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New Name, New Look, Same Folks

Welcome back to the classroom! We hope your summer was as exciting and productive as ours. As you may have already noticed, the *Mineral Resources Education Program of BC* has a fresh look and a new name: **MineralsEd**. This change is a celebration of long-standing partnerships with the teachers who guide our work and with BC's minerals industry. Earth science and mining education plays a critical role in fostering well-informed, responsible global citizens. For this reason we remain committed, as we have for 21 years, to supporting BC educators in teaching these important subjects in school.

MineralsEd Connections will be delivered through Fall and Winter issues as well as **new monthly e-updates** highlighting resources, upcoming deadlines and special events. You can also now find us on Facebook and Twitter. Read on to see what we have prepared for you this Fall. Enjoy!

MineralsEd Pro-D Events

WORKSHOPS

MineralsEd will be presenting three elementary workshops at the VSB on October 19. Registration is through the VSB web site: www2.vsb.bc.ca/vsbprograms/Prod/Province-wide+Pro-D+Day.htm. *Deadline: October 12.*

A \$50 per teacher registration fee applies for each workshop.



K-3 Integrated Resource Unit: Kids and Rocks

This interactive workshop, delivered by *MineralsEd* partner-teacher Ann Brace, introduces this outstanding integrated unit built around the theme of rocks. Fun, hands-on activities and lessons engage children in learning across the curriculum (science, safety, personal planning, art, music) and develop their reading and writing skills along the way!

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By teachers, for teachers.

MineralsEd Pro-D Events

Gr. 5 Integrated Resource Unit on Mining

This hands-on workshop, delivered by *MineralsEd* partner-teacher Andrea Eisler, presents an overview of this cross-curricular resource (social studies, science, language arts, etc.), and shares practical examples on implementation.

Gr. 7 Resource Unit: Earth Sciences

MineralsEd partner-teacher Kerry Lockwood presents our newest unit which offers a collection of engaging activities to help you teach the fundamentals of geology, plate tectonics and Earth's history.

MineralsEd workshops provide each teacher with a comprehensive, ready-to-use kit that includes a 300+ page binder with activities, multi-media classroom resources, posters, teaching rock sets, and more!

FIELD TRIPS

MineralsEd has organized four great pro-d field trips in various areas of BC on October 19. *Deadline: Oct. 5.* A \$25 per teacher registration fee applies. Register at: www.MineralsEd.ca/s/TeacherFieldTrips.asp.

Nanaimo GeoTour

MineralsEd is partnering with VIU geoscientists, Steven Earle and Kim Stokes, and GSC geoscientist, Malaika Ulmi to present Nanaimo area teachers with a great opportunity to become familiar with the local geoscape, learn about regional geology, coastal processes, glaciation, groundwater resources and the area's coal mining history.

New Afton Mine Tour

MineralsEd is pleased to partner with New Gold Inc. to offer a pro-d field

trip for Kamloops area teachers to learn how the New Afton Cu-Au ore is mined underground and how this new mine, located on the site of the historic Afton mine, operates. Join us to understand how this important operation impacts the region.

Stanley Park GeoTour

MineralsEd is partnering again with GSC geoscientists Bob Turner and Marianne Quat, and partner-teacher Chris Loewen to lead this popular field trip to explore the local geology and geological processes that shape Stanley Park. Ideal for those teaching topics in Earth Sciences and those wishing to lead a similar trip for students.

Willow Creek Mine Tour

MineralsEd partners with Walter Energy's geologist Laura Avery to bring this unique pro-d for SD 59 teachers (on October 23). This field trip is intended to introduce the coal mining process, geological processes and the economic, social and environmental impacts of coal mining in the region.

MineralsEd field trips are unique, first-hand learning experiences that are, in collaboration with industry experts, carefully tailored to showcase regional geology and mining to help you teach these topics to your students.

MineralsEd in your community

MineralsEd delivers half-day pro-d workshops all across BC for these units:

- K-3 Integrated Resource Unit: Kids and Rocks;
- Grade 5 Integrated Resource Unit on Mining;
- Grade 7 Resource Unit: Earth Sciences;

- Discovering Diamonds (senior secondary unit by *Mining Matters*).

Details on units and kit contents: www.MineralsEd.ca/s/ResourceUnits.asp. Request these workshops in your district! Contact us at info@MineralsEd.ca or 604-682-5477.

Involve Your Students!

Kids & Rocks classroom workshop

Partner-teacher Ann Brace brings this hands-on workshop for K-3 students to explore rocks, their properties, what they are made of and how they formed. They observe, test, touch, sort, and classify. *Kids & Rocks* is currently available to Lower Mainland schools only. • Bookings start mid-October to early December, 2012 • Grades 1 - 3 doing rock units will be given preference in the Fall • 2.5 - 3 hours; mornings only • \$5.00/student, min \$100.00/class • 2-3 parent helpers • To book: www.MineralsEd.ca/s/ClassroomWorkshops.asp or 604-682-5477.

CAREER EDUCATION SUPPORT

The modern minerals industry is broad-based, multi-disciplinary and requires individuals with vastly different talents and skills. There are excellent career opportunities for young people in this growing, global industry.

Work Experience

MineralsEd will help secure placements for students who are enrolled in Work Experience or career-focussed co-op programs. Placements are important for those interested in geology and engineering, but are also valuable for

students interested in many other fields (e.g. business, physics, digital media, environmental studies, etc.).

Career Fairs

MineralsEd welcomes invitations to participate at high school career fairs to share information on BC's mining industry, its workforce needs, and the enormous variety of careers for young people. We bring information on related post-secondary programs, industry careers, as well as support materials for career educators.

For more information, visit: www.MineralsEd.ca/s/CareerEducators.asp, or phone 604-682-5477.

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Highland Valley Copper Mine - Field Trip for High School Students

Recognizing the need for students to have first-hand experience of how modern mining works and what available career options there are, *MineralsEd* is partnering with HVC and career educators in SD 42 to bring secondary students from Lower Mainland schools to the mine on October 19. Teachers **must** nominate students to participate. Information and updates at: www.MineralsEd.ca/s/OutreachPrograms.asp.

A new **Planning 10** resource for BC teachers was developed by the industry's labour strategy task force to raise awareness about the wide variety of careers in mining. *Mining Your Future* is free and available by request from Gordon Armour at gordon.armour@sd27.bc.ca.



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Mining in the News - New Afton Mine Opens

New Afton copper-gold mine is a new underground operation that occupies the site of the historic Afton Mine (closed 1997) located 10 km from Kamloops. Exploration began again at the site in 2000, including >129,000 m of diamond drilling, defining an extension of the ore body at depth. Construction of the mine began in 2007 (construction of a new mill started in 2010). The entire complex cost ~ \$750 million to design and build.

The first ore was processed in the brand new mill on June 29, 2012. The first 50-tonne transport truck loaded with copper concentrate left the mine, headed for Vancouver on July 5, 2012, and from there to smelters in India and the Philippines. The mill will process 11,000 tonnes/day when it reaches full production. Eventually, six transport trucks a day will leave the site loaded with copper concentrate.

New Afton employs ~ 450 people plus several hundred additional contractors currently on site. These include underground miners, engineers, laboratory staff, surveyors, human resource staff, millwrights, electricians, haul truck drivers and mechanics. The operation is expected to produce, on average, 85,000 ounces of gold and 75 million pounds per year of copper over a 12-year mine life. Once in steady-state production, the company expects the mine to generate \$200 million per year in free cash flow. For more information about the mine and other technical reports, visit: www.newgold.com/Properties/Operations/NewAfton/default.aspx.



Copper: an emerging giant?

Source: www.hdimining.com, April 2012.

In spite of the current global economy, the demand for copper is rising. Its growing importance is due to its use as a substitute for both gold (in semiconductors) and the increasingly scarce rare earth minerals (in high-tech and green technologies). Some significant advantages of copper over gold and REEs are: major cost reduction, superior electrical and thermal conductivity, less intermetallic growth, high mechanical stability, infinite recyclability, and energy efficiency, among many.

From page 3... *Involve Your Students!*

TRAVEL & WORKSHOP SUBSIDIES

Travel subsidies (up to \$200) are available to teachers for geoscience or mining field trips, or Yukon Dan in-class workshops (if available). Download the application at: www.MineralsEd.ca/s/SubsidyApplication.asp.

Switch to e-mail! We will be phasing out the print version of *MineralsEd Connections*. To ensure you receive this and the **new monthly e-updates**, request the switch at info@MineralsEd.ca.