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## Tug of War with Grain: A Grain Safety Curriculum (Flyer)

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# TUG of WAR with GRAIN



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A GRAIN SAFETY CURRICULUM



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## Why Is Grain Safety Important?

More than 200 farmers or family members have died in grain within the past three decades. One-third of all people trapped in flowing grain are children. "I lost my son, Keith in a gravity-flow wagon. I want to prevent other farm families from experiencing this heartache. This curriculum can help kids comprehend the hazards of grain." **Marilyn Adams** | President & Founder, Farm Safety 4 Just Kids

### The Golden Connection

When educators make that Golden Connection between school and daily life, learning happens. These materials provide hands-on experience, helping your students apply math and science concepts as well as understand a key farm danger, grain entrapment. "This curriculum helps understand the practicality of equations they have as homework. The demonstrations show what happens in a gravity-flow wagon, and more importantly, why it happens." – Bill Umbaugh, Agricultural Education Instructor, Adair-Casey High School, Adair, Iowa.

### What You Get

A sturdy spiral bound book contains materials for four sessions that use flowing grain to explain force, resistance, pressure, velocity, and friction. The goal is to provide learning activities for middle school and high school students. Ideas for additional challenge sessions also are included. "It has great activities that use several teaching styles. It's nice having overhead masters and we see many ways it can be used. We're encouraging our county extension offices to purchase the curriculum as well as those who teach tractor and machinery certification courses." – Cheryl Skjolaas, Youth Farm Safety Specialist, University of Wisconsin Center for Agricultural Safety & Health.

#### SESSIONS ARE DESIGNED FOR USE BY:

- Classroom teachers
- Farm safety day camp organizers
- Youth group leaders
- Others interested in farm safety

### The Curriculum

The Tug of War with Grain safety curriculum answers many real-world questions with application of scientific principles. It was developed by ISU Extension with Farm Safety 4 Just Kids, an Iowa-based international farm safety organization. All materials were reviewed by specialists in education, youth development, engineering, and safety. In the curriculum you'll find:

#### ALL FOUR CORE SESSIONS INCLUDE:

- Session objectives
- Materials list
- Student prerequisites
- Skills developed in the session
- Session background
- Questions for introduction and reflection
- Instructions for activities
- Ways to apply what's been learned
- Masters to produce overheads
- Student worksheet
- Key to student worksheet
- Classroom safety tips
- Grain safety tips

#### THE CURRICULUM INCLUDES:

- Overview and plans for all core sessions
- Ideas for challenge activities
- Complete background about grain in production agriculture
- Overheads of three types of grain entrapment
- Charts with grain entrapment fatalities throughout the U.S.
- Technical bibliography on grain safety
- Where to get other grain safety resources
- Sample letter that explains the unit to parents or guardians
- Leader evaluation form
- Metric conversion chart

#### SESSION TOPICS INCLUDE:

- What holds people in grain?
- How do people suffocate in grain?
- How are people strangled in grain?
- How do people get trapped in grain?

#### SUPPLEMENTAL ACTIVITIES INCLUDE:

- Why study friction?
- Why do we need friction?
- How is friction measured?
- How does grain stack up?



## TUG OF WAR WITH GRAIN

### To Learn More, Go To:

[www.abe.iastate.edu/safety](http://www.abe.iastate.edu/safety)

Then click on farm safety publications

### To Preview a Copy:

Contact your ISU Extension county office

### To Purchase a Notebook

#### Ask for EDC 116 from:

Extension Distribution Center  
[www.extension.iastate.edu/store](http://www.extension.iastate.edu/store)  
119 Printing and Publications  
Iowa State University  
Ames, Iowa 50011-3171  
phone: 515-294-5247  
email: [pubdist@iastate.edu](mailto:pubdist@iastate.edu)

or

#### Ask for EDU 001 - Great Grain Harvest Education Packet from:

Farm Safety 4 Just Kids  
11304 Aurora Ave.  
Urbandale, Iowa 50322  
phone: 800-423-KIDS  
email: [fs4jk@fs4jk.org](mailto:fs4jk@fs4jk.org)  
[www.fs4jk.org](http://www.fs4jk.org)

.and justice for all

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