

ED GEO Workshop
Thursday, May 27th to Sunday, May 30th, 2010
Star Lake Field Station, Whiteshell Provincial Park

Introduction

EdGEO is a program designed by geoscience professional to promote Earth Science education and provide teachers with enhanced Earth science knowledge, classroom resources and increased confidence. By providing educational opportunities for today's teachers and, through them, their students, EdGEO seeks to cultivate a heightened awareness and appreciation of our planet. The expected result is an improved capacity on the part of Canadians to understand the Earth and to make wise decisions, especially with regard to the use of its mineral and energy resources, the maintenance and remediation of the environment, and response to geological hazards.

EdGEO is coordinated by the Canadian Geoscience Education Network of the Canadian Geoscience Council (CGC) and currently funded by CGC, the Canadian Society of Petroleum Geologists, the Geological Association of Canada and the Mineralogical Association of Canada.

Workshop Focus

Earth and space science represent one of four clusters that were part of the Pan Canadian Protocol on Science Education in Canada. Manitoba has adopted the curriculum structure developed in that protocol including the K-S2 component of the Earth and space science cluster. The success of previous EdGEO workshops seems to have been its focus on early years curriculum-based topics and outdoor activities.

The planned EdGEO workshop must be:

1. Curriculum based
 - a. program must respond to the specific learning outcomes in the Manitoba Curriculum Framework of Outcomes
 - b. increased knowledge of material to support the specific learning outcomes
 - c. development of applications useful for classroom instruction
2. Outdoors based
 - a. the answers are in the rocks (i.e., outdoors is the best place to learn Earth science)

Using the grade four science curriculum as a basis for the development of EdGEO 2009 the topics include minerals (4 outcomes), rocks (3.5 outcomes), fossils (2 outcomes), soils (2.5 outcomes) and landscapes (2 outcomes). These topics also overlap at least some of the grade seven curriculum.

Workshop Committee

1. Jeff Young, Department of Geological Sciences, U of M
2. Jim Bamburak, Manitoba Geological Survey
3. Bill Mandziuk, Department of Geological Sciences, U of M
4. John Murray, Manitoba Education
4. Graham Young, Manitoba Museum
5. Karen Mathers, TetrES Inc.
6. Nancy Chow, Department of Geological Sciences, U of M

Preliminary Workshop Program

Day 1

Leave Wallace at 6:00 p.m.
Introductions and mixer

Day 2 (Lecture: 4.5 hours / Field trip: 2.25 hours)

8:30 to 10:00 Minerals (Jeff Young)
10:00 to 10:30 Coffee
10:30 to 12:00 Rocks (Jeff Young)
12:00 to 1:00 Lunch
1:00 to 3:15 Field Trip - discussing concepts from morning and collecting
 (a) minerals: feldspar, quartz, garnet, magnetite
 (b) rocks: igneous – granite, lavas; sedimentary - conglomerate; metamorphic - gneiss
3:15 to 3:30 Coffee
3:30 to 5:00 Fossils (Graham Young)
6:00: Supper
8:00: Geology of Manitoba: slide show

Day 3 (Lecture: 4.25 hours / Field trip: 3.5 hours)

8:30 to 10:00 Soils and Water (Karen Mathers)
10:00 to 10:15 Coffee
10:15 to 12:00 Earth Resources (Jim Bamburak)
12:00 to 1:30 Lunch
1:30 to 2:30 Applications to Curriculum (John Murray)
2:30 to 5:00 Field Trip
 (a) landscape development and geologic history
 (b) earth resources
6:00: Supper
8:00: Geology of Manitoba: slide show

Day 4 (Lecture: 0 hours / Field trip: 7 hours)

9:00 Leave field camp to return home / Geologic History of Manitoba
 (a) Pillow lavas: lavas and glaciation
 (b) Lily Pond: metamorphic rocks
 (c) Milner Ridge: glacial deposits
 (d) Garson: Ordovician age limestone - fossil collecting and geologic history
5:00 arrive at Wallace

In Class: 9.75 hours

Field trips: 11.75 hours

Total: 21.5 hours