

GUIDED PLANT HIKE - SPRING

- Elementary
- 45 minutes
- Blue Hole Trail

OVERVIEW

In this experience, students will travel down a trail (packed soil with exposed roots and boardwalk) and see examples of plants and animals that call southeast Tennessee home.

Students will identify examples of plant characteristics and interactions with the environment, discuss the cause-and-effect relationships seen along the trail, and identify decomposition in action.

SAFETY + SETTING

1. Stay on the trail!
2. Be aware of your surroundings.
3. Leave no trace!
 - Take only memories.
 - Leave only footprints.
1. Do not touch plants or animals unless instructed to.
2. No running on the trail!



ACADEMIC STANDARDS

- 1.LS2.2-3** - Plant's physical characteristics, needs, and dependence on their surroundings to live
- 3.LS4.1-2** - Cause-and-effect relationships between changing environments and survival
- 4.LS2.2** - Stable food webs and roles of producers, consumers, and decomposers

GUIDED PLANT HIKE

STOP #1

Head down the stairs to the left of the “Blue Hole Trail” sign. Stop halfway down and look at the base of the tree to your left. Identify this as **SHARP-LOBED HEPATICA**. Notice the hairs on the flowers' stems. *Why do you think they have those hairs?*

Facts about **SHARP-LOBED HEPATICA**:

- Prefer moist soil in shady areas.
- Hepaticas are some of the first flowers to bloom in the spring.
- They have hairy, leafless stalks. These hairs protect the plant from frost.



STOP #2

Continue along the trail (be aware of tree roots). As you walk beside the creek, look for a green, round-leaved plant that grows in a mat on the water. Identify this as **WATERCRESS**. *What do you think keeps this plant from floating down the stream?*

Facts about **WATERCRESS**:

- Watercress snails (little black conical shells) use **WATERCRESS** as habitat.
- This plant prefers slow-moving shallow water.



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STOP #3

Between the watercress and boardwalk, look for these little purple flowers along the right side of the trail. Identify this as **VIRGINIA SPRING BEAUTY**. *Why do you think flowers are sometimes bright colors, like this Spring Beauty?*

Facts about **VIRGINIA SPRING BEAUTY**:

- The Spring Beauty Miner Bee feeds *only* on these flowers!
- The pink stripes on the petals help direct pollinators to the plant's pollen, similar to aircraft marshallers that guide planes at airports!



STOP #4

Continue onto the boardwalk and stop just past the short, hollow stump on the right. Identify the three-leaved plants as **TRILLIUM**. This plant prefers shady areas. *Why do you think some plants like shady spots more than sunny ones?*

Facts about **TRILLIUM**:

- **TRILLIUMS** are slow bloomers: from a planted seed, it takes 5-9 years for a trillium to bloom!
- **TRILLIUM** seeds are dispersed by ants and sometimes wasps.
- Picking any part of this plant may cause it to die, even if the rhizome (horizontal root) is left undisturbed.



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STOP #5

A few steps past the trillium is a fallen tree. This has many **EXAMPLES OF DECOMPOSITION**. *Why do you think decomposition is an important part of an environment?*

Identify the **EXAMPLES OF DECOMPOSITION**.

- Decomposers feed on dead things like a fallen tree.
- Mushroom colonies (decomposers) digest the dead wood and turn it into nutrients that will be returned to the soil.
- Worms, insects, and bacteria are other examples of decomposers.



STOP #6

Continue a few steps past the fallen tree. Identify the **CHRISTMAS FERN**. Invite students to feel the leaves of this plant. Notice their waxy, glossy texture. *What advantages do you think different textured leaves give plants?*

Facts about **CHRISTMAS FERNS**:

- This plant stays green all year!
- During the winter, the lower leaves of **CHRISTMAS FERNS** and dead leaves serve as habitat for beetles and salamanders.
- The Cherokee used **CHRISTMAS FERNS** to treat stomachache, pneumonia, and chills.



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STOP #7

Travel over the rest of the boardwalk and take a left at the fork to continue over the bridge. Scan the right side of the trail 30 feet past the bridge for heart-shaped leaves. Identify this as **LITTLE BROWN JUG**. *Why do you think their flowers grow under the leaf litter?*

Facts about **LITTLE BROWN JUG**:

- This plant's flowers bloom under the leaf litter. Beetles and other small insects that live under leaf litter pollinate **LITTLE BROWN JUG**.



STOP #8

Continue past the Little Brown Jug, keeping an eye on the base of trees for this plant. Identify the plant with forest green leaves and white midribs as **STRIPED WINTERGREEN**.

Facts about **STRIPED WINTERGREEN**:

- The Cherokee used **STRIPED WINTERGREEN** to treat rheumatism (joint pain).
- This plant may rely on a mutualistic relationship with fungi to survive (also known as "mycorrhizal fungi").



GUIDED PLANT HIKE

Follow the paved pathway towards the field. Turn LEFT towards the replica farmstead and the Visitor Center to finish your hike.



The Blue Hole Trail is represented by the dotted blue line on the above map.