

CLIMATE CHANGE

PRE-TEACH/PRE-ACTIVITY

As a class, define the term “climate change” and discuss the differences between weather and climate. Ensure students understand that weather is what we experience day-to-day, while climate is overarching trends in weather over time in a specific region. Discuss how the two terms (weather and climate) are often used incorrectly when discussing global trends.

Activate students’ background knowledge of climate change by having them share their own stories of how they have experienced or observed the Earth’s changing climate. Again, be sure to emphasize the difference between climate and weather.

LEARNING OUTCOMES:

- Students will be able to understand the effects of climate change on Indigenous and non-Indigenous people in Canada.
- Students will understand how the land is changing and be able to provide examples of climate change.
- Students will understand the impact climate change has on the plants and animals in different areas of Canada, along with how the impact on the plants and animals affects Indigenous Peoples.

Foundational knowledge and perspectives

FIRST NATIONS

“The North is changing now more than ever. It is apparent in our inconsistent weather patterns, the onslaught of uncontrollable wildfires, low water levels and unmanageable invasive species entering our ecosystems. These are only a few of the issues that most impact the Indigenous people of the North. Dene National Chief Bill Erasmus provided this humbling Indigenous truth on climate change: ‘The land will take care of itself; if it is being abused it will fight back. The question is whether we as a civilization will continue.’ These words carry such a sense of impending doom, yet the reality weighs heavily all around us because that is exactly what our Earth is doing, fighting back.

Traplines and hunting grounds are affected by unpredictable weather. Many plants and animals that once provided the Indigenous people of the North with nourishment are now considered unsafe or in decline because of irresponsible development. Since we can no longer survive solely on our traditional ways of life, many remote northern residents must rely on barges to supply costly processed food, but the barges are becoming less and less reliable due to increasingly low water levels. This combination of limited traditional food ways and costly processed food has significantly impacted and drastically diminished northern Indigenous culture and lifeways in a short amount of time.

As respected Elder François Paulette says, ‘Reconciliation is meaningless unless we are reconciling with

Mother Earth and Indigenous people together. This is done by undoing and restoring the damage that has been done to Mother Earth. Man can’t continue to delude themselves of what harm they are doing to the future of their children.’ Paulette is referring to a revolutionary shift in the way people live their lives. ‘The way that most people live is harming Indigenous cultures and people need to start embracing a life that is balanced with nature.’ Local hunters, gatherers and Elders like Paulette are the carriers of countless years of collective knowledge passed down to them from their ancestors. Our Elders and land users can describe intricate and fundamental details concerning

the past, present and future of the land and water. Yet only in recent years has this knowledge been recognized and respected. Traditional knowledge is finally being accepted as a theoretical right and protected by law, and yet this valuable information is not being taken advantage of to benefit all people and Mother Earth.

Water is our most precious resource. The rivers and the creeks are the veins and the bloodline of Mother Earth. Without water we can’t survive, which is why we must protect our northern waters at all costs.”

— from *“Climate”* by Catherine Lafferty, in the *First Nations volume of the Indigenous Peoples Atlas of Canada*

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Foundational knowledge and perspectives

MÉTIS

“For several years now, Métis Elders and knowledge keepers have noted that the climate is changing. They specifically notice that ‘northern’ animals such as moose and ravens are moving to the southern Prairies, and animals from the south such as the thirteen-lined ground squirrel are moving north. It’s also becoming harder to find many of the traditional foods and medicines in their usual places. The movement of animals greatly impacts harvesting strategies and changes the local ecosystem immensely. These changes are having an impact on traditional Métis harvesting strategies.

The Métis National Council has been developing a climate change action plan that outlines how the Métis can work to address climate change and mitigate (as much as humanly possible) access to resource lands, flora, and fauna. This centres on the idea of having a good life and respecting the land and its bounty.”

— Métis National Council

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Foundational knowledge and perspectives

INUIT

“**The Arctic and Subarctic** are two of the first areas in the world to experience the direct and local level impacts of a warming planet, and we Inuit recognize that our homelands play a central role in regulating the Earth’s climate system. Our relationship with our environment has already been profoundly altered.

Inuit have been documenting and raising awareness about the local level impacts of climate change for more than a decade. Through Inuit-led research and

advocacy, we have succeeded in drawing the world’s attention to many of the climate-related changes our people are observing and experiencing in Inuit Nunangat. We have shown how climate change is yet another stress factor that Inuit communities are grappling with in a context of widespread social inequity, emphasizing the human dimensions of this challenge.”

— from “Climate Change” in the Inuit volume of the *Indigenous Peoples Atlas of Canada*

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Points of inquiry and activation related to the Giant Floor Map



- **Using the Ecozones card and Forest Regions card, identify land cover on the map and highlight Canada's main landforms.** Ask students which areas would be most affected by climate change, and have them create perimeters with different coloured ropes to mark off the places they believe will be affected by climate change (e.g.: green = forest, blue = water, white = sea ice). Once the map is covered in rope, have your students discuss how much of Canada is affected by climate change and why. Using the blank cards and markers, have students write or draw examples of how each part of Canada would be affected by climate change, such as higher water levels or longer growing seasons. Be sure to focus your students' attention on the effects of climate change for both people and the land and animals. At a grade-appropriate level, pay particular attention to the interconnection between humans and the land.
- **Next, ask students to use blank cards to show examples on the map of what they can do at a personal, community and national level to slow down, reverse, mitigate and adapt to climate change.**

Age appropriate application and experiential learning

ELEMENTARY

K-6

- **Play Follow the Leader** or walk around the map's perimeter, identifying water systems (i.e., lakes, oceans, rivers) as you go. Explore how water connects us all and the effects that climate change has on water systems.
- **Watch one of the documentaries** suggested in the resource section of this teachers' guide and create a KWL (what you know, what you want to know, and what you've learned) chart. Discuss how students do or do not feel personally affected by climate change. Ask students to reflect on how someone in a different location in Canada may be affected.

INTERMEDIATE

7-9

- **Have students explore** how and why people move around the land throughout their lives, and discuss how this is or is not shown on a static map such as the one they are standing on.
- **Have students use** the props in the teacher's kit (i.e., coloured ropes and pylons) to illustrate on the map how people live and move on the land. Discuss how their outlines will be affected by climate change, focusing specifically on the northern part of the country.
- **Using the Animals Affected by Climate Change cards as a starting point**, have students brainstorm examples of other animals that could be affected by climate change. Animals are greatly affected by changes to their habitats. Refer to the Ecozones card and Forest Regions card to locate on the map where the habitats of these animals may be found.

SECONDARY

10-12

- **Reach out** to local Indigenous groups/communities and ask an Elder to discuss "before and after" stories about climate change. Remember to follow proper protocol. Some resources to learn more about proper protocol are:
 - ▶ Indigenous Corporate Training Inc.'s "First Nation Elder Protocol": ictinc.ca/blog/first-nation-elder-protocol
 - ▶ Centre for Indigenous Initiatives' "Guidelines for Working with Elders": carleton.ca/indigenous/resources/guidelines-for-working-with-elders/
 - ▶ Ramona Big Head's "Elder Wisdom in the Classroom": learnalberta.ca/content/aswt/documents/elders/elder_wisdom_in_classroom.pdf

Age appropriate application and experiential learning

- **Research Indigenous stories** that describe how the land used to look, and illustrate these stories on the Giant Floor Map. Discuss how climate change has changed the land.
- **Have students read** the following documents about how climate change has affected the Métis Nation:
 - ▶ “Métis Nation Meets Climate Challenge”:
metisnation.ca/index.php/news/metis-nation-meets-climate-change-challenge
 - ▶ “Métis Nation and Climate Change”:
metisnation.ca/wp-content/uploads/2011/05/Climate-Change-Fact-Sheet.pdf
 - ▶ Have students discuss the various policies and ideas outlined in these documents. Do these policies seem different from those of mainstream society? Why or why not? How do these policies compare to the viewpoints of climate change activists or climate change deniers? Why would it be important to have a distinct climate change policy for the Métis Nation?
- **Have students discuss** why Indigenous communities may disagree with climate change activists and resource developers (or consider why they may agree with either side).



DEMONSTRATION OF LEARNING

- **Have students create** Venn diagrams showing what they have learned about the effects of climate change. Ask students to look at both positive and negative changes.
- **Ask students to write, draw or act out** explanations of what and who in Canada has been affected by climate change, and ask students how they can get engaged with combating climate change.
- **Have students describe** how we have acquired knowledge about climate change effects — be sure to focus on multiple sources of information (e.g., traditional knowledge, research studies).
- **Have your students look into** the following organizations and research the actions they are taking to combat climate change:
 - ▶ Canadian Ice Service
 - ▶ Polar Continental Shelf Program (Arctic Logistics Hub, Resolute, Nunavut)
 - ▶ Natural Resources Canada
 - ▶ Polar Knowledge Canada



LEARNING TO ACTION

- **Ask students to look into** what they can do to mitigate, adapt to, or stop climate change.
- **In your community, have students look at** the cost of adaptations to a changing climate. As a class, determine different ways that you can get engaged in offsetting some of these costs.
- **Look into your local government's strategy** for climate change, and write letters to local representatives about how it can do more to preserve the environment.