

**Course Title:** 8<sup>th</sup> Grade Agricultural Science/Industrial Technology

**Board Approval Date:** 4/11/16

**Credits:** NA

**Course Description:**

This course focuses on mastery of the PA Academic Standards for Science and Technology, Engineering Education, as well as Environment and Ecology. As students progress through this course, they will participate in a systematic study of manufacturing and engineering design, the importance of water quality for all living organisms, and the impact that food safety has on our food supply. Students will collaborate on various projects relating to manufacturing and design, creating a product that solves a global problem and three-dimensionally designing a wooden project (to be determined by teacher). Students will also write an essay and create a digital project relating to agricultural science topics.

**Learning Activities / Modes of Assessment:**

Large group instruction  
Student-driven learning activities  
Checklists / Teacher Observation  
Small group work  
Essay  
iPads for class assignments and group projects  
Projects with Rubrics  
Construction of project in the wood shop  
Digital Lessons

**Instructional Resources:**

Discovery Education  
Various informational resources from [www.agednet.com](http://www.agednet.com)  
Technology. Thode, Bradley R. and Terry. Delmar Publishers Inc. 1994.  
Technology: Today and Tomorrow. Brusica, Sharon A., Fales, James F., Kuetemeyer, Vincent F. McGraw Hill – Glencoe. 2004.  
Technology Interactions. Harms, Henry R., Swernofsky, Neal R. McGraw Hill – Glencoe. 2003.

## Course Pacing Guide

Course: **8<sup>th</sup> Grade Agricultural Science/Industrial Technology**

<b>Course Unit (Topic)</b>	<b>Length of Instruction (Days/Periods)</b>
1. Manufacturing and Design	12 days
2. Food Safety	4 days
3. Water Quality	<u>4 days</u>
DAYS TOTAL	20 Days

## 8th Grade - Food Safety - KUD

<b>KNOW</b>	<b>UNDERSTAND</b>	<b>DO</b>
Describe the proper way to prepare and store food at home and at restaurants	Understand the impact that food safety issues can have on our food supply.	4.4.8.A - Identify and describe how food safety issues have impacted the food and fiber system.
Identify causes of food borne illnesses		Research a given food safety issue and write a one-page essay on the impact it had on a particular crop or industry.
Vocabulary: food borne illness		

## 8th Grade - Water Quality - KUD

<b>KNOW</b>	<b>UNDERSTAND</b>	<b>DO</b>
4.2.8.A - Describe factors that affect the quality of ground and surface waters.	Maintaining water quality is important because water is beneficial, sustains life, and provides shelter and habitats for all living things.	4.2.8.B - Explain the value of wetlands to other living things.
4.2.8.C - Describe how a diversity index is used to assess water quality.		Choose a living organism and create a digital project explaining why wetlands are necessary for it to survive.
Vocabulary: ground water, surface water, diversity index, water quality		

**Unit Essential Question:** Why is food safety important?

*Key Learning: Understand the impact that food safety issues can have on our food supply.*

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Concept: Food Safety

LEQ#1 - What is the proper way to prepare and store food at home and restaurants?

LEQ#2 - What are the causes of major food borne illnesses?

*Vocabulary: food borne illness*

LEQ#3 - What impact does food safety have on agriculture and the food/fiber system?

**Unit Assessment:** Food Safety Issue Essay