

Issue 7
May 2004



EdGEO

News from the National Workshop Program

Teachers Enthusiastic About Earth Science!!!

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EdGEO's mandate is "to provide teachers with classroom resources, and confidence through knowledge and hands-on activities, to enhance their ability and enthusiasm to teach the earth science components of the curriculum".

I thought it would be useful and inspiring to share some of the comments from teachers who attended the EdGEO workshops held in 2003 across Canada. Here is a sampling of what the teachers are saying.

This course gave me some really great ideas and things to do since I have no science background. Thank you!
Calgary Feb 2003

The single best workshop I have ever attended. Wow! Can't wait to play with my resource materials and use them in the classroom.
Nova Scotia Aug 2003

It was just a top notch workshop with so much to take home to our students. The sponsors are to be thanked for this opportunity to educate educators.
Drumheller July 2003

Hands-on simple explanations followed by 'hands-on' examples. Rock samples with explanations will be great for educational purposes when teaching in the future.
Edmonton Jun 2003

Excellent demonstration ideas that have been classroom tested. Please keep offering these types of workshop for teachers.
Vancouver GAC/MAC May 2003

Looking forward to trying these activities with my students. I liked the use of activities to demonstrate how to reach outcomes.
Resolute, Nunavut Mar 2003

Very exciting and interactive. Presenters did a fantastic job.
Iqualuit , Nunavut Mar 2003

Many possible lessons can be created from the information passed onto us ... very good treatment and atmosphere.
Cambridge Bay, Feb Nunavut 2003

Excellent and informative handouts; wonderful rock and mineral kits to take back to the classroom.
Edmonton Dec 2003

I was blown away! The timing was fantastic as was the knowledge base of the experts. I enjoyed the hands-on approach of viewing formations up close on the fieldtrip, rather than in pictures.
Yoho Burgess Shale August 2003

Thanks so much to all of the teachers and geoscientists who presented and organized workshops in 2003 and thanks to our sponsors CSPG, CGC, MAC and GAC. Your efforts, hard work and support for Canadian young people are greatly appreciated.

Published by the
National EdGEO
Workshop Program

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EdGEO is coordinated by
the Canadian Geoscience
Education Network of the
Canadian
Geoscience
Council



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Petroleum Geologists



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EdGEO Website www.edgeo.org (application & report forms online, other links)

Importance of Rocks and Minerals in our Lives

Historically, humans have used rocks and minerals for just about every conceivable purpose. One million years ago, during the Stone Age, early people used rocks and minerals for tools, weapons, and building material. Since that time, we have found more and more uses for these natural resources.

Every product that we use comes from either plant, animal, mineral, or a combination of the three. By far the most common product source is mineral. Even products that are not made from minerals directly are made from metal machines (metal is made from minerals). It is estimated that each person will use an average of 16 000 to 18 000 kg of rock and mineral products each

year! In a lifetime, the average person will use 350 kg of lead, 380 kg of zinc, 680 kg of copper, 1 450 kg of aluminum, 41 000 kg of iron and steel, 250 000 kg of coal, and over 500 000 kg of stone, gravel, cement and clay. The computer industry alone uses almost every type of mineral mined today for either hardware or software, and we are finding more uses for mineral products every day.

The table that follows shows many of the more common rock and mineral uses. This list is by no means complete and you and your students should be able to easily add onto it.

Rock or Mineral Name	Use to Humans
Quartz	Glass, sand, gems, radio transmitters, silicon chips, quartz crystals for computers and watches, lenses for glasses, binoculars and telescopes
Halite	Table salt, soap, fertilizer
Fluorite	Fluoride for toothpaste
Corundum	Gemstones (sapphires, rubies), sandpaper
Clay	Bricks, pottery, ceramics, tiles
Marble	Building stone, monuments
Oil	Fuel, plastic

First Ever Nunavut EdGEO Workshops

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Geoscience is slowly making its way into Nunavut schools. In 2003 during the regional teacher conferences in Nunavut, the Dept. of Economic Development and Transportation (DEDT) (formerly the Dept. of Sustainable Development) teamed up with

EdGEO, the Dept. of Education (DE), Kitikmeot Corp. and the NWT and Nunavut Chamber of Mines to deliver 5 workshops to a total of 25 teachers, that were focused on Grades 4-6 rocks, minerals and erosion units.



The objective of the workshops was to raise teacher awareness and comfort levels in geoscience through Nunavut and Inuit-relevant curriculum-based knowledge and hands-on activities. Workshops were presented in a fun and interactive way and teachers showed exceptional interest and were thrilled with the resources provided. Teachers left the workshops feeling enthusiastic and motivated to try the activities with their students.

In an upcoming territory-wide teacher conference scheduled in 2005, the DEDT, DE, EdGEO, and in addition PDAC's Mining Matters, will collaborate to deliver geoscience workshops targeting elementary and high school teachers. Low workshop enrollment was a problem in 2003 primarily because there were plenty of concurrent workshops with which to compete. To help address this problem, we will begin marketing the workshops in September. Thank you EdGEO for your support.

Geoscape Community Guides: Exploring How Communities “Live off the Land”

Bob Turner - Geological Survey of Canada, Natural Resources Canada, bturner@nrcan.gc.ca

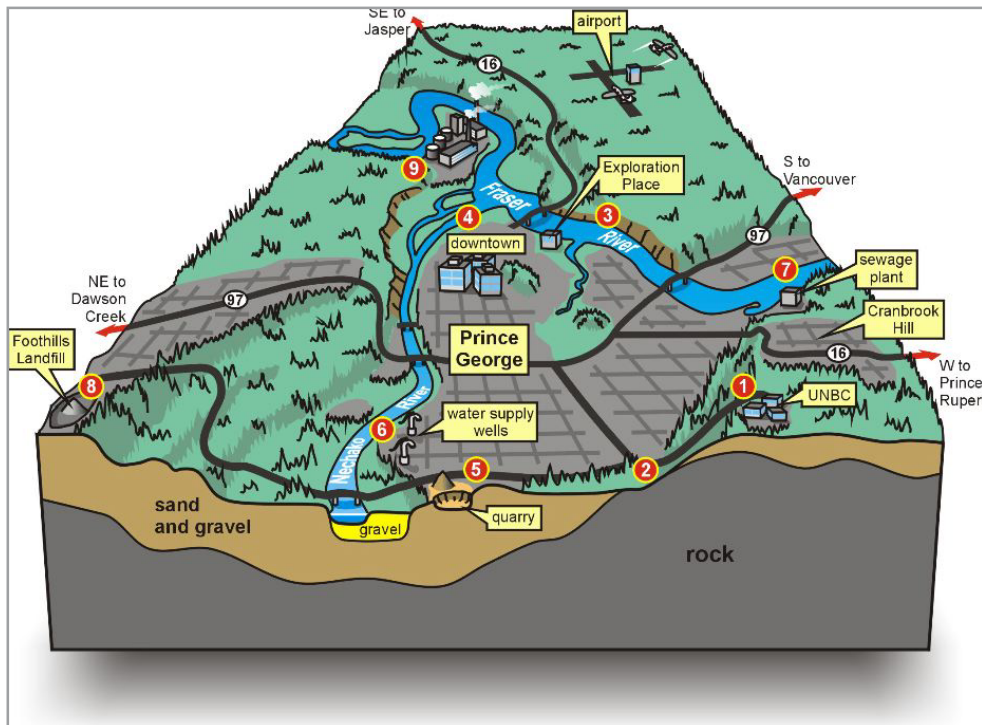
Geoscape is a Natural Resources Canada initiative that focuses on connecting Canadians to their local landscape...or Geoscape. Graphics- rich posters have been developed for numerous cities and regions across the country i.e. Vancouver, Victoria, Whitehorse, Calgary, Edmonton, southern Saskatchewan, Ottawa, Toronto, Montreal, and Quebec City (see www.geoscape.nrcan.gc.ca) and more are on the way (i.e. Nanaimo, B.C.; Grand River Basin, Ont.; Halifax, NS). However, the effort it takes to produce such a poster limits production to major cities and regions across Canada.

So how do we connect Canadians to their communities faster and get more communities involved? How do we increase Canadians understanding that their community “lives off the land”. A new template is being developed for a community Geoscape guide that a class, as a research project, could do for their own community. Student research would be based on interviews with local community “experts” (public works manager, gas retailer, hydro, etc.), could draw on identified internet resources, and would research specific questions. Where does our

water come from? Where does our sewage and garbage go? Where does our energy (e.g. gasoline, natural gas, electricity) come from? What local resources do we depend on?

Presently, local geoscape guides are being developed for several towns in northern BC by Natural Resources Canada and The Exploration Place science center

in Prince George. Charlie Roots is developing a community geoscape guide for Dawson City, Yukon. Dave Mate is attempting to foster interest in the development of other community guides by science centers across Canada through NRCan’s Science in the Centre’s liaison with the Canadian Association of Science Centres.



EdGEO Participants Attend GeoSciEd IV

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Two teachers from Pond Inlet in Nunavut participated in the GeoSciEd IV Earth Science International Conference in Calgary in August 2003. They were Rhoda Atagootak, a high school teacher and Carmen Kyak, an elementary school teacher. Funding for the teachers was provided by the Dept. of Economic Development and Transportation (formerly the Dept. of Sustainable Development) of the Government of Nunavut and the Dept. of Lands and Resources of Nunavut Tunngavik Inc.

Educators and geoscientists, from around the world, that deliver earth science programs in classrooms, communities,

museums or science centers attend this conference. Rhoda and Carmen were able to share new ideas and concepts with fellow colleagues from around the globe, and participated in technical workshops and fieldtrips. Rhoda and Carmen also realized at the conference that they were not alone in the challenges involved in delivering geoscience to their students.

These teachers were selected to attend the conference because they had shown exceptional interest in geoscience during an EdGEO earth science teacher workshop. Carmen and Rhoda strongly encourage any teacher to attend a similar conference in the future.



Geoscape Ottawa - Gatineau

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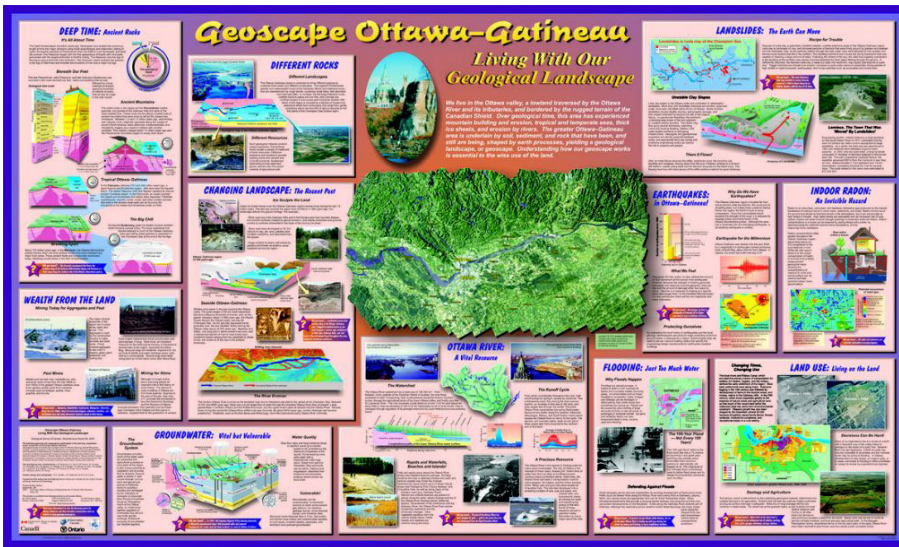
The latest poster in the highly successful Geoscape series was launched April 22, 2004 to an enthusiastic audience of grades 7, 8, and 11 students at Notre Dame Secondary School in Ottawa.

Geoscape Ottawa-Gatineau-: Living with our geological landscape is a colourful, large format poster produced by the Geological Survey of Canada (GSC) of Natural Resources Canada for a broad audience of general public, teachers and students, planners and geoscientists. This poster uses over 40 diagrams, maps, and photographs to illustrate the geological history of the region from the dawn of time to the present and to explain

how these events shaped the landscape, created resources, and cause natural hazards. A satellite image of the Ottawa valley is surrounded by topic panels: Deep time, Different rocks, Wealth from the land,

Changing landscape, Groundwater, Ottawa River, Flooding, Landslides, Earthquakes, Radon Gas, and Landuse.

The poster is available, in English or French, through GSC sales offices and on the Internet at <http://geoscape.nrcan.gc.ca>. Resource kits with lesson plans to facilitate the use of the poster in the classroom are currently being prepared by the GSC and local teachers, with funding provided by Ontario Youth Science and Technology through the Ontario Ministry of Energy, Science and Technology.



A New National Poster Series - Waterscape Canada!

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Waterscape Canada is a new national poster series that discuss important water issues for communities and regions across Canada. The posters highlight how this vital resource use is used in the community, the science of local surface and groundwater systems, and best practices for conservation and protection of the water resource. Each poster is developed by NRCan in partnership with local representatives of federal, provincial, watershed, and municipal agencies with responsibilities for water and land use, community groups, and educators. The poster series is modeled after the NRCan *Geoscape Canada* (www.geoscape.nrcan.gc.ca) and climate change (www.adaptation.nrcan.gc.ca) poster series.

The series was piloted on Bowen Island, B.C. and the Gulf Islands, B.C. and the draft content of these posters is available at www.bowenidland.info/waterscapes. A poster is currently being developed for Calgary and the Bow River Basin, and an Okanagan Basin poster is under consideration. The posters create an opportunity to explain water issues to Canadians from an earth science perspective.

