

# Camp Roger Camp Scottie

## Outdoor Education Curriculum Catalog

Each year, Camp Roger's outdoor education program creates enjoyable, educational experiences for over 12,000 students at our campus in Rockford. We are always excited to work with teachers and administrators to create unique, meaningful experiences for students. What are your values? What are your goals? How can we help you reach those goals outdoors at Camp Roger?

### Contact Us

We would love to hear your ideas for your next field trip. Contact Scott De Young, Director of Outdoor Education, at [scott@camproger.org](mailto:scott@camproger.org) or call the office at 616.874.7286.

## A Typical Day at Camp Roger

A typical day is broken into 3-4 activities and students in groups of 12-18. Groups will rotate among the topics planned and are led by Camp Roger staff. Activities are chosen depending on your group's goals and objectives. Use the curriculum listed below as a guide to think through the day for your group and what you would like to try, even if it isn't on the document below. Let us help you put the pieces of a great day together.

## Exploring and Discovering

### Animals and Their Habitats

All creatures—including human beings—need healthy habitats in which to survive, grow, and thrive. The following topics explore how the needs of animals are met within their habitats, different types of habitats, and how they adapt to their habitat. Potential vocabulary for each topic is in *italics*.

- Animals and Habitats: Learn how animals rely on habitats for food, shelter, and water, and what happens when there is not enough of it. Also, find out how animals interact with each other and against each other while fighting for resources. *Predator, prey, habitat, consumer, producer, herbivore, omnivore, carnivore*
- Animals and Seasons: Experience how different animals adjust to the seasons and prepare for winter by playing a few simulation games. *Hibernation, migration, adaptation, seasons*
- Camouflage and Tracking: Look for signs of animals, learn to identify tracks, and make a few tracks of your own. Discover how different animals use camouflage to avoid being seen in the wild and play a game of camouflage for yourself. *Habitats, camouflage, talons, claws, migration, hooves, paws*

- Senses: Consider how animals use their senses beyond sight to survive and try some games to test your senses. *Sensory awareness, sensory deprivation, nocturnal, diurnal, observation, attention*
- Birds: Explore the different ways birds have adapted to their situation with different types of beaks, make observations of birds, and try to identify some out in the woods. *Ornithology, species, adaptation, raptor, songbird, migration*
- Insects and Other Bugs: Search for signs of insects and explore their hiding places. Discover the important role many insects play in decomposition, learn the difference between insects and other bugs, and unveil the great diversity among the creepy crawlers. *Decomposer, life cycles, nymphs, larva, pupa, head, thorax, abdomen, cocoon, chrysalis*

## Plants

Animals and humans depend on plants for food, shelter, energy, and so much more. Life on earth would not exist without them. Explore different types of amazing plants, how they grow, how to identify a variety of plants, and which cause problems. Potential vocabulary for each topic is in *italics*.

- **Amazing Plants:** Discover the amazing parts of a plant and seek out plants with those parts around camp. *Leaf, stem, roots, bud seed, life cycle, vascular system*
- **Xylem Power:** Explore the important role of Xylem in transporting water and nutrients through a tree. Take the xylem power challenge to see if you have what it takes to pull water as high as a tree and discover how plants can pull off a seemingly impossible feat with each drop of water. *Xylem, phloem, vascular system, vacuum*
- **Tree ID:** Learn the characteristics of a tree and how those characteristics are used to identify different trees. Use a dichotomous key to identify some trees at camp. *Dichotomous key, leaf, stem, bud, other identification terms*
- **Invasive Species:** What makes an invasive species, how do they get here, and how do we stop them? Discover a few invasive species that made their way to camp and why they are such a problem through on-site examples and simulation activities. *Native vs. non-native species, alien, invasive, and exotic species, names of invasive species*
- **Forestry/Logging:** Learn about the history of logging, the mighty white pine, and different ways to measure trees. Find the height and width of trees at camp. Can you find the biggest tree? *White pine, forestry, diameter, circumference, renewable vs nonrenewable resource*
- **Seed Exploration:** After an introduction to the plant life cycle, we will head out to see different ecosystems at camp and search for seeds and the adaptations that they developed to help in transportation. *Life cycle, flower, seed, pollination, adaptation*
- **Photosynthesis:** Investigate what happens in photosynthesis and explore the equation in a hands-on way. *Photosynthesis, glucose, products, reactants*

## Ecology

Ecology studies the interactions of plants, animals, and their environment. The diverse properties at Camp Roger and Camp Scottie offer a great opportunity to explore and learn about a variety of different ecosystems. Study these interactions and the beautiful ecosystems in the woods.

Potential vocabulary for each topic is in *italics*.

- **Wetlands:** Explore Camp Roger's uncommon wetland habitat, the bog. View it from above at the treehouse, and then see it up close as we travel through on the boardwalk while discovering the unique species of the bog. *Wetland, bog, peat, decomposition, acidic*
- **Pond Study:** Search for macroinvertebrates (bugs) with nets in Little Bostwick Lake and see what they tell us about the health of the lake. The potential for chemical tests and more is available too. *Macroinvertebrates, invertebrate, nymph, indicator species, dissolved oxygen, turbidity, pH*
- **Earth-keeping:** Explore and discuss human impacts on ecosystems around camp. Then consider ways to minimize our negative impact through different game simulations. *Litter, garbage, landfills, decomposition.*

## Earth Science

Our planet is dynamic and changing. The way it is now is not how it has always been, or how it will be in the future. Explore the ways Earth changes and how you can read the story that it tells.

Potential vocabulary for each topic is in *italics*.

- **Landforms and Erosion:** Search for evidence of the surface changing at Camp and explore how wind and water affect the change while you try to stop the erosion on your hand-made landform. *Geology, glacier, glacial erratic, erosion, deposition*
- **Water Cycle:** Explore how the water cycle impacts camp and all over the world. Learn the parts of the cycle through games and demonstrations. *Condensation, precipitation, evaporation, collection, runoff, solid, liquid gas, solar energy*
- **Paleontology:** What fossils are in the ground and how did they get there? We will simulate a dig for fossils and see what we can learn from how deep they are buried. *Fossil, deposition, relative dating*

## Exploration

Taking time to search, hike, and enjoy the beauty and wonder outside. A lot can be learned through a simple hike in the woods. Potential vocabulary for each topic is in *italics*.

- **Little Bostwick Lake hike:** A quick hike around an entire lake is a great place for little visitors to discover the amazing world outside. *Spring-fed, kettle lake, glacial deposits, ferns, animal signs*
- **Scavenger Hunts:** Using various scavenger hunts for different groups and ages, students are guided in observation. The hunts can vary from using the alphabet, to colors, to animal signs. *Observation, search*
- **The Journey:** A full-day hike from Camp Roger and around Pickerel Lake that offers exploration and adventure. Enjoy the unique features and learn the history of this area.

## Survival/Outdoor Living

Whether you head outdoors by choice on a backpacking or hiking trip or find yourself stuck without modern amenities due to chance, several skills can be learned that are useful, fun, and educational. Potential vocabulary for each topic is in *italics*.

- **Survival Fires:** Following an introduction of the basic human needs for survival, students are given some tips for building their own fire and then can learn how to start their own. *Survival, preparedness, tinder, kindling, combustion, oxygen*
- **Survival Shelters:** Following an introduction to basic human needs for survival, students are given the opportunity to make a shelter to meet those needs using materials found in the woods. *Survival, preparedness, elements, insulation, structure*
- **Orienteering/Maps/GPS:** Knowing where you are and where you are going are the most important parts of not being lost. Reading and creating maps, using a compass for orienteering, or exploring using a GPS are all skills that can help us not get lost. *Map, topographic, magnetic north, bearing, satellite, GPS, coordinates*
- **Outdoor cooking:** Outside of a kitchen, cooking is a lot different. We have fun trying to make our food in a variety of ways from cooking an egg on top of an old soup can, to making tea right over the fire.

## History

Learning history through experience offers a great way to connect with our past and better understand what life was like for those who went before us. We offer a variety of ways to look at time periods or specific events. Potential vocabulary for each topic is in *italics*.

- **Native Americans:** Sort through misinformation about Native Americans and spend time exploring Native American life through games and other activities. *Ottawa, Chippewa, Pottawatomie, myth*
- **Michigan History:** Explore the features and characteristics of Michigan and learn more about its use of natural resources through a game. *State symbols, renewable and nonrenewable resources*
- **Valley Forge Simulation:** It was a matter of survival in difficult conditions for George Washington and his soldiers at Valley Forge. Spend the day using survival skills and test your ability to rough it, while learning what the conditions were like for the revolutionary soldiers. *Winter quarters, illness, sanitation, provisions, drillmaster, bayonet*
- **Lewis and Clark Simulation:** Lewis and Clark left civilization behind and discovered a world unknown to most. Learn some of the skills they needed for their expedition and take a simulated journey into the unknown. *Navigation, documentation, exploration, portage*

# Adventure and Experience

Camp Roger and Camp Scottie offer many unique and engaging experiences for all ages to take on which will help any group grow in its ability to work together. Some adventures challenge the individual as their team encourages. Other challenges offer unique situations that push a team's limits and force them to find out what does and does not work when you're a part of a team.

## Adventure Course

Camp Roger's Adventure Course activities offer challenge and excitement in the woods. Different activities are better for different ages, but all will challenge the participants and create an opportunity for encouragement and bonding over a shared experience. Safety equipment is provided for each adventure course element and participants will be on belay (safety rope) with instructors while participating.

- **Climbing tower:** Our outdoor climbing tower is a great adventure for most age groups to test abilities and face physical challenges. Climbing offers a chance for setting goals and encouraging one another.
- **Zipline:** Geared more towards those in middle school age level or older, the zipline is a fun activity to challenge students' nerves as they step off the 30-foot high platform and trust the zipline on a 300-foot long ride through the woods.
- **High Ropes Course:** The high ropes course offers a variety of challenges that test participants' limits as they travel from pole-to-pole while 30-feet in the air. Students encourage each other as they make their way through the obstacles and face the challenges.
- **Giant's Ladder and Vertical Playpen:** For our older students, these two elements offer a challenging vertical course for participants to climb with the help of a partner.

## Team Building Challenges

Our staff loves to test groups within the many different team challenge elements. The goal in all of these is to create a fun, yet difficult experience that tasks participants to learn how to work together. Throughout the experiences, participants will work to figure out best practices when working together and what practices to avoid. We then talk through how these lessons can be applied to the real world.

- **Low Ropes Course:** We have several challenges and obstacles to traverse as a team that are built into the woods. Each element is unique, but all create opportunities for growth together as a team.
- **Portable Elements:** We use a variety of puzzles and challenges that engage teamwork in unique ways.

- **Sandpit Challenges:** A large group is divided into smaller teams as they make their way through a gauntlet of 5-7-minute challenges, trying to complete each one before moving to the next one.

### Outdoor Adventures and Challenges

We offer a variety of outdoor experiences that, while still challenging, offer more as a shared experience for a group to bond over. These can be a great part of any trip to camp. Potential vocabulary for each topic is in *italics*.

- **Canoeing:** After a lesson on the basics as well as learning the terminology, participants gather a paddle, PFD, and a partner to explore Little Bostwick Lake by canoe. *Bow, stern, aft, port, paddle, stroke*
- **Archery:** Following an introduction to the equipment and safety guidelines, participants take turn trying their aim with a bow and arrow at our targets. *Native American, nock, fletching, bowstring, whisker biscuit*
- **Fire building challenge:** With a twist on our usual fire-starting experience, we challenge small groups to start a fire and build it up enough to burn through a wooden shim.
- **Maze:** Our maze in the red pine forest allows for a fun experience for individuals or small teams.

### Winter Adventures

Camp does not close for the winter. Most of our usual programming is available in the winter, but many new opportunities open with snow. Potential vocabulary for each topic is in *italics*.

- **Snowshoes:** Visit our Ski Haus to get fitted with snowshoes! Learn how these have helped people throughout history in northern climates and are still useful for us today. Then enjoy a hike in snowshoes in a winter wonderland. *Float, binding, crampon*
- **Cross Country Skis:** Older groups can give cross country skiing a try to learn a new way to explore the woods in winter. *Friction, traction, glide*
- **Sled building:** Put your engineering skills to the test and build a sled using basic materials. Then try out your sled's speed on our sledding hill. *Design, experiment, friction*
- **Snow and ice games:** When the snow flies and the lake freezes, there are several opportunities for different games and challenges. Try some new ways to have fun during the winter at Camp.