



# **Lesson Plan**

# Sing! Sing a Song!



#### In a Nutshell:

After learning about climate change, students work in small groups to write, sing, and make a recording of a song.



#### Goal:

To be creative and have fun, while gaining awareness and communicating about climate change.



### **Background Learning:**

**Teachers and students** should be familiar with the basic science of climate change and its anticipated impacts as reviewed in the attached Backgrounder:

• Intermediate Backgrounder #3: Climate Change Solutions: We can all help!

Ideally, students should do this lesson as a culminating activity after completing other lessons on climate change.

**Grade Level:** 4–7

Subjects: Social Studies, Science, Fine Arts (Drama, Music), English Language

**Enrichment:** Drama, Music, Visual Arts, English Language Arts

**Time:** Two to three hours

**Setting:** Classroom

Materials: Highlighter pens, felt pens, and chart paper, audio tape recorder(s) and blank audio tapes, student handout of lyrics to "What's That Habitat?" or other song, CD or tape of the sample environmental song

**Skills:** Cooperating, discussing, writing, presenting (singing)

**Key Vocabulary:** Climate change, greenhouse effect, greenhouse gases, carbon dioxide



## **Learning Outcomes:**









This lesson would be most beneficial after students have completed some lessons about climate change. It could be used as a culminating activity at the end of a unit on climate change. The activity could be spread out over a week and completed during English Language Arts, Social Studies, Fine Arts, Music, or Science.

Before doing this lesson, download and make copies of the backgrounders (listed above under Background Learning) that are needed by your students (depending on their knowledge), and the student handout linked to this lesson (lyrics for local Yukon singer/songwriter Remy Rodden's song, *What's that Habitat?*). If you have access to Remy Rodden's CD, *Think About the Planet*, listen to that CD with your students to give them some more song ideas. Or check out his website: http://www.thinkabout.ca/tapsong.htm

You may prefer another environmental song or a song with lyrics that refer to change or taking action. The lyrics to many popular songs can be downloaded from the Internet. Search "song lyrics" for websites, or search directly for the song you're interested in by entering the title or artist's name. Collect all of the other needed materials (listed in the materials' section above).

## **Activity:**

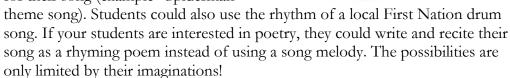


- 1. Read the lyrics and/or listen to an environmental song or a song about change or taking action. Tell the students that they will be writing, singing, and recording their own song about climate change. If your students enjoy "rap" music, you may want to have them write a "rap" instead of a "song."
- 2. Read/review intermediate backgrounders #1–3 with the students.

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- 3. As a class, review the background information and highlight key words or phrases about climate change. Record these key words on the board. Tell the students that they should try to include as many of these key words about climate change in their song as possible.
- Recording on the board, have the students brainstorm the names of some simple songs that they want to use as the melody for their song (example "Spiderman"



#### "Spiderman" song melody example:

Climate Change, Climate Change, Ice is melting, It is so strange.

...you get the idea!

- Divide students into groups of two or three. Each group will need chart paper and felt pens. Give the students two minutes to name their singing group. Ask students to write the name of their group at the top of their chart paper.
- 6. Ask the groups to choose a melody for their song.
- 7. Ask the groups to write their own song about climate change using as many of the key words as possible and working these words into the song melody, poem, or drum rhythm that they have chosen. Students should record their song on the chart paper.
- Once the songs are written, ask students to name their song. They should include the name of their song on their chart paper.
- 9. Allow students time to practice singing their songs.





**10.** When students are ready, have them perform their song for the class. Make audio recordings of students performing their songs so they can be shared!



#### **Handouts:**

Visit the website and click on the icon for the handout that supports this lesson – Student Handout: What's That Habitat?



## **Student Web-Exchange:**

Students can post their songs on the student exchange portion of the website for others to read. Visit the website and click on the icon for information on how to post to the Web-Exchange.



### **Evaluation:**

**Student evaluation:** Provide a group evaluation sheet for each student to evaluate their contribution as well as the contribution of their group members (i.e., group cooperation and participation).

**Teacher evaluation:** Evaluate students on group cooperation, participation, and the final product – their song.



#### **Enrichment Ideas:**

### Drama, Music, Visual Arts, English Language Arts:

Look out MTV !! – Have students create a music video of their climate change song, including movement, musical instruments, costumes, setting, etc. Students can imagine they are entering a contest through MTV or Much Music.

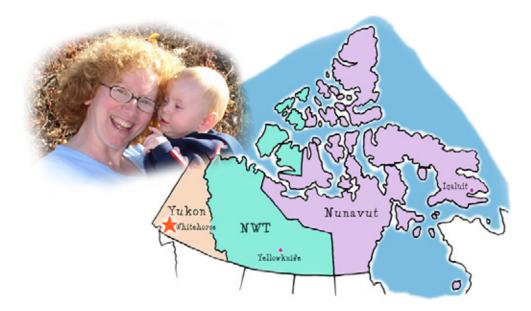




#### **About the Author:**

Hi! My name is Grace Snider and I live in Whitehorse, Yukon. I have been teaching for ten years and have taught in schools in both Haines Junction and Whitehorse. I have taught students in grade 4 through grade 8. I especially enjoy teaching grades 4 and 5. I am on staff at Golden Horn Elementary School on the outskirts of Whitehorse...but right now I am on a leave of absence to care for my baby, Liam. Now, he is the teacher and I am the student...and I am learning so much, especially about myself!

I grew up in the Yukon in Dawson City and Whitehorse. Growing up in Dawson City, I lived in a discontinuous permafrost zone. The ever-changing permafrost (freezing/thawing) had obvious effects on our home. Each year we would have to adjust the footings on our house because the doors wouldn't shut as the house had shifted and changed. During my childhood I spent many hours playing in Gold Rush era buildings that had become twisted over the years because of the changing permafrost. As a child I never thought of the dangers of playing in these warped buildings... they provided an incredible playground! These childhood experiences have given me some insight into the effects that a changing climate would have on buildings in a community.









## What's That Habitat?

### A fun introduction to the basics we all need to survive

By Remy Rodden

What's that? Habitat! C'est quoi? L'habitat! What's that? Habitat! C'est quoi? L'habitat! Habitat, habitat is where it's at

Now every living creature needs a place to roam We all need a shelter we can call our home We'll die without food and water, it's as simple as that Put it all together and it's called habitat

Food! (Food!) Water! (Water!) Shelter! (Shelter!) Space! (Space!) (3X) Habitat, habitat is where it's at

Just think about that beaver he's in water all the time He stockpiles leaves and branches all through the summertime He stores them under water and in the winter he stays fat 'Cos they're under the ice outside his lodge and that's his habitat

#### Chorus

Now a grizzly bear needs lots of space to find all the food she needs To feed herself and her cubs real well with fish, raw meat and berries She gets her water from the lakes and streams and by the autumn she's so fat She stays in her den, doesn't eat all winter and that's her habitat

#### Chorus

Here is Remy Rodden's website. He is a Yukon songwriter/performer of environmental/conservation songs. His CD is called "Think About the Planet". (Used with permission.)

http://www.thinkabout.ca/tapsong.htm





If people are causing climate change, then the good news is that people can slow it down. If we each do our part and work together, we can make a difference and reduce the impacts of climate change on our planet.

#### What do we need to do?

Greenhouse gases (GHGs) put into our atmosphere when we burn fossil fuels cause climate change. The average Canadian produces about five tonnes of GHGs every year. That much greenhouse gas would fill six average-sized two-storey houses!



We create about half of our GHGs when we travel in cars, trucks, planes and snowmobiles. We also produce a lot of GHGs when we burn fuel to heat our homes – or use electricity produced by diesel generating plants. (Diesel oil is a non-renewable energy source that is used to generate electricity in many of northern communities.) GHGs are also produced when most of the food and "stuff" we use in our day-to-day lives is manufactured, processed and moved around.

If we can cut back our use of gas, oil, diesel and coal, we can cut back the amount of greenhouse gases we produce. The less you drive, the less heat and electricity you use, and the fewer things you buy, the less carbon dioxide you put into the

atmosphere... it's that simple. And using less energy and buying less saves money!

## Going Green – An energy revolution

Reducing energy use is a very important first step, but we can do more. We can replace non-renewable fossil fuels with renewable energy sources that don't cause climate change. Renewable energy sources are often called 'green energy', and they're good news for the planet!

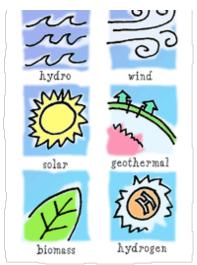
## Where do we get Green Energy?

Have you ever been pushed by a strong wind? Have you ever stood in a rushing stream and felt the strong current? Have you ever felt how hot a rock can get



when it sits in the sun? Wind, moving water and sun are green energy sources. We can use this clean energy – or electricity produced by them - to displace the oil, coal and gas we are now using to heat our homes, turn on our lights, and power our vehicles.

Renewable energy sources such as wind, water and sun don't produce greenhouse gases. Neither does heat from the ground or from ground water, or hydrogen fuel. Biomass and biogas fuels can be made from plant materials. None of them cause climate change! Non- renewable energy from oil, gas, coal and diesel gets used once and is gone forever. Your tank of gas turns into GHGs and is gone. Renewable energy sources can be used as long as the wind blows, rivers flow and the sun shines. Bio fuels can be produced for as long as we can grow plants.



### Is anyone using renewable energy in the north?

Hydro-dams (that use the power of water) have supplied electricity to parts of the north for years. More recently, wind turbines have been put up at Whitehorse, in the Yukon, and at Rankin Inlet, in Nunavut. They use wind power to produce electricity that keeps lights on in a lot of homes. Other northern communities are starting to use wind energy and energy from the sun (called solar energy) to meet some of their needs.

### Save Energy, Save the Planet!

We can't switch from old energy sources to new ones overnight, though. It takes an investment, and it will take some time. But in the meantime, you and your family can cut back your energy use. This is called 'energy conservation' – read on!



### What you can do:

- Turn off lights, computers and TVs when you leave the room (you can do this at home and at school)
- ★ Take a bus, ride your bike or walk to school or to a friends when you can
- ★ Turn down the heat in your home if it feels a bit chilly, put on a sweater
- ★ Don't leave the doors open when it is cold out keep the heat in!
- ★ Put your used pop cans and bottles in the recycle bins at home and school recycling saves energy
- \* Take shorter, cooler showers (it takes lots of energy to heat water)
- Encourage people in your life to idle their cars less, walk more and carpool



- Learn how to compost your waste vegetables less garbage in landfills means fewer greenhouse gases in the atmosphere
- Don't buy products that have a lot of packaging on them (it takes lots of energy to produce packaging that we usually just throw away)
- 💢 Get your school involved ask your teacher how your school can reduce energy use
- \* Be an energy waste detective in your home and seal up any drafts or leaky areas
- \* Follow the 3 R's Reduce, Reuse, Recycle!

### Schools can help

Schools are getting involved across Canada. They're adopting energy conservation programs that save them lots of money, reduce energy use and lower greenhouse gas production. They're helping to slow down climate change! Encourage your school to get involved.

### What about governments and businesses?

Governments around the world are signing agreements to address climate change. The most recent agreement is called the Kyoto Protocol. The government of Canada has signed this agreement. That means Canada and Canadians have agreed to cut back the volume of greenhouse gases we produce.

Here are just a few ways that governments and businesses across Canada are reducing their greenhouse gas emissions:

- The City of Whitehorse has citywide compost pickup, reducing methane (a greenhouse gas) produced by waste rotting in landfills.
- In 2004, the new regional hospital in Iqaluit,
  Nunavut will be using waste heat from the power generating plant for its heat.
- The City of Toronto (largest city in Canada) has reduced its greenhouse gas emissions by 67% below what it was emitting in 1990. It did this by doing things such as reducing the energy used by its buildings, making streetlights more efficient, buying more fuel-efficient cars and recycling and composting at its landfills to turn waste into energy.
- The City of Calgary has a light rail transportation system running on electricity produced by windpower.



• Many businesses are cutting down on energy use by doing things such as making their buildings more efficient, offering their employees cheap bus passes to encourage them to take the bus, and recycling their waste.

Remember, the fewer greenhouse gases that are added to the atmosphere the better! We can all do our part to reduce climate change...get your family, friends, and school involved!



## **Key Points**

- We can all do our part to slow down climate change by reducing our energy use at home and at school. You can help if you:
  - turn out lights when they are not in use
  - turn off the computer or TV when it's not being used
  - walk more
  - ask your parents not to leave the car idling
  - turn down the heat
- \* You can cut back GHG emissions by buying less.
- Switching to renewable energy sources using electricity produced by wind, water and sun energy, for example is a way to reduce GHGs.
- ★ In the north and across Canada governments, businesses and individuals are trying hard to reduce GHGs.



#### Want to know more?

Check out these websites to learn how you and your school can make a difference:

- Cool Kids' Climate Club (What to do?): <a href="http://www.coolclimate.org/whattodo.htm">http://www.coolclimate.org/whattodo.htm</a>
- Destination Conservation: <a href="http://www.dcplanet.org/home.html">http://www.dcplanet.org/home.html</a>
- Government of Canada Climate Change Website: <a href="http://www.climatechange.gc.ca/english/otc/">http://www.climatechange.gc.ca/english/otc/</a>
- EPA Global Warming Kids' Site: http://www.epa.gov/globalwarming/kids/difference.html
- Go for Green: http://www.goforgreen.ca/walktoschool/home e.html

#### And more on renewable energy:

- CanREN Youth Site: http://canren.gc.ca/school/index.asp
- Energy Solutions Centre: <a href="http://www.nrgsc.yk.ca">http://www.nrgsc.yk.ca</a>
- Re-Energy: <a href="http://www.re-energy.ca/">http://www.re-energy.ca/</a>
- Solar School (Renewable Energy): <a href="http://das.ee.unsw.edu.au/~solar/classrooms/3">http://das.ee.unsw.edu.au/~solar/classrooms/3</a> 1.html
- U.S. Department of Energy Kid's Zone: <a href="http://www.eia.doe.gov/kids/">http://www.eia.doe.gov/kids/</a>