mineralsed connections

Mineral Resources Education Program of BC

In this issue

- New MineralsEd Website!
- MineralsEd Fall Pro-D Events
- Mining in the News
- Involve Your Students

Connect with us

Sheila Stenzel, Director Andreea Suceveanu, Coordinator

E: info@MineralsEd.ca P: 604.682.5477 F: 604.681.5305 900 - 808 W Hastings St. Vancouver, BC V6C 2X4

www.MineralsEd.ca

Welcome Back to School!

We hope you had a great summer and are looking forward to another enriching year for you and your students! We are excited to continue supporting you in teaching mining, geology and Earth science related topics.

MineralsEd kicks things off in September with the launch of our new website. (Page 1 & 3) In October we are offering two Pro-D teacher field trips: the *Natural Resources in Vancouver Harbour Cruise*, and a tour of *Copper Mountain Mine* (Page 2). For your students, we have a new MineralsEd-developed activity book, *Minerals in Your Home*, that explores all the things at home that come from mining (Page 2). We are also launching our new guest speaker program, *Coal Then & Now*, and a new classroom workshop for intermediate grades, *Junior Geologist* (Page 4). Read on for all the details.

New MineralsEd Website!

What did you do in anticipation of the new school year? New shoes? Haircut? New supplies? Review your binders? Buy new posters? To help you and your students get off to a good start, we have launched a new website.

MineralsEd.ca has a new look and new functionality. It is better organized, easier to explore and easier to read! We have added an Events Calendar so you can see Pro-D events and other educational opportunities that are coming up, and Quick Links to help you find things like our Workshop/Field Trip Travel Subsidy Application. Registrations for all of our Pro-D events, student programs, and requests for guest speakers and classroom workshops, will be done through forms directly on our site.

In keeping with the migration to mobile devices, the new site is designed to be suitable for viewing on smartphones and tablets. And in keeping with current methods of communication with our audience, MineralsEd.ca now also features our Social Media streams, plus a new Blog for sharing information and stories that will be of interest to you.

The heart of our new site is the Learning Resources section, featured on Page 3. We encourage you to bookmark MineralsEd.ca as your go-to source for Earth Sciences, mineral resources and mining education.

By teachers, for teachers.

MineralsEd Fall Pro-D Events

FIELD TRIPS

Natural Resources in Vancouver Harbour Cruise FRIDAY, OCT. 20, PROVINCIAL PRO-D DAY

MineralsEd and the North Shore Waterfront Industrial Association are once again partnering to offer a boat tour of Vancouver harbour to learn about Canada's natural resources and the economy. Mineral concentrates, sulphur by-product, potash, wood products, grains and coal, that are produced in BC and other parts of Canada, are exported in bulk from the Port of Vancouver to markets around the globe. They provide the world with raw materials and drive our economy. This half-day cruise will loop around Burrard Inlet for a close look at many of the terminal operations. Representatives from several of them will be on board to share their knowledge and expertise about natural resources and the port industry.

Canada 150 Celebration registration fee \$25 until Oct. 6, and \$35 fee thereafter. Register through Eventbrite: https://mineralsed-harbour-cruise.eventbrite.ca.

Copper Mountain Mine Tour FRIDAY, OCT. 20, PROVINCIAL PRO-D DAY

MineralsEd is partnering with Copper Mountain Mining Corp. to offer a Pro-D field trip for Lower Mainland and Princeton-area teachers. Copper Mountain Mine, located near Princeton, is an open pit copper operation that reopened in 2011, but which has been a site of mining since 1923. This full-day field trip will include bus transportation from Vancouver to the site and a tour of the pit operations, the machine shop, the mill, and the tailings facilities. Currently, 400 people are employed at the mine in a wide range of jobs from accountants to equipment operators to welders. Join us for this unique opportunity to learn firsthand from the people that work in the industry about the mining process, modern mining practices, the workforce, and the importance of this operation to the region.

Registration fee \$25. Deadline: Oct. 6. Register through Eventbrite: https://cu-mtn-mine-tour.eventbrite.ca.

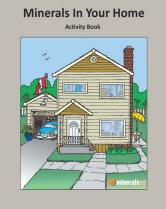
NEW MINERALSED ACTIVITY BOOK: Minerals in Your Home

Have you ever wondered what something is made of, or where it comes from? It's a big question, but also a very important one. Whether it's food or clothing, toys, cars, or electronics, *everything* we have is made from Earth's natural resources.

Minerals are non-renewable natural resources, that are extracted from the Earth's crust through mining. We use things made from minerals every day. In fact, your house is full of things that could not exist without mining.

This new activity book takes a close look inside each room at home and uncovers the many products that are made from mineral resources that come from mining. Learn where minerals come from, how to tell what is made from mineral resources, how essential they are to our everyday lives, and what we can do to conserve these non-renewable resources.

The activities will help students build new vocabulary and understanding through reading; they include: find and name, fill in the blank, and a word scramble. Two versions of the book were developed, for primary and intermediate reading levels. View the PDFs on our website. Order a class set through our new <u>online store</u>. Cost \$0.50 each.



MineralsEd.ca

About Us

Learning Resources

Pro-D Even

Contact Us

A peek at our top navigation (above) highlights the heart of the new MineralsEd.ca: Learning Resources.

Here, under Teacher Resources, you will find complete information on *MineralsEd's* K-12 resource units (kit contents and curriculum ties), our guest speaker programs, including the new *Coal Then & Now* program, in-class workshops for your students, including *Junior Geologist*, an Online Store from which you can order select *MineralsEd* materials, a roster of hyperlinked field trip destinations, and our Subsidy Application form.

Mining 101 is the place to go for you and your students to learn about the mine development cycle, types of mining operations, and mineral processing methods. Here you will also find our career series books for young learners: *I am an Exploration Geologist, I am an Environmental Scientist* and *I am a Mining Engineer*, plus our newest activity book, *Minerals in Your Home*. The Virtual Library is an exciting new feature that makes accessible a host of accurate and useful web-based education resources, vetted by us, and organized into easily navigable tables. The Virtual Library includes resources that address topics in Earth Sciences, Mineral Resources, Mining, Environment and Sustainability, and Career Education. Nearly all of the video resources are also linked to our new Youtube channel, and here you will also find *MineralsEd's* resource unit binders (secondary level) and geotour guides available free by download.

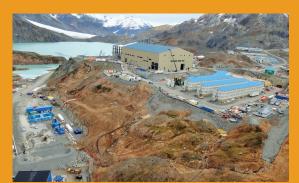
Finally, the BC Mines Map, our interactive, Googleplatform map that shows the locations of all the metal, coal and industrial mineral operations in BC, each one linked to detailed profiles. This is a great tool that places mineral resources in the context of BC's geography and the geology of the Cordilleran, and is a great place to direct your students learning about BC's mineral resources.

MINING IN THE NEWS: Brucejack Mine Opens

Brucejack Mine is BC's newest mine. It is remote, situated in the alpine at 1300m and located ~65 kilometres north of Stewart.

Brucejack is an underground operation that mines gold and silver localized in quartz-carbonate veins in a near vertical, 20-50 m thick wide ore body. The method used to extract the ore is *long hole stoping*.

Vancouver-based Pretium Resources acquired the property



in 2010, and carried out extensive drilling to define the ore body (some 200,000 metres in 900 drill holes). Permitted construction began in 2015 and was completed this year at a cost of \$881M. Brucejack Mine produced its first gold pour in June 2017.

Hundreds of workers were required to construct this mine. At full production Brucejack will employ 350 people, half on site at any given time. Employees at the mine come from nearby communities and from long distance. All live in permanent camp housing at the mine while on shift where all meals are provided, as are most of the comforts of home.

Involve Your Students

New Guest Speaker Program: Coal Then & Now

Enrich your mining units by inviting a guest speaker from the Western Canadian Coal Society to give a classroom presentation on coal mining, past and present. Metallurgical coal is currently BC's main mineral export. This new presentation is for intermediate classes learning about BC's mineral resources, and will be of special interest to those classes that are completing a historical novel study of Pit Pony. It is also relevant to, and can be customized to support, secondary Earth Science and Geology courses. Currently available in the Lower Mainland only. Request a guest speaker through our website: https://tinyurl.com/y9fkgw9a

MineralsEd partner-teachers Wanda Pickell and Andi Eisler present this brand new hands-on workshop for intermediate students to explore rocks and minerals. Students will learn about: Minerals as the ingredients in rocks • How to identify minerals by their properties • The rock cycle, and how the physical properties of rocks tell where and how they formed • About rocks and minerals as non-renewable resources, and • How the properties of rocks and minerals determine how they are used. Available in the Lower Mainland, and across the province by special request. Mornings only • 3 hours • \$6/student • Minimum \$120/class • For more information and to book a workshop visit our website: https://tinyurl.com/ya4aspcm

WHERE Challenge Contest

What on Earth is your stuff made of? And WHERE on Earth does it come from? The WHERE Challenge invites youth (ages 9-14) from across the nation to develop projects that feature the non-renewable mineral ingredient(s) of a familiar and valued object, and explain where those ingredients come from.

All projects are submitted digitally, and all forms of projects included writing, drawing, video, music are acceptable. Contest opens in September; submission deadline March 2018. Cash prizes for winning entrees. www.earthsciencescanada. com/where/

Port Moody Rock & Gem Show 2017

Mark your calendars for 150 Rocks - Celebrating Canada through our Rocks and Minerals, this club's one- of-akind show taking place October 28th & 29th at Kyle Centre in Port Moody. What a special way to celebrate Canada's sesquicentennial with a display of 150 unique and iconic rocks from across the country and their stories. www.portmoody.rocks/150Rocks.php

Travel Subsidies

Travel subsidies are available from *MineralsEd* for class field trips to geoscience or mining destinations and for Yukon Dan workshops. Download the application at: https://tinyurl.com/ybmtuorx.

Switch to e-mail! We will be phasing out the print version of MineralsEd Connections. To continue to receive Connections electronically as well as our monthly e-updates, request the switch at info@MineralsEd.ca.

New Classroom Workshop: Junior Geologist







