

Get with the Climate Change Program!

CLIMATE CHANGE CHALLENGE DEFI CHANGEMENT CLIMATIQUE by Julian Celms

S couts Canada's Climate Change program is in full swing! We have developed great new resources to make this an exciting program addition. Key themes revolve around recycling, energy audits and activities that enable youth to save energy at home and reduce Greenhouse Gases (GHG).

The process – an example of program development

How did it all begin? In recent years, we realized that climate change was seen as an issue for all ages. With Scouting continually concerned for the environment we started to think about climate change with our partner in this initiative – the Delphi Group, an environmental consulting company. We recognized climate change as an important issue that must be addressed. We wanted to offer high quality materials to our volunteers which included a program that would keep Scouting relevant in its programming.

We were successful in securing support from the Government of Canada's Climate Change Action Fund. We also received funds from Alcan Inc. and Nexen Inc. in support of this initiative. These funds were used to help research and develop the climate change resources.

Scouting programs are always created as a result of team effort and research. Here are some of the things we did:

- □ Attended British Columbia and Alberta provincial Jamborees in 2003
- □ Conducted research review for suitable program resources for Jumpstarts
- □ Began badge review to determine if any could be enhanced to include climate change activities
- □ Initiated program testing (thanks to the 1st Glen Cairn and 24th Ottawa Scout groups!)
- □ Convened review panel with professionals experienced in working with and developing programs for youth
- □ Invited the National Youth Advisory Group to review and test program. This culminated in a meeting to share experiences and brainstorm program ideas.
- □ Tested the program with sections from across the country
- □ Reviewed input from the National Program Services Committee.

The product

- an awesome program

The key components for the climate change program are:

- □ Enhancing some existing badges to be more climate change specific
- □ Introduce energy audits focussing on use of energy in the home and transportation

- □ Climate Change Crest recognition for completing some badges with climate change requirements and the audit (more information below)
- □ Jumpstarts programmed meetings for Colonies, Packs and Troops to help your section better understand climate change issues.

There's more...

Here are some details by section! We have included some samples from the programs.

Colony

Energy Audit – a simple audit to focus on turning lights off – The Mystery of the Energy Gobblers!

Climate Change Crest – As Beavers do not have a badge program, no crest is offered.

Jumpstarts – Two meetings themes – The 3Rs: Reduce, Reuse, Recycle; and Saving Energy.

SAMPLE PROGRAMS:

Game: Garbage Sort

Objective: To introduce Beavers to the difference between garbage and things that can be recycled and reused.

Duration: 10 minutes

Equipment: Bring in a mixture of several clean garbage items (unrecyclable plastics, plastic wrap, mixed material products), recycling items (pop cans, milk jugs), and reusable items (rags, shoes, old toys etc.), recycling container, cardboard box.

Thanks to our sponsors and partners!





Delphi

Instructions: Pretend you are a sanitation worker – carrying a heavy garbage can.

Have the Beavers sit in a semicircle in front of you. Bring all of these items in a garbage can. Say you can't believe what people throw away! And how heavy the garbage cans are!! And how big the city's garbage dump is!! Dump the garbage can out on the floor in front of the Beavers. Pick out one item at a time and ask the youth whether this can be recycled or reused. Sort them accordingly either into the recycling container or the cardboard box for reusable items. Then show them how small the garbage bag is afterwards.

The object of the game is to see if the Beavers can put the items in the right recycling or garbage bin.

Instructions: Split the colony into two groups and have them line up behind each other in teams and sit down. Place a garbage can and a recycling can and the cardboard box at the other end of the room in an equal distance to the teams. Place a garbage bag with the same objects in front of each team's line. When you say go, the first player takes an item out of the bag, runs to the other side of the room, and decides whether it should go in the recycling bin or garbage can. They then run to the back of their team's line. When they reach the team the next player can take an item from the bag and run with it to the bins.

At the end review the items in the garbage can to see if any of them can be recycled.

Game: Lights on, Lights off (A version of Frozen Tag) Objective: To instill the importance of turning off lights Duration: 10 minutes Equipment: None Instructions: Identify a leader as the "Energy Pig".

Have the Beavers spread out in the room with one arm pointing to the floor representing a light switch. Have the "Energy Pig" try to chase and tag the Beavers and "switch them on". If they are tagged they must stand still with their arm pointed to the ceiling until someone "switches them off" again by pulling their arm to point down to the floor. Then they are free to run around again. Discuss the importance of turning off lights when they leave a room.

Background information: Leaving lights on unnecessarily is a waste of energy. In many places in Canada energy is produced by burning fossil fuels. This process also creates greenhouse gases which are a cause of climate change. Energy conservation actions, such as turning off lights, help to reduce climate change.

Pack

Badges – Adjusted badges: Recycling, Cyclist, Home Repair, Family Helper, World Conservation Award. Energy Audit – an age appropriate audit with a focus on water conservation, light use and transportation. Climate Change Crest – Cubs receive the crest when they complete three of the five climate change adjusted badges **and** the energy audit above. Jumpstarts – Four theme meetings: What is Climate Change, Saving Energy, Save Waste, Save Energy and Renewable Energy.

SAMPLE PROGRAMS:

Game: Sinks and Sources

Objective: Explain the importance of trees in absorbing carbon dioxide so that it doesn't build up in the atmosphere and cause climate change. *Duration:* 10 minutes

Equipment: Three large hula hoops, 8-10 vests to identify certain individuals, large playing area about the size of a classroom with a perimeter of one metre that is designated as a clean zone.

Instructions: There are three sets of players in this game – the trees, the carbon dioxide molecules and the smoke stacks.

Identify the Sixers to be trees. Ask them to put on a vest or piny that identifies them as trees. Explain to the rest of the Cubs that they are carbon dioxide molecules that float in the air. If they get tagged by a tree then they become oxygen, leave the playing area and return to the back of the line. Identify one leader as a big coal burning electricity plant with a smoke stack. Use a hula hoop to represent the smoke stack. The hula hoop is held upright so the Cubs can move through it. The Cubs line up behind the hoop and come through the hoop into the play area. While they are doing so, they yell "Heat, Heat, Heat" the whole time they are in the playing area. The "trees" try to tag the molecules. If they are tagged, the new oxygen molecule must go to the "clean zone" at the side of the



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play area and return to the line behind the smoke stack. When all the "molecules" have gone through the smoke stack once and been tagged, stop the game.

Add a few more "smokestacks" or a few more trees and see how fast the "trees" can clean up the carbon "heat" molecules hanging around in the air.

Discuss how having more trees means there will be less greenhouse gases in the atmosphere.

Activity: Build a mini Greenhouse (see diagram)

Objective: To show the Cubs a simulation of what the earth's ecosystem is made of.

Duration: 15 minutes (Cubs will return to experiment later)

Equipment: Two, 2 litre clean plastic pop bottles, scissors, thermometers, two cups of soil, duct tape, plastic wrap, an elastic band, a lamp without a shade (multiply the number of equipment by the number of sixes in the pack so each six has one set).

Instructions: Before the meeting, cut the top two inches off the pop bottles. Put a cup of soil in each bottle. With duct tape, tape a thermometer to the inside of each bottle with the bulb two cm above the soil. Do not cover the bulb of the thermometer with the tape. Make sure the thermometer is facing out. Place the plastic over the top of one of the bottles with the elastic band. Place the bottles three cm away from the light source so that the bottom of the bottle is at the same level as the bottom of the light bulb. Leave the bulb off. Take a reading of the thermometers in both bottles and record them. Explain how the earth (the soil) has an atmosphere that circles the globe. When there are too many greenhouse gases in the atmosphere they trap the heat that comes off the earth. This makes the atmosphere get hotter, which changes the climate. Turn on the light bulb and leave it on during the next activity and game.

Troop

Badges – Recycling, Home Repair, World Conservation Award, and Troop Specialty suggestion (see sidebar).

Energy Audit – A more advanced energy audit with a focus on transportation, drafts and insulation, lighting, hot water and refrigerator.

Climate Change Crest – See criteria below.

Jumpstarts – Four theme meetings: Energy Use and Climate Change, Recycling, Renewable Energy and Weather and Climate Change.

Scouts – Climate Change Crest eligibility requirements

Do three of the four badges listed above.

1. Make your home more energy wise: Reduce waste of precious energy resources, save your parents money, and reduce your contribution to

Mini Greenhouse Construction



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climate change. Investigate and reducing energy consumption in your home by following the Home Energy Audit posted on the Scouts Canada web site.

2. Take the transportation challenge: Develop a personal transportation challenge. Actively pursue a sport that can serve as a mode of transportation (e.g. biking, in-line skating, skateboarding, etc.). Show that you understand the rules, safety and precautions connected with the using the sport as a mode of transportation, as well as the advantages of it, including those of health, air quality and climate change. Make and pursue a plan to travel to one destination (of approximately 5 km) by this alternative mode of transportation once a week for a two month period.

Select and complete three of the challenges from the list below:

- □ Find out all of the items that your municipality will accept for recycling. Examine what you recycle at home or at the home of your grandparents or another relative and expand your efforts to include all of these items. Don't forget about items that can be donated (e.g. clothing, dishes, etc.), repaired (e.g. resoling shoes) and refused (e.g. flyers, excess packaging, etc.). Find a way to help your family, relative or grandparent to recycle, reduce, reuse and refuse all these possible items. Report back to your patrol/ troop leader on what you accomplished. This challenge also can help you to earn the Recycling badge.
- □ With permission and help from your parents, do at least two home repairs that will help to reduce the heat or air conditioning escaping from your home. *Hint: doing the Home Energy Audit will give you some ideas on what kinds of repairs you can do to complete this challenge.* This challenge also can help you to earn the Home Repair badge.
- With your troop, do a program to educate people in your community about climate change. Develop your own program idea, or select one of these:
 - Adopt a location in the community where cars are often seen idling (at a community mall, at school, outside individual stores, etc.). Idling

TROOP/INDIVIDUAL SPECIALTY BADGE - CLIMATE CHANGE THEME

- □ After exploring ways to improve the energy efficiency of your home, educate others as to how they may improve their own homes (i.e. information booth; pamphlet, etc.). Provide estimates of the energy, money and GHGs saved by using an online calculator (www.climatechange.gc.ca).
- Adopt a location in the community where cars are often seen idling (schoolyard, sports facility) and launch a no-idling campaign to decrease idling in this location. Resources can be found at: <u>http://oee.nrcan.gc.ca/idling/home.cfm?PrintView=N&Text=N</u>
- □ Organize a tire pressure clinic. Visit <u>www.betiresmart.ca</u> to find out more about this program.

wastes gas and puts pollutants and greenhouse gases into the atmosphere. Launch a no idling campaign to decrease or eliminate idling in this location. Take advantage of resources offered through Natural Resources Canada's Office of Energy Efficiency to assist you to develop and deliver the program (<u>http:// oee.nrcan.gc.ca/idling/home</u> .cfm?PrintView=N&Text=N).

- Organize a tire pressure clinic to help cars to run optimally. Visit http://www.betiresmart.ca/ to find out more about this program and how you can organize a tire clinic in your community.
- Hold a community car wash to discourage people from using automated car washes. This will reduce the use of energy to run the automated car wash.
- Create and distribute flyers to help your community benefit from what you have learned about climate change. You can encourage them to recycle more items, to find and fix energy leaks in their own home, or to buy locally grown foods.

Your project also can help you to earn the Troop Specialty Badge.

□ Complete a project that that includes some recognizable work in your community or troop. For example, learn about the range of weather conditions that climate change may bring to your region and make a presentation giving advice on what precautions you would take for a camping-canoeing trip planned during in any one season (spring, summer or winter) or what precautions your community or city should take to prepare for the future. Make a presentation, display or report describing your project, and the global importance of the issue. You may complete the project as an individual or in a group. This challenge also can help you earn the World Conservation Badge.

- □ Show that you know how to make decisions that reduce the energy you use in running your family home including turning off unnecessary lights and appliances, reducing use of clothes dryer by hanging laundry to dry, identifying and selecting local products to plan a meal, buying products with less packaging, etc. Track what you did and how often over a period of a month.
- □ Participate in a Scoutrees project as an individual or with your troop and demonstrate your understanding of the link between trees and climate change. You could serve as a leader for a Beaver or Cub Scoutrees project and teaching them how Scoutrees work to reduce greenhouse gases.

SAMPLE PROGRAMS:

Game: Secret Code

Objective: The object of this challenge is to discover how much energy can be saved by using recycled material versus raw material to generate new products.

Duration: 20 minutes

Materials: One of each for each group who will be playing: aluminum can, piece of paper, piece of plastic, piece of steel, glass bottle. (Alternatively, create large cards with the names of each material above written on them.) One piece of paper and pen/pencil per team.

One person to volunteer to be the Code Master.

Instructions: Give each Patrol/group a bag containing the five objects, but do not let them open it to look inside. Have each team select a team Messenger. Tell Scouts that they have been locked in a chamber room with only five minutes to escape before the building they are in will collapse. The door of the chamber has been locked by a magic code. There are no windows or other doors in the room. The only escape is to break the code to open the chamber door. The code can be broken by lining up the objects in the bag in a special order. Each of the objects can be made from recycled materials. However, not each of them save as much energy as the others when they are made from recycled material versus new material. Patrols must line up the objects in the bag in the order in which they save energy when made from recycled materials. The item which saves the most energy when made from recycled material should be first, then through to that which saves the least. There is one additional piece of information: teams can approach the Code Master up to three times with their answer over the course of the game. Only one team member (the Messenger) can approach the Code Master with the patrol's guess. The Code Master can only tell you how many items are in the right order, but not which items are in the right order. The first team to crack the code and open the door wins.

The end order (from the most energy savings to the least energy savings) should be:

Aluminum (saves 95% energy) Plastic (saves 75% energy) Steel (saves 64% energy)



W e will be creating an all-section climate change resource to help you. This will include:

- All the climate change Jumpstarts
- Energy Audits
- Further program resources
 (e.g. solar cookers, more games and activities)

Paper (saves 60% energy) Glass (saves 40% energy)

(Figures vary slightly based on different studies. These were collected and compared from a variety of sources, including: <u>http://www.epa.gov/epaoswer/non-hw/recycle/ben-efits.pdf;</u>

http://www.eere.energy.gov/erec/ factsheets/savenrgy.html; and www.umass.edu/recycle/environmental_benefits.html.)



End discussion: Were Scouts surprised at how much energy could be saved by making new items out of recycled material? Why is it important to save energy when making these items (i.e. saves energy to be used for other purposes, reduces greenhouse gases that contribute to climate change)? What items make the biggest impact in reducing greenhouse gases (e.g. pop cans, paper and cardboard, plastic containers)?

Notes on energy saved by the various recyclables.

Reusing materials reduces the energy and resources required to extract, refine, transport and process virgin natural resources. Some materials take more energy than others to manufacture from raw resources. Resource extraction is energy intensive; the process is environmentally polluting and creates a lot of mining and processing waste. Recycling materials - collection, processing and transportation - also uses energy, but eliminates the more intensive activities required for making items from raw materials. Some materials such as aluminum and glass can be recycled and reused an infinite number of times. In addition, by recycling paper products, fewer trees will be cut down. Trees play a valuable role in absorbing greenhouse gases (which trigger climate change) and regulating our climate. Leaving more of them standing is good for our air and climate.

Venturers

Badges – The World Conservation Award

Energy Audits – A comprehensive Energy audit with a focus on transportation and the home.

Climate Change Crest – Awarded when the World Conservation award is achieved and the Energy Audits are completed.

Rovers

Energy Audit – A comprehensive Energy audit with a focus on transportation and the home.

Climate Change Crest – Awarded when the energy audit is completed.

Check it out!

How will we get all of this information out to you?

Badge changes:

The Scouts Canada web site will post copies (to scale) of the releveant pages of the youth handbooks. These can be found on the web site in the youth section pages (links will also be placed on the climate change page at <u>www.scouts.ca</u>).

Energy audits:

Online – in the youth pages, and on the *For Leaders* page – *Resources* on the Scouts Canada web site. We will provide the audits in a future publication containing climate change resources (see sidebar).

Cool Crest:

Leaders will be able to purchase the Climate Change Crest from the Scout Shops in the fall.

Jumpstarts

These will be available on the web site.

In the fall (at the time of printing an exact date is not yet set) an allsection resource will be produced.

Include these great new creative climate change activities in your program...and watch your youth become even more energy-conscious while having fun at the same time. \land

- Julian Celms is Director of Beavers, Cubs and Outdoors.