Outdoor Science Field Trip Program
-January 5 to March 24, 2016-

How to Schedule a Field Trip:
Teachers should complete a Field Trip Request Form online. On the form, select a program, several dates, and a location. Your school is encouraged to schedule multiple field trips for different classes for different times on the same date. After we receive your request form, we will schedule your field trip and send you a confirmation letter.

When scheduling please be sure to allow enough time for us to get on snowshoes plus conduct the field trip. An hour is the minimum for a winter field trip. Ninety minutes to two hours is ideal especially for upper elementary.

Field trips are available to schools in the CCISD and GOISD school districts. The field trips are $30 per class (up to 30 students). The CCISD will invoice each school at the end of the season for the total number of field trips for each school during that season.

Program Descriptions
Snowshoeing is part of all field trips, as long as conditions permit! AND we have new snowshoes for tiny K-2 feet!

Pre K-K

**Gravity and Forces (1-1.5 hrs)**
Students will investigate the push and pull forces on the snow-covered ground. They will also participate in sled activities involving friction and gravity. **GLEC’s:** S.IP.00.11-14; S.IA.00.12-14; L.OL. 00.11-12

**Let it Snow! Let it Melt! (1-1.5 hrs)**
What makes snow and ice melt? Students make observations and draw conclusions about what makes ice melt as well as begin to understand the properties of and differences between solids and liquids. **GLCE’s:** S.IP.00.11; S.IP.01.11; P.PM.01.21; E.ES.01.11

GRADE 1

**Camouflage (1-1.5 hrs)**
What are two local animals that wear a white winter coat? We will take a closer look at these animals and how they are adapted for life in the snow. **GLEC’s:** S.IP. 00.11-14; S.IA.00.12-14; L.OL.00.11-12

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GRADE 2

**Stupendous Snowflakes (1-1.5 hrs)**
Why do snowflakes have so many neat shapes? Students will learn how snowflakes form and catch snowflakes for close observation. They will discover that snowflakes have six sides, and then create their own snowflake models out of sticks and snowballs. **GLEC’s:** S.IP.02.11; S.IP.02.14; S.RS.02.11; E.FE.02.13,14.

**Winter Warmth (1-1.5 hrs)**
How do the animals in our forests keep warm on freezing cold winter days? Students will perform experiments using different types of animal insulation (feathers, wool, fur and lard) to discover techniques various animals use to keep warm. **GLCE’s:** SCI: S.IP.02.11; S.IP.02.13; S.RS.02.11; SOC: G5.0.2

GRADE 3

**Beneath the Snow (1-1.5 hrs)**
Is there anything living under the snow? Actually, there is a flurry of activity occurring beneath the surface! Students explore this winter world, searching for signs of animals on the snow, in galls, under bark, and beneath the snow. **GLCE’s:** SCI: S.IP.03.11-16; S.IA.03.11-14; S.RS.03. 18; L.OL.03.32; L.EV.03.12; E.ES.03.52. SOC: 3-G5.01-02
Winter Birds (1-1.5 hrs)
How do birds cope with the cold? Some birds migrate out of our area for winter, some migrate in, and some stay here year-round. Students will learn the names of some of our winter birds and a variety of survival techniques they use. Students will also search for signs of birds. **GLCE’s:** S.IP.03.11-14,16; S.IA.03.11-14; S.RS.03.18; L.OL.03.32; L.EV.03.12; E.ES.03.52. **SOC:** 3-G5.01-02

GRADE 4

Best Insulator (1-1.5 hrs)
Which socks should you wear to play outside? The cotton, wool, fleece or quilted? Students will test the insulating qualities of these different materials. They will collect data and create a graph of their findings. **GLCE’s:** S.II.04.11-16; S.IA.04.11-15; S.RS.04.14-17; P.PM.04. 53. **MAT:** M.UN. 04.01-03; D.RE.04.01-03

Winter Food Webs (1-1.5 hrs)
Where do small mammals live in the winter? How do they stay warm and what do they eat? Students will identify winter food webs and search for signs of animals. **GLCE’s:** S.IP.04.11-16; S.IA.04. 11-15; S.RS.04.14-15,18; L.OL.04.16; L.EV.04. 21-22.

GRADE 5

It’s Snow Good (1-2 hrs)
Investigate the characteristics of that wonderful white substance that falls around us for months on end. Students will take measurements of snow volume at various depths and look closely at melted snow. Students will also participate in a snow scavenger hunt. **GLCE’s:** S.IP. 05.11-16; S.AI.05.11-15; S.RS.05.11-13.

Track & Tale (1-2 hrs)
Finding tracks in the snow not only allows us to guess what critters passed by, but also what might have been happening at the time. Was there a chase? Was a rabbit nibbling quietly? What other types of animal sign can tell a story? **GLCE’s:** S.IP.06.11,13, 16; S.AI.06.11-13,15; S.RS.06.11-13,17; L.EC.06.21

GRADE 6

Winter Populations (1-2 hrs)
Students will investigate how white-tail deer populations are affected by winter. What other animals make up the surrounding forest community and how do these animals interact in winter? **GLCE’s:** S.IP.06.11-16; S.AI.06.11-15; S.RS.06.11-16; L.HE.06. 11; L.EV.06.11-12. **MAT:** N.ME.06.08-09; N.MR.06.22, M.TE.06.03

Winter Survival (1-2 hrs)
Students will practice team building and survival skills as they work together to decide from a list of items that would be most useful: whistle, compass, tarp or tin can? We will explore the concept of “wind chill” and learn techniques for building a winter shelter. **GLCE’s:** S.IP: E1.1C-1E,1H; E4.P2B; E4.3A. **MAT:** A.RP.08. 01-02; D.AN.08.02.

GRADES 7-8 (All Field Trips 1-2 hrs)

**Physics of Snow**
Discover why snow and ice can take so many forms, from icicles, to drifts, to sheets of ice, to snowflakes.

**Wildlife Signs**
Students will search for tracks and other signs of animals and interpret what they find.

**Winter Survival**
How do animals adapt to the cold and find food, water and shelter? Students will participate in a variety of activities focusing on animal adaptations and survival.

**Winter Plants**
Students will identify various plants commonly seen in our winter landscape and explore their importance to wildlife, insects and humans.

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Field Trip Request Form
Important information:

**Appropriate Dress:**
All students **MUST** wear: hat, mittens or gloves, winter coat, snow pants and/or long underwear & winter boots (no tennis shoes!!)

Due to the added risk of being outdoors in the wintertime, the above dress is **required.** Field Trip leaders have the option to not allow students to participate, if they are not appropriately dressed.

**Meeting Location & Cancellation Policy:**
You will meet your presenter(s) at the field trip site, unless other arrangements are made. The Center will not cancel any field trips due to weather, it is the responsibility of the teacher to decide if a field trip should be cancelled. **To cancel a field trip, please call the Field Trip Coordinator at (906) 370-1052 at least one hour in advance (two hours for Gogebic/Ontonagon schools).**

**Locations for Winter Field Trips:**
- Lake Linden-Hubbell School Forest
- Swedetown Ski Chalet
- Maasto Hiihto Ski Chalet
- Nara Chalet & Preserve
- Ottawa National Forest Visitor Center
- Paavola Wetlands
- MTU Ford Forestry Center
- Wolverine Ski Trails
- Your school
- Suggest a site (**warming hut required**)  

**For more information, contact:**
Marcy Erickson, Field Trip Coordinator  
Email: maericks@mtu.edu  
Phone: 906-487-3341 (office)  906-370-1052 (cell)

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**The Western U.P. Center for Science, Mathematics & Environmental Education** is a partnership of Copper Country & Gogebic-Ontonagon Intermediate School Districts and the Michigan Tech Center for Science & Environmental Outreach serving schools and communities in Houghton, Baraga, Gogebic, Ontonagon and Keweenaw Counties.

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