



Outdoor Science Investigations FIELD TRIP PROGRAM

SPRING 2017

April 3-June 9, 2017

To request a field trip fill out this [Field Trip Request Form](#). You will be contacted within three days of submitting your request. *Spring is the busiest time of year for field trips, act early to get your preferred date!* **Field trips are \$30 per group of up to 30 students.** The Western UP Center will bill your school at the end of the season for the total number of field trips per school. More information is also available on our website: wupcenter.mtu.edu

GRADE K

Warm Earth ½-1 hr



Students will participate in simple tests to help them understand that the sun heats up some earth surfaces more than others. They will be challenged to find warm areas and cool areas and compare them to discover why they differ and how this may affect plants or animals. Finally, they will design a structure to help keep a warm area cool. *Standards addressed: K-PS3-1, K-PS3-2, K-LS1-1*

Spring Alive! ½-1 hr



Students will make observations of plants and signs of wildlife to discover how both can change the environment to meet their needs. Can we find young plants pushing up through dead leaves or pavement? How about animal holes in trees or the ground? Students will make connections between living things changing their surroundings to help them survive. *Standards addressed: K-LS1-1, K-ESS2-2, K-PS3-1*

GRADE 1

Animal Life Cycles ½-1 hr



What is metamorphosis? Students will explore the life cycles of familiar wildlife and understand that living things grow and change. They will go on a hunt to find small insects and determine if they are adults or not. *Standards addressed: 1-LS3-1*

Sounds of Nature ½-1 hr



The outdoors are alive with sounds! Students will go on a hunt to find objects that make sounds, such as leaves rustling, grasses blowing, birds singing, or water flowing. Then we'll explore common objects that vibrate to make sound: strings, grass whistles, rubber bands and learn that even our voices and bird songs are created by vibrating parts within us. Finally, we'll go on a bird hunt to see if we can find singing birds. *Standards addressed: 1-PS4-1*

GRADE 2

Frog-tastic! 1½ hrs



Students will participate in a variety of activities followed by a search for frogs. Students will describe the basic requirements, adaptations, and life cycle of frogs. *Standards addressed: 2-LS4-1*

Who Lives in a Tree? ½-1 hr



Trees provide food and shelter to many animals. Students will develop an awareness of trees and some of the animals that live in them and make connections as to how plants help animals and animals help plants by pollination or by distributing seeds. They will also be challenged to develop a device using objects in nature that models how animals pollinate flowers. *Standards addressed: 2-LS2-2, 2-LS4-1, K-2-ETS1-3*

GRADE 3

Insect Sampling 1½ hrs



How do scientists sample insects? Are sampling methods different for terrestrial vs. aquatic insects? What are the life cycles of different insects? How do insects find their mates? Students will answer these questions as they collect and study insects from terrestrial or aquatic habitats. *Standards addressed: 3-LS1-1*

What's For Dinner? 1½ hrs



Students will learn about predator/prey relationships and strategies animals have developed to avoid being eaten. They will discover that some animals of the same species are better at surviving because they have slightly different characteristics that help them. They will define producers and consumers as they examine food chains and food webs. *Standards addressed: 3-LS2-1, 3-LS4-3, 3-LS4-2*

GRADE 4



Wetland Ecology 1½ hrs

Students will investigate wetlands by studying the soil, plants, and hydrology. Students will be able to describe the essential components of a wetland and classify them. They will also learn why wetlands are such important ecosystems. *Standards addressed: 4-ESS3-1, 4-LS1-1*



The Secret Life of Bees 1½ hrs

Students will learn the difference between bees, wasps and hornets. They will discover that bees have fascinating lives due to their ability to sense, process and respond to information in unique ways. They will also get an up close look at a honeybee hive. Bee behavior will be further understood through outdoor games and a nature hike to observe important plants for bees. *Standards addressed: 4-LS1-1, 4-LS1-2*

GRADE 5



Soil Science 1½ hrs

What *is* soil? How can soil be described according to texture? Does water move through different soil types faster? What kinds of organisms live in soil? Students will conduct an investigation to describe various soil types and compare percolation rates. *Standards addressed: 5-PS1-3, 5-ESS2-1*



Birds in Spring 1½ hrs

Spring is a busy time for birds. They are returning from migration, mating and building nests. Students will listen and look for birds and record the data, practice using binoculars and learn the names of some common birds.

GRADE 6



Pond Sampling 1½ hrs

Students collect data to discover fauna, and flora of a pond. Students will sample pH, dissolved oxygen, and temperature. We will discuss ways to make sure we are not negatively impacting the delicate ecosystem of a pond. *Standards addressed: MS-LS2-1*



Invasive Species 1½ hrs

What are invasive species? Are there any in the surrounding area? How can we slow down their invasion? Students will learn about some of the native, exotic and invasive species in our area and then investigate the surrounding area, looking for them.

GRADES 7-12

- Pond or Stream Sampling
- Honeybees & Pollinators
- Invasive Species
- Birds of the UP
- Suggest your own topic!

School should provide:

First aid kit

Chaperone (parent/teacher) for every 10 students.

Please discuss with students before their field trip:

- 1) Stay with your group leaders; don't wander off. Be able to see your group leaders at all times.
- 2) Don't litter (bring a plastic bag to pick up litter).
- 3) Be respectful of the space you are in, leave it as you found it for the next person to enjoy. Do not destroy plants or harm animals.
- 4) Field trip rules are often similar to playground rules: no pushing, shoving, rough-play; things on the ground stay on the ground unless instructed otherwise; etc.

Locations for Spring Field Trips:

- Michigan Tech Recreational Trails
- Nara Chalet and Preserve
- Maasto Hiito Trails
- Lake Linden-Hubbell School Forest
- McClain State Park
- Calumet Waterworks Park
- Calumet Lake/ Calumet Lions Park
- Black Creek Nature Sanctuary
- Baraga School Forest
- Ford Center and Forest (Alberta)
- Bessemer City Park
- Norrie Park
- Ottawa National Forest Visitor Center
- Lake Perrault
- Your school

The field trip program is coordinated by the Michigan Tech's Center for Science and Environmental Outreach and the Western UP Center for Science, Math and Environmental Education. It is funded in part by the Michigan Stem Partnership and the Wege Foundation.

