

DOWN TO EARTH

3 hours; 4th grade & up; Moderate 1 mile hike

OVERVIEW: Hiking to a reclaimed coal mine, students examine geologic history, coal, and electricity and witness the effects of surface coal mining and reclamation on the local ecosystem. Additionally, students explore the relationship between natural resource use and conservation.

PRINCIPLES:

- Water plays a key role in the formation of sedimentary rock.
- Coal is one of Alabama's valuable natural resources and is a major source of energy for production of electricity.
- Human use of coal affects the environment.
- Each of us can conserve electricity and help the environment.

KEY TERMS: sandstone, coal, ground water, fossil fuel, photosynthesis, sediment, pollution, surface mining, reclamation, conservation, energy, electricity

ROCK QUERY

3 hours; 3rd grade & up; Strenuous 1.5 mile hike

OVERVIEW: Students kinesthetically explore rock types, the rock cycle, and the structure of the Earth. Hiking into a sandstone canyon, they observe how the rock affects the present ecosystem and reveal clues about the past.

PRINCIPLES:

- The face of the Earth is constantly changing as rocks move through a cycle.
- Rocks provide information about past environments.
- Geology affects our present ecosystem.
- Humans are dependent on rocks and minerals.

KEY TERMS: geology, rock cycle, sandstone, layers, sedimentary, metamorphic, igneous, canyon, erosion, weathering, mineral, groundwater

AUTHORS AND EXPLORERS

3 hours; 4th grade & up; Mild ¼ - ½ mile hike

OVERVIEW: Inspired by the fragrances, sounds, textures and tapestry of nature, students learn to express themselves articulately through nature journaling. Sequenced drawing, sensory awareness and observation activities help students evolve as talented crafters of language. Surrounded by creeks and canyons, even reluctant writers find that words come easily.

PRINCIPLES:

- Details and analogies improve descriptive writing.
- Careful observation brings new awareness, knowledge and perspective on natural objects.
- Both authors and explorers utilize writing and sketching in nature journals as tools to improve their trade.

KEY TERMS: nature journal, observation, metaphor, simile, adjective, detail, naturalists, senses, explorer

NATIVE AMERICANS & THE EARTH

3 hours; 3rd-6th grade; Moderate 1/2 mile hike

OVERVIEW: Interacting with artifacts, playing games, and listening to stories, students gain a better understanding for the lifestyle of early southeastern Native Americans. Students visit a Mississippian Era replica village and explore the concepts of natural resources, culture, and sustainability.

PRINCIPLES:

- Basic human needs-food, clothing and shelter- are provided by the natural world.
- Throughout history, people have developed technologies to meet their needs.
- The early Native American lifestyle, which was directly connected to nature, exemplified knowledge of and respect for the environment.

KEY TERMS: hunter/gatherer, replica, artifact, technology, primitive, prehistoric, rock shelter, debris hut, village, roundhouse, atlatl, migrate, Bering Strait