



School District of Horicon

Course Outline

Learning Targets

Introduction to Agriculture (Middle School)

UNIT: Defining Agriculture

- Describe how agriculture supports daily life.
- Explain that agriculture is a science.
- Discuss the uses of plants.
- Discuss the uses of animals.
- Describe how agricultural products are traded around the globe.

UNIT: History of Production Agriculture

- Describe agriculture's role in developing civilizations.
- Identify some of the inventions that changed the agriculture industry.
- Identify some of the equipment currently used in production agriculture.

UNIT: Careers in Agriculture

- Explain the major career areas in the agriculture industry.
- Identify what it takes to be successful in an agricultural career.

UNIT: Exploring the Livestock Industry

- Understand the beef industry and the numerous products that come from the beef animal.
- Understand the swine industry and the numerous products that come from swine.
- Understand the sheep industry and the numerous products that come from sheep.

UNIT: Exploring Poultry and Poultry Products

- Understand the types of animals that are considered to be poultry.
- Discuss the chicken industry.
- Discuss the turkey industry.
- Understand the parts of an egg and the development of the embryo.

UNIT: Exploring Dairy Animals and Dairy Products

- Understand the anatomy of dairy cattle and how they produce milk.
- Explain how milk is processed for human consumption.
- Describe dairy products and how they are made.

UNIT: Exploring Companion Animals

- Name some types of companion animals and how they benefit humans.
- List important characteristics of dogs.
- Define terminology and care of cats.
- Describe important concepts in keeping rabbits.

UNIT: Exploring Plant and Soil Science

- Define horticulture.
- Explain the process of photosynthesis.
- Name and define three types of tropisms.
- Explain the environmental requirements needed for plants to grow.
- Identify the parts of a plant.
- Understand the function of each plant part.
- Identify the plant parts that are used for human consumption.
- Define plant propagation.
- Describe seed germination and the proper conditions for it.
- Describe three types of plant cuttings.
- Explain the difference between soil and dirt.
- Describe how soil is formed.
- Identify the layers of soil.
- Recognize different soil textures.
- Describe the role of earthworms in soil.
- Explain what soil erosion is and methods to prevent it.

UNIT: Crop Production

- Understand what kenaf is and how it is used.
- Name products that are made from industrial hemp.
- Give examples of products made from flax.
- Explain how cotton is grown and processed into products for human use.
- Describe fruit and nut crops.
- Explain how fruits grow.
- Explore how nuts are produced.
- Define grains.
- Discuss corn and give examples of products made from corn.
- Recognize that there are different types of wheat and the products that can be made from them.
- Discuss barley and the ways it is used.
- Discuss oats and understand how they are used.
- Describe four types of ornamental crops.
- Explain the career of a landscape designer.
- Explain the purpose of a greenhouse.
- Define vegetable.
- Name the plant parts that vegetables come from.
- Explain important factors to consider when planning a vegetable garden.

UNIT: Natural Resources

- Describe what a forest is and why forests are important to the environment.
- Identify and explain the difference between the three types of forests.
- Give examples of products that come from trees.
- Understand what pulp is and how it is made.
- Summarize the process used to make maple syrup.
- Distinguish between hardwood and softwood trees and give examples of each.
- Understand the year-round processes involved in Christmas tree farming.
- Explain what a landfill is.
- Recognize that landfills are not the answer to the solid waste problem.
- Explain what is needed for decomposition to occur.
- Identify reducing, reusing, and recycling as ways to reduce solid waste.
- Recognize recycling symbols.
- Explain the benefits of composting and vermicomposting.
- Describe the difference between renewable and nonrenewable resources.
- Recognize substitution possibilities of renewable resources, such as corn and soybeans, for nonrenewable resources.
- Describe reasons for using agricultural products for industrial products.
- Describe where water is located on Earth and identify which sources are available for us to use.
- Describe the movement of water in the hydrologic cycle.
- Identify the three states of water—solid, liquid, gas.
- Explain what impacts a watershed.
- Identify some uses of water.
- Describe some methods of conserving water.
- Explain what wildlife is.
- Recognize the connections within an ecosystem.
- Identify the components of a habitat.
- Describe different types of habitats.

UNIT: Marketing Agricultural Products

- Define the marketing process.
- Outline the steps in the marketing process.
- Explain research and development of a product.
- Demonstrate the advertisement of a product.

UNIT: Precision Farming

- Define the marketing process.
- Outline the steps in the marketing process.
- Explain research and development of a product.
- Demonstrate the advertisement of a product.

Students will be able to meet the learning targets above as evidenced by formative and summative classroom assessments.