Understanding Agriculture

Agriculture, the practice of growing crops and rearing animals for food, cloth, or other products, are important sectors of Colorado's economy. The practices used to produce, harvest, process, and transport agricultural products impact the quantity and quality of production, but also of the land, resources, and people involved in these processes. By developing models of the main agricultural practices in use today, students can compare and evaluate the impacts on land and other resources.

GRADES: Middle School

INTENDED OUTCOMES: Head, Feet

SUGGESTED SUPPLIES:
- Computer/internet access, poster board for presentations

SUGGESTED STEPS:
- Provide or generate with the students a list of types of farming and agriculture practices - what are some of the different types crops and animals we grow or rear? Consider consumption but also other uses of plants and animal products like clothing. Examples include: beef, pork, poultry, fruit, vegetables, hay, alfalfa, cotton. (Ideally choose ones that are produced in Colorado.)
- Let students select an agricultural product then have them research and present on all aspects of it's production, harvest, processing, transportation, etc. In addition to these, you could add questions like: what types of environment or climate is needed for it to grow well? Who buys it (consumed locally vs. exported)? What new methods or innovations are happening in the sector? What is the history of that crop in this country?
- Include questions about how it impacts the environment. This could include: how much water does it use? Does it affect the water quality around it? How does it affect the quality of the land or health of the ecosystem? How much energy does it take to produce, process, or transport? How are the people living near or working in this industry affected? Is this a "sustainable" industry - why or why not?
- Provide time for students to share what they've learned with the class.

TIPS AND TRICKS

- To simplify the activity, you could always give students all one agriculture-related issue to research. For example, students can investigate the positive and negative impacts of growing crops using artificial light to reduce transportation costs and make certain crops available year-round.

•••

Relevant Standards

RWC09-GR.6-S.4-GLE.1, RWC09-GR.6-S.4-GLE.2, SC09-GR.6-S.2-GLE.1, SS09-GR6-S.2-GLE.2, SC09-GR.8-S.2-GLE.1