The Alberta Science Teacher

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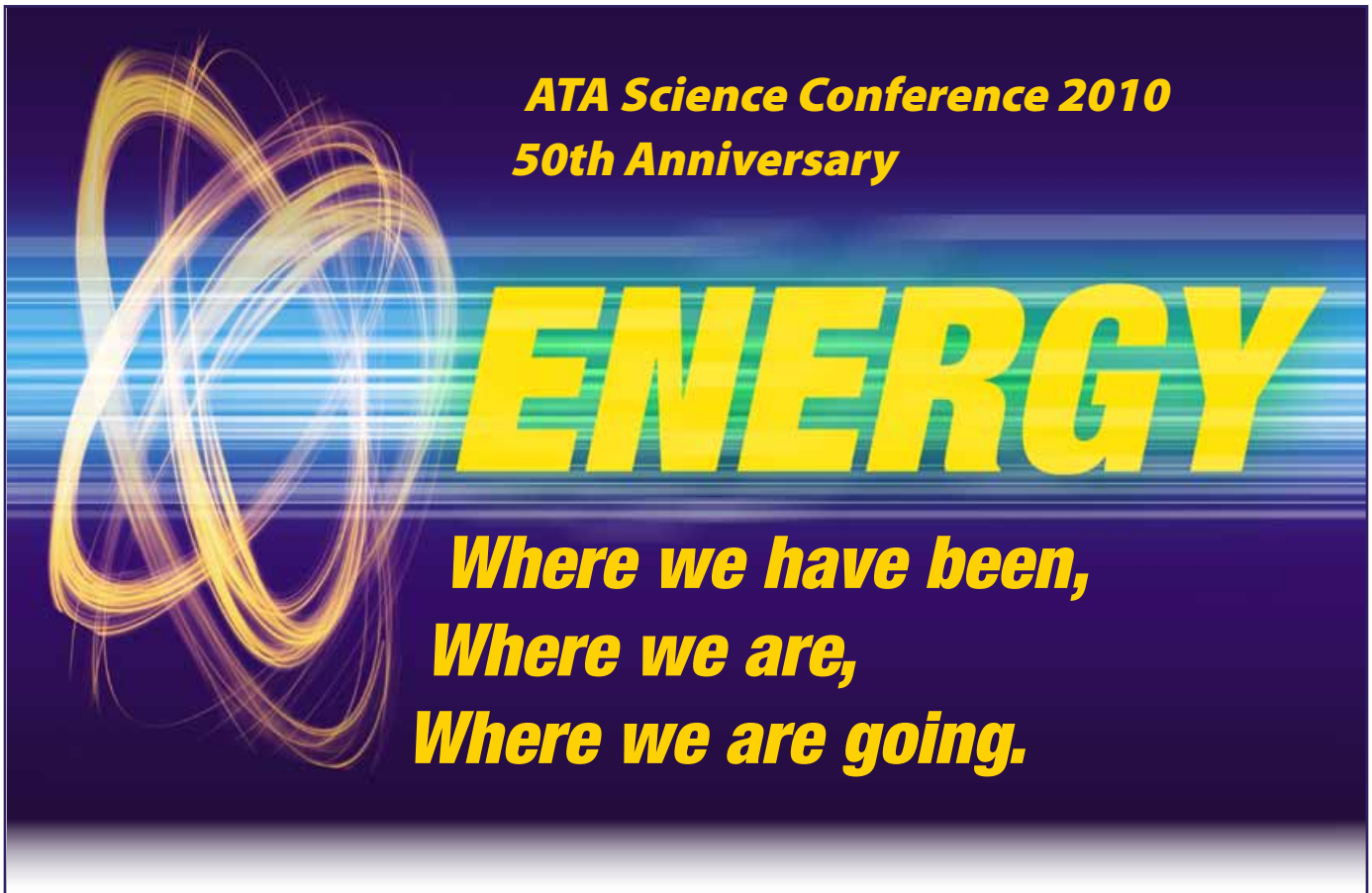

November 18th-20th, 2010
West Edmonton Mall Fantasyland Hotel

Website: www.sc.teachers.ab.ca

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From the Editor

Welcome back to a new school year. Time is flying already, but fear not—we are here to help you with your planning. Okay, we can at least share some great resources with you and you can decide what to do.

There are great PD opportunities coming your way throughout the year. Currently, I am working on how best to incorporate UBD (Understand by Design) into the science classroom. Be sure to include the ATASC conference in your list of PD events, because this year is extra special—we are celebrating 50 years. What an accomplishment! The ATASC is one of the oldest science councils in the country.

I have been with the ATASC for about five years now, and my PD experience with ATASC has been incomparable. What makes the ATASC such a benefit to its members is the accessibility of shared resources (see Rose's article on our new database) and the PD at our annual conference (which, if you have ever attended, you will know is always loaded with resources and networking possibilities).

This year's conference is going to be extra special in order to celebrate our many years of science teacher support. We will be including a special anniversary homecoming for retired members and will be hosting great keynotes like Jay Ingram and John Acorn. The theme this year is "Energy," with a subtheme of "Where We Have Been, Where We Are, Where We Are Going." The conference will be held at the Fantasyland Hotel in West Edmonton Mall from November 18–20.

As usual, this newsletter is packed with great resources. Don't forget to check out the "Awards and Competitions" section—there are some great opportunities for students and teachers.

Enjoy the newsletter, enjoy your first semester and enjoy the conference. Hope to see you there. By the way, there is a special anniversary lab coat for every delegate that attends Conference 2010; they're pretty snazzy!

Andi-Lynn Bender

Contents

From the Council

ATASC Turns 50!

ATASC 50th Anniversary Homecoming

Retirees are invited to the ATA Science Council 50th Anniversary Homecoming Conference for a special price of $20, plus $30 for the anniversary banquet, if you wish to attend. The annual ATASC conference is being held at the West Edmonton Mall, with the theme of "Energy" and a subtheme of "Where We Have Been, Where We Are, Where We Are Going." There will be a special registration and hospitality suite for retirees. When space is available, retirees can also attend the conference sessions. Of course, we are expecting and collecting stories from conferences past. Come and join the fun.

To register as a retiree, contact Donna Lauritsen at cmaste@ualberta.ca. Please pass this information on to other science teacher retirees. For more information about the conference, go to http://sc.teachers.ab.ca.

New Resource Database for Members

During the past summer, the science council moved its resource database onto TNET. The new website address is www.sc.teachers.ab.ca. In order to access the database, you must be a member of the Science Council, and you will need your username and password for TNET. This will replace the OWL system that we were using before, and instead of needing three passwords, you will need only one.

At this time, you can access all of the folders—and most of the files have been added to them. If you have files that you would like to share, please forward them to me. I will place them in the grade and unit that you specify.

If you need any assistance accessing TNET or locating the resource sharing database, please contact me.

The more that we all share, the easier our jobs will be!

Rose Lapointe
ATA Science Council Technology Director

Jurassic Forest

A great new park has recently opened in the Edmonton area, just north of Gibbons. A 20-minute drive from the north side of Edmonton takes you to Jurassic Forest, an educational centre aimed at teaching kids about dinosaurs, palaeontology and the environment today. The park is set in an old-growth forest and has been designed to minimize the impact on the forest, use the natural setting to enhance the display of the dinosaurs, and provide an opportunity for you to experience and learn about some of the flora and fauna indigenous to the Edmonton area today.

I spent a rainy summer morning exploring with my wife and two young boys, and I'll admit it—I probably had just as much fun as my boys. When you start walking through the park, it looks more like a nature trail with signs explaining the local flora and fauna. You are soon taken back millions of years when a booming roar turns your attention to a gigantic dinosaur camouflaged in the trees. The lifelike animatronic reptile blinks its eyes and sways a little and you find yourself doing a double take and thinking, "Wow! That looks so real!" A small sign explains what type of dinosaur you are looking at and gives some interesting information about its unique adaptations or habits, but the sound of the next dinosaur down the trail entices you to keep going. The kids were full of anticipation and excitement (and even a little bit of fear) as we walked down the boardwalk, eager to see what the next dinosaur would be. We must have encountered more than 20 different dinosaurs, and learned quite a bit about the local plants and animals as well. It was definitely worth the drive.

Jurassic Forest is currently developing programs for Grades 1 to 6, with both teacher and student resources, and is booking school groups and tours. For more information, go to www.jurassicforest.com.

Chris Sudyk

Shockingly Fun Professional Development

Electricity touches the lives of all of us, but most people take for granted the many processes needed when we flick that switch. I am a Grade 5 teacher; 40 per cent of my science curriculum deals with electricity, so it was an eye-opening experience to attend an Electricity Education Tour in the spring. The three-day session included guest speakers from various sectors of the industry, including coal mining, electricity production and distribution, and education. We also took an extensive tour of the Keephills Generating Facility at Wabamun Lake that showed us what is involved in mining coal and how it is used to generate electricity. We even got to visit ATCO's Nisku training facility, where we gained a new appreciation and respect for electricity as we watched 10,000 volts fry a sausage.

The entire program was put together by Inside Education. If you've never heard of this enthusiastic group of educators, they are definitely worth your attention. Inside Education is a nonprofit organization that provides professional development opportunities, classroom presentations and teaching resources focused on forests, water, energy and related topics for teachers and students Grades 4–12. I have attended many professional development opportunities put on by Inside Education, and I always come away with greater enthusiasm and a better understanding of the things I teach. All of their programs feature multiple perspectives and critical thinking about the science of and issues surrounding development of natural resources and the environment.

The teacher PD programs are free, and Inside Education will even subsidize sub costs if needed. The next PD opportunity for teachers is their Water and Energy Ecolab, which is connected to this year's Science Council conference, on November 17 and 18. You can get details on this and other PD opportunities at www.insideeducation.ca.

Chris Sudyk

Astronaut or Superhero?

Want real motivation? Or maybe your students need some? Visit the website of Canadian astronaut Dr Dave Williams and you will find true inspiration. There are not many people who can say they have been a physician, a pilot, an astronaut, an aquanaut and a leader all in one lifetime! There is a special section for kids on the website, and Dr Dave also has a Facebook page. Check out one amazing person at http://astronautdavewilliams.com or www.facebook.com/pages/Dave-Williams/171123467170.

Andi-Lynn Bender

Making Connections: Science in the Mountains

Earth Science Enrichment Workshop

There is something about walking in Walcott's Quarry that suddenly makes history live. When someone explains that you are standing on rock that was a beach during the Jurassic era, Banff becomes a very different place.

When I arrived in Field, BC, on August 14, I didn't really know what to expect. I had signed up for a geology session that I thought would help me teach Science 20. What I ended up with was teacher professional development that was hugely rewarding and educational.

Rose Lapointe at Walcott's Quarry

The topics that were covered in our sessions apply to many areas of the science curriculum. One session discussed the evidence for and debate about evolution (Biology 20). Another session looked at the mechanics of the Frank Slide (Science 10 and Physics 20). Carbon capture and the chemistry of rock molecule structures were covered (Chemistry 20). Rock and mineral identification was discussed (Science 7).

On one day, we went on a field trip to the major geological forms in the area of Field. We drove to Canmore and identified the major glacier forms in the area. We climbed an esker, and pointed out terminal and lateral moraines. In Banff, we could walk along an ancient ocean, starting in deep water and ending on the Jurassic beach. In this area we found petrified trees and fossils of small marine organisms. We finished at a viewpoint of Mount Rundle where you can see the path that glaciers from the last ice age carved through the Rockies—it is large enough to roll the moon through.

Instructors for the sessions were all volunteers with the Burgess Shale Geological Science Foundation. Jon is a retired geologist who was an employee of Shell and is now a hike leader to Walcott Quarry. Erik is a PhD student at the University of Calgary. Clint and Phil are geologists working with Shell. All of the materials and lesson plans that these gentlemen prepared were supplied in a binder and on a CD containing electronic files of each of the handouts.

The view on the walk to the quarry

The last day, August 18, we made the climb to Walcott Quarry. This hike is not easy, and it is 20 km to the quarry and back. During this hike, there is an altitude gain of 740 metres. We started the hike at 9 AM and arrived at the quarry after 2:30 PM. We had approximately an hour to look at 550-million-year-old fossils, enjoy the view and catch our breath. During the hike down, we were allowed to descend at our own pace. I stopped at Yoho Lake on the way and had a short swim. Hikers were back at the hostel for supper at about 8 PM. The feeling of accomplishment one gets at the top of a mountain was worth the rough day of hiking, blisters and sore muscles.

Registration for the workshop was $575. Included in the cost were accommodations and meals from Saturday evening to Thursday morning, as well as the guided hike to the Walcott Quarry. That the cost is so reasonable is thanks to sponsorship from the Canadian Geological Foundation, the Canadian Geoscience Education Network and the Canadian Society of Petroleum Geologists Educational Trust Fund.

I encourage you to go to the website http://www.burgess-shale.bc.ca and consider taking part in this professional development opportunity.

Rose Lapointe

The path that is large enough to roll the moon through

A fossil at Walcott's Quarry

Science Teacher News

Alberta Education Update

Elementary Science

Alberta teachers contributed to the revision of the kindergarten to Grade 6 science program of studies through membership on the K–6 Science Writing Group and the 2009 consultation process. However, because of revisions made to the implementation schedule, program implementation and resource development will be delayed until 2015/16 for Grades K–3 and 2016/17 for Grades 4–6.

Senior High School Science

Alberta senior high school science teachers may find the following resources of interest:

- **Video Encyclopedia of Physics Demonstrations (VEPD)**
  The VEPD online subscription is an authorized library of more than 600 video clips that illustrate principles of physics for Physics 20–30 and Science 20–30. Additional information is available on the Learning Resources Centre website.
- **New Alberta Physics 20–30 Professional Development Videos**
  The 2Learn website (www.2learn.ca) is a collaborative online community established to support Alberta educators. On this site, teachers, administrators, central office staff and those affiliated with an Alberta educational institution, such as Alberta Education, universities and colleges, can participate in moderated groups and forums; learn about upcoming events, professional development opportunities and resources; and connect with others.

  A series of video segments addressing aspects of the Alberta Physics 20–30 program of studies is now available on the 2Learn website. The segments are recordings of professional development sessions for physics teachers that took place last November in Alberta. The following segments are available:
  - Physics Program of Studies: Main Goals
  - Physics Program Outcomes: Quick Details
  - Physics Program of Studies: Basic Components
  - Assessment for Learning—Physics
  - Low Cost Physics Labs
  - Physics Distance Learning Materials
  - Mining Your Machine-Scored Data
  - Physics Lab Teacher Sharing Session

Professional Development Opportunities Through the ARPDC

As a result of grants from Alberta Education to support the implementation of science, the Alberta Regional Professional Development Consortia (ARPDC) provided professional development opportunities in 2009/10. Contact the consortium in your region for learning opportunities to support your professional growth plan and implementation.

News from NSTA

Welcome back!

As we begin another school year, we wanted to make sure that you are aware of all of the wonderful NSTA [National Science Teachers Association] programs and competitions available for science educators and their students. Below is a listing of the programs that have begun accepting applications for the 2010/11 competition year. Please help us spread the word and include the news about these exciting opportunities on your website and/or in your member newsletters and communications.

ExploraVision

The Toshiba/NSTA ExploraVision Awards competition encourages K–12 students of all interest, skill and ability levels to explore a technology and then imagine how it could work 20 years into the future. Students work in teams of two to four, under the guidance of a teacher and an optional mentor, to research current technologies and scientific principles as a basis for designing innovative technologies that address an issue or propose a benefit to society. First- and second-place winning teams, along with their families, teachers and mentors, receive a trip to Washington, DC, to showcase their design, and winning students each receive a savings bond valued at $5,000 or $10,000 at maturity. The competition awards up to $240,000 in savings bonds annually.

To learn more about ExploraVision and how teachers are using the competition in classrooms, sign up for any of the free web seminars at NSTA's Learning Center (http://learningcenter.nsta.org/products/symposia_seminars/ExploraVision/webseminar.aspx). Check out the archives of past seminars and register for upcoming seminars to dialogue with ExploraVision ambassadors and former coaches, ask questions, and find out how previous winners developed their lessons around this competition. To apply, go to www.exploravision.org. Call or e-mail NSTA with questions at 1-800-EXPLOR9 or exploravision@nsta.org. The application deadline is February 2, 2011.

Disney's Planet Challenge

Enrolment is now open for Disney's Planet Challenge, a free, project-based environmental and science competition developed in collaboration with NSTA and the K–12 Alliance for classrooms nationwide. Now in its second year, the Challenge is being expanded to include two tracks: one for elementary schools (Grades 3–5) and another for middle schools (Grades 6–8).

The Challenge offers students the chance to use their imagination and creativity to help the planet and gives educators a fresh new way to motivate students with the help of an educationally sound curriculum that meets national and state guideline requirements. For more information or to enrol in the program, visit www.disney.com/planetchallenge. Enrolment is open through December 17, 2010. Final projects are due on February 16, 2011.

Mars Education Challenge

New this year, the Mars Education Challenge calls on high school science educators to develop new and innovative curriculum support materials that focus on Mars science and exploration. Developed in collaboration with NSTA and the Planetary Society, the Challenge will recognize six winning entries with five regional awards and one national award. Regional winners will receive $2,500 grants, and the national winner will receive a $5,000 grant. Additionally, all of the winners will have an opportunity to do field research with well-known planetary scientists.

Submissions are due by January 5, 2011. More information, including entry details, curriculum support materials requirements and prizing information for the Mars Education Challenge, can be found at www.exploremars.org.

Siemens We Can Change the World Challenge

The third year of this national sustainability challenge—now expanded to include high school students—encourages all students from kindergarten through twelfth grade to team up with their classmates to create replicable solutions to environmental issues in their schools (Grades K–5), community (Grades 6–8) and world (Grades 9–12). Student and teacher/mentor prizes, which vary according to grade level, include savings bonds, school grants, exciting trips and more.

The deadline for all entries is March 15, 2011. Finalists and winners will be announced in April 2011 and the national winners will be announced in May 2011. For more information, visit www.wecanchange.com or www.facebook.com/wecanchange.

Spirit of Innovation Awards

The Conrad Foundation's Spirit of Innovation Awards program gives high school students an opportunity to design commercially viable innovative products using science and technology that address real world challenges. Teams are composed of students who are between 13 and 18 years of age. Teams compete in three categories: aerospace exploration, renewable energy and cyber security.

Finalists in each category will attend the Innovation Summit hosted by NASA's Ames Research Center, in Silicon Valley, California. The finalists will have the opportunity to present, discuss and receive guidance from industry professionals on the viability of their products. The winners will be chosen during the summit and awarded seed money and other support to manufacture their product.

To register, go to www.conradawards.org. The deadline to register is December 17, 2010. Registration is free. Finalists will be announced on January 10, 2011.

A Science Leader in Every Elementary School— It's About Time!

University of Alberta Department of Elementary Education

Master of Education Specializing in Elementary Science Education

The Department of Elementary Education is planning to offer a master of education cohort in elementary science education, starting July 2012.

The timing of this cohort is important. In 2015, Alberta should have a new elementary science program. Cohort graduates will be prepared to help their schools implement this important program—and research shows that program implementation is more successful in schools with teacher-leaders. Isn't it about time for elementary schools to reconsider the importance of school science leadership? Well-prepared elementary science teachers can provide school leadership that helps renew instruction that ultimately benefits children.

For more information about this opportunity, please go to www.uofaweb.ualberta.ca/elementaryed/GraduateStudiesElemEducation.cfm to access the cohort newsletter.

Update from SDWF

The Safe Drinking Water Foundation will offer new programs and additional resources to support current programs in the fall.

The Safe Drinking Water Foundation (SDWF) has had a very busy summer, putting the final touches on new programs and additional resources to support current programs. In the fall, look for a few new exciting additions to our environmental education programs:

1. PowerPoint presentations that will guide students and/or teachers through the different tests included in the Operation Water Drop kits, complete with pictures of every step and information regarding expected results
2. A new education program for students in Grades 9–12, Operation Water Biology, which will teach students about some aspects of the drinking water treatment process. In these lessons, chlorination and chloramination processes are explored in interactive scientific activities. The concept of biological water treatment is also introduced and demonstrated to be a viable and environmentally friendly alternative to conventional (chemical) water treatment methods.
3. Webinars will be held to help teachers use Operation Water Drop and Operation Water Biology kits in the most effective manner possible in their classrooms.
4. Another new education program, titled Operation Community Water Footprint, will be unveiled. In this program, students will calculate how much water (source water) is needed in order to produce one litre of drinking water in their community (including water used in the treatment process, water lost in distribution, etc). Also, "Put Your School on the Map" will be added to the SDWF website. This application will allow students to put a pin on a map of Canada with information about their community's water footprint, water-related issues being faced by their community and details on the actions they are taking to alleviate the problems and/or to inform others. Pins placed by all schools will be displayed on the map so that students can compare their results to those of other communities across Canada.

We strive to offer you the best education programs possible to teach your students about issues surrounding drinking water. Please visit our website at www.safewater.org. If you have any questions, please contact us at 306-934-0389 or info@safewater.org.

The Association of Professional Engineers, Geologists and Geophysicists of Alberta

NEWS RELEASE

April 22, 2010

Hands-on classroom science literacy program launched to benefit students and teachers

The Alberta Science Literacy Association (ASLA) is pleased to announce their partnership with the Association of Professional Engineers, Geologists and Geophysicists of Alberta (APEGGA). We have merged our two hands on, free science classroom presentation programs into the *"Scientists and Engineers in the Classroom".* Officially the program will be launched in September 2010 in Calgary and Edmonton.

APEGGA and ASLA recognize that science literacy skills help students to evaluate information, make informed decisions and succeed in today's workplace and society. Our unique science, engineering, technology and math-related presentations complement the Alberta Education Science Curriculum. This program enables students to make the connection between what they are learning in their textbooks with the real world. We want to encourage students and to allow them to become enthusiastic and interested in all areas of science.

"This is a tremendous opportunity for APEGGA to increase access to our in-classroom presentations made by volunteer professional engineers and geoscientists. It will also improve efficiencies in the program's administration. We look forward to working with the Alberta Science Literacy Association to get the message out to students about the exciting opportunities that exist in engineering and geosciences," says APEGGA President Kim Farwell, P.Eng., MBA.

By increasing the pool of volunteers, especially in the engineering and geoscience professions, teachers and students will have greater access to enthusiastic volunteers and hands-on science activities in the classroom. Creation of a one-stop booking process for teachers will make it easier to access the new program.

"ASLA is very pleased to join with APEGGA to deliver the Scientists & Engineers-in-the-Classroom program to Alberta Schools. Partnering with a well-respected professional organization raises our profile and improves our ability to fill requests for presentations. Ultimately teachers and students will be the big winners," says ASLA President Anita Rossall, P.Eng.

ASLA, with 20 years of experience, supports and represents autonomous regional science and technology outreach networks serving Calgary, Edmonton, Grande Prairie, Medicine Hat and Red Deer and surrounding communities. These networks promote and enhance science literacy by providing classroom, community and teacher development programs, last year reaching over 52,000 children and 4,400 adults. Visit www.asla.ca. to book your classroom presentation today!

For more information, contact:

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Teachers pose in front of pumpjack at 08 Carbon Capture Ecolab in Weyburn, Saskatchewan.

Classroom-Ready Resources

ATCO Update

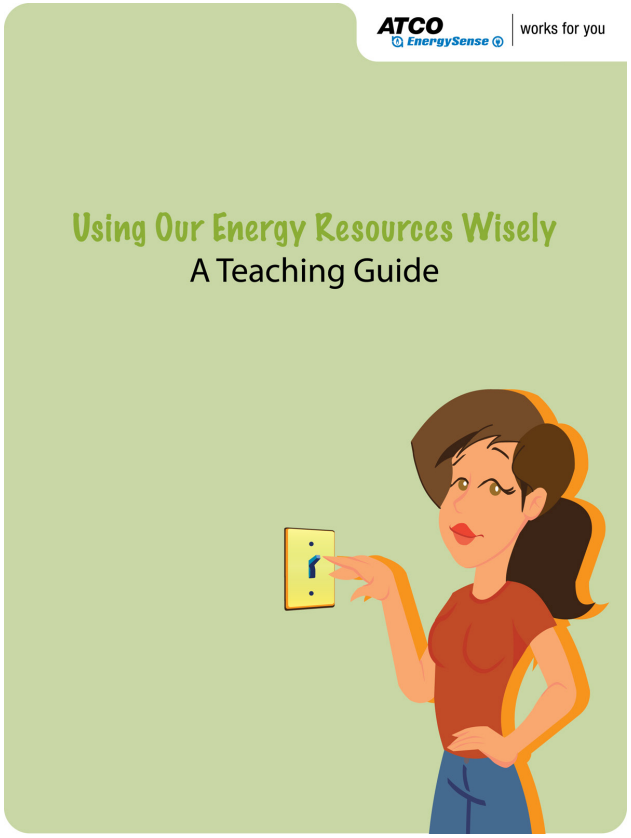
New Grade 4 Teaching Guide on Energy and Efficiency

Grade 4 teachers now have a free resource to help them plan science and social studies classes—the ATCO EnergySense *Teaching Guide*. The guide features a series of lessons and activities to teach students about energy resources and efficiency.

This teaching resource was designed by teachers and meets objectives in the Grade 4 science, social studies and math curricula. Students will learn about Alberta's energy resources, where they come from, and how they are used at school and at home. They will also develop an action plan on how to use energy wisely at school.

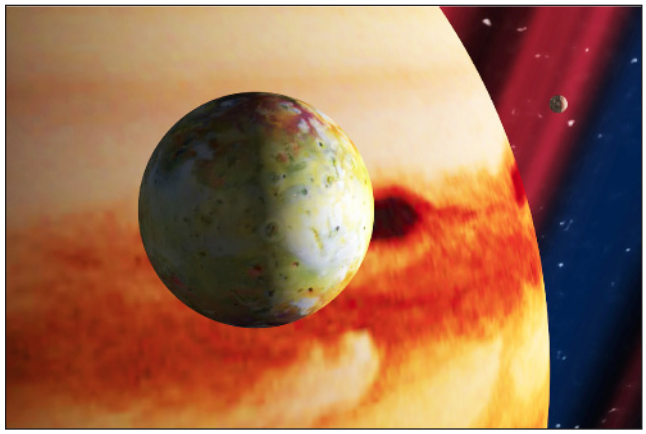
The guide is available online at atcoenergysense.com as part of ATCO EnergySense's Energy Education Program, which includes the popular Energy Education Mobile.

ATCO EnergySense's Energy Education Program will be featured at the ATA's Science Council Conference on November 20. Sign up that morning to learn more about the program, or stop by throughout the day to tour the Energy Education Mobile.



NASA Space Place

Next year, 2011, is the Year of the Solar System, and we are getting a head start at the Space Place. "Solar System Explorer" is a super-game containing several mini games. Pick a planet. Or a comet. Or an asteroid. Zoom in and poke around. If it's a planet with moons, zoom in on one of them and explore even more. And if a spacecraft is already there, or headed there, play a mini game to help the spacecraft with its mission of exploration. Earn achievements by reading about solar system objects and by playing the games. More mini games are coming soon. See how high you can push your scores. Post them on your Facebook page. Start exploring at http://spaceplace.nasa.gov/en/kids/solar-system.



Statistics Canada Update

Statistics Canada
www.statcan.gc.ca

Dear Teachers,

As you prepare for the new school year, why not have a look at our free materials for teachers?

The August 2010 edition of Statistics Canada's learning resources bulletin is now available at http://www.statcan.gc.ca/edu/edu06/edu06c/edu06c_0038-eng.htm. The issue contains the following items:

- Resources for your school subjects
- Health fact sheets
- Articles on using statistics in your classroom
- Updates
- Coming soon!

For further information, contact Elise Mennie at 613-951-0553 or elise.mennie@statcan.gc.ca, or mail your inquiry to her at Statistics Canada Education Outreach Program, TCESD/Programme de soutien à l'éducation, DTCSE, 150 Promenade Tunney's Pasture Driveway, Ottawa ON, K1A 0T6.

Nanotechnology Education

Two new nanotechnology education initiatives are underway. These education initiatives are being started by NINT (the National Institute for NanoTechnology) on the U of A campus and by nanoAlberta (part of Alberta Innovates—Technology Futures). The Alberta Research Council, nanoAlberta, iCore and Alberta Ingenuity have all been placed under this new provincial-government technology umbrella. NanoAlberta works with industry, researchers and investors to help build Alberta's nanotechnology industry and apply the benefits of nanotechnology in the energy, environment, medical, agriculture and forestry sectors.

The National Institute for Nanotechnology (NINT) is an integrated, multidisciplinary institution involving researchers in physics, chemistry, engineering, biology, informatics, pharmacy and medicine. Established in 2001, it is operated as a partnership between the National Research Council and the University of Alberta, and is jointly funded by the Government of Canada, the Government of Alberta and the university.

1. SEM Education

NINT has acquired a portable scanning electron microscope (SEM) from Hitachi for use in Edmonton-area secondary classrooms. Google "Hitachi Tabletop Microscope TM-3000" for a full description of this portable SEM with a magnification up to 30,000×. A teacher has been hired (for this one-year pilot project) to transport the SEM to schools and to conduct lessons using the SEM. Lessons in chemistry, physics and biology are under development and will be available starting in October 2011.

It is anticipated that preselected images will be employed along with images selected by students and teachers (relevant to the curriculum being studied). Student handouts, likely in lab format, will be available online. Pre- and post-lab assignments will also be available in a teacher resource. This is a pilot project that will be under continuous development and evaluation throughout the 2010/11 school year. Updated information is available on the CMASTE website, www.cmaste.ca.

2. Nanotechnology Education

NanoAlberta has contracted an educational consultant to write, pilot and revise nanotechnology lessons that fit the Alberta K–12 curricula (and likely some IB and AP programs of study). These lessons will be developed to support the many pillars of science education in Alberta, including knowledge, skills, attitudes, STSE, ICT and FNMI outcomes. The student lessons, in blackline master format, will be accompanied by a teacher support resource. All print resources will likely be available online and eventually on DVD. Teachers who would like to pilot these resources should contact Ilona Freedman-Morris at ilona.freedman-morris@albertainnovates.ca.

CMASTE is providing some of the education guidance to these two projects. You can see samples of the projects at the ATA Science Council conference, on November 19 and 20, at the West Edmonton Mall.

Video Physics for Your iPhone

Vernier Software & Technology, of Beaverton, Oregon, is a well-established creator of data-collection technology, science interfaces, sensors and software for use in classrooms of all levels. Vernier has introduced Video Physics, a new application that is compatible with all iOS4 devices, including the iPod touch.

Teachers can use the software's graphing capabilities to connect physics to the everyday world. Take a video of an object in motion (for example, a child on a swing or a free-throw shot), mark its position frame by frame, and set up a scale using a known distance. Video Physics then draws trajectory, position and velocity graphs for the object.

To encourage science teachers and students to explore the power of video analysis, Vernier has launched a contest; prizes are iPod touches and iTunes gift certificates. To enter, download the Video Physics application, make a creative short video, track the object in the experiment using Vernier's multi-touch cursor and set the video scale. Submit the video to Vernier's Facebook page (http://facebook.com/vernierst). The contest ends December 3, 2010. For more information about the application and to upload your video entry to the contest, visit www.vernier.com/videophysics.

Video Physics is available for download at the online Apple store and is free through December 31, 2010.

Awards and Competitions

The Canadian Biology Olympiad

The Canadian Biology Olympiad (CBO) team has just returned from the 21st Annual International Biology Olympiad. Canada had its best ever-result: all four students came home with medals from the event—two gold, one silver and one bronze. Our top student, Run Ze Cao, placed second overall in the competition—the highest any Canadian has ever placed at this event. There were 59 countries competing, represented by 233 student competitors.

The CBO is gearing up for the 2011 CBO competition, and registration opened in September for secondary schools and students. We want to ensure that students from sea to sea to sea are included in the competition. To register, forms and the annual school fee ($15 per school) are required. For more information and registration forms, contact Bob Roddie, Canadian Biology Olympiad Coordinator/ NABT Canadian Coordinator, at biologybob@live.ca or 289-426-1581.

The competition is a three-round process. Round one, a written contest, takes place in February. Round two is a skills portfolio to be submitted in early April (although students will be able to start working on it in November). Finally, round three is the University of Toronto National Biology Competition. Results from round three are combined with the marks of the skills portfolios for final scoring. The top four students are then invited to the national team to participate at the International Biology Olympiad. The 2011 competition takes place in Taiwan, in July. Practice questions are posted beginning in October to help students prepare. As well, there is a national skills camp in early July for keen students seeking to improve their biology lab skills and better prepare for the CBO skills portfolio. Practice questions, round one and round two can be translated into French—we want to ensure that students from both official languages are able to participate. Students can participate more than once, and the Canadian Biology Olympiad is open to all secondary school students with an interest in biology.

The 2010 Prime Minister's Awards—Call for Nominations

In honour of World Teachers' Day, October 5, a call for nominations for the 2010 Prime Minister's Awards for Teaching Excellence and Excellence in Early Childhood Education has been issued. Guidelines and nomination forms are now available and can be accessed on the PMA website, at www.pma.gc.ca. The deadline for nominations is *November 30*.

The Prime Minister's Award is the highest honour for elementary and secondary school teachers and early childhood educators in Canada. Winning the award brings many benefits to both educators and their schools or centres. If you know of an outstanding teacher, please consider submitting a nomination.

New this year is a special Space Award, which will be offered to a teacher (or teaching team) who demonstrates exceptional innovative and creative teaching in the areas of space sciences, technology, engineering and/or mathematics.

Also, check out the 2009 PMA Exemplary Practices publications online to learn about the great ideas and successful teaching strategies of the 2009 national level winners. Visit www.pma.gc.ca for more details.

Lynn Stevenson, Manager
Prime Minister's Awards | Prix du Premier ministre
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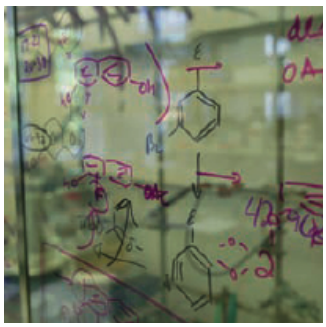

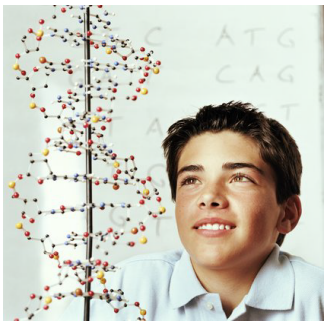

Amgen Award for Science Teaching Excellence (AASTE)

Applications for 2011 Awards

The Amgen Award for Science Teaching Excellence (AASTE) recognizes and honours extraordinary science teachers at the K-12 level in British Columbia, Alberta, Ontario and Quebec who have demonstrated an outstanding ability to inspire their students and who produce results in science learning. A biotechnology pioneer since 1980, Amgen has a longstanding commitment to science education and established the teacher awards program to promote and encourage science excellence in public and private schools across the country.

Recipients of the Amgen Award for Science Teaching Excellence each receive:

- **An unrestricted cash award of $5,000CAD**
- **A restricted $5,000CAD cash grant to the recipient's school for science education purposes**

Application forms will be available following November 1, 2010. To learn more about Amgen and the award, visit http://www.amgen.com/citizenship/aaste.html

$3,000 Project Grants Available

The ATA Educational Trust is a charitable organization dedicated to the professional growth of Alberta teachers. The Trust awards a number of grants of up to $3,000 to help Alberta teachers or others involved in education and teaching to develop innovative resources that support curriculum, teaching or learning. Individuals or groups planning to undertake a project or conduct research must submit a detailed proposal on or before May 1, 2011.

In January of each year, the Trust posts application forms for grants and bursaries on its website. For details, go to www.teachers.ab.ca, and click on For Members; Programs and Services; Grants, Awards and Scholarships; and ATA Educational Trust.

The ATA Educational Trust

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$300 ATA Specialist Council Grants

The ATA Educational Trust is a charitable organization dedicated to the professional growth of Alberta teachers. For this grant program, interested teachers may enter their name into a draw for $300 towards the cost of an ATA specialist council conference.

In January of each year, the Trust posts application forms for grants and bursaries on its website. The deadline for conference grants is September 30, 2011. For details, go to www.teachers.ab.ca, and click on For Members; Programs and Services; Grants, Awards and Scholarships; and ATA Educational Trust.

The ATA Educational Trust

AR-ETF-23 2010 09

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