

YMCA Camp Kern - Environmental Education Curriculum

Natural History

Deep Woods - An investigation of the fields and forests of Kern. Students journey into our 200-year old Beech/Maple forest and its surrounding habitats. Topics can include: forest ecology, plant succession, prairies, vernal pools, and natural cycles. **This Activity can be led by Teachers or Chaperones.**

Trail of Time - Adventures in geology. Participants descend into a ravine to hunt for (and take home) Ordovician fossils in this exploration of our ever-changing earth. Topics can include: plate tectonics, fossilization, formation of sedimentary rock, erosion, glaciations, relationships between geology and current habitat/land use. **This Activity can be led by Teachers or Chaperones.**

The Creatures of Kern - A safari style expedition seeking out Kern fauna. Can be selected as a single, all encompassing activity, or as separate activities.

Feathers Beaks and Claws - Birds, their amazing adaptations and lives are explored through a mix of simulations and observations.

In Cold Blood - Encounter snakes, lizards, spiders and more in our nature center, then venture out to discover what can be found crawling, creeping or slithering around camp.

Kern Critters - Pond life encountered, captured and examined (then released) by students as they visit wetlands, pond, vernal pools, and puddles. **This Activity can be led by Teachers or Chaperones.**

Tracks and Traces - What our fellow mammals need to thrive. It starts with a very active simulation (game) where students play the role of squirrels striving and vying to survive. Then a discovery hike in search of tracks, scat, and furry glimpses of Kern mammals. **This Activity can be led by Teachers or Chaperones.**

River Study - A study of the Little Miami River, its formation, history and, water quality. We will net a sample of aquatic invertebrates to do a stream quality assessment, conduct several tests of the water chemistry (dissolved oxygen, phosphate, nitrate, pH, turbidity), and also do a variety of related simulation activities. Can be done from the shore at camp or included as part of a **River Rafting** trip. The extra fee for the raft trip is \$10 per person. Please speak to the Kern staff about availability and how to schedule.

Science (STEM related activities)

Our goal is to provide students with impactful, hands-on experiences that relate to science, technology, engineering, and math. We take advantages of the resources unique to camp and not easily replicated in the classroom. These can be done as a whole group rotation activity called **The Genius Challenge**, or as a small group activity. Speak with the Kern staff for details. Below are examples of some of the challenges.

- **Measure the Flagpole** – Students are given a box filled with the disassembled remains of seemingly random objects (string, straws, protractors, etc) as well as a few cryptic pieces of instruction. Their mission: to measure the height of the Kern flagpole. \
- **Egg Drop** – Students are given an egg and 10 twist-ties, and then are set loose amid the honey-suckle to find materials they need to protect their egg from a fall.
- **The Duck and the Dam** – Students construct a dam to protect their rubber duck. The overflow gates of the wetland are then opened and the students see if their duck survives or is swept away.
- **Water Rockets** – Students experience energy transfer as they construct and launch their modified two-liter bottles, comparing flight time and altitude.
- **Log Lift** – Students are introduced to a very large log. Using a variety of ropes, pulleys, carabineers, and other odds and ends, they are challenged to create a means to lift the log with the least effort possible.

Social Studies

Whole Group Options (includes the whole school group at the same time):

- **Living History** - Journey back in time to the early statehood days of Ohio. Your students, divided into small family groups, encounter our costumed staff and experience life on the Ohio frontier first-hand.
- **Native American Day** - Students become Native Americans and take part in a series of activities including an active group simulation of Native American trade with plenty of running and stealth. This is followed by a meeting with General Anthony Wayne and a reenactment of the Greenville Treaty of 1795.
- **Fort Ancient Hike** - A hike through the scenic Little Miami River Valley and Kern –led interpretive tours of the Hopewell earthworks. A museum tour is also available. No cost for the site visit, \$3.00 for a Museum tour.

Small Group Options (groups of 10 to 20 students):

- **Old Tavern/ Archaeology** - Explore the mysteries of Kern’s 1809 “Cross Keys” Tavern. Students also can visit our unique “Sun Serpent” site and try their hand at a mock archeological excavation. *This Activity can be led by Teachers or Chaperones.*
- **Stones & Bones** - Explore the legends and lifestyles of Ohio’s early settlers at the Bethel Pioneer Cemetery, located just across the street for the camp entrance. *This Activity can be led by Teachers or Chaperones.*
- **School Days** – Live a day in the life of a student at the Hart One room Schoolhouse. Experience the late 19th and early 20th century small town school day’s lessons, recess, discipline, and games.

Team Building and Group Work

Survival - Challenges the students to build a fire, a shelter, and work cooperatively. *This Activity can be led by Teachers or Chaperones.*

Escape - A group cooperation and obstacle course set in a theme of an enchanted pyramid. *This Activity can be led by Teachers or Chaperones.*

Land of the Lost - A map and compass course challenges students to navigate their way through the brambles and fields of camp.

Climbing Wall - Challenge yourself on one of camp's climbing towers. Indoor option also available.

Group Games - Teambuilding is strongly emphasized in a variety of fun and challenging ground based activities.

High Adventures - Ropes Courses, Zip-lines, Giant's Swing, Mine Shaft and advanced teambuilding are all offered at Kern by our Leadership Department. There are additional fees (typical \$30 per student for a 3 hour experience). Please let us know if you are interested.

Fitness, Fun, and Healthy Living

Field Games - We offer a variety of active games that emphasize teamwork

Canoeing - Students will discover the arts of paddling and cooperation on our 10 acre Elk Lake.

Horseback Rides - A two hour experience that includes a brief riding lesson, horse science and a 45 minute trail ride around camp. The extra fee is \$15 per rider. Please speak to the Kern staff about availability and how to schedule.

River Rafting - (A whole school group activity) Enjoy a raft trip on the Little Miami River paddling the three-mile stretch of the 'Fort Ancient Gorge.' Morgan's Canoe Livery will provide large "whitewater" rafts. This gives us optimum safety and allows for trips well beyond the typical canoeing season. The extra fee is \$10 per person. Please speak to the Kern staff about availability and how to schedule.

Arts and Crafts *These Activities can be led by Teachers or Chaperones*

Friendship Bracelets - Using yarn, students make simple woven bracelets

Nature Art - sticks, leaves, yarn and glue come together as students create their own art.

Candle Making - Students make their own candle the old fashion way. *While this activity can be led by Teachers or Chaperones, it is a complicated and demanding undertaking. Check with Kern staff before selecting.*

Ga Ga Pit - a fast action form of dodge ball. *This Activity can be led by Teachers or Chaperone*

Archery - Beginning with a brief lesson, students learn the basics of safe bow and arrows use, and then enjoy shooting at our targets.

Tracking – A camp wide team based pursuit game. *This Activity can be led by Teachers or Chaperones.*

Pioneer Cooking – Students work together to make an ice-cream and fried apple treat. *While this activity can be led by Teachers or Chaperones, it is a complicated and demanding undertaking. Check with Kern staff before selecting.*

River Hike – Hike to the Little Miami River and explore the history, both human and natural, of the valley. *This Activity can be led by Teachers or Chaperones.*

Discovery Hike – A Kern staff member leads a rambling hike around camp's 480 acres, focusing on what most grabs the student's interest.

Fishing – Students are welcome to bring their own gear and enjoy some fishing at our lake and pond. *This Activity can be led by Teachers or Chaperones.*

Evening Activities

Campfire – Songs, Skits, and Stories. Enjoy this traditional camp experience.

Dutch Auction – An easily led and fun game where teams of students score points for possessing odd items and even odder talents. *This Activity can be led by Teachers or Chaperones.*

Creative Dramatics – Teams of students receive the title of a legend (e.g.: How the Beaver Got a Flat tail.) They explain the legend through a skit they design and perform in front of the rest of the group. *This Activity can be led by Teachers or Chaperones.*

Pioneer Game – A very active outdoor game with "pioneers" trying to get supplies to their "fort." *This Activity can be led by Teachers or Chaperones.*

Hoedown – Square-dancing Kern-style.

Clue – Communication and problem solving skills are tested in this outdoor version of the board game. *This Activity can be led by Teachers or Chaperones.*

Night Hike – Kern staff will lead groups of students on a fascinating exploration of the night world.

Our Blended Curriculum Option

The goals of this curriculum are to:

- Take the greatest advantage of Camp Kern's unique educational resources.
- Make less teaching demands on visiting schoolteachers.
- This option is geared toward school groups of between 20 and 100 students.
- Each activity group should include about 20 students.
- We recommend that one chaperone go along on each activity.
- Evening programs and other details of camp life are the same as in our "traditional" curriculum.

The bulk of the program time will be spent in a rotation through four activity sessions:

Field and Forest

Explore a Beech Maple climax growth forest and surrounding habitats. Topics and related activities can include: Forest Ecology, Plant Succession, Ornithology, Natural Cycles, Pond Study, and Animal Tracks.

Teambuilding

Students work together to problem solve a range of challenges. Topics and related activities can include: Low initiatives, survival, compass course, and group games.

River Hike

Hike to the Little Miami River and explore the history, both human and natural, of the valley. Students will visit a 200-year-old stone house that once served as a tavern in the small riverside community. Topics and related activities can include: Geology, Fossil Hunting, Archeology, Stream Water Quality Monitoring, and aquatic biology.

Early Ohio

Visit an early 19th Century log cabin and graveyard. Topics and related activities can include: Pioneer and Native American Lifestyles, Pioneer Tools, Related Crafts, Candle Making.

We will also may have time for one whole group activity. Options include: Living History, Fort Ancient Hike, River Rafting.

