

Great Acts for Great Lakes

# WEB GUIDE



to environmental  
learning for  
young Canadians

# get ready



## to bookmark!

### Great sites and cool tools all about the environment

*Learning about the environment can happen in so many fun and interesting ways. It's such an important part of helping young people expand their awareness and understanding of healthy environmental choices. Environmental literacy encourages kids to think about their community and the world, and their own place in it. It helps them to see the world in which live as a delicate balance of nature and to understand how human activities can have positive and negative impacts in it and on the environment.*

*The environment is an ideal theme to use in the classroom to integrate different areas of curriculum. It provides all kinds of opportunities to involve young people in hands-on learning about the vast interconnections of the natural world. So much information is available today online to support environmental learning. The Internet contains thousands upon thousands of resources. It is an extremely valuable tool, but navigating the Web takes time.*

*Forget about surfing forever to find the information you need. This Web Guide to environmental learning puts information and resources at your fingertips. It will help you find informative, engaging, youth-oriented environmental sites and access curriculum-fit resources and activities – online – quickly and directly.*

**Happy navigating and good learning!**

The URLs listed were current as of February 28, 2006.

This Guide may contain links to Web sites originating from organizations not subject to the Official Languages Act and the information on these sites is made available in the language in which it was written.

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# WATER & THE GREAT LAKES

The key to life!

*Without water, life on earth would be impossible. It is essential for survival, not only for people but for every type of plant and animal too. It is precious too for it contributes to the quality of our lives.*

*Some people think it makes no difference how much water we use or what we do to it. After all, water covers nearly three-quarters of the earth's surface in oceans, as well as rivers, lakes, snow and glaciers. There's water in the atmosphere and water underground. There's so much of it!*

*But it does make a big difference because there is no such thing as "new" water and most uses degrade its quality. We need to think about water, about how much we use and why, and what we can do to protect such a precious resource.*

*Did you know the Great Lakes-St. Lawrence Basin contains approximately one quarter of the earth's freshwater resources and that this inland water system is so large that astronauts can see it from the moon? The Great Lakes are extraordinary, too, because they touch our lives daily. They provide water for consumption, transportation, power and recreation, and they play a major role in the ecology, climate, culture and economy of North America. How great is that?*

## Check these out

[www.ec.gc.ca/water/e\\_main.html](http://www.ec.gc.ca/water/e_main.html)

Surf through water related information, publications and links at Environment Canada's comprehensive freshwater Web site. Teacher's Corner features materials for grades K-12.

[www.dfo-mpo.gc.ca/canwaters-eauxcan/bbb-lgb/index\\_e.asp](http://www.dfo-mpo.gc.ca/canwaters-eauxcan/bbb-lgb/index_e.asp)

The Big Blue Bus, in the Kid's Corner, dives into all things watery : protecting drinking water, keeping water sources clean, adapting to climate change, what invasive species are, and more. The Library and School House have lots of watery facts, resources, ideas and links.

[www.on.ec.gc.ca/greatlakeskids/morphie-home-e.html](http://www.on.ec.gc.ca/greatlakeskids/morphie-home-e.html)

Meet Morphie, a raindrop that magically changes shape and form to show the many things water can do as he rides the water cycle. Morphie's great adventure includes games, activities, teacher's guide and tool kit (grade 2): Discover Wonderful Water.

[www.on.ec.gc.ca/water/greatlakes/](http://www.on.ec.gc.ca/water/greatlakes/)

Link to Great Lakes Kids. click to find out how our Lakes are doing; what's happening

with the Great Lakes ecosystem in your neighbourhood and what's involved in working towards a healthy and sustainable Great Lakes Basin ecosystem.

[www.on.ec.gc.ca/greatlakeskids](http://www.on.ec.gc.ca/greatlakeskids)

Welcome kids and educators. Great Lakes Kids makes it easy to Click on Information Resources and scroll down to find out about the earth's largest freshwater system. There's fun stuff, homework helpers, videos, environmental resources and links to ways to "get involved". Come in and surf around.

[www.great-lakes.net/teach](http://www.great-lakes.net/teach)

The Great Lakes at your fingertips! TEACH Great Lakes provides education and curriculum information geared for students K-12 and features mini-lessons on many topics. Visit the Vault of Knowledge to submit questions and get answers.

[www.epa.gov/glnpo/atlas/intro.html](http://www.epa.gov/glnpo/atlas/intro.html)

Online version of the comprehensive and easily understandable atlas of the Great Lakes. This Environmental Atlas and Resource Book is packed full of information on the Great Lakes region. (Third Edition 1995)

[www.pac.dfo-mpo.gc.ca/oceans/Outreach/links\\_e.htm](http://www.pac.dfo-mpo.gc.ca/oceans/Outreach/links_e.htm)

All about oceans. Dive into these oceans education Web links for ideas, information, resources and lesson plans.

[www.ec.gc.ca/ee-ue/default.asp?lang=en&n=937D1B31](http://www.ec.gc.ca/ee-ue/default.asp?lang=en&n=937D1B31)

Oil, Water and Chocolate Mousse... But not really chocolate mousse. Find out about oil, water and the impact of oil spills.

[www.pyr.ec.gc.ca/EN/IPM/](http://www.pyr.ec.gc.ca/EN/IPM/)

Check out this do-it-yourself, interactive water pollution model to explore the relationship between land activities and water pollution.

[www.wetcity.org/resources/RecipeForCleanWater.pdf](http://www.wetcity.org/resources/RecipeForCleanWater.pdf)

How do cleaning products we use at home affect water quality? Use this recipe to investigate and test the effectiveness of traditional cleaning products compared to less toxic alternatives.

# NATURE & WILDLIFE

Our world needs its spaces & species!



*Just like people, wild plants and animals need spaces that are suitable for them to live in. Habitat is the place where wildlife can find the food, water, shelter and space they need to raise their young.*

*Every species has its own habitat needs and so a broad range of healthy spaces is necessary to provide for different species' needs. Wetlands, forests, meadows and lakes make great habitat. But more and more, these spaces are being disturbed and destroyed, primarily by human activity.*

*Wetlands are among the more productive habitats on earth. Neither land nor water, they are a magical combination of both and a large and important piece of the natural system that keeps our world healthy. Wetlands provide wildlife nurseries and nesting sites, feeding grounds and resting places, water filters and reservoirs, and much more. But today, we are losing our wetlands too.*

*Wildlife and plants are suffering because without the habitat they need, they cannot survive. In Canada, more than 400 wildlife species are considered to be "at risk", meaning that, without specific efforts to protect and recover them, they may be lost forever. It's important to learn about nature and wildlife to find out what we can do to save spaces for species.*

## Check these out

### [www.on.ec.gc.ca/wildlife](http://www.on.ec.gc.ca/wildlife)

A gateway to great information and links from Canadian Wildlife Service about wildlife in Ontario.

### [www.on.ec.gc.ca/wildlife/wetlands](http://www.on.ec.gc.ca/wildlife/wetlands)

Explore the mystery and magic of wetlands in Ontario, with links to great online publications and quick access to more wetlands, water and wildlife on the Web.

### [www.speciesatrisk.gc.ca](http://www.speciesatrisk.gc.ca)

Just like people, wildlife need an environment suitable to them. This site answers questions about species at risk in Canada and their recovery. Link to "Hinterland Who's Who" fact sheets.

### [www.hww.ca/](http://www.hww.ca/)

Get up close and personal with the Hinterland Who's Who to explore the appearance, life history and habits of many Canadian animals. Species are listed alphabetically for easy searching. Video clips of various animals are available online.

### [www.cosewic.gc.ca](http://www.cosewic.gc.ca)

The Committee on the Status of Endangered Wildlife in Canada assesses the health of wildlife populations. Check the current list of Canadian species at risk. Many related links.

### [www.cbin.ec.gc.ca/kids/](http://www.cbin.ec.gc.ca/kids/)

Climb into the world of biodiversity and view the planet from a whole new perspective. Get ready for some amazing adventures.

### <http://wildspace.ec.gc.ca/intro-e.html>

WILDSPACE™ is your link to wildlife and habitat information in Ontario and beyond.

### [www.wwf.ca/wwf.asp](http://www.wwf.ca/wwf.asp)

World Wildlife Fund Canada – helping to protect the worldwide web of life. Great resources and links to about wildlife and wilderness. Find out how kids can help the environment and have fun doing something important. Check out the Kids and Teachers section or click on to [www.wwf.ca/satellite/wwfkids/index.htm/](http://www.wwf.ca/satellite/wwfkids/index.htm/)

### [www.dfo-mpo.gc.ca/zone/under-sous\\_e.htm](http://www.dfo-mpo.gc.ca/zone/under-sous_e.htm)

Underwater World fact sheets reveal all the details about fish and aquatic life and the nature, origin and impact of marine processes and phenomena.

### [www.on.ec.gc.ca/wildlife/wildweek/](http://www.on.ec.gc.ca/wildlife/wildweek/)

National Wildlife Week is a great way to kick off spring... and a great way to show that you care. Check out the web site for information and resources, including a poster and resource kit, and get set to explore the many wonders of your watershed. Sign on to the WILD Education Network too.

### [www.spaceforspecies.ca](http://www.spaceforspecies.ca)

This space trekking, species tracking, Web-based learning program brings science and technology to life using satellite telemetry, remote sensing, astronaut observations and weather satellites. Why watch species from space? Click to find out. More in the Educator's Zone.



[www.nature.ca/rideau/](http://www.nature.ca/rideau/)

Surf the length of the Rideau River ecosystem at the Canadian Museum of Nature's Web site and see why biodiversity is important to you. Plenty of downloadable resources and Web links. Explore to learn more and Teachers... there's a guide for you.

[www.ec.gc.ca/youth/nature\\_e.html](http://www.ec.gc.ca/youth/nature_e.html)

Surf the Web sites listed in this youth gateway to learn about animal and plant biodiversity in Canada and about species at risk. Find out how to protect ecosystems and avoid the loss of species and genetic diversity that results from human activity.

[www.cws-scf.ec.gc.ca/index\\_e.cfm](http://www.cws-scf.ec.gc.ca/index_e.cfm)

Canadian Wildlife Service Web site is a wealth of information about biodiversity, habitat, and wildlife.

[www.on.ec.gc.ca/wildlife/sarwheel/main-e.cfm](http://www.on.ec.gc.ca/wildlife/sarwheel/main-e.cfm)

Find out all kinds of things about species at risk in Canada and use the quick links to information about wetlands, and Project WILDSpace™.

[www.on.ec.gc.ca/greatlakeskids](http://www.on.ec.gc.ca/greatlakeskids)

Click on Videos to follow Chip Weseloh, wildlife biologist, as he goes out into the field to study birds in the video entitled, "Protecting our Wildlife."

[www.davidsuzuki.org/Forests](http://www.davidsuzuki.org/Forests)

Often called the lungs of the earth, forests help clean our air and regulate climate. Learn about wild lands, endangered species, biodiversity and join the Nature Challenge too!



- Log on only with parent or teacher approval.
- Never give out personal information.
- Use a nickname when chatting online.
- Never arrange to meet a friend from the Internet without a parent's involvement.
- Post the family e-mail address with parent approval, even if you have one of your own.
- Use the computer in a well-used area where there is adult supervision.
- If you have a distressing experience online, talk to a parent or teacher about it.

The Media Awareness Network has a range of information and resources to help make Internet experiences safe and rewarding.

Check them out at [www.media-awareness.ca](http://www.media-awareness.ca).

For a list of online rules, visit

<http://cyberwise.gc.ca/english/onlinrules.html>



**Linking**  
education with  
**action** learning...  
doing helps  
**reinforce** what  
is taught in  
the **classroom**.



# PROTECT THE ENVIRONMENT

Get off the sidelines!

*It's all about looking after the environment. If we each do our part to respect, protect and conserve the environment, then the environment will do its part and look after us.*

*Pollution prevention happens when people change their practices and habits in order to reduce the pollutants and waste they create, before it becomes a problem, instead of trying to clean things up after the fact. Take garbage for example: Canadians produce more garbage per person than just about any other country. Reducing the amount of waste we create is only one of the things we can do about waste. Reusing and recycling are two more, really good options.*

*Pollution prevention also includes activities that protect our natural resources, such as trees and water. Conservation and being more efficient when we use resources are examples. It may seem difficult to stop pollution, but there are lots of things that can be done every day.*

*Being aware is the first step but pollution prevention requires people to get off the sidelines and to put their good ideas and good intentions into action.*

## Check these out

Recycle your rechargeable batteries. To find the collection site nearest you, visit [www.rbrc.org](http://www.rbrc.org)



### [www.ec.gc.ca/youth/protection\\_e.html](http://www.ec.gc.ca/youth/protection_e.html)

Learn about environmental choices and practices and become a precious player in environmental protection. Check out the links for information on pollutants, P2, recycling, composting... and much more.

### [www.ec.gc.ca/cppic/](http://www.ec.gc.ca/cppic/)

Come look around the Canadian Pollution Prevention Information Clearinghouse database for all kinds of information to encourage a P2 – Pollution Prevention, lifestyle. Check out Frequently Asked Questions.

### [www.ec.gc.ca/nopp/docs/fact/en/index.cfm](http://www.ec.gc.ca/nopp/docs/fact/en/index.cfm)

Pollution prevention fact sheets are available online.

### [www.rco.on.ca/publication/factsheet.html](http://www.rco.on.ca/publication/factsheet.html)

The Recycling Council of Ontario has created helpful 3R fact sheets and tips for teachers and students with links to general 3R information on recycling and waste reduction.

### [www.canren.gc.ca/school/map/english/map\\_e.html](http://www.canren.gc.ca/school/map/english/map_e.html)

Renewable Energy... It's Only Natural! This interactive map is a great way for

youth to learn about 15 different renewable energy technologies. Select any one of the technologies to read about it then see where it is located on the map.

### [www.ec.gc.ca/mercury/](http://www.ec.gc.ca/mercury/)

Mercury is versatile, volatile and variable. It can be gas, liquid or solid. It is found in rocks, soil, air and living organisms. Basic Facts page is a great place to start to find out about mercury and the environment. Plenty of links and information.

### [www.ibuydifferent.org](http://www.ibuydifferent.org)

"Be, Live, Buy Different - Make a Difference," a campaign to help young people learn how they can make a difference by making more environmentally-friendly purchasing decisions. Learn about connections and actions that make a difference.

### [www.epa.gov/kids/game.htm](http://www.epa.gov/kids/game.htm)

An Environmental Kids Club on the Web. Young people can learn about conservation, air, water and human health. Includes games and activities. Click on Recycle City [www.epa.gov/recyclecity/](http://www.epa.gov/recyclecity/) to discover hundreds of ways a whole town can reduce, reuse and recycle.



[www.recyclezone.org.uk/home.aspx](http://www.recyclezone.org.uk/home.aspx)

What's what in the world of waste? Visit Recyclezone to get busy learning what to do about waste.

[www.greenpeace.ca/e/resource/green/school.php](http://www.greenpeace.ca/e/resource/green/school.php)

Check out some after school tips for living green. Protecting the planet can be a part of everyone's daily life.

[www.epa.gov/epaoswer/education/index.htm](http://www.epa.gov/epaoswer/education/index.htm)

Information and creative ideas turned into action can make a difference when it comes to reducing the amount of waste we all create every day. Check out the Educational Resources for kids, teens and teachers.

[www.nrdc.org/greensquad/intro/intro\\_1.asp](http://www.nrdc.org/greensquad/intro/intro_1.asp)

The Green Squad has a plan of action to help make their schools green and healthy. Join them as they investigate and work to understand the issues and problems and discover their action tips and project ideas.

# WEATHER

## Get your head out of the clouds!



*Each morning millions of Canadians wake up and ask themselves the same question: "What's the weather going to be like today?" And every day local weather forecasts provide the answer. But weather is much more than forecasts!*

*There are so many interesting facets of weather. There are the natural processes and factors in the atmosphere that shape our weather, like temperature, wind patterns and precipitation. Meteorologists study these phenomena to forecast what we should expect from the weather on any given day.*

*As well, more and more pollutants and pollutant sources are influencing the weather we experience day to day, producing conditions that people need to be aware of before going out of doors. Weather forecasts tell us about these conditions through smog alerts, ultra-violet (UV) index forecasts, wind chill and humidex temperatures.*

*Weather is a big part of our Canadian identity and we have learned to adapt to the variety of weather conditions that come with the different seasons. So get your head out of the clouds and dig into the fascinating world of weather.*

## Check these out

[www.ec.gc.ca/youth/weather\\_e.html](http://www.ec.gc.ca/youth/weather_e.html)

Check out the many interesting facets of weather and don't miss the publications and fact sheet links.

[www.msc-smc.ec.gc.ca/education/weather\\_e.cfm](http://www.msc-smc.ec.gc.ca/education/weather_e.cfm)

Go to the source: the Meteorological Service of Canada, for information on meteorology, arctic ozone, el niño and la niña, severe weather, wind chill and more... general interest information and teachers' guides.

[www.weatheroffice.pyr.ec.gc.ca/skywatchers/kidsStuff\\_e.html](http://www.weatheroffice.pyr.ec.gc.ca/skywatchers/kidsStuff_e.html)

Have fun with quizzes and challenges and visit a virtual weather office.

[www.msc-smc.ec.gc.ca/education/uvindex/](http://www.msc-smc.ec.gc.ca/education/uvindex/)

The site for Sun Savvy learning. The UV index and sun protection home has plenty of cool information and links on the science of the ozone layer, ozone depletion, ultraviolet radiation and sun protection... activities, teaching resources, posters, ready-to-go presentations and more.

[www.pnr-rpn.ec.gc.ca/air/wintersevere/weatherwords.en.html](http://www.pnr-rpn.ec.gc.ca/air/wintersevere/weatherwords.en.html)

Doing a project or just curious? Click on to this Just for Kids site that includes weather words, winter activities and other links too.

[www.weatheroffice.pyr.ec.gc.ca/skywatchers/index\\_e.html](http://www.weatheroffice.pyr.ec.gc.ca/skywatchers/index_e.html)

Why not let Mother Nature help teach you about weather? Join Environment Canada's Sky Watchers Program.

[www.on.ec.gc.ca/greatlakeskids/glk-video-e.html](http://www.on.ec.gc.ca/greatlakeskids/glk-video-e.html)

"How a Weather Forecast is Made" is an eight-minute video that explains every aspect of producing weather forecasts and severe weather warnings.

# CHANGEMENTS CLIMATIQUES

## Nous devons faire partie de la solution!

*Notre climat change et il ne s'agit pas simplement d'une tendance au réchauffement. Le climat est un équilibre délicat entre les gaz à effet de serre dans l'atmosphère qui entoure notre planète.*

*Les gaz à effet de serre piègent la chaleur du soleil et la gardent près de la surface de la terre pour réchauffer l'atmosphère. Sans ces gaz à effet de serre, toute la chaleur rayonnée par le soleil se perdrait dans l'espace et la terre serait trop froide pour accueillir les êtres humains, les plantes et les animaux. C'est ce qu'on appelle l'effet de serre, qui joue un rôle important dans la formation du climat.*

*Le problème, c'est que les activités humaines font augmenter les gaz à effet de serre dans l'atmosphère et perturbent l'équilibre naturel. De plus en plus de chaleur est piégée près de la surface de la terre, qui se réchauffe toujours davantage.*

*Même de petites variations de température peuvent modifier les systèmes météorologiques, occasionnant des événements tels que des tempêtes violentes, des sécheresses et des inondations. Ce type de changement du temps moyen dans une région s'appelle changement climatique. Si le climat change trop rapidement, certains animaux et certaines plantes pourraient être incapables de s'adapter assez rapidement et risquent de disparaître.*

*Chaque personne contribue chaque jour aux changements climatiques, ce qui engendre d'énormes problèmes. C'est donc dire que chaque personne peut aussi jouer un rôle pour prévenir les changements climatiques. Une bonne façon de commencer à améliorer la situation, c'est de prendre de meilleures décisions concernant le moment de consommer de l'énergie et la façon de le faire.*

## Venez voir

### [www.climatechange.gc.ca](http://www.climatechange.gc.ca)

Votre porte d'entrée du gouvernement du Canada pour en savoir plus sur les changements climatiques. Qu'est-ce qui se passe? Qu'est-ce que ça veut dire pour le Canada? Et plus important encore, qu'est-ce qu'on peut faire? Cliquez sur « Les changements climatiques, c'est quoi? » pour commencer le voyage.

### [www.ec.gc.ca/youth/climate\\_f.html](http://www.ec.gc.ca/youth/climate_f.html)

Quelles sont les causes du changement climatique? Peut-on faire fléchir cette tendance? Parcourez ce site pour des renseignements et des idées pour relever les défis liés au changement climatique. Il y a bien plus encore!

### [http://adaptation.nrcan.gc.ca/resource\\_f.asp](http://adaptation.nrcan.gc.ca/resource_f.asp)

Quelle est la vulnérabilité du Canada aux changements climatiques? Parcourez les liens connexes pour des renseignements du Programme sur les impacts et l'adaptation liés aux changements climatiques.

### [www.climatechange.gc.ca/french/actions/what\\_are/schools.shtml](http://www.climatechange.gc.ca/french/actions/what_are/schools.shtml)

Ce site fournit de l'information au sujet des initiatives éducatives sur les changements climatiques et les nombreuses organisations qui offrent des ressources et de l'information sur l'écologisation à l'intention des écoles.

### [www.climatechangesolutions.com](http://www.climatechangesolutions.com)

Solutions pour les changements climatiques à l'intention des particuliers et familles, pour les institutions publiques et d'autres secteurs de l'Institut Pembina. Histoires de réussite, outils et ressources sur la réduction des émissions de gaz à effet de serre.

### [www.oeenrcan.gc.ca/clubducalendrier/](http://www.oeenrcan.gc.ca/clubducalendrier/)

Bienvenue au Club du Calendrier ! Venez explorer ma cabane; vous y découvrirez des tas de trucs formidables au sujet de l'énergie et de l'économie d'énergie.





[www.oeenrcan.gc.ca/calendarclub/](http://www.oeenrcan.gc.ca/calendarclub/)

Welcome to the Calendar Club! Come explore the tree-house and find lots of great stuff about energy and energy conservation.

[www.epa.gov/globalwarming/kids/index.html](http://www.epa.gov/globalwarming/kids/index.html)

Very cool global warming kids site with information, games, animations and even stuff for teachers!

[www.scouts.ca/inside.asp/cmPageID=481](http://www.scouts.ca/inside.asp/cmPageID=481)

Check out Scouts Canada climate change resources and links to information, activities and games. Click on Climate Change Challenge resources for leaders.

[www.climatechange.gc.ca/english/](http://www.climatechange.gc.ca/english/)

Do you know how many greenhouse gas emissions you produce a year? Click on the online Greenhouse Gas Calculator to find out and then learn how to reduce them.

[www.aecl.ca/kidszone/atomicenergy/index.asp](http://www.aecl.ca/kidszone/atomicenergy/index.asp)

Pick a topic and jump into the kidszone to find out more about nuclear energy, electricity and how energy interacts with our environment.

[www.yc3.net/](http://www.yc3.net/)

The Youth Climate Change Conference is a youth-led initiative focused on action, alternatives and solutions for a changing world. Inspiring ideas and opportunities to get involved in changing climates.

[www.onelesstonne.ca/home.cfm](http://www.onelesstonne.ca/home.cfm)

The One Less Tonne Challenge reveals simple actions at home and on the road that can help to save the planet and reduce energy costs in the bargain. The One Less Tonne tool will get you started.

[www.co2challenge.com/index\\_html.htm](http://www.co2challenge.com/index_html.htm)

A cool place to have fun and learn about global warming and climate change. Check out the student and group challenges, the latest eco-news and links, and the Climate Change Challenge Game.

<http://www.re-Energy.ca>

Check out this comprehensive, renewal energy project kit that explores wind, water, solar and biomass energy and more.

## WHAT ARE Greenhouse Gases?

- Carbon dioxide, or CO<sup>2</sup>, is the most important greenhouse gas released by humans through the use of fossil fuels to create energy.
- Methane is a greenhouse gas that comes from rotting garbage.
- Chlorofluorocarbons, or CFCs, are industrial chemicals made by humans and used for air conditioners and cleaning solvents.
- Nitrous oxide is released when chemical fertilizer is used and when fossil fuels are burned.



No environmental action is too small



# AIR & ATMOSPHERE

**Do your bit for clean air!**



*Clean air is essential to everything that lives on earth.*

*Our planet can support life because of our atmosphere, the protective but fragile mixture of gases and particles that surrounds it. Human activities are creating problems for the atmosphere, making it less able to protect us. Air pollution is one example.*

*Air pollution is the presence in the air of any substance that can affect the health of people, plants or animals, or that causes damage to property and to our environment. These substances can have natural origins but human activities play a big part in clean air issues, such as smog and acid rain that affect the air we breathe. Some pollutants also affect the earth's ozone layer and are contributing to climate change.*

*It may seem as if the emissions from your one vehicle aren't that important. Still, added to the emissions of everyone else's vehicles, there is a definite impact on the environment.*

*When it comes to air quality, little things can add up to a big difference. Every choice we make to cut down on activities that cause air pollution is a choice for cleaner air.*

## Check these out

[www.ec.gc.ca/cleanair-airpur/](http://www.ec.gc.ca/cleanair-airpur/)

For information on air pollution, energy's connection to clean air, clean air issues such as smog and acid rain, as well as air related issues such as climate change, search through Environment Canada Clean Air Online. Links to five different areas of Canada.

[www.ec.gc.ca/ozone/EN/kidzone/index.cfm](http://www.ec.gc.ca/ozone/EN/kidzone/index.cfm)

Kidzone provides accessible, readable and fun information about stratospheric ozone and what we can do to protect it. Includes an ozone layer quiz.

[www.ec.gc.ca/cleanair-airpur/Ontario\\_Region-WS2D71F8DE-1\\_en.htm](http://www.ec.gc.ca/cleanair-airpur/Ontario_Region-WS2D71F8DE-1_en.htm)

Get up-to-date information from Clean Air Online Ontario Region and learn why residents of Ontario are exposed to the greatest number of poor air quality days in the country and some of the worst air quality overall, as well as what we can all do to help.

[www.ec.gc.ca/acidrain/](http://www.ec.gc.ca/acidrain/)

Get all the facts on acid rain, what's being done and what's new. The Kids' Corner features experiments and projects for Grades K-4, 5-8 and 9-12, plus information and resources.

[www.tcf-fca.ca/](http://www.tcf-fca.ca/)

Grow clean air. How? Find out about the role trees play in improving air quality and in reducing climate change.

[www.hc-sc.gc.ca/ewh-semt/pubs/air/smog\\_busters\\_depoleurs/index\\_e.html](http://www.hc-sc.gc.ca/ewh-semt/pubs/air/smog_busters_depoleurs/index_e.html)

There's plenty going on with the Smog Busters. Check out puzzles, games and quizzes and the things you can do to reduce air pollution. Cleaner air makes for better health. Find out about air quality, smog and health at [www.hc-sc.gc.ca/air](http://www.hc-sc.gc.ca/air)

[www.cleanairchampions.ca](http://www.cleanairchampions.ca)

A perfect fit – athlete role models acting as spokespersons to motivate young Canadians to reduce air pollution through physical activity. Check out the Champions.

<http://oee.nrcan.gc.ca/communities-government/idling.cfm>

Welcome to the Idle-Free Zone and make a difference when it comes to air quality and climate change. Find out how to launch an anti-idling awareness campaign at school to stop unnecessary engine idling and improve air quality.



# STILL MORE...

## Cool eco-links



### [www.coolclimate.org/climatechange.htm](http://www.coolclimate.org/climatechange.htm)

The Cool Climate Kids' Club official Web site. Explore!

### [www.nrcan-rncan.gc.ca/kids/index\\_e.html](http://www.nrcan-rncan.gc.ca/kids/index_e.html)

Make the connection between energy use and the environment. NRCat's Scratching Post has a lot of tips and ideas to save energy. Need help with homework? Click here. Find out more about the Calendar Club too.

### [www.ec.gc.ca/envirozine/](http://www.ec.gc.ca/envirozine/)

Environment Canada's online newsmagazine... stay on top of environment news with this cool zine.

### [www.ec.gc.ca/youth/](http://www.ec.gc.ca/youth/)

A site just for youth who care about the environment.

### [www.youth.gc.ca](http://www.youth.gc.ca)

Your access point to Government of Canada related youth programs, services and information, everything from jobs and education to science and technology. Click on Environment for links to environmental sites for young people.

### [www.on.ec.gc.ca/greatlakeskids](http://www.on.ec.gc.ca/greatlakeskids)

Attention kids ... have fun with games, puzzles and quizzes that focus on Great Lakes facts, pollution, wildlife and species at risk. Links to other great sites.

### [www.on.ec.gc.ca/greatacts-grandsgestes](http://www.on.ec.gc.ca/greatacts-grandsgestes)

Click on the Virtual School for information about the water and the Great Lakes, climate change, spaces and species, waste, air pollution and more and see the connections at school. Find out more about Great Acts for Great Lakes here too!

### [www.on.ec.gc.ca/community/youth/ec-kids-e.html](http://www.on.ec.gc.ca/community/youth/ec-kids-e.html)

Environment Canada kids has lots of fun ways for kids (ages 6-12) to learn about wildlife, ecosystems, weather, wetlands, climate change and more. Click on games, quizzes, videos and activities.

### [www.energyquest.ca.gov/projects/index.html](http://www.energyquest.ca.gov/projects/index.html)

Some science projects to do at home.

### [www.on.ec.gc.ca/community/youth/ec-youth-e.html](http://www.on.ec.gc.ca/community/youth/ec-youth-e.html)

Environment Canada Youth (ages 13-18). Check out the on-line information and programs about wildlife, ecosystems, weather, wetlands, climate change and more!

### [www.nature.ca](http://www.nature.ca)

Visit the Canadian Museum of Nature – there's plenty going on online!

### [www.epa.gov/epaoswer/education/kids\\_ppc.htm](http://www.epa.gov/epaoswer/education/kids_ppc.htm)

Join the Planet Protectors Club for Kids if you're ready for a mission to improve the world around you by making less trash. Planet Protectors want to learn about reducing waste and saving resources to carry out their mission.

### [www.on.ec.gc.ca/pubs\\_e.html](http://www.on.ec.gc.ca/pubs_e.html)

Quick access to publications and sources available from Environment Canada Ontario Region: community resources; clean air and climate change; environment emergencies; environmental monitoring; laws and agreements.

### [www.ec.gc.ca/quiz\\_e.html](http://www.ec.gc.ca/quiz_e.html)

Quick access to environmental games and entertainment.

### [www.ecokids.ca](http://www.ecokids.ca)

Earth Day Canada's environmental program for young people who care about the planet. Click on for fun games, activities and information.

### [www.epa.gov/region5/publications/happy.pdf](http://www.epa.gov/region5/publications/happy.pdf)

An Earth Day Activity Book to help kids learn how they can help to protect the environment at home, at school and at play.

### [www.epa.gov/owow/nps/kids/](http://www.epa.gov/owow/nps/kids/)

The Nonpoint Source Kids Page features games and activities to help kids learn more about how melted snow or rain can pick up pollutants as it runs over the ground and into our rivers, lakes and oceans and why prevention is important.

### [www.dfo-mpo.gc.ca/canwaters-eauxcan/bbb-lgb/](http://www.dfo-mpo.gc.ca/canwaters-eauxcan/bbb-lgb/)

Ride the new Big Blue Bus for "all things watery" fun.

### [www.cwf-fcf.org/](http://www.cwf-fcf.org/)

Click on fun stuff to test your knowledge about wildlife in Canada by trying the Species at Risk and the Amazing Backyard Bird quizzes.

### [www.goforgreen.ca/asrts/](http://www.goforgreen.ca/asrts/)

Find out about Go for Green's active and safe routes to school program and check out the Kids' Enviro-Health and Enviro-Quiz page.

### [www.enviroliteracy.org/students-index.php](http://www.enviroliteracy.org/students-index.php)

Visit the Environmental Literacy Council to ride Rogue Waves, get homework help and find really cool science links for kids.

### [www.ontarionature.org/educate/books.html](http://www.ontarionature.org/educate/books.html)

Check out Ontario Nature's Book List to find books with environmental themes for all ages.

### [www.campsite24.ca](http://www.campsite24.ca)

Welcome to Campsite24! This great resource is for both students and teachers and brings Ontario's parks and protected areas to your home, classroom or library. Have fun while you explore the site and learn about environmental protection, plants and wildlife and Ontario's magnificent provincial parks.

Encouraging  
kids to think  
about their  
community and  
the world,  
and their  
place within  
it.



# FOCUS ON

# LEARNING

Curriculum-fit and more

## [www.ceecap.com/](http://www.ceecap.com/)

The Canadian Environmental Education Curriculum Assessment program is a searchable database that provides information about selected environmental topics for each province and links it to the appropriate curriculum fits.

## [www.yorku.ca/fes/envedu/enved\\_ont.asp](http://www.yorku.ca/fes/envedu/enved_ont.asp)

Environmental education resources designed to support educators and encourage environmental literacy across the curriculum. Variety of resource units in pdf format.

## [www.cln.org/](http://www.cln.org/)

The Community Learning Network provides annotated links to educational sites with free resources, all organized by theme pages and keyword search. A wealth of environmental connections from K-12.

## [www.pembina.org/environmental\\_edu.asp](http://www.pembina.org/environmental_edu.asp)

The Pembina Institute has compiled a variety of resources for educators in all areas of environmental education. Sign up for Pembina Education E-News.

## [www.greenlearning.ca](http://www.greenlearning.ca)

Greenlearning.ca is a web-based program with environmental educational materials for students, teachers and parents. Lesson plans, activities (online and offline) and resources, just a few clicks away!

## [www.lsf-1st.ca/](http://www.lsf-1st.ca/)

Learning for a Sustainable Future provides innovative resources, teaching materials, experiments and games to bring sustainable development concepts and principles to kids at a variety of grade levels.

## [www.green-street.ca/](http://www.green-street.ca/)

Get on the Green Street... and get linked to free, high quality environmental education programs. Teacher and Student zones.

## [www.dcpplanet.org/](http://www.dcpplanet.org/)

A better planet begins in the classroom. Click on Destination Conservation for a practical, activity-based way to bring environmental education alive in the classroom. Great stuff for teachers and students.

## <http://ice-glaces.ec.gc.ca/>

Visit the Education Corner of Canadian Ice Service to find out all about ice and icebergs.

## [www.earthcarecanada.com/](http://www.earthcarecanada.com/) **EarthCARE Resources**

Environmental education, student-led stewardship and activity-based learning... with a wealth of environmental and energy related lesson plans, activities and handouts. Find plans that link water, waste and energy themes with numbers and books and much more!

## [www.ecokids.ca](http://www.ecokids.ca)

A great Canadian web site designed to help make every day Earth Day. Specialized tool for educators to quickly locate curriculum connections for various topics, games and activities.

## [www.letstalkscience.ca/main/schools](http://www.letstalkscience.ca/main/schools)

Inspiring discovery... interactive curriculum-specific programs, activities, links and teaching guides to help teachers and students at all levels discover science.

## [www.biochem.uwo.ca/oso/](http://www.biochem.uwo.ca/oso/)

Outreach Science Ontario ... a virtual library of lesson plans (grades 1-8 Lesson Index), and access to virtual field trips, student research sites and interesting science ideas.

## <http://earthnet-geonet.ca/>

EarthNet is a virtual resource centre of earth sciences activities, experiments and fun learning for all levels.

## [www.seedsfoundation.ca/](http://www.seedsfoundation.ca/)

Inspiring realistic choices and actions with bias-balanced, curriculum-fit energy and environmental education programs. Check out Green Schools, Creating a Climate of Change, challenges and energy literacy series, all from SEEDS.

## [www.ceismc.gatech.edu/busyt/](http://www.ceismc.gatech.edu/busyt/)

Welcome to K-12: Busy Teachers' WebSite. Direct source materials, lesson plans and classroom activities with a minimum of site-to-site linking.

## [www.schoolnet.ca](http://www.schoolnet.ca)

Welcome to SchoolNet – links to some of the most engaging and informative sites selected to meet the needs of teachers, students and parents alike.

## [www.cnf.ca/guides/index.html](http://www.cnf.ca/guides/index.html)

Nature Canada's Species at Risk Education Kit is designed around life science and environmental science components of grades 3-7 curriculum by province. Activity book, teacher's guide and species fact sheets..

## [www.ontarionature.org/educate/index.html](http://www.ontarionature.org/educate/index.html)

Ontario Nature's Teaching Naturally Program provides up-to-date, online information and hands-on activities about natural heritage and species at risk. Links to science and technology and geography curriculum. Check out Wildlife in Jeopardy Online Tool Kit.

## [www.cbin.ec.gc.ca/kids/educators.cfm?lang=e](http://www.cbin.ec.gc.ca/kids/educators.cfm?lang=e)

Scroll down to link to interactive biodiversity education resources to help incorporate biodiversity topics into creative curriculum materials.

# GET INVOLVED!

[www.wwf.ca/satellite/wwfkids/S4W/](http://www.wwf.ca/satellite/wwfkids/S4W/)  
Welcome to World Wildlife Fund-Canada Schools for Wildlife. Learning units and free educational resources to support learning about wildlife and wild places.

[www.wildeducation.org/more\\_education.asp](http://www.wildeducation.org/more_education.asp)

Be up on all things WILD. Search for classroom activities and outdoor projects by curriculum theme or by WILD program. Register for new resources and National Wildlife Week and Oceans Day education material.

[www.hww.ca/hww.asp?id=5&pid=0](http://www.hww.ca/hww.asp?id=5&pid=0)  
Hinterland Who's Who for Educators. Lesson plans to inform young people about biodiversity, sustainability, ecosystem conservation and endangered species.

[http://weatheroffice.pyr.ec.gc.ca/skywatchers/index\\_e.html](http://weatheroffice.pyr.ec.gc.ca/skywatchers/index_e.html)  
Sky Watchers is an interactive educational program about weather, designed to support grades 4-7 science curriculum. Students do experiments, learn to observe weather, make instruments, and more. Teacher's Resource Kit available.

[www.cleanairchampions.ca/](http://www.cleanairchampions.ca/)  
Get active for cleaner air. Click on Programs and scroll to Getting Active for Cleaner Air Education Resource Kit for simple, fun, physically active games with themes based on air pollution and health.

[www.epa.gov/region01/students/teacher/airqual.html](http://www.epa.gov/region01/students/teacher/airqual.html)

Tools for Schools and Project A.I.R.E (Air Information Resources for Educators) provide resources on air pollution issues. Lots of warm-up exercises, lessons and additional readings to encourage critical and creative thinking,

[www.msc-smc.ec.gc.ca/education/teachers\\_guides/](http://www.msc-smc.ec.gc.ca/education/teachers_guides/)  
Project Atmosphere Canada online resource and teacher's guide with downloadable materials related to meteorology and atmospheric sciences designed for K-12.

[www.climatechange.gc.ca/english/teachers/k12\\_ontario.asp](http://www.climatechange.gc.ca/english/teachers/k12_ontario.asp)

Check out the Ontario Climate Change Education Project to learn more about the best available climate change resources for teachers and how they can be used within required curricula. Educator projects K - 12.

[www.climatechange.gc.ca/english/teachers](http://www.climatechange.gc.ca/english/teachers)

Bringing climate change into the classroom. Regional climate change poster series with teacher's guide and curriculum designed to help making teaching climate change easier. Focus grades 5 and 10 science classes.

[www.greenteacher.com/tacc.html](http://www.greenteacher.com/tacc.html)

"Teaching About Climate Change: Cool Schools Tackle Global Warming" is a *Green Teacher* collection that offers a teaching framework and variety of activities to help educators and students tackle the challenging topic of climate change.

[www.yorku.ca/ecoschl/index.asp](http://www.yorku.ca/ecoschl/index.asp)  
Ontario EcoSchools links classroom education and opportunities for learning and action outside the classroom. Energy conservation and waste resource units connected to elementary and secondary curriculum. Check out the 20/20 EcoSchools climate change materials at [www.toronto.ca/health/2020/ecoschools.htm](http://www.toronto.ca/health/2020/ecoschools.htm).

[www.ec.gc.ca/cppic/citizens/EN/index.cfm](http://www.ec.gc.ca/cppic/citizens/EN/index.cfm)

Click on Educators for P2 lesson plans, links to environmental programs and more to help build environmental issues and concepts into learning and encourage active involvement in solutions.

[www.epa.gov/epaoswer/education/mad.htm](http://www.epa.gov/epaoswer/education/mad.htm)

Everything you do can make a difference... cool educational resources to inspire active involvement in 3R's. View the life cycles of a CD or DVD; of a cell phone; or a soccer ball. Find out about science fair fun and learning beyond the classroom.



**Knowledge**  
is the  
**foundation** for  
environmental  
**action.**

# BIG IDEAS... GREAT ACTS

**Great Acts for Great Lakes!** Encourage students to think about their environment and their place in it. Take the challenge and turn learning into doing to help make good things happen in the Great Lakes Basin ecosystem.  
[www.on.ec.gc.ca/greatacts-grandsgestes/](http://www.on.ec.gc.ca/greatacts-grandsgestes/)

**School Ground Naturalization!** Transform school grounds into stimulating, biologically-diverse outdoor classrooms and quiet places and healthy, enjoyable play and social spaces. Find out more about how to turn a big idea into a great act.  
[www.ontarionature.org/educate/schoolground.html](http://www.ontarionature.org/educate/schoolground.html)  
[www.schoolgrounds.ca](http://www.schoolgrounds.ca)  
[www.evergreen.ca](http://www.evergreen.ca)  
[www.wildaboutgardening.org](http://www.wildaboutgardening.org)

**Sign on to the Nature Challenge !** What can you do? Pick at least three of 10 effective ways to help conserve nature and improve our quality of life and do them! Get inspired. Take the lead. Learn more and see the difference you can make.  
[www.davidsuzuki.org/WOL/Challenge/](http://www.davidsuzuki.org/WOL/Challenge/)

**Become an Ancient Forest Friendly School!** Help save Canada's ancient forests. Find out what you can do to help your school go to recycled paper products that contain a high proportion of post-consumer recycled fibres. Get involved.  
[www.greenpeace.ca/e/campaign/boreal/depth/aff/](http://www.greenpeace.ca/e/campaign/boreal/depth/aff/)

**Start a Recycling Club!** Take the lead. Educate and encourage your friends to make recycling a habit, to help empty recycling containers and track the amount of waste reduced at school. Why not try vermicomposting? Learn more about worms and big ideas to close the food loop at school and add to fundraising ideas.  
[www.rirecyclingclub.org/site/getstart.html](http://www.rirecyclingclub.org/site/getstart.html)  
[www.ciwmb.ca.gov/Publications/schools/56001007.pdf](http://www.ciwmb.ca.gov/Publications/schools/56001007.pdf)

**Join the Watchers!** Help scientists discover how, and more importantly why, our natural environment is changing. Be a volunteer NatureWatch-er! as part of FrogWatch, WormWatch, PlantWatch or IceWatch. There's even a DandelionWatch.  
[www.naturewatch.ca](http://www.naturewatch.ca)

**Do Something Big about Climate Change!** Improve air quality and protect our environment. We're all part of the problem. So we can all help with the solution, starting with making better decisions about when and how we use energy. A school-based, anti-idling campaign is just one big idea. Joining the Calendar Club is another.  
[www.climatechange.gc.ca/english/students](http://www.climatechange.gc.ca/english/students)  
<http://oee.nrcan.gc.ca/CalendarClub>  
<http://oee.nrcan.gc.ca/transportation/idling>

I can do a lot,  
so I should do a lot.



**Become Sun Savvy!** Register your school and learn about the UV index and sun protection.  
[www.mscsmc.ec.gc.ca/education/uvindex.index\\_e.html](http://www.mscsmc.ec.gc.ca/education/uvindex.index_e.html)