Basic Lesson Plans for a Junior High Agriculture Curriculum

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Basic Lesson Plans for a
Junior High Agriculture Curriculum

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in partial fulfillment of the requirements for the degree of:

MASTER OF SCIENCE

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Program of Study Committee Members:
Dr. Scott Smalley, Agriculture Education & Studies
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Chapter 1

1.1 Introduction

In choosing my product for my creative component, I decided to pick something I could readily use as I have switched jobs teaching positions this year. I am currently a junior high agricultural teacher in a rural/urban school setting. The junior high I am teaching at has 522 students in grades seven and eight. I have right at 160 kids in my classes. We have five smaller elementary schools that feed into our school program. Our school district is in Scott County and just north of the Quad Cities, in fact our high school is the only one in the county teaching agriculture, but we have students from all of the local schools able to take ag classes at our high school. We have in fact started doing some middle school ag classes after school for some students. So I am adjusting some curriculum to make it possible for these kids to get some agriculture in.

I chose to step into agriculture education, five years ago as I have always been passionate about agriculture and agriculture education. My first BS was in Animal Science, and I went to work in industry when I graduated. I was employed in the swine industry in southwest Kansas, and then in DeKalb, Illinois. I left that company to go back to school to get my Masters in Business Administration. While in school, I met my husband we took over a small town furniture store. After we lost it in a fire, is when I went back to school for education. I chose elementary because I live in an area with quite a few schools in the area. I was also not aware of the shortage of ag teachers. After I graduated and got my first elementary teaching position, I was asked at my interview why I didn’t become an ag teacher. Well the jobs would be limited for me to take, as my husband is a farmer. I did indeed, two years later step into the ag teacher position which was open at my same school.
More and more people each year are having less experience and knowledge of agriculture and the importance it has to people every single day. This is because more people are becoming more removed from agriculture and farming, with less people actually farming, less people are able to experience and know all the uses of agriculture commodities.

It became apparent to me when I started teaching in a more urban setting, students have no idea or concept of how big the agricultural industry is. Most students when asked, even farm kids think that production agriculture is over 50 percent of agriculture, when in fact it is less than two percent (Iowa Farm Bureau, 2018). Agriculture is so diverse and there are many different areas to learn about.

We are going to need to have more students interested in agricultural jobs if we are going to be able to feed the growing population that is going to happen in the next 30 years (United Nations, 2015). We are going to need to look outside of the farming families to get students interested in pursuing these jobs. It has become apparent to me as agriculture education is growing from rural to urban areas. We are going to have to change the way of thinking that we always have in order to find ways to incorporate agriculture into the lives of students who may not have been exposed.

If we do not persuade students into ag careers, hopefully we’ll educate them to truths of agricultural life. It’s sad so many people believe the false things they see on social media today.

1.2 Purpose and Objectives

It is my goal to create an exploratory curriculum that can be used, or a resource for other ag teachers to modify to fit their curriculum. What I mean by exploratory curriculum is that it will be a basic starting point that could be taught at the junior high level. It will include defining many of the agricultural terms as many urban students are not going to have any background
information. My goal is to have a group of lesson plans for a junior high exploratory class. These will be able to be used or modified as the teacher sees fit. It sometimes can become overwhelming for a teacher to begin to know where to start or what to teach at the various grade levels. I will keep the following goals in mind.

1. Develop a group of lesson plans for a junior high agriculture curriculum for a teacher to use to educate students about the importance of agriculture to them all.

2. Develop a sequence that will make sense to follow and be meaningful. They could also be put into the order that the teacher would like to follow, as they will be stand alone units.

1.3 Need

Less people are familiar with agriculture and agriculture education is being added to many schools. Because agricultural teachers are usually teaching a different subject every class, it is different than math, English, social studies and science. In addition, agricultural teachers are responsible for coaching a wide variety of contests, proof reading proficiency applications, and checking in on student supervised agricultural experiences, in addition to other FFA responsibilities like attending chapter meetings, officer meetings, and alumni meetings. This doesn’t include added time for lesson planning, grading, and other daily school responsibilities.

By having a curriculum available for teachers, it will make the teaching easier for them to plan or change if they have an outline or idea of what to teach. If something is created it can be shared with other ag teachers so they can either use the resources as they are created, or they can modify them to work into their curriculum that they are currently using. For new agricultural teachers, this is going to be a starting point for them to modify or at least an idea of what they could be including or ideas of what would be good.
The problem that I have found is that Iowa does not have a set of agriculture standards, but there are other states that do. There are also other states who have a variety of curriculum available, but it is different as it has different standards for grades six, seven and eight. At North Scott, sixth grade is still at the elementary level. One thing I have noticed is that many students whether they have prior agriculture knowledge or not, they still usually have a very limited prior knowledge when we are talking about agricultural topics. There is a lot of front loading often that is occurring to help students begin to understand this new foreign topic they are learning about.

For many teachers, modifying a lesson to fit into their curriculum is easier than recreating the wheel and coming up with lessons or activities on their own. If this resource can be utilized as a starting point for a teacher I will feel like I have helped in some way.
Chapter 2

2.1 Literature review

The need to create an agriculture curriculum in Iowa for junior high agriculture students is something that is becoming more needed, as more schools are adding agricultural exploratory classes. Some states have lessons and standards published for what they want ag teachers to teach in each year or classes. Iowa is considered a local control state (Iowa Department of Education, 2018). Being local control, means that each district will decide what curriculum is taught at each school district.

We have a shortage of agriculture education instructors across the nation, in fact in 2016 there were 66 agriculture education teaching positions that remained unfilled across the United States (National Teach Ag Campaign, 2017). In fact, most agriculture education teachers in Iowa, nearly 80% work in a single teacher program and over 50% of those teachers teach at least one middle school agriculture course during the school year (Iowa FFA Association, 2018). With more teachers teaching middle school courses, there is an increased need to create a middle school agriculture education curriculum.

In a junior high school setting students are exploring new opportunities. The middle school curriculum is flexible and emphasizes personal development (Rayfield, 2010). The classes I am teaching are both Career Technical Education exploratory classes. I teach PAY or Plants, Animals and You to seventh grade students. This class has an agricultural focus. Middle school is a chance for students to take electives to learn about some new skills or try things online. In the ACT or Agricultural Construction Technology class, I am using many agricultural mechanics skills to teach measurement and many basic woodworking skills for students.
Teachers should focus instructional efforts on three major areas: career exploration, agricultural literacy and guided personal development (Rayfield, 2010). Teaching students to be career or college ready, must also include teaching them to know the variety of careers available to them. Ag literacy is defined as an individual’s understanding and possessing a knowledge of our food and fiber system, so that someone that possesses such knowledge would be able to synthesize, analyze, and communicate basic information about agriculture (Frick, 1990). If students were only to take the middle school agriculture class, and no other it would be at least the beginning to help students become literate in agriculture. Kids need to know some basics to become agricultural literate, not know the major details and become experts.

Agricultural literacy is a particular passion of mine as I love agriculture and want others to appreciate and recognize it is something they need to understand more about. It will help others appreciate when they realize all the necessities in life they depend on that come directly from agriculture. I also think it is very important to educate students who see false things as truths in agriculture. This is because people often just hear what others say, or believe something they are told and do not understand the truths of the matter. So I think as less people are living on farms and farming, that people will believe what they see or hear, whether it’s true or not. An agriculturally literate person would understand the food and fiber system and this would include its history and its current economic, social and environmental significance to all Americans (Iowa Ag Literacy, 2018). It is important as an educator to introduce students to agriculture, so they can understand what agriculture involves, but also maybe interest them to want to learn more.

There are many students in schools today who are very interested in agriculture, yet are not aware of all of the possibilities for careers, or the importance of filling these careers in the
future. What I like best about being a junior high agriculture teacher is that I teach 2 completely different curriculums that deal with agriculture. In the PAY class, I am teaching a variety of agriculture topics that deal with plants, animals and the students. The recommendations for instructional materials should be developed with the middle school student in mind. During the next five years, U.S. college graduates will find good employment opportunities if they have expertise in food, agriculture, renewable natural resources, or the environment. Between 2015 and 2020, we expect to see 57,900 average annual openings for graduates with bachelor’s or higher degrees in those areas (Goecker, 2015). If we do not start educating students to become ag literate, they are never going to know about these jobs. The more content these students can start learning about, the more educated they will be in selecting classes to take in high school in order to prepare for college. It is very important that students learn this information in school about agricultural literacy. This way they will be more informed about career paths in the future.
Chapter 3

3.1 Methods and Procedures

As long as I have been teaching agriculture, I have been teaching junior high exploratory agricultural classes. I have often tweaked my curriculum to the interests of the students in my classes at the time. It has been a nine week elective in the past, for me. I have previously taught a 7th grade and 8th grade exploratory agriculture class with a variety of curricula.

When I have worked with other teachers to lesson plan topics and units within ag education, we have sometimes struggled with what to teach the junior high students, because we have had different class structures, in terms of length of the course and class time available.

While talking with various ag teachers from around the state, it had become apparent that many people are interested in middle school curriculum for an exploratory class, but they really do not have the time to devote to writing the curriculum. Because of this, I decided to use this as my topic for my creative component.

It has been my experience, and I have often heard this quote, “Tell me, I forget. Teach me and I remember. Involve me and I learn (Franklin, 2019).” This quote is so true for many junior high aged students. At this age most students, just want to fit in and be included. They usually do not want to draw unnecessary attention to themselves. I have found that students enjoy hands-on activities and learning.

In his study in 1993, Frick recommended the following: (1.) The student’s interests, concerns and maturity level should be highly considered in the final development of materials. (2.) A study that would determine middle school students’ interest in the subject areas and topics presented is highly recommended. (3.) As more middle school programs are started, a document that illustrates various effective teaching strategies for the middle school agricultural education
instructional materials should be developed and distributed to teachers. (4.) State education agencies and teacher education programs should design inservice and preservice programs to prepare current and prospective teachers for teaching middle school agricultural education program content. (5.) Designers of middle school agricultural education programs should ensure that program content is distinct from senior high school programs. (6.) The identification of where the subject areas and topics can be integrated in the total middle school curriculum is highly recommended (Frick, 1993). While these recommendations sound great they are not all going to be feasible. I think they would all be possible pretty easy, except trying to get our state education agency to set up some in-service or pre-service workshops to prepare agricultural teachers to work with middle school students.

As I decided that I wanted to work on a product that would be able to be shared with other teachers, I looked a various curriculum online from :The National FFA Food and Agriculture Literacy curriculum, Georgia Agricultural Education Middle School curriculum, and the Iowa Agriculture Literacy Foundation curriculum. I realized that I needed to have direction and a purpose. So with my class name being PAY or Plants, Animals and You I wanted the topics in class to focus on either, plants, animals or the student. How would I design the class to build the ag literacy to be where I wanted it to be? In talking with other ag educators about how to design the curriculum it was decided that hands-on-activities will give the students a good foundation of what agriculture is. But we also need to fill in the gaps, because many urban students have no idea or concept of how agriculture affects them on a daily basis. To determine the sequence of my units, I decided on (1.) What is Organization, (2.) What is Agriculture, (3.) FFA, What’s in it for Me?, (4.) Ag Around Us, State Reports, (5.) General Animal Science, and (6.) Crops in Iowa. After I decided the topics I was going to use, I decided that I would like my
lessons, to be informational, hands-on and student driven to build a foundation for the ag literacy I was trying to achieve with my students. I decided that I wanted to use a variety of techniques when designing my class structure, as there are many different learners in classrooms today. The lessons need to be organized and focused, so that students can learn the topics at hand. Many students have no prior knowledge when learning about agriculture topics, so making the learning interesting is very important. To keep them wanting to learn new material. The activities will be individual and group projects, and vary from posters, to actually making products. The learning by doing concept come from David Kolb’s idea that “learning is the process where knowledge is created through the transformation of experience” (McLeod, 2017), meaning the students will take abstract ideas and then apply that knowledge into concrete experiences. For example using salt to make the ice colder when making ice-cream in a coffee can.
Chapter 4

4.1 Product

The curriculum was created in two documents. The first document is the instructor’s guide. This guide is the instructor’s lesson plans or outline to follow. The second document is the student’s interactive notebook. This document includes all note taking guides, activity sheets, and lab sheets the students will need to be successful in the course. The documents are included below.
Chapter 5

5.1 Reflections

As I have finished my creative component, I can think of ways I could have improved it. I would have first off sent out a form survey, asking all Iowa agriculture teachers for some input on content, methods, and activities they are currently using. I feel like I developed something that will work for me well because it’s what I feel is important. I think I should have asked a larger group for input.

I should have also shared it with various agricultural teachers from across the state to have given me some advice and input for reflection. I have agricultural teacher friends in every District of the state so that would have given me some more insight to what is important where I am not as familiar with. It would have also given some agricultural teachers some ideas of what they could do or use.

I will continue to focus on developing this small piece of curriculum to something that can be accessed by all Iowa Agricultural Education Teachers, especially those who are relatively new with no experience, and who have never been exposed to teaching middle school students. While this may not be what they are looking for it would give them some ideas and direction of where to start.

I know that when I started graduate school I had no idea that I would be solely teaching junior high agriculture at this point. It has been a challenge to have taken on graduate school, while teaching full time, changing positions, and having both of my boys transition to college. I have had some very challenging classes while in graduate school. I have also had some personal events come up where I wasn’t able to give school 100%, and that was very frustrating for me. But at the end of the day, I can honestly say that I have become a better educator who strives to
make my classroom a better learning experience for all those who enter it. There is sometimes better lessons to be learned by actually making a mistake and correcting your error the next time. It can also be quite satisfying just knowing that you are doing the best you can at the time you are in. Mistakes can make us better educators and always striving to improve will make changes. I know that while I have many things to learn to become a great educator, that I have learned that tomorrow is another day, and we can work harder tomorrow.

In summary, I can say I am a better agriculture educator, FFA Advisor, and colleague because of the courses I have completed while a student at Iowa State. I do not feel that I will ever stop learning. Which is something 35 years, ago I would have never dreamed that I would someday have 2 bachelor and 2 masters degrees in different content areas. I thank my family for their understanding and support and sacrifices made while I finished my education.
References


North Scott Junior High

Agriculture Curriculum

Instructor Lesson Plan

Jen Westphal
Unit 1 Topic: Organization in PAY Class

Guiding Question: What is organization and how can it benefit me in the JH?
⇒ What is organization?
⇒ What can be some benefits of being organized?
⇒ What can happen if you are not organized?
⇒ How will organization help you in life?

Frontloading: Bellringers
● Where can organization help you?
● Does organization come natural?
● Is organization easy?
● Brainstorm Make a T chart of where organization is important

Instructional Activities:
Contrived direct experience: As a class, make a T Chart with a list of positive things when you are well organized vs negative when not well organized.

Demonstration: Walk through the steps of setting up an interactive notebook for class. Folder in Back, Cover they can design, Table of Contents

Exhibits: Purpose: Written by me.

Visual and aural materials:
● Example of the Notebook

Written materials:
● Page one notes to put into Notebooks

Assessment/Proof of Learning: Each student will have constructed a composition notebook that we will use in class to create our own textbook. We will set this up at the beginning of the year so they will know what my expectations are and how to use it.
Unit 2  Topic:  Introduction to Agriculture

Guiding Question: What is agriculture and how is it important to me?
 ⇒ What is agriculture?
 ⇒ How is agriculture important to me?
 ⇒ How is the agriculture industry organized?
 ⇒ How will agriculture sciences have to evolve to meet future needs?

Frontloading:
● Bell Ringer-Brainstorm a list of the items that students use daily that come from agriculture. Be specific!
● Bell Ringer-Brainstorm a list of food that they have eaten in the last 24 hours. Where does it come from?
● Bell Ringer-List 10 agricultural items that you use

Instructional Activities:
Contrived direct experience: As a class, make a list of items we use from agriculture, on a daily basis. I will give a few examples. We will next, come up with some together.

Dramatic participation: Game Show – “What does it come from” Have a list of agricultural products and have the students determine where they come from. I will divide the students up into groups. I will them give them a list of cards. If they are not sure they will need to do some research to find out.

Demonstration: To have the students make plastic from corn or soil oil to see how easy it is to be bio-friendly

Exhibits: Hands-on Matching – bring in an assortment of 15 different products and see if they can find out or know where they come from.

Written materials:
● Ag & Society PPT
● What is Agriculture OLT worksheets

Assessment/Proof of Learning: Each student will complete a One Less Thing Worksheet listing 15 Agriculture things that they use on a daily basis. This will get turned in for a grade and back into their interactive notebooks.
Unit 3 Topic: FFA What is it?

Guiding Question(s): What is FFA? How do I fit into FFA?
⇒ What is FFA?
⇒ What are the benefits of being in FFA?
⇒ How can I get involved the FFA organization?

Frontloading:
● Bellringer: Ask them what they think FFA is?
● Bellringer: What types of students join FFA?
● Bellringer: How can FFA benefit them?
● Bellringer: What would they choose to engage in if an FFA member?

Instructional Activities:
Direct experience:
● Have NS FFA Officers make a video and talk about what FFA has done for them, variety of backgrounds

Exhibits:
⇒ Real life situation: Show the Impact of Agriculture Video
   https://www.youtube.com/watch?v=GQ7P4FaQzfQ
⇒ Show We are the Future of Agriculture video from National FFA
⇒ Show the Creed Video from National FFA

Written materials:
● One Less Thing PPT about FFA
● Notes Sheet created by me from PPT

Assessment/Proof of Learning: Have them create a poster or flyer with reasons they would want to join FFA. See the attached rubric
Unit 4 Topic: Ag Around Us - State Reports

Guiding Question(s): How is Agriculture different in different parts of the US? Why are some things raised or grown where they are?
⇒ How is Agriculture different in regions?
⇒ Why do certain regions grow certain crops?
⇒ Why can’t we grow everything we need here?
⇒ What are ways we transport goods in US?

Frontloading: Bellringers
● Can we grow oranges in Iowa?
● Why do we raise a lot of livestock in Iowa?
● If there is a frost in Florida what will happen to the price of Orange Juice?
● Why is it easy to grow hogs in Iowa?
● How do we get goods from various regions to others?

Instructional Activities:
Exhibit:
Show them the Iowa poster example made for them in Canvas

Written materials:
● Let each student pick a different state they would like to learn about.
● Given them the written materials found on https://www.agclassroom.org/teacher/ag_facts.cfm

Direct experience:
Have each student share their state project in class.

Assessment/Proof of Learning:
Students will construct a poster that will show the information they have found for their states.
Unit 5 Topic: General Animal Science

Guiding Question(s): What are reasons to have animals? Why are animals important to me?

⇒ What are the major reasons to have animals?
⇒ What types of animals are there?
⇒ What are the basic needs of animals?
⇒ How are animals and humans similar, and different?

Frontloading: Bellringers for class

- What are different types of animals?
- What uses do we have for animals?
- What are the basic needs of animals?
- Can animals have food allergies?
- How much does a pet cost?
- How much time does a pet require?

Instructional Activities:

Exhibit:
Wild vs Domestic, describing the different types of animals we have. Describe them and have them take notes in notebooks. Give examples of each.

Exhibit:
5 Basic Uses animals Service, Companionship, Work, Clothing, Food (Describe and give examples of each.)
3 Basic Needs of Domestic Animals: Food, Water, Shelter

Contrived direct experience:
Make homemade dog treats for animals to show that it can be done very easy

Contrived direct experience:
Let each student pick a domestic animal to research and design a poster to show the needs, costs, time required for their animal to share with the class

Assessment/Proof of Learning:
Students will take a quiz over the 2 types of animals, 5 types of animals, 3 basic needs of all domestic animals.
Unit 6  Topic: Crops in Iowa

Guiding Question(s): What is a crop? What crops are grown here in Iowa? What are some things that we get from crops that we depend daily?

⇒ What crops do we grow in Iowa?
⇒ Why do we grow these crops?
⇒ What are the uses for these crops?
⇒ What do we do with the excess crops?

Frontloading:
● What is a crop?
● List some crops we grow in Iowa?
● List 3 items we get from corn:
● List 3 items we get from soybeans:
● List 3 items we get from wheat:
● List 3 items we get from oats:

Instructional Activities:
Exhibit: What is a crop? A crop is something grown for fuel, feed or fiber. It will be planted in the ground and harvested for the use of others.

Exhibit:
List the crops from readily in Iowa. See if the students can think of what they are: Corn, Soybeans, Wheat and Oats. Also mention Hay as a crop but explain it has only one use.

Contrived direct experience:
Divide the class up into groups of 3. Give each of them one of the 4 main crops in Iowa let them become the experts on their crop to share with other students. They will educate the class about their crop.
1. What does it look like? The plant, the final product?
2. What are the main uses? List 5
3. What are some pests or diseases that affect this plant?
4. Come up with a hands-on activity to show how this plant is used or needed. For example maybe making soy or corn based plastics in class. Maybe making no bake cookies with oatmeal or bread or pasta with wheat. Maybe bringing in or making some tofu for students to try.

Assessment/Proof of Learning:
After the students have all presented their projects and completed their activities, I will give them a summary of the uses of the Iowa Crops and then give them a written assessment to list 3 different uses for each crop.
PAY
Plants, Animals & You
Interactive Notebook
2018-19
Interactive Notebook Organization - Unit I

Purpose: Organization is not something that comes naturally; it comes with practice and more practice. As defined by the Merriam Webster Dictionary the word, “organization means the act or process of putting the different parts of something in a certain order so that they can be found or used easily.” We have a very short time in class to learn so we need to be organized and ready to go each class. There are many benefits of being organized:

1. Things will go as planned if you have all your materials ready
2. You will have your materials needed to accomplish the lesson
3. You don't have to waste time looking, or go to your locker to get
4. More time to learn

List 2 important things from the Purpose:

1. 
2. 

Write your thoughts: Positive Example:

Negative Example:

5. How else besides class can organization help you out?

How can an interactive notebook help you?

Have you ever used an IN(Interactive Notebook) before? Share your thoughts.
Ag and Society - Unit 2

1. Agriculture is...

2. Name two reasons America has an advantage in agriculture.
   A. 
   B. 

3. Americans spend _________ of their yearly income on food which is ___________ than ___________ in other countries.

4. One American farmer can feed ___________ people.

5. The four main uses of plants are...
   A. 
   B. 
   C. 
   D. 

6. What else are plant fibers used for besides clothing?

7. Two other uses for animals other than food and clothing are...
   A. 
   B. 

8. Meat from sheep is called lamb or ___________

9. What is the term for farming aquatic animals?

10. A ___________ material or product that can be bought and ___________ is a...

11. A product or material shipped out of the country is an ___________
   We export from Iowa ___________
   Why would we export?

12. A product or material brought into the country is an ___________
   We import to Iowa ___________
   Why would we import?
<table>
<thead>
<tr>
<th>Unit 2: Questions</th>
<th>Unit 3: Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. What is Agriculture?</td>
<td>1. What is FFA?</td>
</tr>
<tr>
<td>2. What is an export?</td>
<td>2. What can FFA do for you?</td>
</tr>
<tr>
<td>3. What does Iowa Export?</td>
<td>5. Why is corn chosen to represent the FFA Emblem?</td>
</tr>
<tr>
<td>4. What is an import?</td>
<td>4. Who can earn a Discovery Degree?</td>
</tr>
<tr>
<td>5. Why is Agriculture important to me?</td>
<td>5. Why can FFA be taught in the classroom?</td>
</tr>
</tbody>
</table>
FFA - Unit 3

1. What Act was passed that started Agriculture Education classes? ________________________
2. What year was this legislation passed? ________________________
3. Who is considered the Father of FFA? ________________________
4. When was the Future Farmers of America founded? ________________________
5. What city did FFA begin in and where National Convention was held? ________________________
6. Where is National Convention held now? ________________________
7. How much were FFA dues when it first began? ________________________
8. In what year was the FFA Creed adopted? ________________________
9. Who wrote the FFA Creed? ________________________
10. What did NFA stand for? ________________________
11. What year did the NFA merge with the FFA? ________________________
12. Who were allowed FFA membership in 1969? ________________________
13. In what year did the FFA change its name? ________________________
14. What did the FFA change its name to? ________________________
15. When was the FFA Discovery Degree first available? ________________________
16. Who can get a Discovery Degree? ________________________
17. How should the official jacket be worn? ________________________
18. What is the ‘uniform’ of the FFA called? ________________________
19. Official colors of the FFA are ________________________
20. The parts of the FFA emblem and what they symbolize are...

21. What are 3 reasons to join FFA? ________________________
22. What are 3 major parts of the FFA Mission Statement? ________________________
23. Draw the 5 ring model of Ag Education.
**Agriculture Around us State Information—Unit 4**

**Here is a completed Example**

**All about Iowa Agriculture**

- Iowa leads in Iowa to Texas, including over 1,000 different types.
- Land Grant College: Iowa State since 1857.
- 67% of Income is from Agriculture (That's ALOT!)

**Iowa Ranks #2 in USA for Ag Income**

Commodities rank #1 in Iowa:
1. Corn
2. Hogs
3. Eggs

**IA Soybeans Raised #2 In USA**

Products exported to foreign countries:
- Canada
- Mexico
- Japan

**IA Wind Energy Generated #3**

- 36% of the State Electricity

**State Ag Information Directions:**
1. Gather the above information before you even start to layout your infographic.
2. You can list here on the other side of this sheet.
3. You can choose how to make your infographic. This will be due: __________. I will randomly choose the order. USE YOUR TIME WISELY!!
4. You need to turn in this sheet with your infographic.
5. If you do not have the information on your sheet, you may have to google. Just keep track of your sources AND NEVER use WIKIPEDIA.

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11/10/2018
Creative Component
J Westphal
<table>
<thead>
<tr>
<th>Category</th>
<th>No</th>
<th>Maybe/Some</th>
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<th>Maybe/Some</th>
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<td>Top 10 Ag Commodities</td>
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<td>Your state export where/what</td>
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<td>Your state export where/what</td>
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<td>Extra Ag interesting Information</td>
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<td># of farms in your state</td>
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<td># of farms in your state</td>
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<tr>
<td>Avg farm size in Acres</td>
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<td>Avg farm size in Acres</td>
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<td>Colorful/Illustrations</td>
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<td>Colorful/Illustrations</td>
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<td>Neat/Spelling/Overall</td>
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<td>Neat/Spelling/Overall</td>
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<td>7</td>
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<td>Total</td>
<td>38</td>
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General Animal Science Unit 5
Ice Breaker: List 10 different animals

5 Reasons we have Animals

Reasons Given
1. Service
2. Companion/Pleasure
3. Power
4. Clothing
5. Food

What are the 2 types of animals listed above?
A. Wild
These animals are in the wild and stay in the wild always.
List examples:

B. Domesticated
These animals have people who have been given a purpose and are useful to humans.
List examples:
What are 3 requirements for all domesticated animals?
1. Water - Animals need fresh clean water each day
2. Feed - Animals need clean fresh feed daily
3. Shelter - Animals need access to shelter for their type and needs required.

Homemade Dog Treats
Should make 16 treats.

½ C Pumpkin Puree
½ C Applesauce
¼ C Plain Yogurt
¼ C Nut Butter (Peanut, Cashew, Sunflower)
Crumbled Bacon
2 ½ C Old Fashioned Oats

Mix all four ingredients together. Add oats back to roll finished product in. After recipe is mixed,
take a small cookie scoop. Start with a small amount of
bacon and form the treat around it.
** Make sure to store in refrigerator or freezer.

Create a Label that will include:
Name and ingredients as well as a serving.
** Make sure to store in refrigerator or freezer.
<table>
<thead>
<tr>
<th>Homemade Treat Task Questions</th>
<th>Homemade Treat Task Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. What did you like about this activity?</td>
<td>1. What did you like about this activity?</td>
</tr>
<tr>
<td>2. Will you do this at home? Why or Why not?</td>
<td>2. Will you do this at home? Why or Why not?</td>
</tr>
<tr>
<td>3. What is something you learned or would improve?</td>
<td>3. What is something you learned or would improve?</td>
</tr>
<tr>
<td>4. Predict if your/the dog will like the treat. How will you know?</td>
<td>4. Predict if your/the dog will like the treat. How will you know?</td>
</tr>
<tr>
<td>5. Did your dog like the treat? How do you know?</td>
<td>5. Did your dog like the treat? How do you know?</td>
</tr>
</tbody>
</table>
Animal Report

Species: 
Breed: 
Colors available: 

What is their daily water requirements:

What is the cost to purchase:

Where do they live:

Weight of Adult Male:
Weight of Adult Female:
Length of Gestation:
What is their young called:
How many young are born at a time:

What is needed for their home:

Will they have any added needs per month and cost:

What do they like to eat:

What is their daily food requirements:

What type of exercise do they need:
What will they need for time spent with them daily:  

Why did you choose this animal:  

What did you learn about this animal:  

How long does it take to train them:  

What surprised you the most about this animal:  

Costs involved in training:  

Please include pictures:  

What are the uses for this animal:  

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<table>
<thead>
<tr>
<th>Animal:</th>
<th>Name:</th>
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<tbody>
<tr>
<td>Title Name easily seen</td>
<td>2 pts</td>
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<tr>
<td>Weight adult</td>
<td>2 pts</td>
</tr>
<tr>
<td>Young called</td>
<td>1 pts</td>
</tr>
<tr>
<td>What are added costs</td>
<td>3 pts</td>
</tr>
<tr>
<td># of Young Born</td>
<td>1 pt</td>
</tr>
<tr>
<td>Cost to Purchase</td>
<td>1 pt</td>
</tr>
<tr>
<td>Food/Water Needed</td>
<td>2 pt</td>
</tr>
<tr>
<td>Time need spent</td>
<td>3 pts</td>
</tr>
<tr>
<td>Length of Gestation</td>
<td>1 pt</td>
</tr>
<tr>
<td>Interesting Info/Training</td>
<td>2 pts</td>
</tr>
<tr>
<td>Home needed/Live</td>
<td>2 pt</td>
</tr>
<tr>
<td>Colorful/Illustrations</td>
<td>3 pts</td>
</tr>
<tr>
<td>Neat/Spelling/Overall</td>
<td>3 pts</td>
</tr>
<tr>
<td>Presentation/Listening</td>
<td>4 pts</td>
</tr>
<tr>
<td>Total</td>
<td>30 pts</td>
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Unit 5 Quiz
Name:
List 2 types of Animals. Describe them and list an example of each

List 5 uses of animals

Describe one of the uses for animals

What are the basic needs of all domestic animals?
<table>
<thead>
<tr>
<th>General Crop Science Unit 5</th>
<th>Why are oats grown?</th>
</tr>
</thead>
<tbody>
<tr>
<td>What is a Crop?</td>
<td>What are some uses of Oats?</td>
</tr>
<tr>
<td>What are major crops in Iowa?</td>
<td>Why is wheat grown?</td>
</tr>
<tr>
<td>Why is Corn grown?</td>
<td>What are some uses of Wheat?</td>
</tr>
<tr>
<td>What are some uses of Corn?</td>
<td>Are gardens crops?</td>
</tr>
<tr>
<td>Why are soybeans grown?</td>
<td>Give some example of crops with vegetables or fruits?</td>
</tr>
<tr>
<td>What are some uses of Soybeans?</td>
<td></td>
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</table>

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<table>
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<tr>
<th>PAY: Crop Project Rubric</th>
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<tbody>
<tr>
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<td>Title Name easily seen</td>
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<tr>
<td></td>
<td>Maybe/Same</td>
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<td></td>
<td>Yes</td>
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<td>Yes</td>
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<tr>
<td>Pictures of Plant/Crop</td>
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<td></td>
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<td>How grown/Harvested</td>
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<td>Diseases for this crop</td>
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<td>Poster Colorful</td>
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<td>Materials in on time</td>
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<td>Students Interactive</td>
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<td><strong>Participation in Group Projects</strong></td>
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List 5 uses of Corn

List 5 uses of Soybeans

List 5 uses of Wheat

List 5 uses of Oats

How is a crop different than a garden?