

Learning Fields Unit and Lesson Plans

UNIT INTRODUCTION

Learning Fields seeks to connect people with agriculture and rural life today. The lessons in this unit will help students to understand how agriculture affects their daily lives. What plants and animals are being raised in Iowa today? How are those plants and animals raised on the farm? What are those plants and animals used for?

Lesson #1: What's that plant in Iowa's fields?

Main Idea: Students will know the main crops in Iowa today.

Objectives: Students will:

1. Be able to name the main crops grown in Iowa today.
2. Describe how different crops have been grown in Iowa in different times.

Iowa Core Curriculum Connections:

- 21st Century Skills
 - Use technological resources to develop and refine questions for investigation; to conduct research and complete a project.
 - Work appropriately and productively with others
- Social Studies
 - Understand the effects of needs and wants on individual and group decisions
- Science as Inquiry
 - Use appropriate tools to gather, process, and interpret data.
- Literacy:
 - RI.3.3; RI.4.3; RI.5.3: Describe the relationship between a series of historical events, based on specific information on that text.

Teacher Preparation:

- Review web sites.
- Review lesson. Note places marked with "*Variation.*" Determine if you want to include the variations into the lesson.
- Line up materials. If you include optional activities, you may need more materials.
- Prepare small collaborative learning group assignments.

Materials:

- Computer, internet access, projector, and screen for teacher
 - Web sites needed:
 - Learning Fields from Living History Farms
http://www.lhf.org/en/teachers/learning_fields/
 - Agriculture in the Classroom's page on state facts:
<http://www.agclassroom.org/kids/stats/iowa.pdf>
 - Iowa Department of Agriculture and Land Stewardship
<http://www.iowaagriculture.gov/>
- Computers and internet access for each student
- Graphic Organizers- Crops in Iowa
- White board or flip chart of paper, with markers
- (optional) Car Bingo card from My American Farm
<http://www.myamericanfarm.org/activities/CarTripBingo.pdf>
- (optional) paper and pencils for students to record their work

Teaching to the objectives:

Introduction to the lesson

Step 1: Introduce agriculture through "think-pair-share."

- Have a picture of a meal on the screen. Have students write down what foods they see in the picture and whether that food comes from a plant or an animal. Give them 3-4 minutes to think and write down their answers.
- Then, have the students share with their elbow partner to compare lists.
- After about 3-4 minutes, have specific students share what they think. Record answers on a white board.
 - *Variation:* The day before this lesson, tell students to keep track of what they eat when they go home because they will need to know that when they come back to school the next day. Then, instead of having a picture of a meal on the screen, have students write them down, share with their neighbor, and report out.

Step 2: Where does food come from

- Ask students to define agriculture/farming. Record answers on a white board. Agriculture is raising plants and animals for food (like raising sweet corn and chickens for us to eat), fiber (like cotton in our clothes), and fuel (like the biodiesel in their school bus). Lead a discussion on where the plants that give us food are grown.
- Ask students who grows these crops and raises these animals. Explain that farming is an occupation, just like teaching or fire fighter or plumber or office worker or sales person at a store.
- Ask students if they know what foods are grown in Iowa today. The main two crops are corn and soybeans. But has it always been corn and soybeans?

Body of the lesson:

Step 3: Introduce how to find answers for questions

- Ask the students how they could find out about what crops are grown in Iowa, and how that might have changed over time. Have them list places to look for information, such as: books, asking people, museums, web sites, etc. Discuss the pros and cons of each type of resource.

Step 4: *Learning Fields*

- Pull up the *Learning Fields* web exhibit from Living History Farms. Explain that this is one source of information about what is grown in Iowa, both now and in the past. Show them the major sections and how to navigate.
- Then pass out the “Graphic Organizer- Crops,” and carefully explain how they will complete it in small groups by using the web exhibit.
- Break students into small groups of 3. Designate one person to be the searcher, one the recorder (who writes down the answers they find), and one the reporter (who will explain the answers to the class).
 - They can rotate jobs if they would like, and if you think it would engage them in different ways.

Step 5: Collaborative Work

- Give the students about 10 minutes to look through the web site.
 - ASSESSMENT:
 - As the small groups work, wander the room, observing progress, answering questions and lending a hand as appropriate.

Step 6: Reporting

- After the time is up, have the reporters from each group summarize their report. This could be done by having a copy of the organizer on the white board, and the reporter from each group comes up and fills it in with their answers.
 - ASSESSMENT:
 - Collect the groups’ answers after they are done with their report.
 - Variation: Students could draw pictures of the crops, rather than writing the answers. Similarly, they could also draw pictures of where those crops go (a person if people eat it or an animal if animals eat it).
- Summarize the students’ work by reviewing their answers and asking them to look for any similarities. They should notice that
 - Some crops have been grown in Iowa for a very long time (corn)
 - Some crops are relatively new to Iowa (soybeans)
 - Some crops have always been used to feed animals (corn)

WRAP UP- Concluding the lesson

Step 7: Review Relevant Concepts

- Review the latest facts about the crops grown in Iowa from the Agriculture in the Classroom web site: <http://www.agclassroom.org/kids/stats/iowa.pdf>
 - Be sure to explain how big an acre is (the size of a football field)
 - ASSESSMENT:
 - Popcorn share: Students answer a question, by popping up one after the other with an answer. The question: what was the one thing that they learned as a result of this activity?

Step 8: Extension and challenge

- Ask the students to speculate on what happens to the animals that eat the plants.
- Have the students keep track of what they eat for supper when they go home, and report back tomorrow on if they had anything that could have come from a farm in Iowa.
 - Variation: Explain to students that, the next time they go on a trip in the car, they could play CAR TRIP BINGO. As they are in the car, they will need to watch out the window and find the items on the Bingo card.
 - Bingo card available from *My American Farm* at this link: <http://www.myamericanfarm.org/activities/CarTripBingo.pdf>

NOTES:

What did I like about this lesson? What would I change? What should I remember next time?