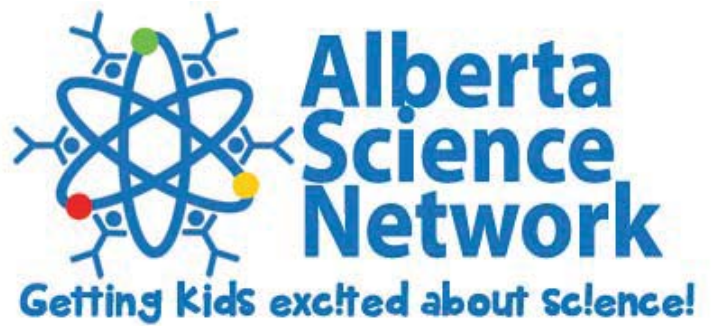


Report to the Community 2016



Highlights 2015-2016

*Reached 65,799
grade 1 to 12
students and their
teachers*

*1,063 Scientists
& Engineers-in-
the-Classroom
presentations to
29,173 students*

*20,752 students
amazed by Chemistry
All Around You
presentations*

*All day Walk through
the Forest for 910
grade 6 students*

*1,850 grade 1
students received
a tree and learned
how to care for it on
Arbor day*

*Delivered 49 science
PD workshops to 644
teacher attendees*

*8,473 students
used our science
equipment kits*

Alberta Science Network
AlbertaScienceNetwork.ca



Inspiring the next generation!

Alberta Science Network was formed in 1991 to bring science to life for Alberta students and their teachers. Our signature program, Scientists & Engineers-in-the-Classroom, inspires students with face-to-face, hands-on science presentations.

Chemistry All Around You offers a unique look at the chemistry found in daily life. Dramatic presentations in school gymnasiums engage large numbers of students. We extended the reach of CAAY to Calgary, Red Deer and Grande Prairie this year.

2015 saw our Teacher Science Workshops program successfully launched in Edmonton. Supported by a generous grant from the Edmonton Community Foundation, we held 14 workshops to 142 teachers. Growing awareness of the program to attract more teachers is a goal for next year. In total we delivered 49 workshops to 644 educators.

Grande Prairie's Walk Through the Forest and Arbor Day programs are offered every May. With fair skies and warm temperatures, we hosted 910 grade 6 students for a full day of forestry education. Arbor Day saw the delivery of tree seedlings to 1,850 grade 1 students who also learned how to plant, feed and nurture their trees.

On behalf of the over 50,000 students and teachers that we annually reach, thank you to all of our volunteers, donors, partners and other stakeholders.

Provincial programs!

SCIENTISTS & ENGINEERS-IN-THE-CLASSROOM

Our signature program is now available in Grande Prairie, Edmonton and surrounding communities, Red Deer, Calgary and surrounding areas and through affiliates in Lethbridge and Medicine Hat. Practicing scientists and engineers volunteer their time to visit classrooms and deliver hands-on, interactive presentations to grade 1 to 12 students. Presentations are available at no cost to schools and subject only to volunteer availability.

While we have volunteers for all science curriculum topics, over 85% of requests come from teachers in grades 2 to 6. Many teachers in the elementary grades lack post-secondary education in the sciences and with five very diverse curriculum topics in each of grades 1 to 9, teachers need the support of practicing experts.

We believe that reaching students at a young age is the best way to teach them that science is fun and easy to learn. Waiting until high school is too late since by then most students have already established biases against subjects that they felt were complex and or boring in their elementary school years. Inspirational science presentations to older students only appeal to those students who already understand and enjoy science. We need to reach kids before those biases develop.

Teacher feedback helps us to monitor the program. In response to ten "statements" in respect of the presentations, teachers select one of five options from "strongly agree" to "strongly disagree". In response to "the presenter was effective and well prepared", 98% of teachers strongly agreed (78%) or agreed (20%). To the statement "my students now have a better understanding of this science topic", 95% either strongly agreed (61%) or agreed (34%).

In response to the extremely forward looking statement "In future years my students are more likely to pursue science topics and potentially science careers as a result of this presentation", 86% of teachers either agreed (45%) or strongly agreed (41%). Clearly in the opinion of teachers, Scientists & Engineers-in-the-Classroom does indeed inspire the next generation of scientists and engineers.

TEACHER WORKSHOPS

Teacher Science Workshops was created to help teachers gain a more thorough understanding of the science theory contained in the Alberta Education Science curriculum and to show them ideas for how they might better convey the science to their students. Volunteer scientists and experienced educators co-lead 90 minute to 3 hour interactive workshops that provide teachers with accurate science and classroom ready demonstrations and experiments. Our goal is to provide teachers with clarity about the science and give them increased confidence in teaching it to their students – this year and in years to come.

Teacher feedback is again collected to evaluate this program. To the statement "the presenters were effective and well prepared", 98% of teachers either strongly agreed (79%) or agreed (19%). To "my level of understanding of the workshop's topic has increased", 92% either strongly agreed (68%) or agreed (24%). And to the statement "I will be more confident doing hands-on activities on this topic with my students", 91% either strongly agreed (63%) or agreed (28%).

Noteworthy here is that 51% of respondents had already taught the workshop science topic; so in theory they should have known the science. Clearly these workshops offer great benefits to even experienced educators .

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- Calgary and Area
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Affiliate Networks

Praxis (Medicine Hat) www.praxismh.ca

SATC (Lethbridge) www.satclethbridge.ca

In memoriam

*Shannon Carol Zwicker
October 14, 1968 - June 9, 2016*

*Shannon was ASN's first
Executive Director. Her strong
leadership, dedication and
gifted communication skills
have left their impact on us all.*

She will be greatly missed.

Regional programs

WALK THROUGH THE FOREST

With the tremendous support of the Grande Prairie Environmental Science Education Society and the Forest Resources Improvement Association of Alberta, ASN coordinates full day environmental sciences education events for grade 6 students on three consecutive days in May each year. Forest industry volunteers and Ministry of Environment & Sustainable Resource Development staff lead the students through hands-on activities and information sessions about life in the Boreal Forest, at a local woodland recreation area.

ARBOR DAY

Each year every grade 1 student across the Province receives a tree seedling from the Ministry to take home and plant. In Grande Prairie we take the program a step further as over 100 volunteers individually sort the tree saplings and hand deliver them to students in Grande Prairie and surrounding communities classrooms. Prior to giving the trees to the kids, the volunteers provide a 30-minute classroom presentation on the needs of trees, where to plant them, how to plant them and how to care for them.

CHEMISTRY ALL AROUND YOU

Originally based in Edmonton, we have now expanded CAAY to deliver presentations in Grande Prairie, Red Deer and Calgary. Our volunteer scientists engage the students with chemistry related demonstrations and experiments in an informative and safe environment. Although the presentations are delivered to 200 – 300 students at a time, the nature of the chemical reactions and student interaction with the scientist volunteers makes them extremely impactful.

SCIENCE RESOURCE KITS

The teaching of many science curriculum units can be enriched with specialized equipment or supplies that cannot reasonably be expected to be available in schools. At this time our Edmonton office and our affiliate in Medicine Hat offers teachers the use of topic specific science resource kits that enhance in-class instruction.

MORE PROGRAMS

Family science nights, Science Olympics, Rock 'N' Fossil shows, Science Roadshows and Astronomy nights are just a few more of the events that ASN delivers in the communities that we and our affiliates serve.

"Thank you for coming on your own time and telling us about aircraft. I really liked how you brought in models and examples when you were explaining about flight. It made it a lot easier to remember things and it helped me with my test!

Student, following grade 6 Flight presentation



"Having a scientific understanding of the world is fundamentally about how you judge which information to trust."
Atul Gawande, MD, MPH, surgeon, writer, and public health researcher



"This was an amazing presentation. The presenter was able to teach an outcome we were struggling with how to teach in an engaging manner and it was well delivered and very hands on. Well loved by all!

Teacher, following grade 5 Wetland Ecosystems presentation



Thank You!

Ongoing partnerships, grants and donations are what allows us to continue to offer our programs to students and their teachers at no cost to schools. We would like to recognize one partner in particular whose members comprise over 30% of our SEitC volunteers. The Association of Professional Engineers and Geoscientists of Alberta regulates the practice of engineering and geoscience in the Province. Access to APEGA member media at the Provincial and Branch level is a valuable resource in the recruitment of new volunteers and in particular as we expand our classroom program into rural Alberta.

We thank all of our partners, sponsors and stakeholders for their tremendous support.

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To find out how you can be a supporter of ASN and its programs, or to receive a copy of ASN's financial statements, please contact Ed Kusmirski P.Eng., Executive Director at ekusmirski@albertasciencenetwork.ca.

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