



Discover Environmental Careers

February 2011



Win \$2,000  
to Help Green Your School!  
Enter the ECO Action! Video Contest

### GET YOUR STUDENTS INVOLVED

The **ECO Action! Video Contest** is now open to schools across Canada (grades 9-12) and will be awarding four schools with \$2,000 each to be used towards implementing eco-friendly initiatives. This national contest is designed to get students thinking about environmental issues, proposing solutions for a greener community, and exploring potential careers in the ever-expanding environmental sector.

Last year's winning schools included:

- École Secondaire Lacombe Composite High School, Lacombe, Alberta
- Holy Cross High School, Saskatoon, Saskatchewan
- Lester B. Pearson High School, Gloucester, Ontario
- Holy Trinity High School, Torbay, Newfoundland

Winning participants proposed practical and creative solutions to reduce consumer waste, decrease greenhouse gas emissions, lower energy consumption, and lessen the impact of rapid population growth. "It was rewarding to watch the students bring this project to life," said Charles Deighton, a teacher at Lester B. Pearson Catholic High School. "The students learned a lot about environmental issues and how they can make a difference." To view last year's winning videos, [click here](#).

**Entry forms** must be submitted by January 31, 2011, and the deadline for all video submissions is March 31, 2011.

For more information on eligibility and contest rules, visit us online at [eco.ca/videocontest](http://eco.ca/videocontest).

### Apply Now! ECO Canada Scholarships



Four scholarships each worth \$2,500 will be awarded to graduating grade 12 students

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entering into an environment-related, post-secondary program of study.

Scholarships will be awarded to individuals who have shown environmental leadership in their communities and have plans to pursue their interest in the environment through post-secondary education.

For scholarship application details or to apply, visit [eco.ca/scholarship](http://eco.ca/scholarship). All applications must be submitted by May 16, 2011.

## GREEN High Schools Advisory Committee - Call for Participants

ECO Canada, in partnership with the SEEDS Foundation, will be developing a national GREEN High Schools program for educators, students, and schools involved in demonstrating environmentally sustainable practices. Building upon a model of success previously developed by the SEEDS Foundation, ECO Canada will be recognizing high schools for completing activities that:

- Enhance the environment
- Communicate about the environment
- Demonstrate sustainable use of resources
- Explore environmental career paths



The purpose of this program is to promote environmental education, while also informing students at the secondary level (grades 9-12) about potential environmental careers and post-secondary programs of study.

To ensure this program meets the needs of educators and engages the student body, ECO Canada will be forming a **GREEN High Schools Advisory Committee** to guide the development and implementation of the recognition program. Committee participation is open to teachers, principals, school administrators, career and guidance counsellors, and representatives of environmental education organizations. Committee members will:

- Represent the views, needs, and interests of the educator and student communities
- Offer feedback on the proposed GREEN High Schools model
- Provide input on school rewards and student incentives for participation

Committee members will benefit from the opportunity:

- To influence the development of an environment-focused recognition program for educators, students, and schools across Canada
- To exchange ideas and experiences with peers who share a passion for environmental education
- For public service and recognition



If you are interested in participating in this committee, please write to April Schaly, Manager of Career Awareness at [career.awareness@eco.ca](mailto:career.awareness@eco.ca). For all those who express interest in participating, a formal invitation and terms of reference will be sent out in January 2011.

## Opportunities Abound for Students in the Environment Industry



The environment industry is a growing sector of the Canadian economy and can provide rewarding and fulfilling career opportunities for your students. According to the **Profile of Canadian Environmental Employment 2010** report, there are over 318,000 Canadian organizations employing environmental employees and "[retiring] environmental workers will create vacancies over the next decade as over 100,000 environmental employees reach retirement age."

For those with students considering the environmental sector as a potential career choice, the study found the top industries employing environmental workers were:

- Agriculture, forestry, fishing & hunting

- Construction
- Administration & support, waste management & remediation
- Professional, scientific & technical services

What's more, a closer look shows environmental health and safety, waste management, site assessment and reclamation, and environmental communication and public awareness are the top occupational areas for environmental workers. In terms of actual jobs, "environmental engineers, technicians, and project managers are the environmental occupations that are in highest demand across all industry sectors" (*Profile of Canadian Environmental Employment 2010*).

Most importantly, the growing or emerging sectors of the environment industry will require highly educated professionals. In fact, this study has shown that 66% of environmental professionals have post-secondary education, compared to 42% of the Canadian workforce-and with the emerging sub-sectors being carbon and climate change mitigation, research and development, and alternative/renewable energy-the demand for highly educated, environmental professionals will continue.



## Bring the Environment into Your Classroom



Meet curriculum requirements while guiding your students to explore the environment-an area of the Canadian and global economy that is ever-expanding.

ECO Canada has worked with educators to assist in bridging the gap between environmental education and career exploration through the development of several lessons plans-each designed to meet the needs of educators in different provinces across the country. The lesson plans are a good fit with courses such as biology, chemistry, physics, career and life management, social studies, entrepreneurship, and more.

All lesson plans are free and can be accessed online when you sign up as an "educator" on the [ECO Canada website](#).

## Environmental Technology and Trends for 2011

The environmental sector is ever-changing, and with the New Year comes several innovative environmental technologies that are either in their pilot stages, or will be introduced to the industry during 2011. To help you stay up-to-date with what modern technologies can be expected this year, [ECO Canada](#) has compiled a list of some remarkable inventions coming to Canada and abroad.



### Flying Cars from MIT

In late 2011, MIT plans to deliver the first flying car developed by the Department of Aeronautics and Astronautics. The 115 mph "Transition" was tested in 2010 and flew for 37 seconds. MIT students have created a company called Terrafugia, and are currently working to extend the flight duration. Terrafugia has begun taking deposits from early adopters wanting to purchase the Transition. To fly the car, consumers must have a license, which will be awarded after 20 hours of flying lessons.

### New Biodiesel Manufacturing Facility in Toronto

During the spring of 2011, Energy Innovation Corp is opening Toronto's first biodiesel manufacturing facility. The facility will meet the demand of the new Government of Canada regulation, which requires diesel fuel and heating oil to contain an average of 2 % of biodiesel. Capable of producing over 10 million litres of biodiesel per year, the facility will help to decrease greenhouse gas emissions. The biodiesel is created from Ontario-grown flax seeds and locally collected, used coffee grounds.



### Heat Recovery System in Quebec Paper Mill

Announced at the end of 2010, Kruger Products' pulp and paper mill in Quebec is now the home of an innovative heat recovery system intended to lower the mill's greenhouse gas emissions by 10,000 tonnes a year, the equivalent of removing 2,500 cars from the road or planting 1.3 million trees. The system works by capturing hot air from two of the mill's three paper machines and reusing it to heat the water in the mill.

### Porsche Hybrid Cars

To comply with the European Union's new emission regulations, Porsche will be redesigning many of its sport cars into hybrid models. The car company launched a hybrid version of the Cayenne SUV in 2010 and plans to release the Panamera sedan in 2011.



### Styrofoam Recycling Technology in Edmonton



Edmonton will have much less Styrofoam waste in 2011. Polycore, a company that builds foundations and walls from Styrofoam, has adopted a new industrial technology from Japan called the "Electrothermal Densifier." The technology chops and melts down Styrofoam and processes it to make plastic products.

### Xeros Waterless Washing Machine

In an attempt to conserve water, a British firm called Xeros Ltd. is developing a washing machine that is 90% waterless. Scheduled to launch commercially in 2011, the machine works by employing reusable nylon beads that absorb stains, and only requires a minimum amount of water to operate.



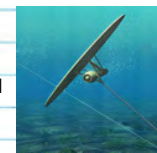
### Growing Bioenergy in British Columbia



A Vancouver Island-based pulp and paper mill will be adopting a technology called MicroSludge® in 2011. MicroSludge®, developed by Paradigm Environmental Technologies, is already being used in municipal wastewater treatment plants, but is making an innovative jump to pulp and paper mills to create more environmentally friendly paper at a lower cost. The technology works by enhancing the anaerobic digestion process, thereby reducing operating costs and increasing plant capacity.

### Swedish Underwater Kite

A Swedish company called Minesto will be generating energy off the coast of Northern Ireland with the launch of an underwater turbine kite called "Deep Green" in 2011. Seawater is 800 times denser than air, and as a result, the kite will be able to generate up to 500 kilowatts of power.



## Educator Events & Conferences

### Cannexus

Join ECO Canada January 24-26 at the 2011 Cannexus Conference in Ottawa, Ontario. This national conference provides professional development and networking opportunities for educators involved in career counselling and career development.

### NATCON

The National Consultation on Career Development and Workforce Learning will occur in Toronto, Ontario February 15-17, 2011. This gathering will include information on mentoring, career pathing, skilled trades, and more!

### EcoLinks 2011

The Ontario Society for Environmental Education (OSEE) is hosting the EcoLinks 2011 Conference at Seneca College in King City, Ontario April 28-30, 2011. This conference will focus on bringing the environment into your classroom with topics on water, biodiversity, climate change, and native studies.

### EECOM 2011 National Conference

The Canadian Network for Environmental Education and Communication (EECOM) will be meeting June 8-11, 2011 in Regina, Saskatchewan for the 2011 national conference. This year's event is titled "Exploring the Socioecological in Education and Culture: Becoming Active Participants of Change."

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