

Lesson Plan

Canada in a changing Climate



EC24111

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Environment and Climate Change Canada
Public Information Centre
Place Vincent Massey building
351 St-Joseph Boulevard
Gatineau, Quebec K1A 0H3
Toll free: 1-800-668-6767
Email: enviroinfo@ec.gc.ca

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Aussi disponible en français

Aim

Youth will be encouraged to think critically about the impacts of climate change and explore meaningful adaptation actions.

Duration: 1 hour

Target Audience: Students in Grades 9 to 12

Objectives

Through this activity youth will:

- ▶ Understand how climate change is impacting youth across Canada.
- ▶ Analyze the social and environmental impact of personal and community actions.
- ▶ Develop actionable strategies to implement adaptation at school and in the community.

Activity Sequence

1. Introduction and background information
2. Brainstorm and analysis
3. Case Study Exploration
4. Wrap-up and reflection
5. Extension activities

Materials

- ▶ Large poster paper or whiteboard for discussion points
- ▶ Markers or colored pens
- ▶ Access to the internet or devices to view reports interactively on changingclimate.ca, including the [Map of Adaptation Actions](#)
- ▶ [Definitions — Canada's Changing Climate Report](#) for a glossary of climate science terms
- ▶ [Box 1](#) from the Synthesis Report on changingclimate.ca

Introduction and background information (10 min)

Opening Discussion

Start with a question like:

- “Are there any changes that you, your family or your community have made to deal with the changing climate?”

This will help gauge prior knowledge and identify common practices.

- Explain what climate change is, its impacts and how we can adapt (see text below as a guide):

The global climate is changing at an alarming rate. Along with rising temperatures, a warming climate involves changes in precipitation patterns; more frequent and intense extreme events; declines in snow, ice and permafrost; changes in water quality and quantity; ocean warming; and sea-level rise.

Such changes are already affecting many aspects of life in Canada—our health and well-being, economies, environment, culture and even our identities. The need for climate action has never been so urgent. Adapting our processes, practices and structures is critical to reduce the growing risks from climate change.

Adaptation refers to measures that reduce the negative impacts of climate change or that take advantage of potential new opportunities. Climate change adaptation builds resilience and reduces risk related to current and future climate change impacts. It involves adjusting plans, policies and actions, and can be reactive (i.e., occurring in response to climate change impacts) or anticipatory (i.e., occurring before impacts of climate change are observed).

Some adaptation examples include:

- Adapting homes to withstand extreme weather events.
- Limiting development in coastal areas where sea level is expected to rise.
- Restoring wetlands to reduce flooding.
- Having a plan to protect our health during heat events.

Brainstorm and Analysis (15 minutes)

Small Group Brainstorm

Divide students into small groups and assign each group the following questions to discuss:

- How have you experienced climate change in the world around you - the places you love, the things you love doing, or the way that you live?
- How do you think these experiences will change in the future with additional climate warming?

Class Discussion

- Each group shares their ideas.
- As they present, write these on poster paper or a whiteboard.
- Ask students to consider which climate change impacts they think pose the greatest challenges and why.

Case Study Exploration (30 minutes)

Case Study exploration

- Ask each student to identify different ways that we could adapt to some of the impacts they just identified (It is important to remind them that while we can reduce our impacts by mitigating greenhouse gas emissions, many of these impacts are already happening, and will continue to happen. In these cases, adaptation is the only course of action).
- Write these down.
- Ask them to choose three climate adaptation actions that they may be curious about.

Research and Develop

- Using personal devices, ask students to search on the map of adaptation actions to see tangible adaptation examples near their community.

Sharing and Discussion

- After 10 minutes, invite a few students to share inspiring examples of adaptation action from the map or something concrete from their lives.
- Discuss what makes these initiatives successful and challenges they face.

Wrap-Up and Reflection

Reflection Questions:

Lead a discussion on the following:

- What new ideas did you learn about climate change today?
- What makes you hopeful? What inspires you to take action against climate change?

****Extension activities****

- ▶ Encourage students to apply to the art contest, or create art in the classroom as a subsequent classroom activity, exploring the 4 themes of the contest
- ▶ Guest Speaker:
 - Invite an Environment and Climate Change Canada scientist to talk about climate change impacts in Canada through our [Scientists-at-Large](#) speakers program.
 - Invite a member of the National Assessment Process Secretariat (Natural Resources Canada), if school is located in the National Capital Region, to share about the Canada in a Changing Climate reports and process: nationalassessment-evaluationnationale@nrcan-rncan.gc.ca.