

According to a recent Environics poll, 95% of Albertans think research conducted at universities and within industry is important or very important to their quality of life.

What does research mean to you?



Science and Technology Week 2003 ESSAY CHALLENGE

with support from the Alberta Innovation and Science, Alberta Science Literacy Association, Science Alberta Foundation, and Alberta Informatics Circle of Research Excellence.

Who can enter?

Grades 7, 8, and 9 students, anywhere in Alberta (curriculum links listed on page two).

To enter

Email submission (Word or PDF file) to tara@netera.ca no later than 4 pm on October 31, 2003. Include student name and school, teacher's name and contact information (telephone and email).

Important dates

Science and Technology Week	October 10-19
Final deadline for entries	October 31
Finalists contacted	November 15
Award ceremony	December 4

Essay questions

Answer either one of the following two questions, in a text of 250 to 500 words that lends itself to oral delivery (Optional: create a multimedia presentation to illustrate your talk).

QUESTION ONE

Your goal is to become a world-famous scientist who does important research at a university or in an industry in Alberta. Which area of research do you want to work in and why it is important to you and to society?
Hints at www.netera.ca

QUESTION TWO

Choose one technology that makes a difference in your life. What is the science behind the technology, why is the technology important, and what kind of impact does it have on your life and on society?
Hints at www.netera.ca

Prizes

1st prize	\$500
2nd prize	\$400
3rd prize	\$300
Honours	Fleece vest

Classrooms of the winning students will also receive a \$100 cash prize. PLUS a Science Alberta Foundation "science crate" in the classroom for three weeks in January 2004.

Publication

Selected entries will be read on **Wild Rose Country** on **CBC Radio One** (weekdays from 12 - 1 pm) during Science and Technology Week. Winning entries will be published on the web sites of sponsor organizations.

Curriculum links

The following outcomes are taken from the programs of study that can be accessed at http://www.learning.gov.ab.ca/k_12/curriculum/.

Grade 9 Social Studies: Topic C

Canada: Responding to Change – help students understand technological change and its effect on the quality of life within a mixed economy.

Grades 7 to 9 Information and Communications Technology

The Information and Communication Technology curriculum is infused within other programs and courses.

- C.1 access, use and communicate information from a variety of technologies
- C.2 seek alternative viewpoints, using information technologies
- C.3 critically assess information accessed through the use of a variety of technologies
- C.4 use organizational processes and tools to manage inquiry
- C.6 use technology to investigate and/or solve problems
- C.7 use electronic research techniques to construct personal knowledge and meaning
- F.1 demonstrate an understanding of the nature of technology
- F.2 understand the role of technology as it applies to self, work and society
- P.1 compose, revise and edit text

OPTIONAL MULTIMEDIA PRESENTATION

- P.3 communicate through multimedia
- P.4 integrate various applications
- P.6 use communication technology to interact with others

Grades 7 to 9 Health and Life Skills (Life Learning Choices)

- 7.6 examine factors that may influence future life role/education/career plans; e.g., technology, role models
- 8.4 begin to develop goals and priorities related to learning and future career paths, based on personal interests, aptitudes and skills
- 8.6 investigate, interpret and evaluate career information and opportunities, using a variety of sources; e.g., Internet, informational interviews, mentors, media
- 9.4 refine personal goals and priorities relevant to learning and career paths; e.g., investigate education programs including senior high school programs and those related to potential careers
- 9.6 develop strategies to deal with transitional experiences; e.g., create a learning plan for transition to senior high school, keeping future career plans in mind

Grades 7 - 9 English Language Arts

- 1 explore thoughts, ideas, feelings and experiences
- 2 comprehend and respond personally and critically to oral, print and other media texts
- 3 manage ideas and information
- 4 enhance the clarity and artistry of communication

Grades 7 - 9 Science (STS)

Foundation One - develop an understanding of the nature of science and technology, the relationships between science and technology, and the social and environmental contexts of science and technology.

- The goal of technology is to provide solutions to practical problems.
- Technological development may involve trial and error, as well as application of knowledge from related scientific fields.
- Science and technology are developed to meet human needs and expand human capability.
- Science and technology have contributed to human well-being and have influenced, and been influenced by, social development.

Science and Technology Week 2003

Essay Contest

Participating Organizations

Netera Alliance

www.netera.ca



Netera Alliance is a not-for-profit organization responsible for coordinating the information and communications technology (ICT) infrastructure for research throughout the province. Initially created in 1993 by Alberta's research universities with support from several major telecommunications companies, Netera has expanded to include all Alberta universities, most of the major colleges and technical institutes, the major research organizations and large and small private sector partners. These members collaborate to plan and build the next-generation ICT tools and instruments – including a very high-speed research network – to foster excellence and innovation in research across all of Alberta.

Netera Alliance is celebrating its 10th anniversary this year and has organized this essay contest as part of these activities. Members include:

Alberta Learning, The Alberta Library, Alberta Online Consortium, Alberta Research Council, Athabasca University, The Banff Centre, Bell West, Calgary Health Region, Cisco Systems Canada Company, Edmonton Public Library, Fort Vermilion School Division #52, Government of Alberta, Grande Yellowhead School Division #35, Grant MacEwan Community College, Group Telecom, Informatics Circle of Research Excellence, Lethbridge Community College, Mount Royal College, NAIT, National Research Council, Nortel Networks, Red Deer College, SAIT, Silicon Graphics Canada, Smart Technologies, Telus, TRILabs, University of Alberta, University of Calgary, University of Lethbridge, and YottaYotta

CBC Radio One

www.cbc.ca



The Canadian Broadcasting Corporation (CBC) tells Canadian stories reflecting the reality and diversity of our country; informs Canadians about news and issues of relevance and interest; supports Canadian arts and culture; and builds bridges among Canadians, between regions and the two linguistic communities of Canada.

Wild Rose Country is a provincial program heard weekdays from 12:00 pm – 1:00 pm on CBC Radio One (1010 AM in Calgary and 740 AM in Edmonton). Wild Rose Country, with host Donna McElligott, connects urban and rural Albertans by exploring the environmental, agricultural, educational and political issues affecting everyone from the far north to the deep south of the province.

For a schedule of programming and for more information visit www.cbc.ca.

Netera Alliance is grateful to the participants and sponsors who have made this essay challenge possible, in particular, members of the Calgary Science Network, and Mark Lowey, a science journalist and regular contributor to CBC radio.

Alberta Innovation and Science

www.innovation.gov.ab.ca



Alberta Innovation and Science is responsible for high-tech research and development policy advice, as well as developing business opportunities in information and communications technology research. The Ministry works to grow, attract and retain firms specializing in industries such as electronics, microelectronics, telecommunications and information networks, computer technology, multimedia, advanced materials and manufacturing.

The Ministry works closely with Alberta's research community and coordinates grant funding for various industry programs.

Alberta Science Literacy Association

The Alberta Science Literacy Association (ASLA) is a non-profit association whose mission is to promote science and technology literacy by improving the public awareness and understanding of scientific and technological processes, skills and knowledge. This is done through developing databases and resources and creating communication linkages between the general public and the scientific, engineering and technological sectors.



ASLA works closely with both the scientific and educational sectors in the communities served through its five Science & Technology Networks to provide programs of high scientific and educational merit. ASLA volunteers, active in all areas of science and technology, work in their communities to provide the knowledge, skills and expertise to answer questions, make classroom visits, provide hands-on science experience, judge science fairs, conduct field trips, aid in curriculum development, and nurture budding young scientists and technologists.

Science Alberta Foundation

www.saf.ab.ca

For more than twelve years Science Alberta Foundation has been promoting science, engineering math and technology throughout the province of Alberta. As the 'science centre without walls,' Science Alberta Foundation focuses on developing science literacy and an interest in science related careers, while fostering a general awareness of the many roles science and technology play in our daily lives.



Science Alberta Foundation's signature program is Science-in-a-Crate. With unparalleled reach and a truly unique combination of creativity and direct curriculum connection, each science crate provides teachers and students with hands-on activities and engaging support materials that make science learning meaningful and enjoyable.

Alberta Informatics Circle of Research Excellence

www.icore.ca



The Informatics Circle of Research Excellence (iCORE) was created by the Government of Alberta to develop and support excellent university-based research in information and communications technology (ICT) in Alberta. Its goal is to position Alberta as a leader in information and communications technology by establishing and funding top research teams.