

# OUTDOOR SCIENCE INVESTIGATIONS FIELD TRIP PROGRAM: Grades K-8



# How to Schedule a Field Trip

To schedule a field trip complete an online <u>Fall Field Trip Request Form</u>. On the form, select a program, several dates, and a location. After we receive your request, we will schedule your field trip and will send you a confirmation letter. You can also access the link to the request form from our website at: <u>http://wupcenter.mtu.edu/education/fnftrip.htm</u>

Field trips are available to schools in the CCISD and GOISD school districts and cost \$30 per class per field trip. The CCISD will invoice each school at the end of the fall field trip season for a total number of field trips per school per season.

# Program Descriptions

Pre-K & Kindergarten



# Sense Detectives Duration: ½ hour-1hour

By listening carefully and looking closely, students use their senses to interpret the world around them as they discover the living and nonliving parts of the forest. After identifying what all living things need to survive, students will search the forest for some of these needs. *Michigan GLEC's*: SCI: S.IP.00.11-14; S.IA.00.12-14; L.OL.00.11-12



# Wildlife Is Everywhere! Duration: ½ hour-1hour

Students will make observations and conclude that wildlife is all around us. Next, they will compare the lives of wild and tame animals; and search the forest for the needs of wild animals. *Michigan GLEC's*: SCI: S.IP.00.11-14, S.IA.00.12-14, L.OL.00.11-12., SE.SE.00.11

# **GRADE 1**



# Bird Migration Duration: 1-1.5 hours

Students will examine the questions: Why do birds migrate? What are some of the challenges they face during migration? How are birds alike or different? *Michigan GLEC's*: SCI: S.IP.01.11-12,14; S.IA.01.12-14; L.OL.01.13,21;L.HE.01.11-12



# Weather Forecast Duration: 1-1.5 hours

Students will be introduced to different tools used to measure weather. They will observe and record the temperature, cloud cover, precipitation and wind. They will investigate ways plants and animals have adapted to different types of weather. *Michigan GLEC's*: SCI: S.IP.01.11-12,14; L.OL.01.13; E.ES.01.11-12, E.ES.01.21-24; E.ES.01.31-32

# GRADE 2



# To Be a Tree and Seed Get-Aways Duration: 1-1.5 hours

Students will investigate trees, focusing on what plants need to survive. They will describe the life cycle of familiar plants and compare the leaves and seeds of different trees. They will also participate in a scavenger hunt identify the different methods of seed dispersal. *Michigan GLEC's*: SCI: S.IP.02.11-12,14; S.IA.02.1-14; L.OL.02.14,22 L.HE.02.13



#### Soil Detectives Duration: 1-1.5 hours

Students will use sieves to investigate soil and determine what soil is made of. They will discover that there are many types, colors and textures of soil and conduct a mini-experiment to understand how erosion affects soil types differently. *Michigan GLEC's*: S.IP.02.11, S.IP.02.12, S.IP.02.13, S.IP.02.14, P.PM.02.14, E.FE.02.21

#### GRADE 3



#### Have to Have Habitat & Adaptations for Survival

Students will observe some of the unique structures and functions of organisms, investigate how plants and animals are adapted to their environments, and participate in multiple activities. *Michigan GLEC's*: SCI: S.IP.03.11-15; S.IA.03.11-15; S.RS.03.18; E.ES.03.52.

Duration: 1-1.5 hours



## The Physics of Flight Duration: 1-1.5 hours

Birds come in all shapes and sizes—ever wonder why? Students will explore bird feathers, wings and flight as they investigate the forces of lift and thrust, then conduct an experiment to see how mass and force are related. *Michigan GLEC's*: S.IP.03.1, P.FM.E.2, P.FM.E.3

#### **GRADE 4**



## Wildlife Signs and Survival Duration: 1-1.5 hours

Students will go on a scavenger hunt to look for signs of wildlife. Through two activities, "Oh Deer!" & "How Many Bears?", students will investigate factors influencing organisms' survival and population growth. *Michigan GLEC's*: SCI: S.IP.04.11-14; S.IA.04.12-14; S.RS.04.15,18; L.OL.04.16.L.EV.04.21-22.



## Spiders & Insects Duration: 1-1.5 hours

How are spiders different from insects? How are they similar? The students will learn about different types of spiders and insects while searching for webs, egg cases and other evidence. They will carefully record and analyze the data collected. Students will not handle spiders or insects. *Michigan GLEC's*: SCIS.IP.04.11-14; S.IA.04.12-14; S.RS.04.15,18; L.OL.04.16. L.EV.04.21-22; L.EC.04.11.21.

#### **GRADE 5**



#### **Tree Identification** *Duration: 1-1.5 hours*

Using guidebooks and dichotomous keys, students will use observations of leaves, buds, bark, tree silhouettes, and branch patterns to help identify native trees species. Students will also be introduced to measurement of tree height and diameter. *Michigan GLEC's*: SCI: S.IP.05.11-16; S.IA.05.11-15; L.EV.05.12; L.EV.05.21



#### Aquatic Macroinvertebrate Stream Study Duration: 1.5-2 hours

Students will collect, identify and inventory aquatic macroinvertebrates in one of our local streams. They will examine the organism's role in the food chain and as indicators of water quality in the environment. *Michigan GLEC's*: SCI: S.IP.05.11-16; S.IA.05.11-13; L.EV.05.11-12.

#### **GRADE 6**



#### Fabulous Fungi Duration: 1-1.5 hours

Students will learn what a fungus is and about its role as a decomposer is in the forest ecosystem. We will hunt for the fruiting bodies (mushrooms) of fungi and classify what we find according to the nine major divisions of mushrooms. *Michigan GLEC's*: S.IP.06.11-16; S.IA.06.11-13; L.OL.06.51-52. L.EC.06.22-23.



#### Magnetic Earth-Compasses & Orienteering

Students will learn how to use a compass and in the process understand that the reason compasses work is because of earth's magnetic field. They will also complete a mini-orienteering course to test their compass reading skills. *Michigan GLEC's*: E.SE.M.6, E.SE.06.62

#### Duration: 1.5-2 hours

## **GRADES 7-8**

#### Possible topics include:

# Aquatic Macroinvertebrate Stream Study

# **Bog and Wetland Ecology**

#### **Fungi and Decomposition Tree ID**

# Wildlife Signs and Survival

# **Possible Locations for Fall Field Trips:**

- Baraga School Forest
- Bessemer City Park
- Black Creek Nature Sanctuary
- Calumet Waterworks Park
- Calumet Lions Park

# School should provide:

- First aid kit
- Chaperones (parent/teacher) for every 10 students.

# Center will provide:

- Environmental science educator to lead the field trip
- All supplies needed for the field trip

# Appropriate Dress

The weather can be very unpredictable. Please monitor weather conditions before your trip and require your students to *dress accordingly*. Shorts and sandals are discouraged.

Ford Forestry Center

Maasto-Hiito Trails

McLain State Park

• Michigan Tech Trails

Lake Linden-Hubbell School Forest

# **Logistics & Cancellations**

- You will meet your presenter(s) at the field trip site (unless other arrangements are made).
- If the school needs to cancel a field trip (in case of severe weather), please call the Center at 487-3341 or send an email to the Science Field Trip Coordinator at least 2-3 hours in advance! The person who scheduled the field trip is responsible for making the decision to cancel a field trip due to weather.

# **Expectations for Student Behavior**

Please discuss with students before the field trip:

- Stay with your group leaders; don't wander off.
- Don't litter (bring a plastic bag to pick up litter!).
- Respect the plants and animals in nature. This is their home. Behave the way you would at your friends' house.

#### For more information, contact: **Brian Doughty** Field Trip Coordinator Bwdought@mtu.edu Cell: 248-798-4382 114 Great Lakes Research Center Michigan Technological University, 1400 Townsend Dr.

Houghton, MI 49931

Fax: 906-487-1029 Office: 906-487-3341









- Nara Nature Center
- Norrie Park
- Paavola Wetlands
- Your school
- Suggest a site!