacks vegetables—will eat three servings every day. |
| **CBA: Get Fit Summer; CBA: Welcome to Our School**  
- Develops a plan to improve previous health-related fitness scores.  
  Example: Needs to improve muscular endurance by practicing push-ups, if push-up score is two.  
- Creates a health plan for improvement.  
- Generates resources to assist in achieving a personal health goal.  
  Example: Increases activity time. |
Demonstrates mature form in locomotor skills that contribute to movement proficiency.

- Demonstrates at least two critical elements used in locomotor skills: walk, jog, run, jump, hop, leap, gallop, slide, and skip.
- Example: Jumps by taking off and landing on both feet.

Demonstrates mature form in non-locomotor skills that contribute to movement proficiency.

- Demonstrates non-locomotor skills: bend, twist, stretch, push, pull, turn, swing, sway, and rock.
- Example: Twists at the waist.

Demonstrates static and dynamic balance using a variety of body parts and objects.

- Example: Balances on knees and one hand.

Demonstrates mature form in manipulative skills that contribute to movement proficiency.

- Demonstrates at least two critical elements used in the manipulative skills: roll, bounce, toss, throw, catch/receive, strike, kick, punt, and hand/foot dribble in isolation.
- Example: Steps in opposition, bends knees, and follows-through in an underhand roll.

Assigns locomotor, nonlocomotor, and manipulative, balance, and rhythmic skills in traditional and non-traditional activities that contribute to movement proficiency.

- Demonstrates mature patterns and smooth transitions between movement skills in group activities.
- Example: Receives a ball on the run.

- Demonstrates motor skill combinations in group activities.
- Example: Uses reach, step, and strike to serve.

- Demonstrates a variety of balance and control skills in locomotor activities.
- Example: Maintains body control while galloping.

- Demonstrates locomotor skills in a variety of activities and lead-up games.
- Example: Uses walking/jogging/running skills in soccer.

- Demonstrates mature form in non-locomotor skills that contribute to movement proficiency.
- Example: Drops/tosses and performs the chicken dance in increasingly complex movement activities.
- Example: Throws and catches a flying disc (foam, plastic) in Ultimate.

- Demonstrates dynamic balance in reverse climbing activities.
- Example: Throws to a stationary receiver.

- Demonstrates dynamic balance using a variety of sequences.
- Example: Performs a forward dip step, turn/pivot, backward dip step, then performs a scale on balance beam/bench.

- Demonstrates static and dynamic balance using a variety of sequences.
- Example: Performs a scooping motion with stationary targets.
- Example: Throws to a stationary receiver.

Standard 7. Students will demonstrate the ability to practice health-enhancing behaviors and avoid or reduce health risks

- Applies locomotor, nonlocomotor, and manipulative, balance, and rhythmic skills in traditional and non-traditional activities that contribute to movement proficiency.

- Demonstrates mature patterns and smooth transitions between movement skills in group activities.
- Example: Receives a ball on the run.

- Demonstrates motor skill combinations in group activities.
- Example: Uses reach, step, and strike to serve.

- Demonstrates a variety of balance and control skills in group activities.
- Example: Demonstrates a stable base of support while performing a forearm pass.

- Demonstrates manipulative skills using a variety of objects in group activities.
- Example: Performs a handoff with control in a relay race.

- Designs and performs repeatable sequences of tumbling activities using smooth transitions.
- Example: Performs a cartwheel into forward roll into an inverted balance.

- Demonstrates manipulative skills using a variety of objects in group activities.
- Example: Passes a volleyball (beach ball, trainer) in three with three modified game.
Demonstrates balance and rhythmic movement skills in traditional and nontraditional activities.

- Demonstrates static and dynamic balance in traditional and nontraditional activities. Example: Demonstrates body control in a forward roll.

Demonstrates mature form in manipulative skills that contribute to movement proficiency.

- Demonstrates critical elements used in the manipulative skills: roll, bounce, toss, throw, catch/receive, strike, kick, punt, and hand/foot dribble. Example: Catches a ball, demonstrating the following components: feet astride, body in-line, visually tracks object, reaches, and absorbs.

- Demonstrates manipulative skills in a variety of activities alone and with a partner. Example: Strikes a balloon using various body parts.

- Demonstrates manipulative skills using implements in a variety of activities. Example: Strikes a ball by using a foam paddle.

Demonstrates balance and rhythmic movement skills in traditional and nontraditional activities.

- Demonstrates a variety of static and dynamic balance skills found in educational gymnastics. Example: Performs a stork stand.

- Demonstrates static and dynamic balance skills found in artistic gymnastics. Example: Performs scales or egg rolls.

- Demonstrates simple rhythmic patterns using locomotor and nonlocomotor skills for self-expression. Example: Performs rhythmic patterns in cultural dances or using rhythm sticks.

Demonstrates balance and rhythmic movement skills in traditional and nontraditional activities.

- Demonstrates a variety of static and dynamic balance skills in tumbling sequences. Example: Demonstrates body control in a forward roll to backward roll or monkey jump to cartwheel.

- Demonstrates combinations of rhythmic patterns using a variety of locomotor and nonlocomotor skills. Example: Jumps in bunny hop or bends in hokey pokey.

- Demonstrates moving to a rhythm by combining locomotor and non-locomotor skills to perform basic folk and creative dance sequences. Example: Demonstrates a simple line dance.

- Demonstrates manipulative skills with stationary and moving targets in lead-up games and group activities. Example: Performs a basketball pass to a stationary/moving partner.

- Demonstrates manipulative skills while moving in lead-up games and group activities. Example: Dribbles and passes a ball with a partner toward a goal.

- Applies increasingly complex movement sequences using various rhythms. Example: Creates a partner routine synchronized to music while jumping rope.

- Demonstrates the ability to document practice for improved movement proficiency. Example: Records activities on a teacher-designed worksheet.
In Standard 1

Demonstrates movement concepts.
- Demonstrates concepts of personal and general space while moving safely in a variety of small group activities.
  Example: Demonstrates effective use of personal space and general space in small group activities.
- Demonstrates concepts of pathways while moving safely in a variety of small group activities.
- Demonstrates concepts of levels while moving safely in a variety of small group activities.
- Demonstrates concepts of direction while moving safely in a variety of small group activities.
- Demonstrates concepts of relationships while moving safely in a variety of small group activities.
- Demonstrates concepts of static and dynamic balance while moving safely in a variety of small group activities.
- Demonstrates concepts of effort while moving safely in a variety of small group activities.

Applies movement concepts.
- Applies movement concepts in dynamic and cooperative situations.
  Example: Demonstrates the concept of levels using parachute activities.
- Applies movement concepts to basic game strategies of offense and defense.
  Example: Demonstrates the concept of relationships (defender is between offender and goal).
- Shows a variety of dances that include various movement concepts.

Analyzes movement concepts.
- Integrates movement concepts in increasingly complex activities.
  Example: Demonstrates the concept of effort in a hockey partner drill.
- Compares and contrasts basic game strategies in increasingly complex activities.
  Example: Demonstrates spacing vs. bunching up in a variety of games.
- Analyzes a variety of dances that include various movement concepts.

Evaluates movement concepts.
- Tests movement concepts in complex movement activities and game situations.
  Example: Evaluates a peer's application of movement concepts in a game setting using a rubric.
- Critiques dances which include a variety of movement concepts.

Standard 8. Students will demonstrate the ability to advocate for personal, family and community health.
| Standard 1. Students will comprehend concepts related to health promotion and disease prevention |
|---|---|---|---|---|---|
| Grade 6 | Grade 7 | Grade 8 | Grade HS1 | Grade HS2 |
| Understands safety rules and procedures in a variety of physical activities: Individual, dual/team, and lifetime activities. | Understands safety rules and procedures in a variety of physical activities: Individual, dual/team, and lifetime activities. | Understands safety rules and procedures in a variety of physical activities: Individual, dual/team, and lifetime activities. | Applies how to perform activities and tasks safely and appropriately. | Applies how to perform activities and tasks safely and appropriately. |
| • Applies rules and etiquette in a variety of games. | • Applies rules and etiquette in a variety of games. | • Demonstrates proper handling of equipment. | CBA: Concepts of Health and Fitness | CBA: Concepts of Health and Fitness |
| • Recognizes personal space of self and others. | • Demonstrates ability to safely participate in a variety of physical activities. | • Demonstrates proper use of heart rate monitors. | • Predicts the risk level of various activities. | • Predicts the risk level of various activities. |
| • Understands space and position in a game or activity. | • Recognizes signals to pause activity for instruction. | • Demonstrates ability to organize own games and apply safety rules and procedures. | Example: Demonstrates safety in floor hockey (no high sticking). | Example: Demonstrates safety in floor hockey (no high sticking). |
| • Demonstrates ability to return/retrieve equipment in a safe manner. | | C: Demonstrates safety in fitness activities and personal fitness plan. | Example: Stays hydrated while participating in aerobic activities. | Example: Stays hydrated while participating in aerobic activities. |
| | | • Uses a personal risk assessment/survey before beginning physical activity (sport, fitness, leisure, and dance). | • Uses a personal risk assessment/survey before beginning physical activity (sport, fitness, leisure, and dance). | • Uses a personal risk assessment/survey before beginning physical activity (sport, fitness, leisure, and dance). |
| | | Example: Uses an assessment survey to determine readiness for participation in physical activity. | Analyzes safety and the importance of fitness in the work environment. | Analyzes safety and the importance of fitness in the work environment. |
| | | Applies skills and strategies necessary for effective and fair play/ participation in physical activities. | • Compares safety issues in various occupations. | • Compares safety issues in various occupations. |
| | | • Uses teamwork, tactical strategies, social interactions, sportsmanship, and fair play. | Example: Understands correct lifting techniques at work. | Example: Understands correct lifting techniques at work. |
Understands the components of health-related fitness.
- Explains components of health-related fitness as related to lifelong health.
  Example: Understands cardiorespiratory endurance is needed to climb stairs.
- Describes appropriate assessments to measure personal fitness in health-related components.
  Example: Recognizes a push up is a measure of muscular strength.
- Gives examples of realistic fitness goals based on current fitness measurement results and minimum health standards for age and gender.
  Example: Identifies Presidential Fitness: A 14-year-old girl must complete one pull up.
- Gives examples of activities promoting physical fitness in the components of health-related fitness.
  Example: Understands swimming promotes cardiorespiratory endurance.
- Describes FITT principle.

Understands the components of health-related fitness.
- Explains components of health-related fitness as related to lifelong health.
- Describes appropriate assessments to measure personal fitness in health-related components.
  Example: Recognizes the mile run is a measure of cardiorespiratory endurance.
- Summarizes realistic personal fitness goals based on current fitness measurement results and minimum health standards for age and gender.
  Example: Identifies FitnessGram, PACER: A 13-year-old boy must complete 55-74 for high performance.
- Understands how to track personal fitness using an activity log.
- Participates in activities that promote physical fitness in the components of health-related fitness.
  Example: Understands bicycling promotes cardiorespiratory endurance.

Applies the components of health-related fitness.
- Understands the relationship between the FITT principle and components of health-related fitness.
- Explains components of health-related fitness and their importance as related to lifelong health.
  Example: Understands muscular strength is needed for optimal bone health.
- Gives appropriate assessments to measure personal fitness in health-related components.
  Example: Recognizes the mile run is a measure of cardiorespiratory endurance.
- Summarizes realistic personal fitness goals based on current fitness measurement results and minimum health standards for age and gender.
  Example: Identifies FitnessGram, PACER: A 13-year-old boy must complete 55-74 for high performance.
- Understands how to track personal fitness using an activity log.
- Participates in activities that promote physical fitness in the components of health-related fitness.
  Example: Understands bicycling promotes cardiorespiratory endurance.

Analyzes the components of health-related fitness.
- CBA: Fitness Planning CBA: Concepts of Health and Fitness
  - Demonstrates the relationship between the FITT principle and components of health-related fitness as related to lifelong fitness.
- Performs self-assessments to measure personal fitness in components of health-related fitness.
  Example: Counts sit ups completed in 60 seconds.
- Implements, reflects, and adjusts realistic fitness goals based on current fitness measurement results and minimum health standards for age and gender in an activity log.
  Example: Sets a goal, performs the task, and then adjusts the goal.
- Uses FITT principle to plan and participate in activities promoting each of the components of health-related fitness.
  Example: Understands when participating in cardiorespiratory activities, intensity should be between 60 to 85 percent of the target heart rate.
- Shows personal benefits of making positive health and fitness improvements.
  Example: Recognizes increased cardiorespiratory endurance will decrease cardiovascular disease.

Evaluates the components of health-related fitness.
- Sets personal fitness goals using all components of health-related fitness.
- Evaluates personal fitness goals using all components of health-related fitness.
Understands phases of a workout.
CBA: Concepts of Health and Fitness
- Explains the phases of a workout.
  Example: Warm-up, stretch, physical activity, cool-down

Analyzes the progress of a personal fitness plan.
CBA: Fitness Planning
CBA: Concepts of Health and Fitness
- Compares and contrasts personal progress in relationship to national physical fitness standards.
  Example: Compares personal mile time to national physical fitness standards.
- Integrates various personal monitoring systems that assess the components of health-related fitness in relation to the FITT principle.
  Example: Understands FITT principle for cardiorespiratory endurance: F = 3-5 times per week; I = 60-85% target heart rate; T = 20-30 minutes; T = Running
- Integrates training principles and phases of a workout to a personal fitness plan.
  Example: Uses the progression training principle to gradually increase heart rate to prepare the body for activity, in the warm-up phase of a workout.
- Draws conclusions of the effectiveness of the personal fitness plan and realigns goals.

Evaluates the progress of a personal health and fitness plan.
- Critiques personal progress in relationship to national physical fitness standards.
- Selects a personal monitoring system that assesses the components of health-related fitness in relation to the FITT principle.
- Chooses appropriate phases of a workout and training principles in a personal health and fitness plan.
- Evaluates the effectiveness of the personal health and fitness plan and realigns goals.
Understands the components of skill-related fitness to physical activity.
- Understands the components of skill-related fitness.
- Describes appropriate fitness assessments for components of skill-related fitness.
  Example: Recognizes shuttle run is a measure of agility.
  • Participates in skill-related fitness assessments for goal setting.
  Example: Performs agility and balance assessments and sets personal goals.
  • Interprets self-progress for skill-related fitness assessments in a fitness plan.
  Example: Understands lower shuttle run times show improvement in agility.

Understands the components of skill-related fitness to physical activity.
- Applies the components of skill-related fitness to physical activity.
- Explains the importance of components of skill-related fitness in physical activity.
  Example: Understands increased coordination will improve juggling skills.
  • Performs appropriate fitness assessments for skill-related physical fitness.
  Example: Recognizes coin catch is a measure of reaction time.
  • Participates in skill-related physical fitness assessments for goal setting.
  Example: Performs assessments in coordination and reaction time and sets personal goals.
  • Interprets self-progress for skill-related physical fitness assessments in a fitness plan.
  Example: Understands improved juggling skills will show improvement in coordination.

Applies the components of skill-related fitness to physical activity.
- Shows differences between skill-related and health-related physical fitness components.
  Example: Understands agility measures quickness, and flexibility measures range of motion.
  • Demonstrates components of skill-related fitness in physical activity.
  Example: Recognizes power is needed when diving into the pool.
  • Demonstrates appropriate self-assessments in skill-related physical fitness.
  Example: Performs shuttle run when measuring agility.
  • Participates in skill-related physical fitness assessments for goal setting.
  Example: Performs assessments in speed and power and sets personal goals.
  • Shows progress in a fitness plan.
  Example: Understands lower sprint time will show improvement in speed.

Applies the components of skill-related fitness to physical activity.
- Shows correlation between components of skill-related and health-related fitness as it relates to overall fitness and physical performance.
  Example: Shows power and muscular strength in the long jump.

Analyzes components of skill-related fitness as related to careers/occupations/recreation.
- Selects components of skill-related fitness necessary for successful and safe performance in recreation and occupations.
  Example: Understands balance will enhance rock-climbing (recreation). Speed will enhance running up stairs (firefighter).

Explains how movement skills contribute to active living for lifetime health.
- Describes activities that lead to an active life.
  Example: Discusses how an active life includes recreational activities, sport, exercise, and dance.

Explains how movement skills contribute to active living for lifetime health.
- Describes how physical activity contributes to a healthy lifestyle.
  Example: Discusses how benefits of swimming may help cardiovascular fitness.

Explains how movement skills contribute to active living for lifetime health.
- Describes how physical activity contributes to a healthy lifestyle.
  Example: Discusses how benefits of power walking or jogging may help control diabetes.

Explains how movement skills contribute to active living for lifetime health.
- CBA: Fitness Plan for Pat CBA: Concepts of Health and Fitness
  Example: Discusses how physical activity contributes to a healthy lifestyle.
  Example: Discusses how benefits of power walking or jogging may help control diabetes.

Evaluates components of skill-related fitness as related to careers/occupations/recreation.
- Selects components of skill-related fitness necessary for successful and safe performance in recreation and occupations.
  Example: Understands balance will enhance rock-climbing (recreation). Speed will enhance running up stairs (firefighter).
Understands the effects of activity, fitness, and nutrition practices.
- Understands relationship between caloric intake and physical activity.
  Example: Understands more calories are expended in distance running compared to bowling.
- Creates a plan to improve performance based on nutritional practices.
  CBA: Fitness Plan for Pat
  - Shows relationship between caloric intake and physical activity.
  - Example: Uses a pedometer to view caloric expenditure after physical activity and compares calories on a nutrition label of a favorite drink.
  - Develops a personal/individual caloric needs assessment based on activity levels, age, and specific health requirements in a balanced health and fitness plan, including diet, sleep, and nutritional habits.
- Evaluates how nutritional requirements change.
  CBA: Concepts of Health and Fitness
  - Evaluates how nutritional needs change based on caloric needs, basal metabolic rate, and special conditions of various populations.
  - Example: Recognizes nutritional needs change with increased/decreased exercise, "couch potato," pregnancy, age, diabetes.

Recalls the dimensions of health and relates to personal health behaviors.
- Identifies dimensions of health.
  Example: Recognizes physical, social, intellectual, and emotional health.
- Describes a personal balance of each dimension of health.
  Example: Discusses working out three-to-five times per week for physical health, making time for family for social health; and learning daily study habits for intellectual health are dimensions of health.
- Points out how the dimensions of health create a balance of personal health.
  Example: Talks on phone at length with friends (social health) may create an unbalanced life because homework doesn’t get completed (intellectual health).
  - Analyzes personal health in relation to the dimensions of health.
  - Example: Understands that stress-management techniques may balance mental health.
- Concludes how personal well-being is negatively affected when an element(s) of dimensions of health is neglected.
  Example: Concludes too much social time will negatively affect academics.
- Critiques health and fitness data to make predictions and recommendations for lifelong wellness.
  Example: Understands that limited flexibility could predict back problems in adult life. Recommendation is to develop stretching routine to prevent back problems.
Understands benefits of maintaining a balance of healthy habits.
- Describes a healthy balance of stress, sleep, exercise, nutrition, recreation, and school.
Example: Understands that adolescents need nine-ten hours of sleep.

Understands the impact of smoking on the respiratory system.
- Understands similarities and differences with body changes, thinking processes, and self-esteem.
Example: Understands increases in height are at different ages for boys and girls.

Understands hereditary factors affecting growth, development, and health.
- Understands health risk factors that influence hereditary factors.
Example: Maintains healthy body weight and avoids tobacco use to prevent high blood pressure.

Understands benefits of maintaining a balance of healthy habits (stress, sleep, exercise, nutrition, recreation, and school).

Understands structure and functions of body systems using medically accurate terminology.
CBA: Touring the Systems
CBA: Concepts of Health and Fitness
- Describes the inter-relationships between the major body systems.
Example: Describes how body systems work together: Skeletal–muscular; respiratory–cardiovascular.

Evaluates hereditary factors affecting growth, development, and health.
- Evaluates health risks that influence hereditary factors.
Example: Exercises regularly to decrease chance of high blood pressure.

Analyzes benefits of maintaining a balance of healthy habits (stress, sleep, exercise, nutrition, recreation, and school).
- Compares negative vs. positive health habits.
Example: Compares poor nutrition may decrease energy (negative); where appropriate sleep may enhance energy (positive).

Analyzes the physiological and psychological changes throughout the lifetime.
CBA: Concepts of Health and Fitness
- Analyzes metabolic changes as individuals transition from early to late adulthood.
Example: Recognizes metabolism slows with aging.

- Analyzes the importance of maintaining cardiorespiratory and muscular fitness throughout life.
Example: Maintains aerobic and weight-training routine for longevity.

Understands benefits of maintaining a balance of healthy habits.
- Describes a healthy balance of stress, sleep, exercise, nutrition, recreation, and school.
Example: Understands that adolescents need nine-ten hours of sleep.
Understands skills that prevent and control non-communicable diseases.
- Describes prevention and control of non-communicable disease. Example: Avoids smoking to prevent heart disease.
- Describes the differences between communicable and non-communicable disease. Example: Explains communicable disease is HIV/AIDS, and non-communicable disease is cancer.

Understands emergency situations, ways to prevent injuries, and skills to respond appropriately and safely.
- Describes safe behaviors to minimize risk and prevent injury to self and others.

Applies first-aid skills, ways to prevent injuries, and skills to respond appropriately and safely.

Applies first-aid skills, ways to prevent injuries, and skills to respond appropriately and safely.

Evaluates emergency situations, ways to prevent injuries, and demonstrates skills to respond appropriately and safely.

Understands emergency situations, ways to prevent injuries, and skills to respond appropriately and safely.
- Describes safe behaviors to minimize risk and prevent injury to self and others.

Develops skills that prevent and control non-communicable diseases.
- Composes a list of community agencies, public policies, and resources available for prevention and treatment of non-communicable diseases. Example: Discusses public smoking laws may prevent heart disease.

Analyzes personal health practices, and how they affect non-communicable diseases.
CBA: New Student Orientation
CBA: Concepts of Health and Fitness
- Analyzes prevention, causative factors, and treatment of non-communicable diseases. Example: Analyzes heart disease: Concludes that prevention starts with diet; causative factor is sedentary lifestyle; and treatment is exercise and healthy diet.
- Analyzes non-communicable diseases associated with poor nutrition, lack of sleep, inadequate exercise, and substance abuse. Example: Analyzes alcoholism in relation to nutrition, sleep, and exercise.
- Analyzes non-communicable diseases and their impact on local and/or world populations. Example: Analyzes ethnic populations that have low prevalence of heart disease.

Chooses and demonstrates first-aid procedures that are appropriate for basic life support and automatic external defibrillation (AED), caring for bone and joint emergencies, caring for cold and heat injuries, and responding to medical emergencies.
Understands issues and risks related to drug use and abuse.
- Describes legal and illegal drugs.
- Describes benefits of being drug-free.
- Describes risks associated with alcohol and tobacco use.

Understands issues and risks related to drug use and abuse.
- Explains short and long-term physical and social effects of alcohol, tobacco, and other drugs.
  Example: Discusses tobacco stains teeth and could progress to emphysema. Short-term physical effect of alcohol is poor coordination and slows reaction time; long-term social effect of alcohol is loss of family.

Understands issues and risks related to drug use and abuse.
- Analyzes the stages of addiction and dependency and the impact on the individual, family, and society.
  CBA: New Student Orientation
  - Compares and contrasts the physical, social, and emotional indicators of possible substance abuse.
  - Understands legal implications of drug, alcohol, and tobacco use.
  CBA: New Student Orientation
  - Interprets school, community, state, and federal laws concerning drug, tobacco, and alcohol use.
  Example: Understands a person must be 21 years of age to consume alcohol.
  - Gives examples of the physical, behavioral, and legal impacts of commonly abused substances, such as marijuana, inhalants, anabolic steroids, and party drugs.

Understands issues and risks related to drug use and abuse.
- Describes legal and illegal drugs.
- Describes benefits of being drug-free.
- Describes risks associated with alcohol and tobacco use.
Understands how environmental factors impact health.

- Describes how environmental factors affect individual susceptibility (age, size, genetics, gender, and ethnicity) on health: Air, water, noise, and chemical pollution.

Example: Understands elderly, infants, young children, pregnant women, and sick people who have weakened immune systems are more likely to be harmed by exposure to a hazard than others.

Understands how environmental factors impact health.

- Illustrates the impact of exposure to air, water, noise, and chemical pollution on health.

Example: Analyzes water quality samples of local water sources to determine safe consumption.

Analyzes how environmental factors impact health.

- Analyzes routes of exposure, dose, toxicity, and individual susceptibility to develop strategies to mediate negative impacts from environmental hazards.

Example: Points out necessity of sun block for skin protection in infants, children, teens, and adults, and exposure over length of time (duration), (e.g., 30 minutes, 1 hour, 2 hours, and 4 hours).

Analyzes how environmental factors impact health.

- Draws conclusions on how air, water, noise, and chemical pollution affect health.

Example: Analyzes natural and man-made disasters, pesticides and herbicides, environmental issues that affect the food and water supply, and the nutritional quality of food.

- Draws conclusions on environmental policies and practices and the impact on health.

Example: Analyzes the “Leave No Trace” policy, safe food handling, food production controls, household waste disposal controls, clean air, and disposal of nuclear waste.

- Evaluates environmental risks associated with certain occupational, residential, and recreational choices.

- Critiques different occupations and analyzes potential environmental hazards associated with the career.

Example: Evaluates how hydration, strength, endurance, and flexibility are key components in the field of construction compared to an office worker.

- Compares and contrasts occupational/career choices and their relationship to health and fitness.

Example: Understands a postal carrier needs sun screen to protect against skin cancer.

- Concludes how family and culture impacts choosing healthy places to live, work, and recreate.

Example: Analyzes impact on health when living in urban vs. rural communities.
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<tr>
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<tbody>
<tr>
<td>• Describes ways that family habits influence health choices. Example: Identifies healthy and non-healthy food choices at home.</td>
<td>• Discusses how culture impacts family health. Example: Understands how families who exercise together promote a healthy lifestyle.</td>
<td>• Compares different cultures in the community and how it impacts family health. Example: Understands importance of families learning about other races and cultures to promote cultural competency.</td>
<td>• Points out ways a family might influence the health of its members. Example: Understands family members encourage healthy habits including rest, physical activity, and nutrition.</td>
<td>• Describes ways that family habits influence health choices. Example: Identifies healthy and non-healthy food choices at home.</td>
</tr>
<tr>
<td>Analyzes health and fitness messages in media.</td>
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<td>Creates health and fitness messages in media. CBA: True Media Message</td>
<td>Selects appropriate strategies to support healthy family/cultural habits on a personal level. Example: Wears a helmet when snowboarding. Learns to prepare traditional foods in a healthy manner.</td>
<td></td>
</tr>
<tr>
<td>• Compares and contrasts health and fitness messages in media and technology.</td>
<td>• Draws conclusions about media techniques in health and fitness messages. Example: Analyzes media techniques such as bandwagons and testimonials.</td>
<td>• Selects a positive media campaign to promote healthy decisions. Example: Develops a media campaign promoting a drug-free lifestyle.</td>
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Standard 3. Students will demonstrate the ability to access valid information and products and services to enhance health

| Analyzes health and fitness product information. |
| Analyzes health and fitness product information. |
| Analyzes health and fitness product information. |
| Evaluates health and fitness information, products, and services. |
| Analyzes health and fitness product information. |

- Compares and contrasts sources of health and fitness information. Example: Compares and contrasts various diets and advertisement
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- Analyzes health and fitness product information.

- CBA: True Media Message
- CBA: New Student Orientation
- CBA: A Letter to the Publisher
- CBA: Cut Out Conflict
- CBA: Dear “Stressed and Depressed”
- CBA: Concepts of Health and Fitness

- Evaluates the accuracy and usefulness of health information and products.
  Example: Selects examples of quackery to determine reliable vs. unreliable and approved vs. non-approved.
  - Critiques reliable sources of information.
    Example: Critiques websites and printed materials for reliability.
  - Critiques agencies, businesses, and organizations providing reliable services.
    Example: Critiques fitness centers, diet programs, and fitness products/equipment.
  - Weighs the effects of media and technology on personal and community health policies, products, and health promotions.

- Evaluates health and fitness information, products, and services.
- CBA: Dear “Stressed and Depressed”
- CBA: A Letter to the Publisher

- Measures the accuracy and usefulness of health information and products.
  Example: Compares and contrasts quackery, reliable vs. unreliable, and approved vs. nonapproved health products.
  Creates health and fitness messages in media.
- Develops effective health and fitness messages in media.
Standard 4. Students will demonstrate the ability to use interpersonal communication skills to enhance health and avoid or reduce health risks

Solves conflicts while maintaining safe and respectful relationships.
- Demonstrates importance of positive self-concept.
- Uses verbal and non-verbal communication skills to maintain positive relationships.
- Demonstrates roles/qualities of a good friend.

Solves conflicts while maintaining safe and respectful relationships.
- Demonstrates good communication skills.
  Example: Role-plays conflict resolution for respectful relationships.
- Demonstrates how adolescent development might affect family dynamics.
  Example: Recognizes need for privacy or self-space in the home.

Solves conflicts while maintaining safe and respectful relationships.
- Demonstrates positive communication skills (including steps for refusal skills, conflict resolution, anger management, and decision-making skills) in specific situations: Family, peers, adults.
  Example: Discusses involvement in sports might change friendships.

Analyzes conflict situations.
- Points out effective communication skills.
  Example: Analyzes verbal, non-verbal, listening, and written communication skills to resolve conflict.
- Points out a conflict arising.
  Example: Uses negotiating/peer-mediation skills; uses journal writing activities to resolve real-life conflicts.
- Points out effective conflict resolution skills.
  Example: Role-plays effective conflict resolution skills.
- Compares and contrasts appropriate school and community resources to assist in resolving conflict situations.
  Example: Discusses involvement in sports might change friendships.

Standard 5. Students will demonstrate the ability to use decision-making skills to enhance health

Solves conflicts while maintaining safe and respectful relationships.
- Demonstrates importance of positive self-concept.
- Uses verbal and non-verbal communication skills to maintain positive relationships.
- Demonstrates how adolescent development might affect family dynamics.
  Example: Recognizes need for privacy or self-space in the home.

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Solves conflicts while maintaining safe and respectful relationships.
- Demonstrates positive communication skills (including steps for refusal skills, conflict resolution, anger management, and decision-making skills) in specific situations: Family, peers, adults.
  Example: Discusses involvement in sports might change friendships.
**Standard 6. Students will demonstrate the ability to use goal-setting skills to enhance health**

<table>
<thead>
<tr>
<th>Activity</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Evaluates personal health and fitness data and sets goals.</td>
<td>Critiques personal health and fitness goals.</td>
</tr>
<tr>
<td>Creates personal health and fitness data and sets goals.</td>
<td>Creates a health and fitness plan based on health-related standards.</td>
</tr>
<tr>
<td>Creates personal health and fitness data and sets goals.</td>
<td>CBA: Fitness Plan for Pat CBA: Concepts of Health and Fitness</td>
</tr>
<tr>
<td>Creates personal health and fitness data and sets goals.</td>
<td>CBA: Fitness Planning CBA: Concepts of Health and Fitness</td>
</tr>
<tr>
<td>Develops personal health and fitness plan based on health-related standards.</td>
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</tr>
<tr>
<td>Evaluates concepts of a health, fitness, and nutrition plan and monitoring system, based on life and employment goals.</td>
<td>CBA: Fitness Planning CBA: Concepts of Health and Fitness</td>
</tr>
<tr>
<td>Chooses appropriate goal setting strategies in creating a personal health and fitness plan.</td>
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<tr>
<td>Chooses time-management skills in creating a personal health and fitness plan.</td>
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<tr>
<td>Selects and participates in a variety of physical activities.</td>
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<tr>
<td>Selects health, fitness, and nutrition concepts in developing and implementing a personal health and fitness plan, based on personal interests and life goals (fitness, nutrition, stress management, and personal safety).</td>
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<tr>
<td>Chooses a short and long-term monitoring system for a health and fitness plan.</td>
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<tr>
<td>Develops and adjusts goals to make a new health and fitness plan as health/fitness/life changes occur.</td>
<td>Example: Updates health and fitness goals in a personal health and fitness plan throughout the lifespan. Understands barriers to physical activity and a healthy lifestyle.</td>
</tr>
<tr>
<td>Describes barriers to physical activity and promotes strategies to overcome them.</td>
<td>Example: Recognizes barriers to physical activity may include knee surgery; strategies would include rehabilitation/physical therapy.</td>
</tr>
<tr>
<td>Creates a plan and monitoring system using personal health, fitness, and nutrition, based on life and employment goals.</td>
<td></td>
</tr>
<tr>
<td>Generates appropriate goal-setting strategies in creating a personal health and fitness plan.</td>
<td></td>
</tr>
<tr>
<td>Uses time-management skills in creating a personal health and fitness plan.</td>
<td></td>
</tr>
<tr>
<td>Designs a personal health and fitness plan based on personal interests and life goals (fitness, nutrition, stress management, and personal safety).</td>
<td></td>
</tr>
<tr>
<td>Designs a short and long-term monitoring system for a health and fitness plan.</td>
<td></td>
</tr>
<tr>
<td>Develops goals to meet changes in health/fitness/life.</td>
<td>Example: Adjusts goals to meet changes that occur throughout the lifespan.</td>
</tr>
</tbody>
</table>
Standard 7. Students will demonstrate the ability to practice health-enhancing behaviors and avoid or reduce health risks.

Demonstrates fundamental and complex motor skills that contribute to movement proficiency.
- Demonstrates mechanics of movement as applied to specific motor skills.
  Example: Throws a ball: Stepping with opposite foot, putting opposite shoulder closest to target, reaching back, extending arm fully, and following through.
- Demonstrates progressive movement combinations in rhythmic activities.
  Example: Performs a sequence of step patterns in a line dance or cultural dance.
- Demonstrates the critical elements of fundamental and complex motor skills involved in individual, group activities, and team games.
  Example: Demonstrates basketball skills such as dribbling, passing, and shooting.
- Demonstrates the ability to practice independently to improve motor skill levels.
  Example: Performs rope jumping and explains the importance of practice using a teacher-designed worksheet.

Demonstrates fundamental and complex motor skills that contribute to movement proficiency.
- Demonstrates mechanics of movement as applied to specific motor skills.
  Example: Kicks a ball with accuracy.
- Performs movement combinations in rhythmic activities.
  Example: Performs a sequence of step patterns synchronized to music in dance.
- Demonstrates proficiency of movement combinations in fundamental and complex skills involving team games and group activities.
  Example: Receives a fly ball by running, pivoting, and catching.
- Demonstrates proficiency of movement combinations in fundamental and complex skills involving individual games and activities.
  Example: Returns a serve and approaches the net in pickleball.
- Demonstrates and describes the importance of practice to improve skill levels.
  Example: Logs practice time on a teacher-designed worksheet, performing correct free-throw form at home or after school.

Demonstrates fundamental and complex motor skills that contribute to movement proficiency.
- Demonstrates mechanics of movement as applied to specific motor skills.
  Example: Performs a volleyball serve over the net.
- Performs movement combinations in rhythmic activities.
  Example: Performs a sequence of step patterns in a cultural dance.
- Demonstrates proficiency of movement combinations in fundamental and complex skills involving team games and group activities.
  Example: Demonstrates trapping, dribbling, and passing to a partner in a modified soccer game.
- Demonstrates proficiency of movement combinations in fundamental and complex skills involving individual games and activities.
  Example: Serves and moves to ready position in badminton.
- Demonstrates and describes the importance of practice to improve skill levels.
  Example: Practices tennis serve and explains the importance of practice using a teacher-designed worksheet.

Applies complex motor skills and concepts to activities to enhance a physically active life.
- Demonstrates proficiency in complex motor skills, strategies, and rules in an increasing number of complex versions of at least two of the following: Aquatics, individual activities, team games/activities, outdoor pursuits, self-defense, and dance.
  Example: Announces the score, serves the ball, and moves to ready position in a tennis game.
- Evaluates the importance of practice in improving performance.
  Example: Practices a volleyball forearm pass against a wall using a teacher-designed rubric.
- Evaluates complex motor skills and movement concepts to activities to enhance a physically active life.
  Example: Throws a flying disc and runs to a position to receive a return throw.
- Chooses advanced sport-specific skills in selected physical activities.
  Example: Performs a jump serve in volleyball.
- Evaluates the importance of practice in improving performance.
  Example: Throws and catches a softball against the wall using a teacher-designed rubric.

Standard 8. Students will demonstrate the ability to advocate for personal, family and community health.
<table>
<thead>
<tr>
<th>Grade K</th>
<th>Grade 1</th>
<th>Grade 2</th>
<th>Grade 3</th>
<th>Grade 4</th>
<th>Grade 5</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Standard 1. Students will comprehend concepts related to health promotion and disease prevention</strong></td>
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<tr>
<td>Recognizes how the body’s function is affected by food consumption.</td>
<td>Understands how the body’s function is affected by food consumption.</td>
<td>Understands how the body’s function and composition are affected by food consumption.</td>
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<td>Analyzes how the body’s function and composition are affected by food consumption.</td>
<td></td>
</tr>
<tr>
<td>- Identifies healthful and nonhealthful foods. Example: Understands milk is healthy, and soda is unhealthy.</td>
<td>- Identifies healthful and nonhealthful foods. Example: Understands milk is healthy, and soda is unhealthy.</td>
<td>- Describes which nutrients belong to each food group. Example: Recognizes protein and Vitamin D are two nutrients in the dairy group.</td>
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<td>CBA: Mrs. Trimble’s Muffins</td>
<td></td>
</tr>
<tr>
<td>- Recognizes the importance of eating breakfast. Example: Recognizes breakfast gets brain and body ready for learning.</td>
<td>- Recognizes the importance of eating breakfast. Example: Recognizes breakfast gets brain and body ready for learning.</td>
<td>- Understands relationship between caloric intake and expenditure. Example: Understands consuming healthy foods will result in more energy to play longer.</td>
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<td>CBA: Concepts of Health and Fitness</td>
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<td>Understands how the body’s function and composition are affected by food consumption.</td>
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<td>- Understands the importance of reading food labels. Example: Understands how serving size impacts a healthy body.</td>
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<td>CBA: Welcome to Our School</td>
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</tr>
<tr>
<td>- Describes groups of the Food Guide Pyramid. Example: Describes that dairy products build strong bones.</td>
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<td>- Explains importance of eating a variety of healthy foods to reduce health risks and promote growth. Example: Explains eating a variety of healthy foods reduces risk of illness, obesity, and promotes healthy vision, bones, heart.</td>
<td>- Explains importance of eating a variety of healthy foods to reduce health risks and promote growth. Example: Explains eating a variety of healthy foods reduces risk of illness, obesity, and promotes healthy vision, bones, heart.</td>
<td>- Analyzes how nutrients support a healthy body. Example: Understands Vitamin A supports vision and bone growth.</td>
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<td>- Identifies healthy and nonhealthful foods. Example: Understands milk is healthy, and soda is unhealthy.</td>
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<td>- Describes how each food group contributes to a healthy body. Example: Describes that dairy products build strong bones.</td>
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<td>- Compares and contrasts food labels for nutrition information. Example: Compares labels of two bars (Granola bar vs. energy bar).</td>
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<td>- Understands that food provides energy for the body.</td>
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<td>- Explains importance of eating a variety of healthy foods to reduce health risks and promote growth. Example: Explains eating a variety of healthy foods reduces risk of illness, obesity, and promotes healthy vision, bones, heart.</td>
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<td>- Analyzes the impact of healthy eating on both physical and academic performance. Example: Understands sugar intake leads to low energy and decreased academic focus.</td>
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<td>- Understands information from dietary evaluation and self-assessment in order to improve performance.</td>
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<td>- Summary of number of servings from each food group in a meal.</td>
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Understands dimensions and indicators of health (emotional, physical, intellectual, and social). • Understands well and not well. • Discusses ways to care for body (skin, hair, teeth). Example: Brushes teeth at least twice daily.

Understands dimensions and indicators of health. • Discusses clues that indicate well and not well. Example: Clues may include feeling energetic is well; feeling tired is not well.

Understands dimensions and indicators of health. • Describes each dimension of health.

Understands dimensions and indicators of health. • Gives examples of each dimension of health.

Understands dimensions and indicators of health. • Describes wellness. Example: Wellness is when one has health in all dimensions.

Understands dimensions and indicators of health. • Explains how being well reduces health risks. Example: Understands that sleeping, eating well, and exercising reduce risk of becoming diabetic.

Understands dimensions and indicators of health. • Explains ways to improve health and wellness. Example: Understands that being active during free time improves health.

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Understands dimensions and indicators of health. • Explains ways to improve health and wellness. Example: Understands that being active during free time improves health.
Recognizes how to prevent or reduce the risk of contracting a communicable disease.
- Defines germ.
- Identifies basic hygiene techniques to reduce illness.
  Example: Washes hands or sneezes in sleeve.
- Recognizes the role doctors and nurses play in keeping people healthy.
  Example: Recognizes doctors provide yearly check-ups.

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- Defines germ.
- Identifies basic hygiene techniques to reduce illness.
  Example: Washes hands or sneezes in sleeve.
- Recognizes the role doctors and nurses play in keeping people healthy.
  Example: Recognizes doctors provide yearly check-ups.

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<tr>
<th>Understands issues and risks related to drug use and abuse.</th>
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</tr>
</thead>
<tbody>
<tr>
<td><em>Defines the word drug.</em></td>
<td><em>Identifies various substances as drugs. Identifies medicine and alcohol.</em></td>
</tr>
<tr>
<td><em>Describes safe and unsafe ways drugs can be used.</em></td>
<td><em>Describes ways smoking and second hand smoke harm health.</em></td>
</tr>
<tr>
<td><em>Example: Understands safe drug use is when administered by parent/guardian. Unsafe drug use is self-administration of medicines.</em></td>
<td><em>Example: Makes it harder to breathe and can damage lungs.</em></td>
</tr>
<tr>
<td><em>Describes harmful effects of tobacco, alcohol, and caffeine.</em></td>
<td><em>Explains how drug abuse can affect family and friends.</em></td>
</tr>
<tr>
<td><em>Example: Understands drug use can make people say things they don’t really mean.</em></td>
<td><em>Example: Understands chewing tobacco may cause cancer of the mouth.</em></td>
</tr>
<tr>
<td><em>Gives examples of foods and drinks that contain caffeine.</em></td>
<td><em>Examples: Drinks with caffeine may include chocolate or energy drinks.</em></td>
</tr>
</tbody>
</table>

**Standard 2. Students will analyze the influence of family, peers, culture, media, technology and other factors on health behaviors**

| Understands how family factors affect health. | Understands how family factors affect health. |
| Understands how family factors affect health. | Understands how family factors affect health. |
| Describes healthy habits. Example: Eats fruits and vegetables. | Describes how to adjust to family changes in healthful ways. Example: Understands when grandparent moves in, family members share increased workload. |
| Describes family. Example: Some people are adopted; others live with a grandparent or other guardian, two biological parents, two moms or dads, a single parent, and/or in two households. | Describes appropriate strategies to support healthy family/cultural habits on a personal level. Example: Opens a window for secondhand smoke. |
| Understands the relationship between a healthy family and personal health. Example: Understands a family that exercises together will promote individual health. | Describes how cultural factors affect health. |
| Understands how various family members contribute to a family’s health habits. Example: Holds a family meeting regarding arrival of new sibling. | Describes how cultural factors affect health. |
| Describes ways family members help one another. Example: Reminds each other to wear sunscreen when outdoors. | Describes how cultural factors affect health. |
| Understands how various family members contribute to a family’s health habits. Example: Understands family members encourage appropriate rest and physical activity. | Describes activities in which families could cooperate. Example: Recognizes cooperative activities might include chores or social events. |

**CBA: Stomp Out Second Hand Smoke**

- Describes differences between legal and illegal drugs. Example: Differences include aspirin vs. cocaine.
- Explains the harmful effects of illegal drugs. Example: Effects of marijuana may include poisonous toxins.
- Describes ways to resist pressure to use drugs. Example: Practices refusal skills.
### Standard 3. Students will demonstrate the ability to access valid information and products and services to enhance health

|---|---|---|---|---|---|---|---|

### Standard 4. Students will demonstrate the ability to use interpersonal communication skills to enhance health and avoid or reduce health risks

<p>| Understands that social skills are necessary to promote health and safety. Example: Takes turns. | Understands that social skills are necessary to promote health and safety. Example: Tells the truth. | Understands necessary social skills to promote health and safety. Example: Promotes trustworthiness. Applies necessary social skills to promote health and safety. CBA: A Cartoon Role Model CBA: New Kid on the Block CBA: Welcome to Our School | Applies necessary social skills to promote health and safety. CBA: A Cartoon Role Model CBA: New Kid on the Block CBA: Welcome to Our School | Predicts negative and positive effects of peer pressure. Example: Predicts negative—chooses to smoke when offered a cigarette. Predicts positive—discourages a friend from smoking. | Applies actions to take when feeling left out, and initiates and maintains friendships. Example: Asks to sit with others at lunch. | Points out respect for others. Example: Identifies examples of people of different cultures and groups who have contributed to arts, science, peace, and other important human endeavors. | Predicts negative—chooses to smoke when offered a cigarette. Predicts positive—discourages a friend from smoking. | Applies actions to take when feeling left out, and initiates and maintains friendships. Example: Asks to sit with others at lunch. | Points out respect for others. Example: Identifies examples of people of different cultures and groups who have contributed to arts, science, peace, and other important human endeavors. |</p>
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<th>Standard 5. Students will demonstrate the ability to use decision-making skills to enhance health</th>
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</table>
| **Identifies decision-making skills.**  
  - Recognizes the importance of honesty when talking to trusted adults.  
  Example: Recognizes if dishonest one time, might not be believed when truth is told. | **Understands decision-making skills.**  
  - Demonstrates steps for making responsible decisions.  
  Example: Brainstorms options for making a responsible decision.  
  - Describes how to get help from a parent or trusted adult when made to feel uncomfortable or unsafe.  
  Example: Gets an adult’s attention right away, makes sure they’re listening, and tells them you have something important to say about your safety. | **Demonstrates decision-making skills.**  
  - Demonstrates refusal skills.  
  Example: Demonstrates looking at the person and saying “no” in a firm voice.  
  - Describes how to get help from a parent or trusted adult when made to feel uncomfortable or unsafe.  
  Example: Gets an adult’s attention right away, makes sure they’re listening, and tells them you have something important to say about your safety. | **Applies decision-making skills.**  
  - Demonstrates refusal skills.  
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  Example: Gets an adult’s attention right away, makes sure they’re listening, and tells them you have something important to say about your safety. |**CBA: A Cartoon Role Model**  
**CBA: New Kid on the Block**  
**CBA: Welcome to Our School**  
**Demonstrates ways to express anger and resolve conflict without violence.**  
Example: Explains feelings calmly.  
- Demonstrates who to enlist for help with mediation of a conflict.  
Example: Identifies adults to go to when there is conflict. |

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<th>Standard 6. Students will demonstrate the ability to use goal-setting skills to enhance health</th>
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</table>
| Applies goals for improving health and fitness practices.  
  - Uses a basic fitness log, portfolio, or journal to record physical activity.  
  Example: Illustrates Monday = ten minutes of jumping rope.  
  - Discovers personal health behaviors and sets a goal for changing behavior.  
  Example: Wants healthy teeth (no cavities) = needs to brush teeth more often/better. | Applies goals for improving health and fitness practices.  
  - Uses a basic fitness log, portfolio, or journal to record physical activity.  
  Example: Illustrates Monday = 20 minutes of rope jumping and 40 minutes of soccer practice.  
  - Implements a plan for participation in regular physical activities at home, school, or in the community.  
  Example: Rides bike 20 minutes a day.  
  - Uses a personal health checklist to record personal health habits.  
  Example: Uses a calendar: Monday = went to bed on time.  
  - Discovers individual health behaviors and creates a health plan for improvement.  
  Example: Lacks vegetables—will eat three servings every day. | Applies goals for improving health and fitness practices.  
  - Uses a basic fitness log, portfolio, or journal to record physical activity.  
  Example: Illustrates Monday = 20 minutes of rope jumping and 40 minutes of soccer practice.  
  - Implements a plan for participation in regular physical activities at home, school, or in the community.  
  Example: Rides bike 20 minutes a day.  
  - Uses a personal health checklist to record personal health habits.  
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  - Uses a personal health checklist to record personal health habits.  
  Example: Uses a calendar: Monday = went to bed on time.  
  - Discovers individual health behaviors and creates a health plan for improvement.  
  Example: Lacks vegetables—will eat three servings every day. |**CBA: A Cartoon Role Model**  
**CBA: Get Fit Summer**  
**CBA: Welcome to Our School**  
**Develops a plan to improve previous health-related fitness scores.**  
Example: Needs to improve muscular endurance by practicing push-ups, if push-up score is two.  
**Generates resources to assist in achieving a personal health goal.**  
Example: Increases activity time. |

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<th>Standard 7. Students will demonstrate the ability to practice health-enhancing behaviors and avoid or reduce health risks</th>
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<th>Standard 8. Students will demonstrate the ability to advocate for personal, family and community health</th>
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Table B27. State of Washington Concepts and Skills for Healthy Eating for Grades 6–HS2

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<tr>
<th>Grade 6</th>
<th>Grade 7</th>
<th>Grade 8</th>
<th>Grade HS1</th>
<th>Grade HS2</th>
</tr>
</thead>
<tbody>
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<td><strong>Standard 1. Students will comprehend concepts related to health promotion and disease prevention</strong></td>
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<td></td>
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<td>Understands nutrition goals based on dietary guidelines and individual activity needs.</td>
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<td>• Describes dietary guidelines when making food choices. Example: Chooses foods that limit fat and cholesterol intake.</td>
<td>• Describes dietary guidelines when making food choices. Example: Chooses drinks with low sugar content.</td>
<td>• Describes dietary guidelines when making food choices. Example: Chooses foods that are low in sodium.</td>
<td>• Describes dietary guidelines when making food choices. Example: Chooses foods that are high in fiber.</td>
<td>• Describes dietary guidelines when making food choices. Example: Chooses foods that are rich in calcium.</td>
</tr>
<tr>
<td>• Explains food choices in relation to portion size for a healthy diet. Example: Discusses two tablespoons of peanut butter count as one serving in the meat and beans group.</td>
<td>• Predicts portion size when making food choices. Example: Determines the portion size of a 16 oz. milkshake.</td>
<td>• Shows relationship between balanced food choices, portion size, and hydration. Example: Discovers how healthy eating provides energy, helps to maintain healthy weight, lowers risk of disease, and keeps body systems working.</td>
<td>• Uses components of a nutrition label to make informed decisions regarding healthy food choices. Example: Examines the nutrition label of a favorite drink to learn number of servings it contains.</td>
<td>• Shows sources of nutrients (fats, carbohydrates, proteins, vitamins, minerals, and water) in a variety of foods.</td>
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<td>• Describes positive impacts of eating a variety of foods. Example: Discusses eating vegetables provide fiber.</td>
<td>• Shows sources of nutrients (fats, carbohydrates, proteins, vitamins, minerals, and water) in a variety of foods.</td>
<td>• Shows relationship between balanced food choices, portion size, and hydration. Example: Discovers how healthy eating provides energy, helps to maintain healthy weight, lowers risk of disease, and keeps body systems working.</td>
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<td>• Understands the term nutrients. Example: Defines the word nutrient and lists the six kinds of nutrients (fats, carbohydrates, proteins, vitamins, minerals and water).</td>
<td>• Applies nutrition goals based on dietary guidelines and individual activity needs. CBA: Fitness Plan for Pat: CBA: Concepts of Health and Fitness</td>
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<td>• Evaluates the relationship of nutrition planning to physical performance and body composition.</td>
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<td>• Chooses functions of nutrients and critiques individual needs based on activity level and dietary guidelines. Example: Recognizes protein needs of a vegetarian athlete.</td>
<td>• Evaluates progress of physical performance and revises personal nutritional goals. Example: Eliminates carbonated drinks (sugar) for better performance.</td>
<td>• Selects healthy ways to lose, gain, and maintain weight. Example: Uses MyPyramid for a balanced diet.</td>
<td>• Evaluates the relationship of nutrition planning to physical performance and body composition.</td>
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<td>• Compares and contrasts a diet and evaluates the relationship to physical performance. Example: Uses a diet high in carbohydrates and low in carbohydrates to determine physical performance.</td>
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Understands the effects of activity, fitness, and nutrition practices.
- Understands relationship between caloric intake and physical activity.
  Example: Understands how far a person must walk to burn enough calories to equal a candy bar.
- Interprets caloric needs based on activity levels.
  Example: Recognizes a long-distance runner needs greater caloric intake.

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  Example: Recognizes a long-distance runner needs greater caloric intake.

Creates a plan to improve performance based on nutritional practices.
CBA: Fitness Plan for Pat
- Shows relationship between caloric intake and physical activity.
  Example: Uses a pedometer to view caloric expenditure after physical activity and compares calories on a nutrition label of a favorite drink.
- Develops a personal/individual caloric needs assessment based on activity levels, age, and specific health requirements in a balanced health and fitness plan, including diet, sleep, and nutritional habits.

Evaluates how nutritional requirements change.
CBA: Concepts of Health and Fitness
- Evaluates how nutritional needs change based on caloric needs, basal metabolic rate, and special conditions of various populations.
  Example: Recognizes nutritional needs change with increased/ decreased exercise, “couch potato,” pregnancy, age, diabetes.

Recalls the dimensions of health and relates to personal health behaviors.
- Identifies dimensions of health.
  Example: Recognizes physical, social, intellectual, and emotional health.

Understands the dimensions of health and relates to personal health behaviors.
- Describes a personal balance of each dimension of health.
  Example: Discusses working out three-to-five times per week for physical health, making time for family for social health; and learning daily study habits for intellectual health are dimensions of health.

Analyzes the dimensions of health and relates to personal health behaviors.
- Points out how the dimensions of health create a balance of personal health.
  Example: Talks on phone at length with friends (social health) may create an unbalanced life because homework doesn’t get completed (intellectual health).
- Analyzes personal health in relation to the dimensions of health.
  Example: Understands that stress-management techniques may balance mental health.

Evaluates dimensions of health and relates to personal health behaviors.
- Concludes how personal wellness is negatively affected when an element(s) of dimensions of health is neglected.
  Example: Concludes too much social time will negatively affect academics.
- Critiques health and fitness data to make predictions and recommendations for lifelong wellness.
  Example: Understands that limited flexibility could predict back problems in adult life. Recommendation is to develop stretching routine to prevent back problems.

Evaluates dimensions of health and relates to personal health behaviors.
- Concludes how personal wellness is negatively affected when an element(s) of dimensions of health is neglected.
  Example: Concludes too much social time will negatively affect academics.
- Critiques health and fitness data to make predictions and recommendations for lifelong wellness.
  Example: Understands that limited flexibility could predict back problems in adult life. Recommendation is to develop stretching routine to prevent back problems.
Understands benefits of maintaining a balance of healthy habits.

- Describes a healthy balance of stress, sleep, exercise, nutrition, recreation, and school.
  Example: Understands that adolescents need nine-ten hours of sleep.

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Understands the impact of smoking on the respiratory system.

- Understands similarities and differences with body changes, thinking processes, and self-esteem.
  Example: Understands that adolescents need nine-ten hours of sleep.

Understands structure and functions of body systems using medically accurate terminology.

CBA: Touring the Systems; CBA: Concepts of Health and Fitness

- Describes the inter-relationships between the major body systems.
  Example: Describes how body systems work together: Skeletal–muscular; respiratory–cardiovascular.

- Evaluates hereditary factors affecting growth, development, and health.
  Example: Maintains healthy body weight and avoids tobacco use to prevent high blood pressure.

- Evaluates health risks that influence hereditary factors.
  Example: Exercises regularly to decrease chance of high blood pressure.

Analyzes benefits of maintaining a balance of healthy habits (stress, sleep, exercise, nutrition, recreation, and school).

- Compares negative vs. positive health habits.
  Example: Compares poor nutrition may decrease energy (negative); where appropriate sleep may enhance energy (positive).

Analyzes personal health practices, and how they affect communicable diseases.

- Analyzes prevention, causative factors, transmission, and treatment of communicable diseases.
  Example: Analyzes influenza virus, concludes that prevention starts with washing hands; causative factor is to cover mouth when coughing; transmission might be found when sharing pencils; and treatment is to have adequate sleep.

- Analyzes how factors (personal health practices, environmental factors, policies, research, and health-care resources) affect communicable diseases.
  Example: Burns hands to prevent E. coli.

Understands factors and prevention related to communicable diseases.

- Describes transmission, prevention, and treatment of communicable diseases.
  Example: Explains common cold is a viral infection from coughing and sneezing. Prevention: Avoid drinking from other’s glass and wash hands. Treatment: Rest and plenty of fluids.

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Understands skills that prevent and control non-communicable diseases.
- Describes prevention and control of non-communicable disease.
  Example: Avoids smoking to prevent heart disease.
- Describes the differences between communicable and non-communicable disease.
  Example: Explains communicable disease is HIV/AIDS, and non-communicable disease is cancer.
- Describes signs, symptoms, prevention, and treatment of non-communicable diseases (asthma, heart disease, diabetes, cancer, depression, anxiety).
  Example: Explains asthma symptoms include coughing, wheezing, and shortness of breath. There is no cure, but an inhaler is used to open the airway. Triggers include pollen, grass, and smoke.
- Develops skills that prevent and control non-communicable diseases.
  - Composes a list of community agencies, public policies, and resources available for prevention and treatment of non-communicable diseases.
    Example: Discusses public smoking laws may prevent heart disease.
- Analyzes personal health practices, and how they affect non-communicable diseases.
  CBA: New Student Orientation; CBA: Concepts of Health and Fitness
  - Analyzes prevention, causative factors, and treatment of non-communicable diseases.
    Example: Analyzes heart disease: Concludes that prevention starts with diet; causative factor is sedentary lifestyle; and treatment is exercise and healthy diet.
  - Analyzes non-communicable diseases associated with poor nutrition, lack of sleep, inadequate exercise, and substance abuse.
    Example: Analyzes alcoholism in relation to nutrition, sleep, and exercise.
  - Analyzes non-communicable diseases and their impact on local and/or world populations.
    Example: Analyzes ethnic populations that have low prevalence of heart disease.

Understands skills that prevent and control non-communicable diseases.
- Describes prevention and control of non-communicable disease.
- Describes the differences between communicable and non-communicable disease.
  Example: Explains communicable disease is HIV/AIDS, and non-communicable disease is cancer.
Understands how environmental factors impact health. • Describes how environmental factors affect individual susceptibility (age, size, genetics, gender, and ethnicity) on health: Air, water, noise, and chemical pollution. Example: Understands elderly, infants, young children, pregnant women, and sick people who have weakened immune systems are more likely to be harmed by exposure to a hazard than others.

Understands how environmental factors impact health. • Illustrates the impact of exposure to air, water, noise, and chemical pollution on health.
Example: Analyzes water quality samples of local water sources to determine safe consumption.

Analyzes how environmental factors impact health. • Illustrates the impact of exposure to air, water, noise, and chemical pollution on health.
Example: Analyzes natural and man-made disasters, pesticides and herbicides, environmental issues that affect the food and water supply, and the nutritional quality of food.

Analyzes how environmental factors affect health. • Draws conclusions on environmental policies and practices and the impact on health.
Example: Analyzes the “Leave No Trace” policy, safe food handling, food production controls, household waste disposal controls, clean air, and disposal of nuclear waste.

Standard 2. Students will analyze the influence of family, peers, culture, media, technology and other factors on health behaviors
<table>
<thead>
<tr>
<th>Understands how family and cultural factors impact health.</th>
</tr>
</thead>
</table>
| **•** Describes ways that family habits influence health choices.  
Example: Identifies healthy and non-healthy food choices at home. |

<table>
<thead>
<tr>
<th>Understands how family and cultural factors impact health.</th>
</tr>
</thead>
</table>
| **•** Discusses how culture impacts family health.  
Example: Understands importance of families learning about other races and cultures to promote cultural competency. |

<table>
<thead>
<tr>
<th>Analyzes how family and cultural factors impact health.</th>
</tr>
</thead>
</table>
| **•** Compares different cultures in the community and how it impacts family health.  
Example: Understands importance of families learning about other races and cultures to promote cultural competency. |

<table>
<thead>
<tr>
<th>Analyzes how family and cultural diversity enriches and affects personal health behaviors.</th>
</tr>
</thead>
</table>
| **•** Points out ways a family might influence the health of its members.  
Example: Understands importance of families learning about other races and cultures to promote cultural competency. |

<table>
<thead>
<tr>
<th>Selects appropriate strategies to support healthy family/cultural habits on a personal level.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Example:</strong> Wears a helmet when snowboarding. Learns to prepare traditional foods in a healthy manner.</td>
</tr>
</tbody>
</table>

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<tr>
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</table>
| **•** Describes ways that family habits influence health choices.  
Example: Identifies healthy and non-healthy food choices at home. |

<table>
<thead>
<tr>
<th>Analyzes health and fitness messages in media.</th>
</tr>
</thead>
</table>
| **•** Compares and contrasts health and fitness messages in media and technology. Analyzes health and fitness messages in media.  
**•** Compares and contrasts health and fitness messages in media and technology. |

<table>
<thead>
<tr>
<th>Analyzes health and fitness messages in media.</th>
</tr>
</thead>
</table>
| **•** Draws conclusions about media techniques in health and fitness messages.  
Example: Analyzes media techniques such as bandwagons and testimonials. |

<table>
<thead>
<tr>
<th>Creates health and fitness messages in media.</th>
</tr>
</thead>
</table>
| **CBA:** True Media Message  
**•** Selects a positive media campaign to promote healthy decisions.  
Example: Develops a media campaign promoting a drug-free lifestyle. |

---

*Standard 3. Students will demonstrate the ability to access valid information and products and services to enhance health*
Analyzes health and fitness product information.
  • Compares and contrasts sources of health and fitness information. Example: Compares and contrasts various diets and advertisement.
  • Draws conclusions on the impact of safe and unsafe health and fitness products on personal health.

Analyzes health and fitness product information.

Analyzes health and fitness product information.
CBA: True Media Message
  • Points out the risks of inappropriate use of health and fitness products. Example: Describes risks of weight-loss products and supplements.

Evaluates health and fitness information, products, and services.
CBA: True Media Message
CBA: A Letter to the Publisher
CBA: Cut Out Conflict
CBA: Dear “Stressed and Depressed”
CBA: Concepts of Health and Fitness
  • Evaluates the accuracy and usefulness of health information and products. Example: Selects examples of quackery to determine reliable vs. unreliable and approved vs. non-approved.
  • Critiques reliable sources of information. Example: Critiques websites and printed materials for reliability.
  • Critiques agencies, businesses, and organizations providing reliable services. Example: Critiques fitness centers, diet programs, and fitness products/equipment.
  • Weighs the effects of media and technology on personal and community health policies, products, and health promotions.

Evaluates health and fitness information, products, and services.
CBA: Dear “Stressed and Depressed”; CBA: A Letter to the Publisher
  • Measures the accuracy and usefulness of health information and products. Example: Compares and contrasts quackery, reliable vs. unreliable, and approved vs. nonapproved health products.

Creates health and fitness messages in media.
  • Develops effective health and fitness messages in media.

Standard 4. Students will demonstrate the ability to use interpersonal communication skills to enhance health and avoid or reduce health risks
<table>
<thead>
<tr>
<th>Solves conflicts while maintaining safe and respectful relationships.</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Demonstrates importance of positive self–concept.</td>
</tr>
<tr>
<td>• Uses verbal and non-verbal communication skills to maintain positive relationships.</td>
</tr>
<tr>
<td>• Demonstrates roles/qualities of a good friend. Solves conflicts while maintaining safe and respectful relationships.</td>
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<tbody>
<tr>
<td>• Demonstrates good communication skills. Example: Role-plays conflict resolution for respectful relationships.</td>
</tr>
<tr>
<td>• Demonstrates how adolescent development might affect family dynamics. Example: Recognizes need for privacy or selfspace in the home.</td>
</tr>
</tbody>
</table>

<table>
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<tr>
<td>• Demonstrates positive communication skills (including steps for refusal skills, conflict resolution, anger management, and decision-making skills) in specific situations: Family, peers, adults.</td>
</tr>
<tr>
<td>• Predicts how changes in self and others impacts peer relationships. Example: Discusses involvement in sports might change friendships.</td>
</tr>
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<tr>
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</tr>
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<tbody>
<tr>
<td>CBA: ACME Advertising CBA: Sara’s Story</td>
</tr>
<tr>
<td>• Shows the value of individual differences (unique to race, ethnicity, gender, disabilities, sexual orientation, age, and religious beliefs).</td>
</tr>
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<td>• Demonstrates positive communication skills (including steps for refusal skills, conflict resolution, anger management, and decision-making skills) in specific situations: Family, peers, adults.</td>
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<tr>
<td>CBA: Cut Out Conflict</td>
</tr>
<tr>
<td>• Points out effective communication skills. Example: Analyzes verbal, non-verbal, listening, and written communication skills to resolve conflict.</td>
</tr>
<tr>
<td>• Points out a conflict arising. Example: Uses negotiating/peer-mediation skills; uses journal writing activities to resolve real-life conflicts.</td>
</tr>
<tr>
<td>• Points out effective conflict resolution skills. Example: Role-plays effective conflict resolution skills.</td>
</tr>
<tr>
<td>• Compares and contrasts appropriate school and community resources to assist in resolving conflict situations.</td>
</tr>
<tr>
<td>• Compares and contrasts the effects of positive and negative peer pressure.</td>
</tr>
</tbody>
</table>

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</tr>
</tbody>
</table>

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**Standard 5. Students will demonstrate the ability to use decision-making skills to enhance health**

**Standard 6. Students will demonstrate the ability to use goal-setting skills to enhance health**
Evaluates personal health and fitness data and sets goals.
• Critiques personal health and fitness goals.

Creates personal health and fitness data and sets goals.
• Creates a health and fitness plan based on health-related standards.

Creates personal health and fitness data and sets goals.
CBA: Fitness Plan for Pat; CBA: Concepts of Health and Fitness
• Develops personal health and fitness plan based on health-related standards.

Evaluates concepts of a health, fitness, and nutrition plan and monitoring system, based on life and employment goals.
CBA: Fitness Planning
CBA: Concepts of Health and Fitness
• Chooses appropriate goal setting strategies in creating a personal health and fitness plan.
• Chooses time-management skills in creating a personal health and fitness plan.
• Selects and participates in a variety of physical activities.
• Selects health, fitness, and nutrition concepts in developing and implementing a personal health and fitness plan, based on personal interests and life goals (fitness, nutrition, stress management, and personal safety).
• Chooses a short and long-term monitoring system for a health and fitness plan.
• Evaluates and adjusts goals to make a new health and fitness plan as health/fitness/life changes occur. Example: Updates health and fitness goals in a personal health and fitness plan throughout the lifespan.

Understands barriers to physical activity and a healthy lifestyle.
• Describes barriers to physical activity and promotes strategies to overcome them. Example: Recognizes barriers to physical activity may include knee surgery; strategies would include rehabilitation/physical therapy.

Standard 7. Students will demonstrate the ability to practice health-enhancing behaviors and avoid or reduce health risks.
Analyzes the effectiveness of various nutritional products.

CBA: Cafeteria Choices
• Analyzes nutritional products and supplements for their value and effectiveness, purpose, and necessity in a healthy diet.
Example: Compares and contrasts various diet plans, performance enhancing products, herbs, sports drinks, and weight-gain and weight-loss products.

Evaluates how healthy and unhealthy eating patterns impact the function of the body.
• Compares and contrasts warning signs and behaviors associated with eating disorders.
Example: Recognizes bingeing and purging. Understands eating in isolated places may be a warning sign of bulimia.
• Analyzes how healthy and unhealthy eating patterns impact the functioning of the human body.
Example: Recognizes poor nutrition habits decrease bone development.
• Gives examples of health agencies available in the community.

Analyzes daily health and fitness habits.
• Analyzes health behaviors (e.g., diet, sleep, activity, fitness, and hydration).
• Sets and charts a goal for changing a behavior.

Analyzes daily health and fitness habits.
• Analyzes individual health behaviors (e.g., diet, sleep, activity, fitness, and hydration).
• Sets and charts goals for daily health and fitness behavior change.

Analyzes daily health and fitness habits.
CBA: Fitness Plan for Pat
CBA: Concepts of Health and Fitness
• Draws conclusions from a fitness and health plan.
• Sets goals for healthy behavior change.

Analyzes career opportunities in health and fitness.
• Compares and contrasts various careers

Standard 8. Students will demonstrate the ability to advocate for personal, family and community health
APPENDIX C. TRIM KIDS SCOPE AND SEQUENCE MODELS

Table C1. Trim Kids Concepts and Skills for Healthy Eating and Physical Activity for Weeks 1-6

Table C2. Trim Kids Concepts and Skills for Healthy Eating and Physical Activity for Weeks 7-12
<table>
<thead>
<tr>
<th>Standards</th>
<th>Week 1</th>
<th>Week 2</th>
<th>Week 3</th>
<th>Week 4</th>
<th>Week 5</th>
<th>Week 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Students will comprehend concepts related to health promotion and disease prevention</td>
<td>Record keeping is an essential step in success (current height, weight, BMI, waist circumference) Identify external (sight/smell of food, being around people who are eating, being at a party) and internal (hunger, craving, moods/feelings) urges to eat Identify Four Golden Rules for Eating (eat on a schedule, eat in one place, don’t do anything else while eating,</td>
<td>Identify that healthy food is made up of protein, carbohydrates and fat and identify the function of each nutrient Identify sugar as a substance that can contribute to weight gain and identify healthy sweet foods (berries, peaches, etc.) Describe calorie and portion control and how to identify appropriate</td>
<td>Identify portion control (not eliminating certain foods) as an effective way to manage overeating Identify that dehydration can cause fatigue and that water is the best way to avoid dehydration Identify the benefits of eating fruits and vegetables (prevent cancer, protect the body,</td>
<td>Identify different environments/ways in which one can be active (YMCA, dancing, skating, museums, nature centers) when the weather is bad Describe the importance if limiting sugar intake Describe the negatives of fat and how to reduce fat in the diet (flaxseed oil for Omega 3) Identify ways to increase fiber in diet (fruit instead of juice) and</td>
<td>Compare and contrast the benefits of cardiovascular (aerobic), strength and flexibility exercises Identify that healthy people eat breakfast Identify benefits of whole grains Identify the importance of limiting screen time (take an active break for every 30 minutes of inactive behavior)</td>
<td>Summarize benefits of strength/resistance training (bones, posture, self-image, blood pressure)</td>
</tr>
</tbody>
</table>

Table C1. Trim Kids Concepts and Skills for Healthy Eating and Physical Activity for Weeks 1-6
<table>
<thead>
<tr>
<th>Activity</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>create list of alternative activities</td>
<td>Describe the principles of aerobic, strength and flexibility exercises</td>
</tr>
<tr>
<td>Identify FIT principle and recommendations</td>
<td>If very hungry before meal, drink a glass of water before eating</td>
</tr>
<tr>
<td>Identify concepts of warm-up, cool down and injury reduction in physical activity</td>
<td>Identify the proper number of servings from each food group using MyPyramid</td>
</tr>
<tr>
<td>Identify water as the best beverage choice</td>
<td>Differentiate between exercise and lifestyle activities</td>
</tr>
<tr>
<td>Identify a variety of healthy foods and beverages from a list of “anytime foods”</td>
<td>Identify external factors that can affect participation in physical activity (proper clothing, safety of roads, etc.)</td>
</tr>
<tr>
<td>Repair damage, help build strong immune system</td>
<td>Identify that fiber is very filling and its role in “sweeping” and “sponging” the body clean</td>
</tr>
<tr>
<td>Describe how fiber makes people feel full</td>
<td>Identify ways that family and friends can reinforce positive behaviors (notice and describe)</td>
</tr>
<tr>
<td>Differentiate between exercise and lifestyle activities</td>
<td>Differentiate between exercise and lifestyle activities</td>
</tr>
<tr>
<td>Identify a variety of healthy foods and beverages from a list of “anytime foods”</td>
<td>Identify ways that family members can act as teammates or saboteurs</td>
</tr>
</tbody>
</table>

2. Students will analyze the influence of family, peers, culture, etc., on lifestyle behaviors. Rate commitment level of self and each member of family on a scale of 1-100 (if family is present). Identify the importance of positive role models demonstrating parental influences of positive reinforcement, and describe how to choose better foods and snacks. Identify small ways to maximize activity (lifestyle activities like walking from car). Summarize the progressive nature of FIT principle.
<table>
<thead>
<tr>
<th>media, technology and other factors on health behaviors</th>
<th>averages 50 or less, individual is not likely to be successful) Identify ways that family, relatives, teachers can support behavior change</th>
<th>healthy eating and activity behaviors</th>
<th>mention healthy choices, social/material rewards (and how to deal with unhealthy choices (solve underlying problem, redirect, ignore)</th>
<th>ignoring/redirecting negative behaviors and being a role model on child’s behavior</th>
</tr>
</thead>
<tbody>
<tr>
<td>3. Students will demonstrate the ability to access valid information and products and services to enhance health</td>
<td></td>
<td>Identify the components of a food label and describe how to differentiate between facts and “claims”</td>
<td></td>
<td>Evaluate food labels (snack should have less than 15 g sugar, 5 g fat)</td>
</tr>
<tr>
<td>4. Students will demonstrate the ability to use interpersonal communication skills to enhance health and avoid or</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Students will demonstrate the ability to use decision-making skills to enhance health</td>
<td>Use HALT (hungry, angry, lonely, tired) technique to make eating decisions</td>
<td>Identify strategies to choose healthy foods over less healthy foods (eat a healthy snack before going to a party, limit treats to a special day rather than a season, bring your own food to special events)</td>
<td>Explain the HALT technique and suggest alternatives to eating</td>
<td>Decide which strength activities best suit one’s body</td>
</tr>
<tr>
<td>---</td>
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</tr>
<tr>
<td>6. Students will demonstrate the ability to use goal-setting skills to enhance health</td>
<td>List 3 reasons for wanting to lose weight</td>
<td>Keep track of food and activity to track progress toward goals</td>
<td>Identify the role of habits in behavior</td>
<td>Describe the process of relearning new habits to facilitate behavior change</td>
</tr>
<tr>
<td>(behavior) vs. outcome (size))</td>
<td>Set three 12-week goals (one each of size-related, activity-related, eating behavior-related)</td>
<td>Identify benefits and sacrifices of changing a behavior and consider when setting goal</td>
<td>Practice different ways to record foods and control portions</td>
<td></td>
</tr>
<tr>
<td>--------------------------------</td>
<td>------------------------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------------------</td>
<td>----------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Engage in at least 20 minutes of aerobic activity on 3 days</td>
<td>Engage in at least 20 minutes of aerobic activity on 2 days</td>
<td>Engage in at least 30 minutes of aerobic activity on 3 days</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Engage in active play every day before doing homework (will give you energy)</td>
<td>Add an additional fruit or vegetable to daily diet</td>
<td>Engage in selected strength activities</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Use the interactive tools at MyPyramid.gov to determine caloric needs based on gender, age and activity level</td>
<td>Make affirmation cards promoting positive self-concept and behaviors</td>
<td>Practice replacing negative self-talk with positive self-talk</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Engage in at least 20 minutes of aerobic activity 2-3 days per</td>
<td>Safari: Cutting way out of the fast food jungle into the fresh food garden</td>
<td>Create a list of “Esteem Builders”</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Eat breakfast daily</td>
<td>Participate in at least 25 minutes of aerobic exercise on 3 days</td>
<td>Aerobic (25 min x 3 days), strength and flexibility exercises (these are <em>minimum</em> recommendations)</td>
<td></td>
</tr>
</tbody>
</table>

7. Students will demonstrate the ability to practice health-enhancing behaviors and avoid or reduce health risks

- Engage in an aerobic activity for at least 20 minutes on 2 days during the week
- Engage in one strength (ex. Leg extension) and one flexibility (ex. Shoulder stretch) on 2 days
- Use the interactive tools at MyPyramid.gov to determine caloric needs based on gender, age and activity level
- Engage in active play every day before doing homework (will give you energy)
- Add an additional fruit or vegetable to daily diet
- Make affirmation cards promoting positive self-concept and behaviors
- Safari: Cutting way out of the fast food jungle into the fresh food garden
- Participate in at least 20 minutes of aerobic activity 2-3 days per
- Eat breakfast daily
- Participate in at least 25 minutes of aerobic exercise on 3 days
- Practice replacing negative self-talk with positive self-talk
- Create a list of “Esteem Builders”
<table>
<thead>
<tr>
<th>week</th>
<th>Engage in one strength and one flexibility exercise on 2 days</th>
<th>Participate in a family physical activity (ex. Bike ride)</th>
<th>Select a healthy menu from a list of healthy choices</th>
<th>least 20 minutes of aerobic exercise on 2 days</th>
<th>Participate in strength and flexibility exercises</th>
</tr>
</thead>
</table>

8. Students will demonstrate the ability to advocate for personal, family and community health
Table C2. *Trim Kids Concepts and Skills for Healthy Eating and Physical Activity for Weeks 7-12*

<table>
<thead>
<tr>
<th>Standards</th>
<th>Week 7</th>
<th>Week 8</th>
<th>Week 9</th>
<th>Week 10</th>
<th>Week 11</th>
<th>Week 12</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Students will comprehend concepts related to health promotion and disease prevention</td>
<td>Identify that flexibility is important for balance strength, motion and health</td>
<td>Identify different body types (mesomorphs, ectomorphs, endomorphs)</td>
<td>Describe the concept of cross-training and its role in preventing burnout</td>
<td>Describe how to maintain healthy behaviors under special circumstances (like vacations)</td>
<td>Explain concept of “Triple Whammy!” in weight maintenance</td>
<td>“How to Maintain your New Weight”; describe weight maintenance as ongoing process (not a completed task)</td>
</tr>
<tr>
<td></td>
<td>Identify flexibility exercises</td>
<td>Identify types of muscle (fast- and slow-twitch)</td>
<td>Identify the four types of cross-training</td>
<td>Identify physical activities that require little-to-no equipment (frisbee, dancing, etc.)</td>
<td>-Burn calories during exercise</td>
<td>Review and discuss “Myths of Exercise”</td>
</tr>
<tr>
<td></td>
<td>Identify the benefits of calcium (healthy bones and teeth, steady heartbeat, relaxed muscles), especially for children</td>
<td>Describe how exercise behaviors change at different ages</td>
<td>Identify that some activity is better than non</td>
<td>Identify that some activity is better than non</td>
<td>-Burn more calories after exercising</td>
<td>Summarize recommendations for preventing obesity (discourage high sugar beverages, select healthy snacks, all food is ok/some better than others, eat and drink only at designated location, schedule tasty</td>
</tr>
<tr>
<td></td>
<td>Identify that children should have 3 servings of dairy/calcium per day</td>
<td>Identify a variety of healthy snacks (Nutrition Nutshell)</td>
<td>Identify words that indicate healthier food preparation (steamed, broiled, poached, etc.)</td>
<td>Identify words that indicate healthier food preparation (steamed, broiled, poached, etc.)</td>
<td>Compare and contrast team and solo sports</td>
<td>Identify “Top 10 Tips for Increasing Physical Activity”</td>
</tr>
<tr>
<td></td>
<td>Identify that a multivitamin can</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</table>

246
<table>
<thead>
<tr>
<th>provide people with important vitamins and minerals</th>
<th>Summarize recommended amounts and benefits of water</th>
<th>Identify lifestyle differences/behaviors of healthy people and those of overweight people</th>
<th>snacks, always eat breakfast, create a healthy environment, children exercise differently than adults, encourage aerobic activity, encourage development of strength and endurance, families that play together stay healthy together</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Students will analyze the influence of family, peers, culture, media, technology and other factors on health behaviors</td>
<td>Describe “Ten Upbeat Tips for Parents” (ways that parents can reinforce positive child behaviors)</td>
<td>Identify the importance of selecting appropriate peers in reinforcing positive behaviors</td>
<td>Identify resources available to address challenges of weight maintenance</td>
</tr>
<tr>
<td>3. Students will demonstrate the ability to access valid information and products and</td>
<td></td>
<td></td>
<td></td>
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</table>
services to enhance health

4. Students will demonstrate the ability to use interpersonal communication skills to enhance health and avoid or reduce health risks

5. Students will demonstrate the ability to use decision-making skills to enhance health

6. Students will demonstrate the ability to use goal-setting skills to enhance health

7. Students will demonstrate

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<th>4. Students will demonstrate the ability to use interpersonal communication skills to enhance health and avoid or reduce health risks</th>
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<tbody>
<tr>
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<tr>
<td>6. Students will demonstrate the ability to use goal-setting skills to enhance health</td>
</tr>
<tr>
<td>7. Students will demonstrate</td>
</tr>
</tbody>
</table>

Identify decision making as important in encouraging independence (superior to not giving choices)

Describe lapse, relapse and collapse

Evaluate previous goals (celebrate successes) and set new goals

Adjust calcium/dairy

Discuss “Twenty Ways

Select and participate in

Plan strategies to maintain

Plan a weekly menu

Aerobic (40 min x 5 days), strength

(healthcare professionals, books, parents, internet)
the ability to practice health-enhancing behaviors and avoid or reduce health risks

<table>
<thead>
<tr>
<th>Practice health-enhancing behaviors and avoid or reduce health risks</th>
<th>intake to meet recommendations</th>
<th>to Burn 20 Calories’ and select favorites to reinforce importance of lifestyle activities</th>
<th>cross-training activities (still attending to aerobic, strength and flexibility components)</th>
<th>healthy new habits on vacation (bring own snacks, easy-to-pack equipment, selecting active adventures)</th>
<th>Aerobic (40 min x 5 days), strength and flexibility exercises</th>
<th>and flexibility exercises</th>
</tr>
</thead>
<tbody>
<tr>
<td>Practice positive self-talk</td>
<td>Engage in aerobic (30 min x 3 days), flexibility and strength exercises</td>
<td>Tailor aerobic (30 min x 3 days), strength and flexibility exercises to body type, age, muscles types</td>
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8. Students will demonstrate the ability to advocate for personal, family and community health
GENERAL REFERENCES


