

Descriptions of Programs for Grades K-5:

5th grade - Matter and Energy in Organisms and Ecosystems (Life Science)

Station 1: Explore **producers, photosynthesis, and plant functions** with easy experiments in the classroom or in the field (depending on season); use a simple dichotomous key to identify tree leaves and explore diversity and importance of trees to wildlife & humans. (5-LS1-1; HSPCA theme #1 – Ozark Forest, and #7 - Diversity)

Station 2: Learn about **consumers and food webs** and transfer of energy with a predator/prey game of tag, Quick Frozen Critters. (5-LS2-1; HSPCA theme #1 – Ozark Forest, and #7 - Diversity)

Station 3: Explore where the **energy in food** comes from and what it is used for (growth, regeneration/repair, reproduction); measure calories in different foods with calorimeters in our classroom. (5-PS3-1, 5-LS1-1, HSPCA theme #1 – Ozark Forest)

Station 4: Follow the lead of our FBI (fungus, bacteria, invertebrate) agent and discover live **decomposers** in the field. (5-LS2-1; HSPCA theme #1 – Ozark Forest, and #7 - Diversity)

5th grade – Earth’s Systems (Earth and Space Science)

Station 1: Discover interactions between the **Earth’s spheres** (geosphere, biosphere, hydrosphere, and atmosphere) through a hike on the Ozark Plateau Trail. (5-ESS2-1; HSPCA theme #1 – Ozark Forest, #2 - Water, #4 - Karst)

Station 2: Explore the **water cycle** using The Incredible Journey game and Drop in the Bucket demonstration. (5-ESS2-2; HSPCA theme #2- Water and #4 - Karst)

Station 3: Hands-on activity in the classroom learning about the **rock cycle**, the never-ending cycle in which one rock type changes into another rock type, **as part of the geosphere**. (5-ESS2-1; HSPCA theme #2 - Water)

Station 4: Explore how individuals and communities can **use science ideas to protect resources and the environment**; introduce citizen science, test water samples collected and discuss water pollution. (5-ESS3-1; HSPCA themes #3 – Van Winkle and #6 – Hobbs St. Park Story)

4th or 5th grade - Van Winkle Hollow (on Natl. Register of Historic Places) (Arkansas & Local History)

Station 1: Learn about **Peter Van Winkle**, his story of hardship and success, and how he shaped Northwest Arkansas; create a timeline of his life and national events; see the site of his home and mill. (H.12.4.1, H.12.4.2, H.12.4.4, H.12.4.5; HSPCA theme #1 – Ozark Forest, theme #3 – Van Winkle, and #6 – The HSPCA Story)

Station 2: Perform some chores and learn about the slaves Peter owned including the story of **Rock Van Winkle**, a former slave that later ran the mill; see the site of the slave quarters. (H.12.4.4, H.12.4.5, H.13.4.2; HSPCA theme #3 – Van Winkle and #6 – The HSPCA Story)

Station 3: Discover what life was like for the **children in Van Winkle Hollow** in the late 19th century including attending school; try some of their games. (HSPCA theme #3 – Van Winkle)

Station 4: Learn about the science of **archaeology**; use a walking key to identify artifacts; see the site of the blacksmith shop. (H.12.4.5; HSPCA theme #3 – Van Winkle)

4th or 5th grade – NEW! Outdoor Survival Skills (Students are encouraged to read the book Hatchet beforehand. This program cannot be done indoors in inclement weather. All stations cover HSPCA theme #5 – Recreation & #6 – The HSPCA Story)

Station 1: Try your hand at building a temporary **shelter**.

Station 2: Learn how to use a compass and put your skills to the test on an **orienteeing** course.

Station 3: Learn the proper techniques for **building a fire** (demo fires created by instructor only).

Station 4: Learn about **wild edibles** in our area and take the Eat a Bug Challenge.

4th grade – Structure, Function, and Information Processing (Life Science)

Station 1: Learn about internal and external **structures and functions of plants** that support survival, growth, and reproduction through a scavenger hike on the Ozark Plateau Trail; become structures of a tree during the Build a Tree activity. (4-LS1-1, HSPCA theme #1 – Ozark Forest, and #7 - Diversity)

Station 2: Learn about internal and external **structures and functions of animals** that support survival, growth, behavior and reproduction through pelts, skulls, taxidermy and live specimens; conduct a beaver “makeover” with one lucky teacher or student. (4-LS1-1; HSPCA themes #1 – Ozark Forest, #4 - Karst, #7 - Diversity)

Station 3: Explore how animals receive different types of **information through their senses** and use their perceptions to guide their actions; discover “extreme” animal senses; play bat and moth game. (4-LS1-2; HSPCA themes #1 – Ozark Forest, #4 - Karst, #7 - Diversity)

Station 4: Discover **bird beaks and their functions** through Fill the Bill activity and use binoculars to make observations of live birds at our feeding station. (4-LS1-1, HSPCA themes #1 – Ozark Forest, #7 - Diversity)

4th grade – Processes that Shape the Earth and Maps (Earth and Space Science and Geography)

Station 1: Identify evidence from patterns in **rock formations and fossils** in rock layers to support an explanation for changes in the Hobbs landscape over time; view rock layers by taking a virtual tour of Shaddox Hollow Trail; examine specimens of local rocks and fossils; create fossil replicas with modeling clay and molds to understand the fossilization process. (4-ESS1-1, HSPCA theme #2 - Water)

Station 2: Conduct several simple experiments to discover more about **weathering and erosion**; learn about karst topography and features and view the cave exhibit indoors to identify different cave formations. (4-ESS2-1, HSPCA theme #2 – Water and #4 - Karst)

Station 3: Learn about the **features of a map** and create their own; analyze and interpret data from maps to describe patterns of Earth’s features and the Ozark plateau at Hobbs. (G.8.3.3; 4-ESS2-2; HSPCA theme #5 - Recreation)

Station 4: Learn about the **eco-regions of Arkansas** including their main features and natural resources as students create rope outlines of these regions and our state. (G.8.4.3, G.10.4.1)

3rd grade – Interdependent Relationships in Ecosystems and Inheritance and Variation of Traits: Life Cycles and Traits (Life Science)

Station 1: Learn about **animal strategies for winter survival** or the 8 “ates”, including hibernate and migrate, and other adaptations to the environment during a hike on the Ozark Plateau Trail. (LS2.C Ecosystem Dynamics, Functioning, and Resilience; HSPCA theme #7 – Diversity)

Station 2: Discover the basics of **natural selection** by “hunting” for multi-colored paper dots representing variations in a prey species on different cloth backgrounds representing various habitats. After a set time limit for “hunting” they see what the survival rates are like for the different variations within the species. (LS4.B Natural Selection; HSPCA theme #7 – Diversity)

Station 3: Explore the **life cycles of organisms** including amphibians and insects. In the spring we’ll try collecting amphibian eggs, larvae and adults from our pond, and in the fall before it freezes, we’ll collect insects, comparing similarities and differences between organisms and in various life cycles. (LS1.B Growth and Development of Organisms; HSPCA theme #7 – Diversity)

Station 4: Learn about the habitats of Hobbs and **habitat components and interdependence** by playing the game Oh Deer outside, which simulates a deer herd searching for food, water, and shelter. (LS4.D Biodiversity and Humans; HSPCA theme #1 – Ozark Forest and #7 – Diversity)

2nd grade – Interdependent Relationships in Ecosystems (Life Science) and Earth’s Systems: Processes That Shape the Earth (Earth and Space Science)

Station 1: Explore how the land changes and the causes of change. Discover the different kinds of **landforms and water bodies** here at Hobbs and in our region through a hike on the Ozark Plateau Trail. (ESS2.A, ESS2.B, ESS2.C; HSPCA theme #2 – Water and #4 – Karst)

Station 2: Learn about **what plants need to grow and pollinators**. We’ll discuss the role of pollinators and their importance, followed by participating in the Busy Bees Pollination Relay. We’ll make observations of pollinators around the Visitor Center including hummingbirds at our feeders in spring, and butterflies, bees and other insects in spring and fall. (LS2.A; HSPCA theme #1 – Ozark Forest and #7 – Diversity)

Station 3: Discover the **biodiversity of terrestrial organisms** of the park using pelts, taxidermy specimens, and pictures, along with a captive amphibian and reptile. Learn what diversity means through an activity with candy! (LS4.D; HSPCA theme #1 – Ozark Forest and #7 – Diversity)

Station 4: Explore the **biodiversity of aquatic organisms** of the park through pictures and by searching through tubs of live macroinvertebrates (crawdads, snails, etc.) from a nearby creek, while looking for differences in organisms. (LS4.D; HSPCA theme #2 – Water and #7 – Diversity)

1st grade – Structure, Function, and Information Processing (Life Science)

Station 1: **Structure & Function:** All organisms have external parts. Different animals use their body parts in different ways to see, hear, grasp objects, protect themselves, move from place to place, and seek, find, and take in food, water, and air. Explore bird beaks and their function through the activity, Bird Beak Buffet. (1-LS1-1; HSPCA theme #7 - Diversity)

Station 2: **Growth & Development of Organisms:** Adult plants and animals can have young. In many kinds of animals, parents and the offspring themselves engage in behaviors that help them survive; Grow as We Go activity. (1-LS1-2; HSPCA theme #7 - Diversity)

Station 3: **Information processing:** Animals have body parts that capture and convey different kinds of information needed for growth and survival. Animals respond to these inputs with behaviors that help them survive. Animals make sounds for a variety of reasons; Sounds Around activity and sensory hike on Ozark Plateau Trail. (1-LS1-1; HSPCA theme #1 – Ozark Forest)

Station 4: **Inheritance of traits:** Young animals are very much, but not exactly, like their parents. Identify similarities in an organism's parents compared to offspring: Who's Your Daddy activity. Plants are very much, but not exactly, like their parents. (1-LS3-1; HSPCA theme #7 - Diversity)

Kindergarten – Interdependent Relationships in Ecosystems: Animals, Plants, and their Environment (Life Science)

Station 1: **Organisms:** All animals need food in order to live & grow. They obtain their food from plants or from other animals; flow of energy in a food chain (sun->grass->rabbit->coyote); Show Me the Energy activity; plants need water and light to grow. (K-LS1-1; HSPCA theme #1 – Ozark Forest)

Station 2: **Biogeology:** Plants and animals, such as beavers, can change their environment; Building Beavers interactive puppet play. (K-ESS2-2; HSPCA theme #7 - Diversity)

Station 3: **Natural Resources:** Living things need water, air, and resources from the land, and they live in places that have the things they need. Humans use natural resources for everything they do. Like people, all animals need water to support basic body functions; Aqua Charades activity. (K-ESS3-1; HSPCA theme #2 – Water and #3 – Van Winkle)

Station 4: **Human Impacts on Earth's Systems:** Things that people do to live comfortably can affect the world around them. Reduce, reuse, recycle; Less is More activity. We can make choices that reduce our impacts on the land, water, air, and other living things (secondary to K-ESS2-2). (K-ESS3-3, HSPCA theme #1 – Ozark Forest)