



Hard Bargain Farm Virtual Field Trip

Experience Alice Ferguson Foundation's Hard Bargain Farm through a series of virtual engagements

Overview:

When students step foot at Hard Bargain Farm they are immersed in a hands-on, engaging experience led by the educators. Now, students can have a similar experience without having to leave the comfort of their own chair.

Lesson Characteristics:

Use the table below for lesson planning purposes:

| | |
|--------------------|--|
| Grade | 4th - 6th grade |
| Time Required | 2 - 3 hours |
| Key Concepts/Terms | Producers, Consumers, Decomposers, Pollinators, Non-native Invasive Species, Watershed, Erosion, Compost, Recycle, Reuse |
| Setting | Online at https://fergusonfoundation.org/explore-hard-bargain-farm/ |
| Materials | Electronic Device with internet access Downloaded Virtual Field Trip Passport: https://fergusonfoundation.org/wp-content/uploads/2020/05/Virtual-Field-Trip-Passport.pdf |

Next Generation Science Standards:

| Science and Engineering Practices | Disciplinary Core Ideas | Crosscutting Concepts |
|--|--|---------------------------|
| Analyzing and interpreting data | ESS2.A Earth Materials and Systems | Patterns |
| Using mathematics and computational thinking | ESS2.E: Biogeology | Cause and Effect |
| Engaging in argument from evidence | ESS3.C: Human Impacts on Earth Systems | Systems and System Models |
| Obtaining, evaluating, and communicating information | | Energy and Matter |

Learning Objectives

Students will...

- ...participate in a virtual experience of Hard Bargain Farm
- ...use videos at different locations to learn about a variety of concepts that include:
 - Erosion
 - Producers
 - Consumers
 - Decomposers
 - Invasive species
 - Farm animals
 - Antique Tools
 - Watersheds
- ...connect concepts learned in the videos to their everyday lives
- ...demonstrate understanding of solutions to problems presented in the videos
- ...create solutions to problems mentioned in the videos

Preparation:

Students will need access to an electronic device with internet access. Students will open this web page that has all the locations for the virtual field trip. Students will need to download and be able to fill out the digital version (PDF) of the passport or print the passport in order to be filled in by hand.

Background Information:

Hard Bargain Farm has had students on the property since the 1950s. In that time there have been many variations of the program that has been taught there. In the beginning students didn't spend the night and learned concepts that varied from Blacksmithing to Orienteering. Over time students started spending the night on the property and had multiple opportunities for hands-on experiential learning. Before the first overnight lodge was built boys spent the night in the hayloft and girls spent the night in our current program's office.

Although Hard Bargain Farm has changed drastically over the years the main mission of the program has not changed. Students who step foot on the property still receive a hands-on experiential education that not only teaches scientific concepts, but encourages student growth. As the landscape of experiential education is always changing the Alice Ferguson Foundation is also changing and presents this Virtual Field Trip. Many of the lessons taught in these videos are the same lessons students learn when they come to the property.

The field trip and passport can be used in a variety of ways to enhance student learning. It can be used before an actual field trip to introduce students to what they will be doing on the farm or after a field trip to support the learning that occurred on the farm. It can be used as a virtual field trip if you and your students aren't able to make it out to Hard Bargain Farm. You could also choose between assigning the field trip to students to complete independently from start to finish, engage in the field trip as a class, or use one or more parts of the field during separate class assignments.

No matter how you choose to use this virtual field trip, our goal at Hard Bargain Farm is to provide hands-on experiential education that supports learning in the classroom and we believe the best way to do that is to come down to the farm and experience it first hand. However, if that is not possible this is the next best thing.

Vocabulary:

| Term | Definition |
|-----------------------------|--|
| Compost | Decayed organic material used as a plant fertilizer |
| Consumers | Receives food by consuming other organisms |
| Decomposers | Breaks down dead plants and animals and returns nutrients to the soil |
| Erosion | Movement of soil by water or wind |
| Living Shore Line | A protected and stabilized shoreline that is made of natural materials |
| Non-native invasive species | A living creature that did not adapt and evolve in an ecosystem with living creatures that already exist there |
| Pollinators | An animal that moves pollen from the male part of a flower to the female part of a flower |
| Producers | Green plants that make their energy from the sun |
| Watersheds | A land area that drains water to a particular stream, river or lake |

Procedure:

Follow the steps in the table below to conduct the activity.

Sentences in bold are suggestions for what an educator might say to students.

Items in italics are possible student answers to questions.

| Step | Action |
|-------------|---|
| | 5E's: Engage Learning Cycle: Invitation |
| 1 | Today we are going to take a virtual field trip to Hard Bargain Farm. When I say Hard Bargain Farm, what do you think of? <i>A horse farm. A farm where students spend the night. A place where you learn about science. A place where you can milk cows.</i> |
| 2 | To explore Hard Bargain Farm we will need to make sure we have our Passport. Ask if all students have downloaded their passport. The passport can be filled out digitally and does not need to be printed. Some questions may ask students to draw or describe a certain thing and can do so on their own paper or through a digital platform. |

| | |
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| | <p>**If students are completing the Passport virtually, make sure they save their passport to a folder before inputting any work into the document. You may need to review how to save and send a PDF document. If the document is completed in a web browser, it may not save their responses.</p> |
| 3 | <p>Each location in the passport has a before video, during video, and after video section. You will find the location on the map and do the “before video” questions before watching the video. Next, read the “during video” question(s) so you know what to look and listen for. Some pages will ask you to pause the video at a certain point. Make sure to pause the video and answer the question before continuing. Depending on how the lesson is being presented, students may need to go home or outside to answer the “after video” questions. You may want to ask the students to skip the “after video” questions until they can go back to them for homework or at another time.</p> |
| 4 | <p>Open the link to the virtual Field Trip. We will all start at the Living Building where it says the number 1. Assist students in finding the starting point and make sure they are on the correct link. If any links appear to be broken or if there are any issues please reach out to AFF at hbfed@fergusonfoundation.org</p> |
| <p>5 E’s: Explore Learning Cycle: Exploration</p> | |
| 5 | <p>Students may move through the lessons independently, watching videos and completing the passport. Each location is numbered 1-13 and follows this order:</p> <ol style="list-style-type: none"> 1. Living Building 2. Barnyard 3. Fibers in the Barn 4. Chicken Coops 5. Tool Museum 6. Farmhouse 7. Top of the Hill 8. River 9. Children’s Garden 10. Hayloft in Barn 11. Nature Trail 12. Bunkhouse 13. Log Cabin |
| <p>5 E’s: Explain Learning Cycle: Concept Invention</p> | |
| 7 | <p>Once students have completed all parts of the field trip bring them back together. What was something you were surprised by during your field trip? <i>The average toilet flushes 1.5 gallons of water a flush. A cow has four chambers in their stomach. George Washington used to live in Mt. Vernon.</i></p> |
| 8 | <p>Break the students into small groups to discuss their experiences and find out where there might be any misconceptions. Have students write down anything they may not agree with. Take this time to address any misunderstandings.</p> |

| 5 E's: Elaborate | | Learning Cycle: Application |
|------------------|---|-----------------------------|
| 9 | <p>Many of the activities in the Passport help to elaborate on the topics and concepts taught in the virtual field trip. However, there are multiple other ways to expand the learning experience including:</p> <ul style="list-style-type: none"> ● Bringing your students to Hard Bargain Farm ● Contacting AFF to provide an in-class experience ● Researching solutions to the issues presented by the field trip ● Have students create their own video about one of the concepts covered | |
| 10 | <p>If students find a topic they may have a wider interest in there are more resources on the www.fergusonfoundation.org website.</p> | |
| 5 E's: Evaluate | | Learning Cycle: Reflection |
| 11 | <p>Use the Virtual Field Trip Passport to evaluate student's understanding.</p> | |