

Lesson Plan and Event Guide



"As the founder of a youth-run organization, I've been able to witness first hand the power of young people when they unite as one voice behind an issue facing our world. Lights Out Canada is a shining example of this power - proof positive of what young people can accomplish for our society and for the issues we care about...hope is burning bright in our collective dream to solve the problems created by global warming and, indeed, all of the issues facing our world."

- D. Simon Jackson, 2006

*Founder and Executive Director, Spirit Bear Youth Coalition
www.spiritbearyouth.org*

In partnership with:



Earth Day[®]
CANADA

www.lightsoutcanada.org
lightsoutcanada@gmail.com

Lights Out Canada is a national event during which schools across the country turn off their lights and spend the day learning about climate change and what youth can do to take action.

Our goals are to:

- Educate students and teachers about the dangers of climate change.
- Provide participants with a host of ideas as to how to change everyday habits and lead more sustainable lifestyles.
- Encourage schools to be aware of environmentally unfriendly practices and revise them.

We provide comprehensive lesson plans, step-by-step participation guides, and visual aids in order to make Lights Out Canada a success in participating schools. By increasing awareness and encouraging discussion, active participants will make a conscious effort to curb their energy use, both at school, and at home.

Our lesson plans detail:

- What is global warming?
- Why is it occurring?
- Why is it a problem?
- **How can I make a difference?**

Over **100 000** students in over **250** schools in **4** countries participated in our fourth annual event, held in partnership with Earth Day Canada on April 22, 2009. Our objectives for the near future are to significantly increase these numbers, to intensify the participation of schools and to collect and compile students' commitments to action on climate change as a result of participation in Lights Out Canada.

We want our peers to realize that global warming is not a far off concept, it is happening **now**, and its effects are being felt **today**. Ice in the arctic is melting. Ocean levels are on the rise, and changing climates have contributed to the extreme weather felt around the world.

The repercussions of growing greenhouse gas emissions will be one of the greatest (if not the most prominent) issues that our generation will face. It is our responsibility to put an end to this dangerous trend. Lights Out Canada will not stop global warming. It will, however, give students a quantity of tools they need to preserve our country, and our planet, for future generations.

www.lightsoutcanada.org
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Steps for Administrators

The Lights Out Team would like to thank you for taking an interest in our project. We are students who have a vision for our schools and our environment and who, with the help of forward thinking schools like yours, are taking that vision across the country.

In order to make it as easy as possible for you to participate, we have included step-by-step instructions for how to make Lights Out Canada a success at your school.

1. Read the Lights Out Canada “Project Summary”. If you haven’t been given a copy, visit www.lightsoutcanada.org. Click on “About” to view the project synopsis.
2. If you have any questions about the project please email the Lights Out Team at: lightsoutcanada@gmail.com.
3. At the next staff meeting, discuss any problems or difficulties you might encounter, how to market the idea within the student body, and any queries you or the staff may have.
4. Make sure that April 22, 2010 (Earth Day) is not in conflict with any scheduled events at your school. Lights will be out in all participating schools simultaneously; however, we will not exclude any school if there is a conflict of timing and a leeway of a week or so is completely reasonable.
5. Contact other schools in the district and get them involved in a district-wide Lights Out day! In our experience the media has taken an interest in Lights Out and a phone call to the local newspaper is often all it takes for their involvement. We would appreciate it if you let us know if you do receive media attention, so that we can put it on our website!
6. Allow the “Lights Out Liaisons” (students) to present Lights Out Canada at a later staff meeting, closer to the event. Allow the “Lights Out Liaisons” to advertise in the school and help make sure that the staff and student body are aware of the event and have ample notice to prepare.
7. Please pass along any photos, student responses, or teacher feedback that you receive on the Lights Out Canada day.
8. When the day arrives, make announcements to further notify students of the event, and take pride in your role in combating, and raising awareness about, global warming!



Steps for Students

Follow these steps to make Lights Out World a success at your school!

1. Read through the “Project Summary”. Visit: www.lightsoutcanada.org for more information and downloads. If you have any further questions about the project, email the Lights Out Team at lightsoutcanada@gmail.com. REMEMBER: Today is better than tomorrow! Start planning the event in your school ASAP! Making the necessary arrangements earlier on will make the project much easier to carry-out as the event draws nearer!
 2. Give the “Steps for Teachers” and “Steps for Administrators” pages to your principal and a teacher who you think would be interested in helping you with the project (perhaps your Leadership or Student Council facilitator).
 3. Once you have discussed the project with your principal (BE ENTHUSIASTIC!) and received permission to hold Lights Out Canada in your school, register your school on www.lightsoutcanada.org.
 4. Take the project idea to your school’s leadership class and student council. Although there is not much extra work involved, there will probably be other students willing to help you put up posters, etc.
 5. Either present Lights Out Canada at a staff meeting, or ask your teacher liaison or principal to let all of the teachers know about the project. Don’t be nervous about presenting; you could simply read from the “Project Summary”.
 6. **Make tangible commitments to reduce your ecological footprint!** Go to www.ecoactionteams.ca and click on **My Calculator** then **Sign-Up**. Click on **Activities Level 1** to start and commit to the environmental actions you are able to. When you’re done, check out Level 2 and 3 or go to the **Teams** section to create a team for your school. From the **Teams** tab on the left side menu, you can create a team, invite others to join your team, or search for your school’s team if one has already been created. Send the link to your friends. Encourage them to join your school’s team. As a school, you can track your collective savings!
 7. Check in with your teacher and principal each week leading up to the national Lights Out Canada day to make sure that any concerns they have are addressed. (Remember: email the Lights Out Team with any questions, any time!)
 8. Two weeks prior to the Lights Out Day (April 22, 2010), put up the Lights Out posters. If you need more posters to plaster your school with, either ask permission from your teacher to use the school’s photocopier or print them off from www.lightsoutcanada.org (under “Stuff For You”). If possible, please use recycled paper and either save the poster for future Lights Out events or recycle them after the event.
- If your school has morning announcements or a school newsletter, let the rest of the school know about Lights Out Canada with a blurb such as:
- “Lights Out Canada- On (April 22, 2010), our school will be participating in Lights Out Canada. Get ready to turn off the lights and switch on education about climate change!”*
- Remember:** The best advertising method is word of mouth. Tell all of your friends about the project. Ask your teachers if you can have 3 minutes at the beginning of each class to remind people of the event and why your school is participating. We’ve learned through experience that if you are passionate about the project, your enthusiasm will be contagious.
9. Ask permission from your liaison teacher to photocopy the lesson plans for your school at least three weeks before the Lights Out Day. Distribute the lesson plans at least two weeks in advance either directly to the teachers or in their boxes (if you do this you must also make announcements reminding the teachers that that is where they are located). NOTE: The lesson plans are to be run through at the beginning of the Lights Out Day, so save paper and only distribute them to teachers that will have classes that morning. Don’t forget to photocopy on both sides and use recycled paper if possible.
 10. Make sure teachers know that in dark areas of the school, only turning off half the lights is fine.
 11. Inspire other youth and do presentations in local schools. We will provide you with copies of the presentations we use. Email us and spread the word amongst youth in your area!
 12. On April 22, 2010, turn off the lights! The Lights Out Team would really appreciate feedback after the event and any pictures or anecdotes about how you celebrated the Lights Out Day in your school!

Steps for Teachers

1. Read the Concept Page and Lesson Plan

- If you have already read over the Lesson Plan, it will make your job much easier on April 22, 2010 (date of Lights Out Canada 2010).
- When reading the lesson plan, remember that it is just a guide. If you have a different idea of how you would like to present the information to you class please BE CREATIVE! However, we feel that just as important as understanding the science behind climate change is being given the tools to affect change.
- For access to a wide range of lesson plans that go into detail on the Global Climate System, the Greenhouse Effect, Human Influence, Climate & Weather, Ecosystem Effects, amongst many others, register on www.greenlearning.ca and visit their Climate Change Resource Centre.

2. Encourage your students to make tangible commitments to reduce their ecological footprints. Earth Day Canada has a interactive and comprehensive program through which individuals and schools can do so:

Go to www.ecoactionteams.ca and click on **My Calculator** then **Sign-Up**. Click on **Activities Level 1** to start and commit to the environmental actions you are able to. When you're done, check out Level 2 and 3 or go to the **Teams** section to create a team for your school. From the **Teams** tab on the left side menu, you can create a team, invite others to join your team, or search for your school's team if one has already been created. Send the link to your students and colleagues. Encourage them to join your school's team. As a school, you can track your collective savings!

3. Please let your students know when the Lights Out Canada event will take place and that the purpose of the event is to raise awareness about global warming and to give them tools to reduce their ecological footprints.

- Please give your students our contact information before the event so that they can contact us if they have any questions. Email us at: lightsoutcanada@gmail.com

4. Please provide us with feedback!

- Visit the “Teachers” page on our website: www.lightsoutcanada.org. Please take a few minutes to fill-out the survey. Any feedback given will be taken into account and will help us improve our future programming.
- You have much more experience in presenting this material. So, if you have an idea that would work with your class, by all means please tell us—maybe other teachers across Canada can use it too. Our main objective is to inspire students to take on their own projects and make small changes that will add up to make a big difference—so any advice as to how to best accomplish this would be very much appreciated.

5. BE ENTHUSIASTIC!

- Please help us convey our excitement about the event to your students. Although global warming is a serious issue with dire consequences, we want our peers to be excited about the possibility of change and for them to translate this excitement into action.

6. Spread the WORD!

- If one of your colleagues has not heard that your school will be participating in Lights Out Canada please take the time to tell them what is going on so that all students will have the opportunity to participate.
- Also, principals are key player in the smooth running of this project so please attend the meeting that will be set-up by your student liaison.

You are part of a network of thousands of teachers across the country that are helping to preserve our planet for future generations. Thank you for your support; Lights Out Canada would not be possible without you.

Teacher’s Lesson Plan

Please go over these concepts and brainstorming activities with your class at the beginning of the Lights Out day, April 22, 2010 (Earth Day).

What can your school do on the other 364 days of the year to make a difference? Take part in the Lights Out Challenge! See the attached document (or download it online) at:

http://www.lightsoutcanada.tpweb.ca/lights_out_challenge/lights_out_challenge.html.

For more information contact us at: lightsoutcanada@gmail.com.

Overview: Students will learn about global warming, its effects, and what they can do to make a difference. They will then share the ideas with their parents and start making small changes that will add up to make a big difference.

If you would like a more detailed presentation of the international consensus on climate change, please read the latest findings of the Intergovernmental Panel on Climate Change. The *Synthesis Report* is available at: http://www.ipcc.ch/pdf/assessment-report/ar4/syr/ar4_syr.pdf and the *Summary for Policymakers* is available at: http://www.ipcc.ch/pdf/assessment-report/ar4/syr/ar4_syr_spm.pdf.

Subjects:

Sciences

You could discuss the impact of rising average global temperatures on:

- rising ocean levels
- changing temperatures & effects on marine ecosystems and terrestrial wildlife
- the damaging effects on biodiversity
- the increase in the spread of such diseases as Malaria

Visit www.bcsea.org/education/ or <http://www.greenlearning.ca/climate/science> (a resource centre for Grades 6-7) for more great information

Humanities-

You could discuss the impact global warming will have on:

- transportation (and therefore trade)
- the need to restrict the consumption of oil and the impacts thereof on developing nations that are dependant on oil for industrialization. This can also be tied in with the concept of “Peak Oil”. (For background information on the concept of “Peak Oil”, visit:

<http://energybulletin.net/primer>

- The economies of countries that are dependant on agriculture.
- The Stern Report is an excellent source of the economic impacts of climate change. A summary of the Stern Report can be found at:

<http://www.guardian.co.uk/politics/2006/oct/30/economy.uk>

NOTE: “It will cost 1% of world GDP to reduce our emissions to more sustainable level now, or 5-20% of world GDP in the next 100 years.” –Stern Report

Suggested Grade Level: 8-12 (yet, this plan can easily be adapted for a younger audience)

Time: 45 minutes – 1 hour. We realize that time is precious; however global warming will affect all of your students, regardless of the subject being studied.

Global Warming Backgrounder

Learning Objectives: (Discuss)

- What is Global Warming?
- Why is it happening?
- Why is it a problem?
- How can you make a difference?

Answers:

- **Global warming** is a gradual increase in temperature of the Earth's atmosphere. It is the primary cause of climate change today.
- **Climate Change**, according to the UNFCCC “refers to a change of climate that is attributed directly or indirectly to human activity”¹ that results in changes in the Earth’s atmosphere beyond those due to natural variability in climate over time.
- **The Greenhouse Gases (GHGs)** that are considered most responsible for global warming are Carbon Dioxide (CO₂), Nitrous Oxide (N₂O), and Methane (CH₄). For more detailed information on GHGs, visit: http://www.ec.gc.ca/pdb/ghg/about/gases_e.cfm
- **When fossil fuels** are combusted, their emissions produce GHGs. Deforestation, industrial processes (like cement production) and agricultural processes (relating to livestock, fertilizers and changes in land-use) are other sources of GHGs resulting from human practices. The GHGs become trapped in Earth’s atmosphere. The sun’s light refracts into the atmosphere and turns Earth into a virtual greenhouse, increasing its average temperature. A certain concentration of greenhouse gases is necessary to have temperatures conducive to life on earth; however, these concentrations have reached unprecedented levels since the 1970s and are continuing to rise. It should be noted that the increase in temperature is not uniform; the greatest increases will be seen at the poles. Some ecosystems are particularly vulnerable to changes in climate: tundra, boreal forest and mountain regions Mediterranean, tropical rainforests, areas on the coast, and marine ecosystems².
If you encounter “Global Warming Skeptics”, here is a great blog that delves into “How to talk to a Climate Skeptic” http://scienceblogs.com/illconsidered/2008/07/how_to_talk_to_a_sceptic.php
- **It is a problem** because it is having negative effects on all life on earth; from microscopic organisms, to human life. The gradual heating of the atmosphere is likely³ to cause:
 - An increase in acidification of oceans as a result of larger amounts of CO₂ dissolving into the water. This is detrimental to marine life like coral reefs and many types of plankton
 - Rising oceanic temperatures which results in changes in the quantity and range of marine life that are sensitive to these changes (algae, plankton, and fish)
 - Ice at the polar caps to melt and ocean levels to rise
 - Hot days and nights, heat waves, and drought to become more frequent.
 - An increase in the frequency and severity of weather events like storms
 - An increase in heat-related deaths (especially in Europe)
 - Increase in the spread of disease by vectors (disease-carrying insects)
 - Disturbances in agriculture due to changing seasonal patterns and an increase in pests (such as the pine beetle in BC). Agricultural changes



¹IPCC “Climate Change 2007 Synthesis Report” URL: http://www.ipcc.ch/pdf/assessment-report/ar4/syr/ar4_syr.pdf, 8

²Ibid, 9.

³Likely meaning greater than 66% probability to occur according to the Intergovernmental Panel on Climate Change.

could compromise food security (the availability of food) significantly. “Food Security and Climate Change” gives a comprehensive description of this issue:

http://www.livelihoods.org/hot_topics/FoodSecurity/luc-pages-spring2002.pdf

- Changes in the water cycle (which may affect the availability of safe drinking water)
- Widespread habitat impacts that will result in the extinction of many species that are unable to adapt to the changes to their habitats.

Arctic communities in Northern Canada are being impacted already, in some cases severely:

<http://arctic.pembina.org/>.

Check out <http://www.350.org/> for more information on CO2 concentration levels in the atmosphere and the consequences thereof.

Did you know that 11 out of 12 years (from 1995-2006) were in the top 12 warmest years (measuring average global surface temperature) on record?

- **You CAN make a difference!** To achieve significant change, it is widely recognized that there will need to be effective government policies to reduce emissions (for more information, see the report by M.K. Jaccard prepared for the David Suzuki Foundation on Carbon Pricing: http://www.davidsuzuki.org/files/reports/Pricing_Carbon_saving_green_eng.pdf or this report from the Pembina Institute: <http://climate.pembina.org/pub/1584>). However, there is a portion of GHG emissions that come from households and transportation that individuals have the power to reduce. Changing habits and thinking of the environment when making consumer choices is paramount. These reductions can add up to have a large difference: both environmental and financial. Moreover, your reductions will combine with the efforts of many.

Global Effects: Global warming will affect all people, on every continent and in every country. However, in developing nations with dense populations, climate change will have even more fatal consequences. With the privilege of living in Canada also comes a responsibility to reduce the impact our consumption has on other countries.

Regional Impacts⁴:

Read about the effects specific to your province or territory. Better yet, have students represent a province/territory in groups and present the impacts in their region to the rest of the class.

British Columbia:

- Increase in drought and risk of forest fires like those in the interior
- Higher populations of pine beetles because temperatures are warm enough for them to survive in winter.
- Communities on Vancouver Island and the Lower Mainland will be threatened by rising sea levels.
- Migration of tree populations and fish (to colder water) northwards
- Economic impacts—damage caused by flooding and storms, higher insurance rates, etc.

Prairie Provinces:

- increase in drought and its intensity
- lower level of moisture in the soil (impacting agriculture)

Ontario:

- increase in heat waves (and an increase in heat-stress related illness)
- a longer growing season, but with less moisture available in the soil
- lowered level of the Great Lakes—up to one meter less by 2050
- spread of disease from warmer climates

⁴ Teacher’s Guide for Climate Change Poster Series – Government of Canada

Quebec:

- increase in the frequency and severity of storms
- spread of mould and bacteria as a result of increased humidity and moisture
- a compromised ability to produce maple syrup
- melted permafrost in the north of the province

Atlantic Provinces:

- widespread flooding
- damage to agriculture and electricity generation as storms increase in intensity
- migration of temperate forests northwards as well as wind damage to trees
- increase in pest populations like Gypsy Moths
- reduction in iceberg damage as the icebergs melt further north than previously
- damage to energy production which will have economic impacts regarding the US market

Northwest Territories and Yukon:

- lives of caribou being endangered
- increase in parasites and pests where temperatures were previously too cold
- increase in agriculture further north
- endangered lives of polar bears and seals as the ice will break off earlier in the season
- increase in coastal erosion
- alteration in the carbon cycle as natural stores of carbon and methane in peat are released into the atmosphere as the permafrost melts, creating a situation of positive feedback

Nunavut

- Adverse effects for those who live in the north; disturbing communities, travel, hunting, fishing
- Increase in transport in the northern passages as ice breaks-up and melts
- Extinction of species like the polar bear and waterfowl
- Higher seas levels, coastal erosion and melting of inland glaciers, causing mass flooding and damage to eco-systems

How can I make a difference?

At School - Energy Saving Tips and Other In-School Initiatives

Go to www.ecoactionteams.ca and click on **My Calculator** then **Sign-Up**. Click on **Activities Level 1** to start and commit to the environmental actions you are able to. When you're done, check out Level 2 and 3 or go to the **Teams** section to create a team for your school. From the **Teams** tab on the left side menu, you can create a team, invite others to join your team, or search for your school's team if one has already been created. As a school, you can track your collective savings!

- Turn off lights when you aren't using a room, or use occupancy sensors (which will ensure that lights turn off when no motion is detected after several minutes)
- Use fluorescents instead of incandescent bulbs. They can last 6- 10 times longer and produce much more light rather than heat making them more efficient. For access to GreenLearning's EnerAction program, register at www.greenlearning.ca and check out "Lesson #8 Bright Ideas" <http://www.greenlearning.ca/eneraction/teacher-materials>. The plan supports students in comparing and thinking about the Pro's and Con's of using CFLs instead of incandescent light bulbs.
- Make your school an "idle-free" zone. Encourage parents, visitors, and school bus drivers to refrain from spending idle-time with their cars running
- Use refunds from bottle returns-- they can be used as in-school fundraisers
- Make sure that the photocopy and fax machines are set in stand-by or "energy save" mode.
- Program your thermostats to lower the temperature when the school is empty. You can reduce your emissions by up to 99 kg just by turning down your heater by 3 degrees and dressing more warmly

- If your school has locker rooms equipped with showers, make sure that low flow showerheads have been installed
- In your school’s Home Economics labs, check for the “energy star” ensuring that they are of superior energy efficiency
- Make sure computers are turned off at night and have timed screen saving methods in place when computers aren’t in use during the day.
- Have all windows and doors checked for leaks—heat may be lost during the winter months if entrances are not properly insulated.
- If your school is decorated with lights during the holiday season, use LED lights.
- If there is outdoor lighting (in places that receive large amounts of sunshine during the day), consider using solar power lights.
- Make sure that all facets are “drip-free”—every drop adds up!
- Set up “light monitors” (students) to make sure that when rooms are not in use, the lights are turned off

At Home

- Encourage your family members to register at www.ecoactionteams.ca . Click on **My Calculator** then **Sign-Up**. Click on **Activities Level 1** to start and commit to the environmental actions you are able to. When you’re done, check out Level 2 and 3 or go to the **Teams** section to create a team for your school. From the **Teams** tab on the left side menu, you can create a team, invite others to join your team, or search for your school’s team if one has already been created. Send the link to your friends. Encourage them to join your school’s team. As a school, you can track your collective savings!
- Be vigilant about turning off the lights, computer, stereo, television when you leave a room
- Replace light bulbs with energy efficient halogens or fluorescents.
- Recycle all cans, bottles, plastics, and tetra-packs
- Compost organic food wastes
- Reduce your meat consumption—the livestock production contributes nearly 1/5 of global GHG emissions⁵.
- Recycle paper, clothes, and school materials—anything that is salvageable reduces the emissions from the manufacture and transport of materials
- Unplug appliances when not in use—even when turned off some appliance still uptake electricity.
- Wash your clothes in cold water; water heaters account for 20% of household electricity

At Play – Energy-Saving Tips for Extracurricular Activities

- Carpool to your activities with your friends, or better yet walk or ride your bike!
- Use a reusable stainless steel water bottle
- Going to the gym? Why not get a head-start on your workout by riding your bike there instead of driving?
- Can your activity take place outdoors? The benefits of playing outside are many – fresh air, Vitamin D from the sun, no need for electricity.
- Buy your exercise clothing second-hand

In Your Community

Transportation accounts for **48%** of **major air pollutants**. Reduce this number and take the bus, metro, or sky-train to get to your destination! Public transport is vital to reducing the number of cars on the road and consequently the emissions they produce. If you have to drive somewhere, make sure that your car: has fully

⁵ Bittman, Mark. “Rethinking the Meat Guzzler,” The New York Times. URL: http://www.nytimes.com/2008/01/27/weekinreview/27bittman.html?_r=1 27 January 2008.

inflated tires, isn't carrying any unnecessary weight, and organize carpools to take as many people with as few cars to your destination.

Equally important is to make your city “pedestrian friendly”. Ask your city to:

- Host car-free street markets
- Create bike paths
- Make sure that pedestrian crossings are easily accessible.
- Have walk to school/work events

Email the Lights Out Team for more initiative ideas they picked up at the Canadian Urban Transport Association's Youth Summit on Sustainable Urban Transportation! (www.cutaactu.ca)

Check out these great sites!:

- <http://www.saferoutestoschool.ca/>
- www.waytogo.icbc.bc.ca
- www.hastebc.org

In-School Activities

- Write letters to elected officials calling for definitive action on climate change! See the open letters on the last two pages of this document. The first is for an elementary level and the second for a middle- secondary level. Your students can add to the letter (we've left some space at the bottom) or sign and send it as-is. The address of the Prime Minister is written at the top corner. However, feel free to copy the text of the letter and send to your local Member of Parliament if you prefer.
- What can your school do on the other 364 days of the year to make a difference? Take part in the Lights Out Challenge! See the attached document (or download it online at: http://www.lightsoutcanada.tpweb.ca/lights_out_challenge/lights_out_challenge.html) for more information contact us at: lightsoutcanada@gmail.com.
- Calculate the amount of energy you are saving by turning off the lights in your classroom and your school using the EnerAction Carbon Calculator: <http://eneraction.greenlearning.ca/lighting/index.php>
- Send an eCard about energy to a local politician, your family, or classmates at: <http://ecards.greenlearning.ca/> and read the powerful messages sent by others.
- Teaching Grade 4 -7? Check out the EnerAction Conservation Lessons and Activities: <http://www.greenlearning.ca/eneraction>
- Have students brainstorm making lists of areas of consumption (in your school) that need to be improved (e.g. lights being left on, excessive garbage)
- Examine each “environmentally unfriendly” area and come up with a plausible solution
 - E.g. Assign “light monitors” in your classroom to make sure lights are always turned off when not absolutely necessary.
- Hold a mock environmental summit (similar to a model UN). Check out this site: <http://serc.carleton.edu/introgeo/roleplaying/examples/globwarm.html>
- Better yet, participate in MASS Dialogues - interactive web conferences with youth delegates at United Nations Environmental Summits. Watch <http://www.2degreesc.com/> for more information!
- Do something hands-on! There are global warming science experiments available on these websites:
<http://ku-prism.org/resources/polar/warminglessons.html>
<http://www.juliantrubin.com/fairprojects/environment/globalwarming.html>
http://72.32.11.171/resources/tdc02/sci/life/eco/lp_co2globalwarm/index.html
<http://www.bbc.co.uk/sn/climateexperiment/>

Visit these awesome websites for more lesson plans and background information about climate change and global warming! :

www.greenlearning.ca/

www.climatecrisis.net

www.adventureecology.com

<http://www.bcsea.org/learn/resources-for-educators>

<http://www.earthday.ca/pub/resources/top10.php>



Check out the **Adventure Ecology** website for more information about educating youth about climate change: www.adventureecology.com

"What makes Lights Out Canada so exciting is that it catalyzes action amongst young people, helping to make the fight against climate change more accessible and personal. Energy conservation has an important role to play in preventing climate change, and this campaign brings that message home."

- Morag Carter, Director of the Climate Change Program, David Suzuki Foundation

**If you have any questions about this event or would like more information, please email the Lights Out Team at: lightsoutcanada@gmail.com
Visit us online at www.lightsoutcanada.org!**

Thank you to the following individuals for editing this document:

- Dr. Andrew Weaver (Leading Author of the 2007 IPCC Report, Author of *Keeping Our Cool*, Canada Research Chair, F.R.S.C.)
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Thank you to our supporters:



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greenlearning

Office of the Prime Minister
80 Wellington Street
Ottawa
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Dear Members of Parliament,

We are writing to you today because we are worried about global warming. A lot of scientists say that it's happening sooner than they thought it would, and people around the world are noticing strange things going on with the weather like more hurricanes and stronger and more serious storms. Global warming is serious and it could affect our entire lives. We have to do something to stop it and to make a better future.

We're learning how to do our part as individuals to fight climate change. We've participated in programs like *Lights Out Canada* to learn about what global warming is and we've promised to try hard to do our part by reducing our waste, turning off our lights and reusing what we can, to name a few examples, so that we can be more responsible citizens of Canada and planet Earth.

Even though we might be trying really hard to lead more green lifestyles, we know that the government can help us to do a lot more. To really fight climate change, we need you to make laws that make polluting more expensive, like putting taxes on carbon, or other laws that will reduce the release of the gases into the atmosphere that cause global warming.

We the young people of Canada are asking all of the members of our government, regardless of political party to do their jobs and make a leader in being green. If we reduce the amount of dirty fuel we burn, we will make Canada more environmentally friendly and contribute to a healthier world.

We hope that you'll listen to us, your constituents and the future voters of Canada, and try your best to make sure that everyone pollutes less and lives a better life.

Sincerely,

Office of the Prime Minister
80 Wellington Street
Ottawa
K1A 0A2

Dear Prime Minister,

We are students writing to you in regards to growing, serious concern about climate change. Climate change will be the greatest issue to impact our generation. Not only will it impact all Canadians, regardless of who we are, where we live, our profession or socio-economic status, its effects will be felt even more severely in the developing world by people that have not contributed to the problem as much as we have. As has been proven by the scientific community around the world, as well as the growing body of documented unusual and extreme meteorological events, climate change is a serious issue which demands serious action. If we do not act now to reduce its effects, we cannot hope for a future that is sustainable.

We, as individuals, are doing what we can as individuals in order to fight climate change. We will continue to strive to lead more sustainable lifestyles and we call on our government to match our efforts. Through programs such as *Lights Out Canada*, we are educating ourselves about the mechanics of climate change and its consequences; more importantly, we commit ourselves to daily actions which will reduce our consumption of electricity, as well as create a more sustainable way of life as Canadians and responsible citizens of the world.

Despite such initiatives, however, we realize that the consolidated effort needed to counteract climate change can only be obtained with the cooperation of our government. To surmount the challenge of climate change, our country needs your government to intervene. We, as citizens and future voters, require a definitive policy on climate change through measures such as a carbon tax and other laws which influence not only Canada's citizens but also its industries and major polluters. Until the *real* cost of the damage caused by GHG emissions is incurred, significant reductions will be difficult to attain. We must reduce our reliance on dirty fuels in order to remain economically competitive and, ultimately, inhabitable as a country.

We, as the youth of Canada, are calling on you as our elected officials to take action. We are embarrassed by a lack of action on climate change by our government, regardless of political affiliation. Please act and allow us to be proud of a responsible country devoted to preserving our planet, for the good of the world and all its inhabitants.

We urge you to act immediately in order to reduce Greenhouse Gas emissions in Canada and ensure the sustainability of our future.

Yours sincerely,

