

Habitat Mapping

Investigative Questions: What is a habitat? Do all habitats look alike? How does water flow in a habitat?

Goal: Students explore a variety of habitats to gain an understanding of native plant habitats.

Objective:

Knowledge- Students make observations about three different habitats at Blandy to develop an understanding of how habitat is influenced by water.

Skills- Students use observation and mapping skills to examine plants and features of three different habitats.

Values- Students develop an appreciation for a variety of habitats.

Grade(s): 4th

Special Safety: Assess the walkway/trail before activity (look for holes in ground and other potential impediments).

VA Standards addressed: Science (2018) 4.2, 4.8. VA studies 1 and 2

Materials: (for each group of 2 students)

- Clipboard
- Pencil
- Habitat Mapping Datasheet

Set-up:

Instructional Strategy:

1. **Engage:** Begin this activity on the hill overlooking the Native Plant Trail areas. This hill provides a good view of all three habitats that students will visit.
 - a. Ask: What do you observe when you look at the land? What are some similarities and differences among the areas at Blandy? Inform students that are going to examine three different habitats at Blandy: native woodland, native meadow, and native wetland.
 - b. Ask: What is a habitat? (Where an organism has adequate water, shelter, space, and food or access to food to survive.)
 - i. Do all habitats look the same?
 - ii. Do all organisms need the same habitat?
 - iii. Are all habitats the same size?
 - iv. What organism might need a large habitat?
 - v. What organism might need a small habitat?
2. **Student Observations:** Split students into groups of 2; give each group a map, data sheet, and clipboard. Ask them to find where they are on a larger Blandy map (we give maps to each teacher at the beginning of the trip). Then explain that students will go to the Native woodland. Have students take a look at their datasheet to find the native woodland. As needed, help students to orient themselves by looking at the North Arrow and by figuring out where the native meadow is located.

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3. Beginning at the edge of the woodland, ask students to look around and make observations of the area. Ask: how would you describe this area?
4. Model with students how to make observations. Focus on using descriptive words or drawing the habitat (ex: size, shape, color, feel). Model how to use the data sheet on their clipboard. Explain that the map page of the data sheet is for an overall description of the habitat. Explain that the back of the datasheet is for observations of a specific habitat (plant or cluster of plants).
5. At each habitat, ask student to make observations. Describe the plants; focus groups by targeting specific plants (You might ask them to recall their visit in September.). At each location, take a couple of minutes for students to observe and record observations on the datasheet.
6. As a group, have students look for evidence of where water is located and where water will go when it rains.
 - a. Ask students: What happens when it rains on the top of a hill? Where does the water go? Are there any hills nearby? Do we see any evidence of water collecting?
 - b. Have students take a look back at the map and see if there is any evidence of water. Does water seem to collect in one area? How do we know? (rivers, lakes, streams)
 - c. In our area/where you live, where does the water eventually go? (Watershed address: Shenandoah, Potomac, Chesapeake Bay, Atlantic Ocean)
7. Conclusion: Bring class back together to compare habitats.
 - a. What type of organisms might live in each habitat? Why?
 - b. Did those organisms have the necessary things they needed to survive (food, water, shelter, and space)?

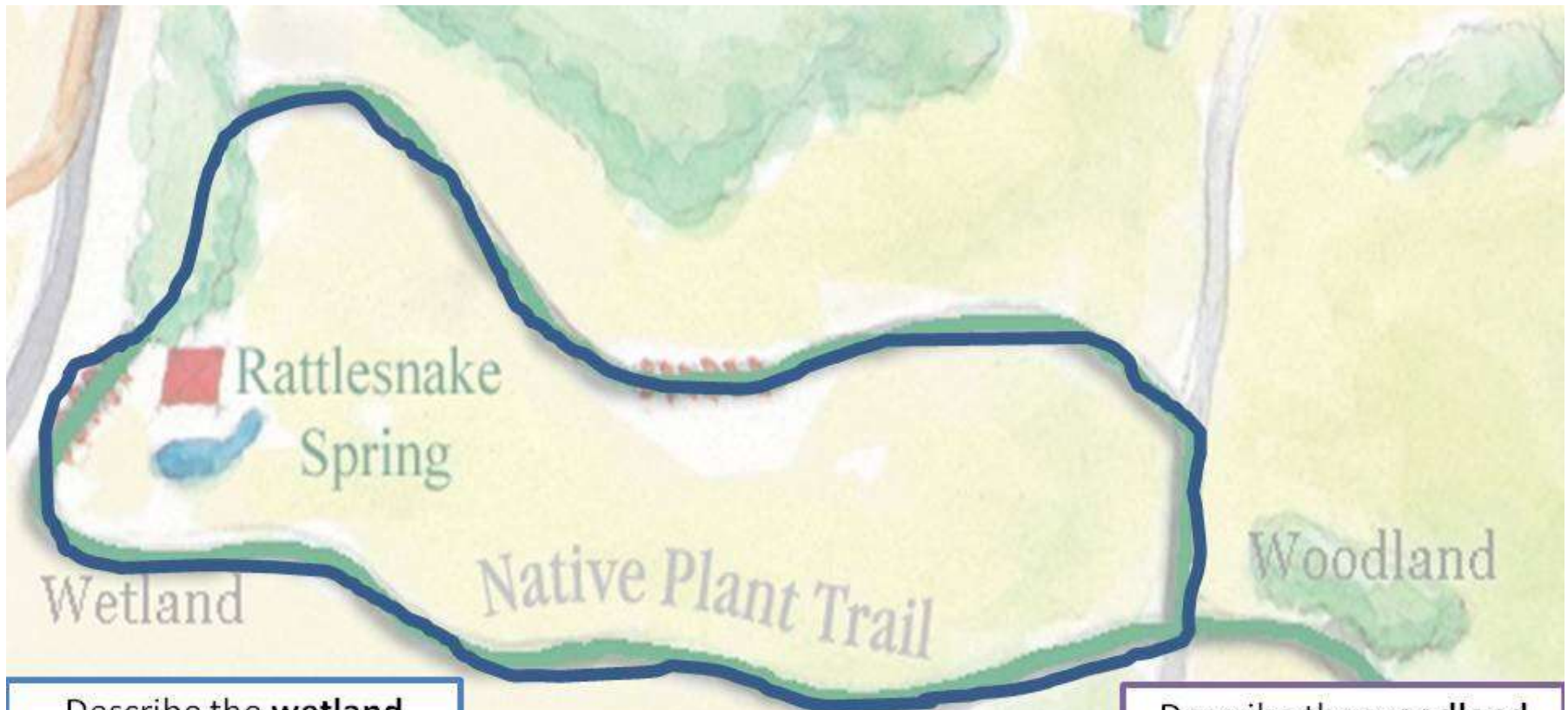


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Native Woodland	Native Meadow	Native Wetland
Describe or draw a plant	Describe or draw a plant	Describe or draw a plant
How much sun does it need? Full Some sun Shade	How much sun does it need? Full Some sun Shade	How much sun does it need? Full Some sun Shade
What is the moisture of the soil? Wet Medium Dry	What is the moisture of the soil? Wet Medium Dry	What is the moisture of the soil? Wet Medium Dry
How do you think this plant is used by animals?	How do you think this plant is used by animals?	How do you think this plant is used by animals?



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Describe the **wetland** habitat

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Describe the native **meadow** habitat

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Describe the **woodland** habitat

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