Agriculture is a topic that students can easily connect to because they encounter it often. Nearly everything we eat, wear, use -- even the fuel that powers the cars and buses we ride in -- comes from plants and animals grown on farms. Agriculture provides perfect real-world connections and makes learning relevant to students.

Agriculture connections in science are abundant! Agriculture relates to physical science (How does the sun’s energy affect the soil?), life science (What do plants and animals raised on farm need to grow?), and earth science (How does weather impact farming?), and engineering design (How can science and technology improve food production?).

**FEATURED K-2 LESSONS**

**Plants: Structures, Processes & Needs**
- Apples and Pumpkins: Compare and Contrast
- Seed Germination Necklaces (seeds, plant needs, structures, & germination)
- Soybean Germination and Growth
- Photosynthesis and You

**Animals: Structures, Processes & Needs**
- Animal Life Cycles
- Bees: Life Cycle and Pollination
- Farm Animals and their Babies
- Life Cycle of a Chicken
- Inside the Egg, Hatching Chicks

**Energy & Matter**
- Liquids & Solids
- Making Butter
- Soil Comparison

**Weather, Seasons, & Natural Resources**
- Farming through the Seasons
- Four Seasons on a Farm
- Caring for the Land (soil erosion and conservation practices)
- The Soil We Grow In
- Weather Watchers
- Water Use
- Water Pollution

**FEATURED RESOURCE**

My Family’s Farm book series

These books are great for reading aloud in a lower elementary classroom. Each book shows a real Iowa farm kid and their farm. Request copies by emailing info@iowaagliteracy.org.
WHERE DOES AGRICULTURE FIT INTO THE IOWA CORE STANDARDS?

Kindergarten:
- K-PS3-1. Make observations to determine the effect of sunlight on Earth’s surface.
- K-LS1-1. Use observations to describe patterns of what plants and animals (including humans) need to survive.
- K-ESS2-1. Use and share observations of local weather conditions to describe patterns over time.
- K-ESS2-2. Construct an argument supported by evidence for how plants and animals (including humans) can change the environment to meet their needs.
- K-ESS3-1. Use a model to represent the relationship between the needs of different plants or animals (including humans) and the places they live.
- K-ESS3-3. Communicate solutions that will reduce the impact of humans on the land, water, air, and/or other living things in the local environment.

1st Grade:
- 1-LS1-2. Read texts and use media to determine patterns in behavior of parents and offspring that help offspring survive.
- 1-LS3-1. Make observations to construct an evidence-based account that young plants and animals are like, but not exactly like, their parents.
- 1-ESS1-2. Make observations at different times of year to relate the amount of daylight to the time of year.

2nd Grade:
- 2-PS1-1. Plan and conduct an investigation to describe and classify different kinds of materials by their observable properties.
- 2-PS1-2. Analyze data obtained from testing different materials to determine which materials have the properties that are best suited for an intended purpose.
- 2-LS2-1. Plan and conduct an investigation to determine if plants need sunlight and water to grow.
- 2-LS2-2. Develop a simple model that mimics the function of an animal in dispersing seeds or pollinating plants.
- 2-LS4-1. Make observations of plants and animals to compare the diversity of life in different habitats.
- 2-ESS2-1. Compare multiple solutions designed to slow or prevent wind or water from changing the shape of the land.
- 2-ESS2-2. Develop a model to represent the shapes and kinds of land and bodies of water in an area.

The Iowa Agriculture Literacy Foundation serves as a central resource for educators and volunteers who want to teach Iowa’s students about agriculture. Information about additional resources, including grants, professional development, and outreach opportunities is available at: www.iowaagliteracy.org.