

Agriculture Applications

Grade Levels: 8

Course Mission:

Agricultural applications, is designed to introduce students to agriculture and related areas. It explores how agriculture impacts their daily life and how with information they may become a more educated consumer. Students will explore a number of areas including: Careers, plant science, soil science, animal science, and companion animals. Meat processing, and wildlife management, along with greenhouse management may also be explored. Students will also have the opportunity to join and participate in FFA.

Major Units of Study:

- Ag. history <1 week
- Ag. Careers and FFA 1 week
- Soils 2 weeks
- Plant science 3 weeks
- Animal science 9 weeks
- Meat/food processing 1 week
- Wildlife management 1 week
- Landscape design 1 week

State Standards for Agricultural Education addressed in this Course:

Standard A

8.1, 8.2, 8.3, 8.4, 6-8.1, 6-8.4

Standard B

8.2, 8.4, 6-8.4

Standard C

8.3, 6-8.1, 6.8.4

Standard D

8.1, 8.2, 8.3, 8.4, 8.6, 8.7, 6-8.1, 6-8.5

Standard E

8.2, 8.3, 8.4, 8.5, 6-8.1, 6-8.4

Standard F

8.2, 8.3, 6-8.4

Concepts/skills essential for all students..."All Students should be able to"

- Identify 3 careers in agriculture that are not related to food or fiber production.
- Identify 3 plant nutrient requirements.
- Identify 5 dairy breeds
- Do a plant cutting and successfully transplant a bedding plant.
- Describe what is meant by a quality grade for meat animals.
- Describe what is meant by ethical treatment of animals
- Identify 3 important things you should do when caring for a pet.

Unit: Ag History

Essential Understanding / Concepts covered..."Students should know"

- How agriculture has changed throughout history.
- How agriculture affects a nations history and political policies.

Unit: Ag Careers and FFA

Essential understanding / Concepts Covered...”Students should know”

- Agriculture is very diverse industry with many career possibilities.
- FFA is a student organization with many opportunities for students to work towards personal and career goals.

Unit: Soils

Essential Understandings / Concepts Covered...“Students should know”

- How soil is formed.
- How to determine Soil Fertility through testing.
- What are the major soil / plant nutrient requirements.
- What a Soil profile is and the difference between soil structure and texture.

Unit: Plant Science

Essential understanding / Concepts Covered ...”Student should know”

- What row crops are and the differences between Grain, Oil, and Fiber crops
- Different methods of plant propagation
- Nutrient requirement for plants.

Unit: Animal Science

Essential Understandings / Concepts Covered...”Students should know”

- Different dairy breeds
- The lactation cycle and
- Products which come from milk
- Different swine breeds and Beef breeds.
- What companion animals are and how they benefit humans
- How to properly care for companion Animals
- How to compare different feeds for animals through label reading
- The difference between a simple and complex digestive systems
- What is meant by Ethical treatment and care of animals.

Unit: Meat Processing

Essential understandings / Concepts Covered...”Students should know”

- Wet and dry cooking methods
- The wholesale cuts of meat (beef, swine)
- Retail cuts of meat come from various wholesale cuts
- How Yield / and quality grades of meat are determined
- Why we inspect meat and the inspection process.

Unit: Wildlife management

Essential Understanding / Concepts Covered...”Students should know”

- There are different types of land ownership
- Wildlife needs
- What are the factors effecting wildlife populations
- Responsible land management

Unit: Landscape design

Essential Understanding / Concepts Covered...”Students should know”

- What is meant by Proportion / Scale
- Various plant materials used in landscape design
- Focal point within a landscape design
- Phases of landscape development

Process Skills (What students should be able to do)

- Identify soil texture
- Identify areas within a soil horizon and tell about each
- Take plant cuttings
- Successfully transplant bedding plants
- Identify breeds of dairy, and beef cattle
- Identify products from dairy animals and describe their differences
- Describe proper treatment / care of companion animals
- Describe the difference between complex and simple digestive systems
- Identify wholesale cuts of meat and various retail cuts
- Describe the importance of grading animals
- Identify essential needs for attracting wildlife
- Create a landscape design