

# Forest Layers at Blandy

This activity was developed for use at Blandy Experimental Farm. For a schoolyard investigation, look for a woodland area near your school. An outdoor schoolyard classroom could be excellent for this as well!

**Time:** ~40 minutes

**Goal:** Student learn about native organisms and their interrelationships.

## Objectives

**Knowledge:** Students use vocabulary to describe and understand how organisms interact with each other.

**Skills:** Students develop observation, data collection, and analysis skills while investigating a native ecosystem. Students classify animals according to the role that organism can have in a community.

**Values:** Students develop an appreciation for native organisms of Virginia and their role within food webs.

**Stewardship-** Instruct students to be respectful of organisms as they investigate the habitats and areas in each activity. Remind them that these organisms need to function and carry out their job in the ecosystem.

## Special Safety:

- Watch for tree branches and roots as you navigate through the Native Plant trail woodland and meadow areas.
- Stay out of the water unless otherwise instructed.
- Watch out for physical hazards in the game area: uneven ground, low hanging branches, holes, vines, or roots that may be a trip hazard.
- Poison Ivy is a native plant- identify so students can see it and use caution!

## **Virginia Standards of Learning**

**Science (2018):** 3.1, 3.4, 3.5

**Grade:** 3

## Materials:

- [Native Plant Trail datasheet- one per group](#)
- [Clipboards](#)
- [Pencils](#)

## Instructional Strategy:

- a) Setup- if using the woodland in front of the community forest, use flagging tape to mark off an area. Can use the Native Plant Trail woodland section at Blandy Experimental Farm.
- b) Break students into small groups containing ~three students. Give each group a clipboard with the VA Natives student datasheet, pencil, and binoculars (optional).
- c) In a woodland area, begin an inquiry discussion with students about the different layers in a forest. Some forests have more layers than others (for example, rainforests have more layers than a temperate forest). Three layers of the eastern U.S. deciduous forests will be examined in this activity.

Developed by Blandy Experimental Farm preK-12 Education Programs

540-837-1758 [www.virginia.edu/blandy](http://www.virginia.edu/blandy)

Adapted for Tree FUND 3/2015



- Ground cover (Forest floor)- herbaceous plants and ferns with leaf litter, and detritus
  - Understory- woody shrubs and immature trees
  - Canopy- top layer composed of tree crowns
- d) Explain to students that they are to find 3 organisms in each of the three forest layers (review vocabulary: producer, consumer, decomposer, etc.). Students will record the organism and/or evidence of the organism. For example, they use their observation skills to see a plant or flower, hear a bird or bug, see a mushroom or worm. Or, is there evidence an animal left behind- such as scat or nibbled leaves, or a spider web. They also can describe what the organism looks like and what it might eat. If the organism is a decomposer, is it a plant, animal, or fungus? If it's a consumer, is it an herbivore, carnivore, or omnivore?
- e) Circulate among groups in forest area to assist students.
- f) Wrap Up- Bring class back together to discuss the class's findings. Inquiry:
1. Are there some organisms that make their habitat only in one layer?
  2. Are there some organisms that travel to different forest layers?
  3. Ask for examples. Salamanders only live on the forest floor while a squirrel utilizes all layers. Are there any organism adaptations that you noticed while you were exploring in the forest?
  4. Use vocabulary words such as camouflage, mimicry, dormancy, etc.

Names: \_\_\_\_\_

Date: \_\_\_\_\_

Use the chart below to identify 9 different organisms. If you can't find an organism that fits, look for clues like tracks, scat, or bite marks that can be used for identification and record your evidence.

	Plant/Producer:	Animal/Consumer	Decomposer
Canopy	Plant Name:  What does it look like?	Animal Name or Evidence:  What does it eat?      Is it a? <b>Omnivore</b> <b>Carnivore</b> <b>Herbivore</b>	Organism Name or Evidence:  It is a (an) Circle one: <b>Plant</b> <b>Animal</b> <b>Fungus</b>
Understory	Plant Name:  What does it look like?	Animal Name or Evidence:  What does it eat?      Is it a? <b>Omnivore</b> <b>Carnivore</b> <b>Herbivore</b>	Organism Name or Evidence:  It is a (an) Circle one: <b>Plant</b> <b>Animal</b> <b>Fungus</b>
Forest Floor	Plant Name:  What does it look like?	Animal Name or Evidence:  What does it eat?      Is it a? <b>Omnivore</b> <b>Carnivore</b> <b>Herbivore</b>	Organism Name or Evidence:  It is a (an) Circle one: <b>Plant</b> <b>Animal</b> <b>Fungus</b>