Connecting Students to Nature
in Alabama State Parks

Introduce your class, club, troop, or group to the wild places of Alabama through a guided, safe, and fun state park field trip. These are customized, place-based, and immersive experiences developed to support the Alabama Course of Study for grades K-12.

Alabama State Parks provide unique educational opportunities "from the deepest cavern to the highest mountain to the most pristine beaches" through a hands-on approach to learning about our natural world, heritage, and history.

By providing outdoor place-based education to park visitors of all ages, parks increase the public's knowledge of conservation, build appreciation for nature and public lands, develop connections to natural resources, inspire sustainability, and encourage wellness.

Lake Guntersville State Park

Field Trip and Program Topics:

Topics depend upon instructor availability.

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Field Trip Objectives
- Connect people to public lands through a "sense of place".
- Develop a sense of responsibility toward the conservation and stewardship of natural resources.
- Cultivate an understanding of the association between spending time outdoors and personal well-being.
- Inspire a creative vision for connection, collaboration, community, and careers.
- Increase environmental awareness.
- Defeat Nature-Deficit Disorder (No Child Left Inside).
- Encourage environmental literacy through arts and science.

Instructors will teach key terms and principles. Topics are correlated to Alabama's State Course of Study and the Environmental Education Association of Alabama (EEAA) Environmental Literacy Plan (Best Practices in EE).

Fees:
$15 per student

Field Trip Tickets for Parents/ Chaperones/Siblings $5 per person (Must be pre-purchased before final invoice.)

Groups of more than 36 participants may request a customized field trip; groups of more than 100 students may require multiple days.

Outreach Programs: Some topics are adaptable for classroom/auditorium presentations. One topic per visit.
Fee: $5 per student; $150 minimum program fee.

Planning Your Visit: Make reservations at least 2 weeks in advance. Rates and programs are subject to change, so ask questions and be specific about your group's needs. Ask if all amenities you plan to use will be available. Sites typically offer picnic areas, vending machines, gift shops, restrooms, and bus parking. Some activities may be seasonal.

Field Trip Topics & Descriptions:

Tree Talk (Botany)

Grades 6 – 12

COS – ALEX SC15: *K.1 K.3 K.4 1.5 2.5 2.7 3.0 3.5 3.6 3.11 4.5 5.8 5.9 5.12 7.16 BIO.13 BIO.16*

Outdoors: 0.5-Mile Hike (easy or moderate trails)

Activities: Students explore the recreational, ecological, and economical use of trees. Through a hike, discussions, measurement activities, and role playing, students analyze the value of trees.

Principles:
- A value is the worth of something.
- Different people value different uses of trees.
- Forestry is the science which strives to maintain and develop forests for human use.
- Human use of the forest can have both positive and negative effects on the forest community.

Key Terms: value, habitat, forestry, natural resources, renewable, non-renewable, aesthetic, economic, hardwood, softwood, merchantable, endangered species, tree products

Extension: Creek Kids (USFWS) aka Salamander Crawl

Grades 6-12

COS-ALEX SC15 *4.5 4.6 4.9 4.11 4.12 4.13 4.15 5.1 5.3 5.4 5.5 5.8 5.9 5.10 5.11 5.14 5.15 5.16 5.17 6.5 6.7 6.16 7.5 7.6 7.7 7.9 ES.7 ES.10 ES.13 ES.17a ESS.8 ESS.11 ES10 ES.17 ES.17a BIO.7 BIO.8*

Indoors or Outdoors

Activities: Through biological sampling of macrobenthic organisms, students learn how to assess water quality and become aware of the impact that nonpoint and point source pollution can have on waterways.

Principles:
- The physical and chemical properties of water determine what organisms can live there.
- Aquatic creatures have different tolerance levels to pollution based on their physical characteristics and behavior.
- Human actions can alter the chemical and physical properties of a river and thus affect its health.
- Each of us can help to monitor and improve water quality.

Key Terms: aquatic, adaptation, nymph, larvae, species, indicator species, detritus, point source pollution, nonpoint source pollution, tolerance, tributary, erosion, sediment, titration, dissolved oxygen, pH, acid, base, turbidity, water molecule and watershed

What's in My Lake?

Grades: Middle School (7th – 8th) High School (9th – 12th)

COS – ALEX SC15: *7.6 7.7 7.8 7.9 BIO.7 BIO.10 ES.3 ES.6 ES.17*

Outdoors: Water Activity

Activities: Through biological sampling of aquatic organisms using a seine net, students learn how to assess organism quantity and become aware of the importance of pristine vs. damaged ecosystem in Lake Guntersville.

Principles:
- Organisms, and populations of organisms, are dependent on their environmental interactions both with other living (biotic) things and with nonliving (abiotic) things.
- Aquatic creatures have different tolerance levels to pollution based on their physical characteristics and behavior.
- Human actions can alter the chemical and physical properties of Lake Guntersville and thus affect its health and fish population.
- Identify and describe a given design solution for maintaining biodiversity and ecosystem services.
- Each of us can help to monitor and improve water quality.

Key Terms: abiotic, analyze, anthropogenic, biodiversity, biodiversity index, biological components, biotic, carrying capacity, competition, criteria, data, density and dispersion, design solution, ecosystem, endangered species, engineering design process,

evidence, exponential growth, extinction, graphic models, growth rate, interpret, limiting factors, organism(s), patterns, phenomena, physical components, population, recycling nutrients, reproductive potential, resource(s), soil erosion, survivorship, sustainability, water purification

Hiss & Slither (Herpetology)

Grades PreK-12
COS – ALEX SC15: *K.3* *K.4* *1.5* *2.5* *2.7*
Indoors or Outdoors

Activities: Students participate in a hands-on experiential learning hour about herpetology (amphibians and reptiles). Students meet live non-venomous snakes.

Optional: Students participate in a "fake snake" hike to increase observation skills.

Principles:
- Identify different reptile and amphibian species and their characteristics.
- Learn about the selection, care, needs of herps and basic principles of herp behavior.
- Demonstrate movement of species.
- Explore the behavioral and chemical defense of reptiles and amphibians.

Key Terms: vertebrate, cold blooded, life cycle, venomous, non-venomous, Jacobson's organ, fangs, unhinged jaw, adaptation, camouflage, estivate, endangered species, indicator species, habitat, predator, prey

Beautiful Birds (Ornithology)

Grades PreK-12
COS – ALEX SC15: *3.5* *3.6* 3.7 *4.5* *4.9* 4.11 *5.8* *5.9* *5.10* *5.11* *7.6* *7.10* *7.11*
Indoors or Outdoors: Optional 0.5-Mile Hike (easy or moderate trails)

Activities: Students participate in a hands-on experiential learning hour focused on ornithology and the diversity of avifauna. Students study feathers, skulls, beaks, feet, bones, scat, and pellets.

Optional: Students participate in a bird identification hike and/or learn how to attract birds to their own yards/farms.

Principles:
- Identify different bird species and their characteristics.
- Learn about the needs of birds and basic principles of bird behavior.
- Demonstrate movement of species.
- Explore the behavioral and chemical defenses of birds.
- Discuss adaptations.

Key Terms: Flight, sedentary, wings, feathers, talons, beak, egg, molt, plumage, nest, predator, prey, insectivore, carnivore, herbivore, warm blooded, pellet, scat, adaptation, habitat, forage, migration

American Black Bears

Grades 2-12
COS-ALEX SC15 *3.10* *3.11* *5.11* *5.17* *7.8* *7.10* *BIO.8* *ES.3*
Indoors or Outdoors

Activities: Through interpretive teaching techniques such as role play, creative drama, storytelling and/or music, participants are immersed in the natural history of the American black bear. Black bears once roamed over all of America's forested lands. But after European settlement, their numbers and habitat dwindled. Thanks to new attitudes and enlightened conservation and management efforts, black bears are making a dramatic comeback over much of their historic home range. Now that bears are returning to areas they used to call home, it's up to people and communities to learn how to peacefully coexist with these amazing animals.

Principles:
- Students will gain an understanding of the basic needs black bears require to survive and thrive in their environment.

- The basic needs of all animals are food, water, air, shelter, and space. If these needs are not met the animal may die or not thrive.
- Six “at home” BearWise basics and six “outdoors” BearWise basics

Key Terms: Omnivore, hibernation, mammal, warm blooded/endothermic, forager, ranges, predator, prey relationships, conservation

Insect Safari (Entomology)

Grades 3-12
COS – ALEX SC15: *K.4 1.5 2.5 2.7 3.5 3.6 4.5 4.9 5.8 5.9*
Outdoors: Easy Walk

Activities: Through discovery-oriented explorations of habitats, students collect and study insects in their natural setting. Students use sweep nets, collecting jars and magnifying equipment.

Principles:
- Insects are amazing in their adaptations and abundance.
- Most small creatures are harmless to humans.
- These animals play invaluable roles in ecological processes such as decomposition and pollination.

Key Terms: niche, adaptation, head, thorax, abdomen, invertebrate, arthropod, arachnid, decomposer, pollinator, herbivore, predator, species, venomous, poisonous

Teddy Bear Hike (Observations and Connections)

Grades PreK-3
COS – ALEX SC15: *K.2 4.11 K.3 K.7 K.9 1.7 3.5 3.6*
Outdoors: 0.5-Mile Hike (easy or moderate trails)

Activities: Students take an easy hike along a trail with a naturalist. Toy (but realistic) stuffed animals have been placed along the trail in natural poses. The students stop at each animal and are asked a series of questions and then told a story about the animal.

Principles:
- Many animals only come out at night.
- Most animals leave clues.
- Animals need food, water, and shelter.
- Animals are connected to their habitat in many ways.

Key Terms: mammal, bird, reptile, insect, fish, amphibian, camouflage, track, scat, carnivore, herbivore, omnivore, various animal calls (growl, bleat, bark, chirp, song)

Leave No Trace: Outdoor Ethics

Grades K-12
COS-ALEX SC15: *K.6 K.7 4.5 5.15 5.16 6.7 6.15 6.16 7.7 ES.1 ES.3 ES.6 ES.10 HAP.9a*
Indoors or Outdoors: Optional 0.5-Mile Hike (easy or moderate trails)

Activities: Students will learn the Seven Principles of Leave No Trace in a fun and interactive way.

Optional: Students practice Leave No Trace principles while hiking an easy trail with a naturalist.

Principles:
- Plan and prepare.
- Travel and camp on durable surfaces.
- Dispose of waste properly.
- Leave what you find.
- Minimize campfire impacts.
- Respect wildlife.
- Be considerate of others.

Key Terms: waste management, natural resources, sustainability, recycling, reduce/reuse

Nature Journaling

Grades 3-12

COS – ALEX SC15: *3.11 3.5 3.12 3.12 4.5 5.16 6.16 7.11 ES.1 ES.2 ES.4 ES.6 ES.11*

Outdoors: Stationary or Hike Options

Activities: Inspired by the smells, sounds, textures, and tapestry of nature, students learn to express themselves articulately. Sequenced drawing, sensory awareness, and observation activities help students hone their creative writing and art skills. Surrounded by the diverse beauty of Alabama State Parks, even the most reluctant writer discovers that words come easily.

Principles:
- Sensory details improve creative and descriptive writing.
- Careful observation brings a new awareness and perspective toward the natural world.
- Both authors and explorers utilize nature journals and art pencils as tools to improve their trade.

Key Terms: nature journal, observation, metaphor, simile, adjective, setting, scene, detail, naturalists, creativity, sketch, outline, original

Careers in State Parks (aka Working in the Wild aka Conservation Careers aka Public Lands Professions)

Grades 9-12

CTE20.AFN .OA.E.9 .OA.E.10a ABE.11a ABE.12 EM.14 FWM.3C FWM.6 F.1a F.8 F.14 FA.8 PA.11 PA.17 D.2 D.5 D.6 D.6a D.6b D.9 D10 D11 CTE21.BMA. HMM11 F.FS.1 F.FS.2 F.FS.3 F.FS.4 F.1a CTE22.AC. PS.22

Indoors or Outdoors: Optional Hike

Activities: Students gain the opportunity to interact with professionals from various conservation and public lands career fields and those who can advise and/or mentor them toward this field. This can be an exciting opportunity for students to learn how and why park naturalists, interpreters, historians, and others do what they do. This program increases the students' options as they decide about their own paths toward institutes of higher learning, types of degrees, salaries, and opportunities in a diverse field. Volunteer opportunities, internships, and seasonal jobs are discussed.

Key Terms: management, conservation, environment, stewardship, interpretation, career, sustainability, natural resources

Archery

Grades 4-12

COS-ALEX *PE19.BKI 1.3 3.10*
PE19 7.3.3 7.4.5 8.3.3 8.4.5 AC1.3.2 AC2.5.1

Outdoors

Activities: Students will have the opportunity to learn a new skill in a controlled environment, while learning the past time of the old hunting technique.

Principles:
- Having the opportunity to try a new skill in a education environment.
- Confidence building activity.

The History of Lake Guntersville

Grades 2-12

Indoors or Outdoors

Activities: Through storytelling and place-based exploration, participants will uncover the layered human history of Lake Guntersville State Park. Participants learn how the damming of the Tennessee River transformed the landscape, delve into the lives and cultures of

the Creek and Cherokee peoples who once lived here, and trace the park's location along a historic Trail of Tears route. Participants explore the stories of early settlers and prominent families who shaped the community.
- Optional: Hike to Kings Chapel Cemetery

Principles:
-Human history is shaped by the land, and in turn, people shape the landscape.
-Understanding the past through indigenous cultures and settlement helps students appreciate the diversity and complexity of shared heritage.
-Cemeteries and cultural landmarks are valuable outdoor classrooms that tell the stories of real people and communities.

Field Trip Assessment Methods of Measurement: Verbal assessment; written evaluations; participant surveys; semantic web activities; teacher assessment and evaluation; social media; email discussions; Educational Advisory Committee meetings and input from the community

Field Trip Partners and Allies: Alabama State Parks, DCNR, Wild Alabama, Jacksonville State University, University of Alabama, Alabama Forestry Commission, Wildlife and Freshwater Fisheries, Auburn University, Legacy Partners in EE, Environmental Education Association of Alabama (EEAA), Alabama Water Watch, Anniston Museums and Gardens, Alabama Parks and Recreation Department (PARD), Southeastern Environmental Education Alliance, Alabama Clean Water Partnership, Alabama Scenic River Trails, ACES, Choccolocco Creek Watershed Alliance, US Fish and Wildlife Service, Friends of the Talladega National Forest, Discovering Alabama, Marshall County Master Gardeners, Friends of the Locust Fork River, Marshall County Tourism & Sports, and many more.