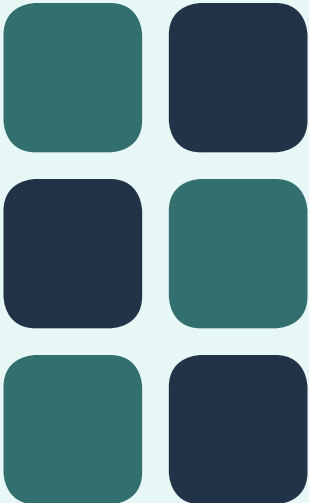
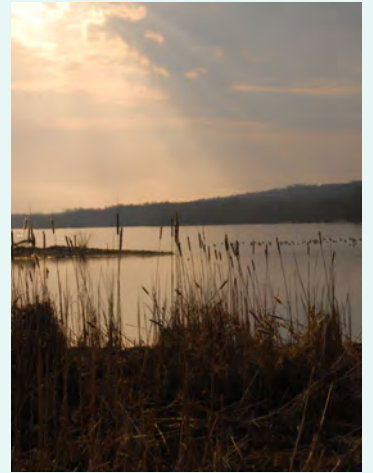
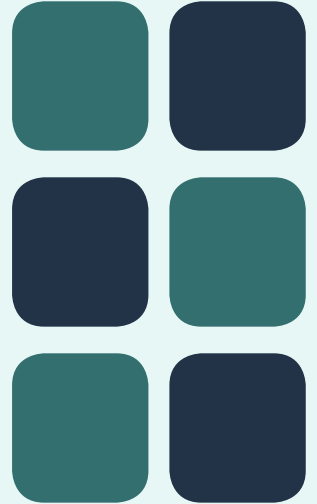


Alice Ferguson Foundation

Virtual Field Trip Passport





Welcome to the Alice Ferguson Foundation's Hard Bargain Farm Virtual Field Trip! You will use this passport to record your adventures as you travel to each location on the map. All of the locations that are colored yellow are for the virtual field trips.

Each page in this passport goes along with a video in the virtual tour. There will be a pre-question that you should fill out before watching the video. Then, watch the video following the instructions in the passport. The passport may ask you to pause the video and make a guess as to what will happen next. Try your best and good luck!

**This project is funded in part by District of Columbia Government, Mayor Muriel Bowser and the Department of Energy and Environment's (DOEE) Overnight Meaningful Watershed Experience Grant.*

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Learn about our education center, a one-of-a-kind green building. Working in harmony with nature, it uses the sun and rain to achieve net zero energy, net zero water, and even underground geothermal wells!

Module 2: The Barnyard

3

Learn about our the place where students meet and interact with our barnyard animals. Come and find out what makes the different animals in the barnyard unique!

Module 3: Fibers in the Barn

4

Farm animals provide us with food, as well as fibers for our clothing. Tune in to learn how the wool from a sheep is made into yarn that will eventually make clothing items like knitted socks, hats, or ear warmers.

Module 4: Chicken Coops

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Take a pit stop at the hen house for an “eggscellent” lesson about our feathered friends and the eggs they lay.

Module 5: Tool Museum

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How did people do things on the farm and in the home before electricity, lawnmowers and tractors? Discover how technology has changed over time at our Tool Museum.

Module 6: Farmhouse

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This 1930’s farmhouse perches on a hilltop with views to the Potomac River and up river to Washington, DC. Alice L.L. Ferguson designed the gardens and farmhouse interior, where she lived with her husband Henry Ferguson during the summers.

Module 7: Top of the Hill

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With the rolling hills that lead to the Potomac River behind us, see how the water that lands all around us affects our local streams, creeks and rivers.

Module 8: River

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Just across the Potomac River from our property is George Washington’s Mt. Vernon. Legend has it that the river was so slim that George Washington could toss a silver dollar clear across it. Find out why that’s not possible today!

Module 9: Children’s Garden

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When students visit our Children’s Garden they not only learn where our food comes from, they participate in the growing process. From pollinators to composting, discover the many hands-on activities our garden has to offer.

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The hay harvested from our own land is stored here as bales until it’s needed in our pastures. Join us for a special activity in the hayloft as we turn a rock into cheese!

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Join us for a hike and see what we can discover. There are many opportunities for learning while walking on the numerous walking paths around Hard Bargain Farm.

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Set in the heart of Alice Ferguson Foundation’s educational campus, these two sleeping cabins provide overnight accommodations for visitors and groups.

Module 13: Log Cabin

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What do we do to relax and unwind after a long day of exploring nature? We roast marshmallows and share stories by the campfire at the Log Cabin. What to find out why this area is a favorite amongst our visitors.

Module 1: Living Building



Before the video:

Describe what you hear when you hear the phrase “Living Building”.

During the video:

Listen for the parts of the living building that make it unique and fill in the blanks below.

The solar panels are like _____ because they get their energy from the sun. The heating and cooling system uses the constant temperature of the ground to keep the building comfortable just like a _____. The decking on the outside of the building is made from recycled _____. The large wooden beams are reused from an Amish barn that was originally built before the _____.

Almost all the wood on the inside of the building came from the Alice Ferguson Foundation’s _____. The pieces of material found in the countertops are not shells or rocks but actually crushed _____. The building is well insulated like a _____ in the summer or a _____ in the winter.

After the video:

Go to this website: <https://buildingos.com/s/fergusonfoundation/kiosk/?chapterId=45663> and record how much electricity has been produced this year.

_____ kWh

If you had the chance to design your own living building, draw or write some features you would include.

Module 2: The Barnyard

Before the video:

Write a few sentences about why farmers raise animals.

During the video:

Around the world more people drink _____ milk than _____ milk.
A cow has a _____ chambered stomach. The cow takes in grass and swallows it. The grass becomes partially digested in the first two chambers, then thrown back up into her mouth. The partially digested _____ is chewed further then swallowed to be digested in the other chambers.

Name a few reasons a farmer would raise a donkey.

Even though they are the Hog Island breed these animals are _____ and not pigs.

After the video:

List five items in your home that came from an animal that was raised on a farm:

1. _____
2. _____
3. _____
4. _____
5. _____



Module 3: Fibers in the Barn



Before the video:

What materials are your clothes made from?
Look for the tags on your clothing and write the materials below.

During the video:

Pause the video at 2:50 when the speaker is brushing the wool. Describe the process for “carding” the wool.

After the video:

In your own words describe the steps of turning the hair on a sheep into a comfortable wool sweater.

What are some other fibers (that may come from plants and other animals) besides wool that human use to make clothing?

Module 4: Chicken Coops

Before the video:

Name three ways humans use products that come from birds that farmers raise.

1. _____

2. _____

3. _____



During the video:

What is the outside of the egg called? _____

Albumen is the scientific word for the _____

Why do animals lay eggs? _____

What were the colors of the different eggs? _____

If an egg is placed in an incubator, after _____ days it would hatch a new chick.

***Eggs from the store cannot be hatched because they are too cold.

After the video:

If you had a chicken draw or describe what color eggs you would want it to lay?

Module 5: Tool Museum

Before the video:

What technology do you use today to make your life easier?

During the video:

Name a few tools featured in the video and describe their use:

| Tool | Use |
|------|-----|
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |

After the video:

Describe an invention that could invent to make your life easier. What would it do?
What would it be made of? How much would it cost to make?



Module 6: Farmhouse

Before the video:

Design your dream house. What features would you want to include?

During the video:

What made the Fergusons fall in love with Hard Bargain Farm?

What was Henry’s profession? _____

What was Alice’s profession? _____

After the video:

If it wasn’t for Alice and Henry’s impact on the property we would never have the chance to share this natural world with you. Who are some people that you look up to that you share your life with? Describe what makes them special.



Module 7: Top of the Hill



Before the video:

Choose the definition of a watershed: ____

- A. A building where water is stored
- B. When waves splash onto the shore and wash away land
- C. When it rains on a lake and the water evaporates into the sky and then falls as rain again.
- D. All of the land that drains rainwater into a nearby creek, river or bay

During the video:

What did the speaker represent while rolling down the hill and what were they covered in after?

Name a few places where pollution can come from.

After the video:

Use this website to find your local watershed: https://water.usgs.gov/wsc/map_index.html

My local watershed is the _____

Write a story of how a piece of trash in your community could make its way to your local waterway.

Module 8: River



Before the video:

How would the land in your community look different more than 300 years ago?

During the video:

What is the name of the house George Washington lived in? _____

Describe what the Potomac River would have looked like when George Washington lived there. _____

What caused dirt and soil to end up in the river? _____

After the video:





Go outside and find examples of erosion in your own community. What has caused the soil to be eroded away in some places?

Design a solution to stop the erosion in your community.

Module 9: Children’s Garden

Before the video:

Number the steps in the correct order to grow a pea plant.

| Step # | Picture | Description |
|--------|--|-----------------------------|
| |  | Place seed in hole. |
| |  | Wait for the plant to grow. |
| |  | Water the dirt & the seed. |
| |  | Dig a hole in the dirt. |



During the video:

Name an example of a pollinator.

How many stages does it take AFF to make good compost?

After the video:

Describe or draw your perfect garden below.

Module 10: Hayloft in the Barn

Before the video:

Why do you think farmers grow and cut hay?



During the video:

Pause at 0:59 after the speaker describes the materials. Describe the way you think we can turn a rock into cheese with the materials described in the video. The materials are: Cheese, Rock, Hay, Soil, Sand, Milk and a Cow.

Where did the mineral, calcium, in the cheese originally come from? _____

After the video:

Describe how nutrients are put into sand and dirt.

Find and list all the products in your house that contain calcium (you can usually find this on the nutritional label):

**If you have time (10 minutes) you can learn more about cow milking at the milking parlor.*

Module 11: Nature Trail

Before the video:

A native species is one that normally lives and thrives in a particular ecosystem. What are some native species in your area ?

During the video:

What is the name of the dead trees? _____

Where did the Emerald Ash Borer originally come from? _____

What were some ways the Emerald Ash Borer was moved around North America? _____



After the video:

In your own words define a Non-native Invasive Species:

What are ways humans can prevent the spread of non-native invasive species?

Module 12: The Bunkhouses



Before the video:

If you were going to the farm, list some items that you would bring.

During the video:

What year were the cabins completed? _____

The composting toilets at Hard Bargain Farm save over ____ gallons of water each year. The typical toilet in our homes use ____ gallons of water for each flush.

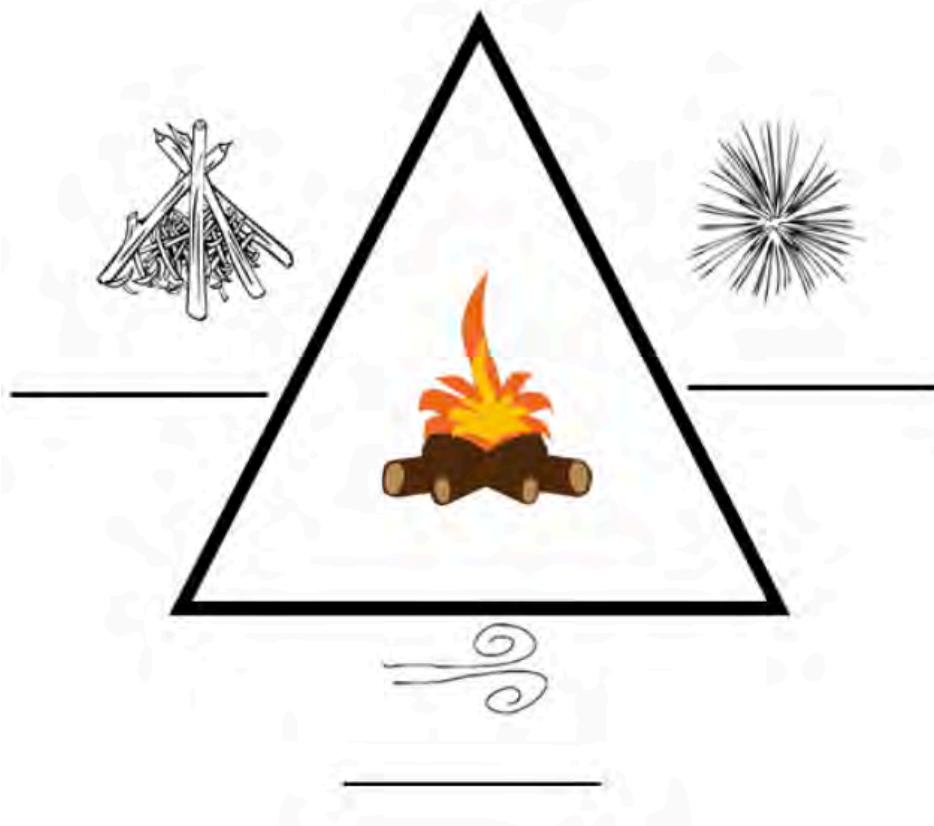
After the video:

List a few ways that you can save water:

Module 13: Log Cabin

Before the video:

There are three main parts to a successful fire: A Spark, Oxygen, and Fuel. Without one of these parts you can't make a fire. Write the parts of the fire on it's matching part in the fire triangle:



During the video:

Name a few things that made it challenging for Alice to live in the log cabin.

[illegible]