
Climate Change and Traditional Environmental Knowledge



Through the understanding and integration of Traditional Knowledge, this guide will examine the complex nature of climate change and explore practical steps and movements youth can be involved in to make a difference.

Activity Guide



Climate Change and Traditional Environmental Knowledge

About This Project

We would like to extend a warm welcome to the Climate Change and Traditional Environmental Knowledge Activity Guide! This guide is made possible through partnerships between the [Centre for Global Education](#), [TakingITGlobal](#), and [Canadian Commission UNESCO](#). We are excited to have you and your students engage in our interactive virtual classroom. This guide is designed to spark discussion and provide activity ideas to accompany the upcoming event.

This guide will provide students the opportunity to examine the complex nature of climate change and explores practical steps and movements youth can be involved in to make a difference. This event will address **Sustainable Development Goal 13 Climate Action**.

How to Use this Curriculum Guide

To help guide you through facilitating this conversation, we have created this activity guide. It contains instructions on how to join a virtual classroom, through which students can collaborate with their peers all over the world, and an overview of the lessons that are housed there. All resources mentioned in this guide will also be linked to the corresponding activities inside the virtual classroom. The topics explored in this guide may elicit some controversy. Be sure to prepare your audience in advance and review the *Approaching the Material* section of this guide for tips on facilitating difficult conversations.

Though the guide is divided into four curriculum sections based on the level of engagement you want to have with the videoconference event, the activities in all sections are appropriate for use in multiple settings and include:

- **Student Learning Resources** to spark interest and build knowledge prior to participating in the videoconference;
- **Activities** to encourage active participation and critical thought, and connect the videoconference to core curriculum and concepts;
- **Discussion questions** to provoke thought and guide relevant conversation;
- **Resources** and suggestions for further study and action.

Key Components

There are two key components to the video conference:

The Virtual Classroom

The online space is used by teachers to access lesson plans and activities. Through this secure website, students post blogs, participate in discussion boards and get to know their fellow peers from around the world.

How to Sign Up for Online Virtual Classroom

- Go to: <https://encounters.tiged.org/climatechange18/register/>
 - Registration Code: *Given upon registration*
 - If you have not created a TakingITGlobal account, you will be prompted to do it at this point. Once it is created, you will be connected to the Virtual Classroom.
 - After joining the classroom you can visit <http://encounters.tiged.org/> for easy access to this and any other classes you are part of (listed under “My Classes” on the homepage).
-

The Video Conference

The videoconference is the culminating activity to the weeks of online collaboration using the Virtual Classroom. In this live and interactive event, students will see, listen to, and engage with a series of experts from around the World! Students will also have an opportunity to ask questions and share their own thoughts and research.

Testing and setup for Video Conference

- We will be connecting using Zoom, which is a free online collaboration tool. This is a downloadable conferencing software that can be used on any system. All you need is a laptop, webcam, and the internet.
- All of the above is reviewed in our Teacher Training sessions - refer to these Program Guide for the dates available. **You will need to complete at least one training session prior to the live event.** For personalized assistance, please e-mail encounters@tiged.org

Acknowledging First Peoples and Traditional Territory

A **land acknowledgement** is an act of reconciliation that involves making a statement recognizing the traditional territory of the Indigenous people who called the land home before the arrival of settlers. At the beginning of the videoconference, a speaker from the Centre for Global Education will acknowledge the territorial land on which we are hosting the meeting. Its purpose is to introduce a way of thinking about what happened in the past and what changes can be made going forward in order to further the reconciliation process. It is the beginning of a learning process, where we ask, ‘How am I benefitting by living on this land that is a traditional territory of Indigenous people?’

We welcome our participating schools to also make land acknowledgments. A guide to the territorial acknowledgement appropriate for each local region in Canada can be found [HERE](#).

CURRICULUM

Activity Outline

Ahead of the video conference, you will lead your class through 1 (or all) of the activities available in the assignments section of the virtual classroom, each designed to take a 30 - 45-minute block of time. These activities include corresponding collaboration between all schools and students registered for this event. We ask that you strongly encourage and support participation in the virtual classroom to help facilitate communication amongst participants, enhancing the overall experience of this video conference.

Levels of Engagement

Level 1 - INFORM

A basic level of engaging with the video conference, participating schools, and curriculum.

Level 2 - INVOLVE

The next level of engagement orients your students to the virtual classroom and encourages them to explore the materials and activities in collaborative and collective learning environment.

Level 3 - COLLABORATE

This additional level of engagement within the virtual classroom involves activities that emphasizes collaborative learning, where students share responsibility, make collective decisions, and act cooperatively to learn something together.

Level 4 - TRANSFORM

In this highest level of engaging with the video conference, participating schools, and curriculum, activities emphasize transformative learning, where student build upon the scaffolding of earlier activities and discourse, and undertake action-projects that put them at the centre of their own active learning experiences.

1

INFORM

Level 1 Involvement

2

INVOLVE

Level 2 Involvement

3

COLLABORATE

Level 3 Involvement

4

TRANSFORM

Level 4 Involvement

Controversial Topics: Approaching the Material

Addressing topics at school, whether in the course of classroom instruction or during a club meeting, can raise controversy.

Before participating in the videoconference, it is important that you have a strategy on how you will approach the topic and any difficult conversations that arise.

Facilitating Conversations on Refugee Issues

- **Agree upon ground rules for discussion as a class.** Rules may include an agreement to maintain confidentiality, refrain from using slurs or making personal attacks, and speaking one at a time.
- **Work to establish a forum for a free and respectful exchange of ideas.** Do not attempt to change anyone's point of view.
- **Be aware** that although you may not have any students who come from a refugee family or situation in your class, students may be affected by negative or hurtful comments whether or not these comments are directed specifically at them.
- **Resist the urge** to put students who are refugees or belong to families that have experienced this situation, or those whom have experienced through family or friends in the spotlight as "experts." Allow each person in the room to speak only for themselves and on their own terms and avoid inadvertently showcasing someone to their peers.
- **Establish as comfortable an environment as possible.** Arrange seats in a circle. Intervene when conversations become one-sided and pose questions to keep the conversation on track.
- **Be honest about what you do and don't know.** Refer to the resources section to encourage further exploration of the topic. Use phrases such as, "I don't know," "That's a good question," or "Let me do some research and get back to you on that."

What to do if You Encounter Hurtful Responses

1. Name the moment - Interrupt the comment. Do not pull a student aside unless absolutely necessary. Allow this to be a teachable moment.

2. Respond Back: Repeat what was said and add a questions.
- "I think I heard you say... Is that correct" OR "Could you tell me more about what you mean by that comment?"

3. Articulate why the comment is not okay: "That was a stereotype. Stereotypes are a kind of lie and they hurt people's feelings. Our class does not tolerate hurtful words that put people down."

4. Take the comment off the student. Make it a topic for class discussion: "Many people think this way. Why do you think they hold such views? What are different views?"

5. Pause. Have the students take 3-5 minutes to write on what happened and how it made them feel. Come together as a larger group and share any concerns.

6. Redirect. Rather than shutting the conversation down, redirect the attention to the goals of the lesson: "Today we're looking at this topic in order to broaden our perspectives."

Activity 1 - My Carbon Footprint

Calculate and Reflect

Activity

This activity encourages you to understand your carbon footprint, and to make connections between climate change and your daily lives. After completing the activity, you will have a visual representation of positive action you can take to help with Climate Change.

Time

45 Minute Class

Materials

Computer, internet access

Student Learning Resources

Link 1: [Climate Change 101 with Bill Nye | National Geographic](#)

Link 2: [Climate Change is a real problem. NewGenCoal is all about solutions](#)

Link 3: [Climate change \(according to a kid\)](#)

Link 4: [Climate Change: The Basics, Climate Atlas of Canada](#)

Procedure

1. By yourself, use one of the carbon calculators listed below to determine your personal impact on carbon dioxide emissions - your Carbon Footprint.

[Earth Day Network](#)

[The Nature Conservancy](#)

[Zero footprint](#) [This calculator was made specifically for students/youth and is accessible in 6 languages: English, French, Spanish, Arabic, Hebrew and Urdu.]

2. Either as a class, or individually, **discuss** about the following questions:
 - What activities in your daily lives have the largest carbon footprint?
 - How does your footprint compare to that of your friends? Who has the lowest/highest impact? Why?
 - What surprised you the most?
 - What things can you and your families change to lower their carbon footprint?
 - There are many calculators available on the internet - some made by governments, others by environmental groups or industries/companies. Why would any organization (an oil company, a Non-Profit or Government agency) be interested in a carbon footprint calculator?
3. **Write a Blog.** Think back to your carbon footprint, consider how your personal footprint, societal power imbalances, and the effects of climate change are inter-connected:
 - Which of the ideas/changes are easy? Which are most difficult? Do those that are easy have a large or small impact on climate change?

1

INFORM

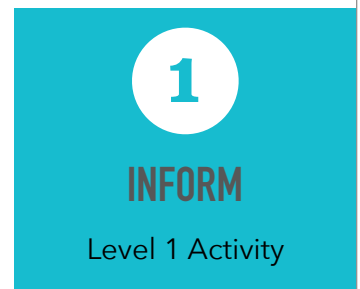
Level 1 Activity

Curriculum and Action Guide

- How do you think living in a city may affect the ability to change one's life to have a lesser carbon footprint than someone from a rural community? What other factors interplay - Gender? Class? (dis)ability? Others?
- How do you think your country compares to others in carbon emissions and energy use? What are possible causes?
- How does your footprint reflect the economy/ status/ location/ politics of your country?
- How does your footprint relate to power imbalances & colonial relations between your country and other countries?

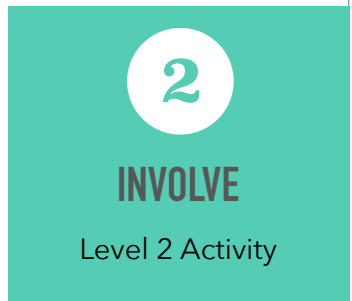
Blogs should be posted [HERE](#), labeled as such: First Name, City, Country: Blog Name (For example: Shola, Lagos, Nigeria: My Carbon Footprint)

4. Reflection on other people's work. Read at least 2 other students blogs and comment on their stories.



Activity 2 - TRADITIONAL ENVIRONMENTAL KNOWLEDGE (TEK)

Reflective Activity - Sharing



Activity

Climate change is affecting us all. In this activity, we will look at the connections between the impacts of climate change to Indigenous and non-Indigenous communities; as well as the potential and urgency of Indigenous and non-Indigenous peoples to work together.

Time

45 Minute Class

Materials

Computer, internet access

Student Learning Resources

Link 1: http://files.unicef.org/policyanalysis/rights/files/HRBAP_UN_Rights_Indig_Peoples.pdf

Link 2: <https://www.indigenousclimateaction.com/single-post/2017/02/03/Resources-Links-on-Indigenous-Rights-and-Climate-Change>

Procedure

1. Take some time to get familiar with a diversity of Indigenous perspectives on climate change and how various Indigenous peoples are acting in response to climate change:
 - **Read pages 10-20 only** - a summary of the United Nations Declaration on the Rights of Indigenous Peoples: http://files.unicef.org/policyanalysis/rights/files/HRBAP_UN_Rights_Indig_Peoples.pdf
 - **Read one of the following** “Declarations and Moratoriums” on climate change by Indigenous peoples: <https://www.indigenousclimateaction.com/single-post/2017/02/03/Resources-Links-on-Indigenous-Rights-and-Climate-Change>
2. **Reflect** on your research of the local Indigenous environmental action and how this information has affected your view on climate change, decarbonization, and decolonization?
 - What are the opportunities and challenges in taking Indigenous perspectives of climate change into account?
 - How will switching to indigenous ways of tackling climate change or decarbonization affect your way of life?
 - How will combining indigenous and scientific knowledges impact the decolonization and decarbonization process?

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3. Have students **work individually or in groups to write a blog post reflecting on at least two of the questions listed above.** If there is time, have them source and image that aligns/illustrates their ideas.
4. Have the students go on a 'virtual scavenger hunt' to find **2** other blogs on the website. Students need to reflect on how their peers' blogs impacted them, and leave a comment to the post.

Resources

Link to virtual classroom: <https://encounters.tiged.org/climatechange18/register/>



Activity 3 - Collaborate

Knowledge Mobilization - Create an Infographic

Activity

Because of people's ideologies, there is a lot of conflicting information in the press/media online about climate change. In small groups, students will create an infographic (Piktochart) or a poster promoting easy lifestyle changes. Include the following:

- An topic/ area of change (eg. Water use, electricity use, transportation)
- Who/ what is at risk? (Minority groups? Flora and fauna?, etc.)
- A statistic related to the selected topic (either a shocking one to inspire change OR a statistic that gives a benefit to change) - Check out Polar Bears International [Thermostat Challenge](#)
- Express a human/ societal benefit to making the change!

Time

45 Minute Class

Materials

Computer, internet access

Student Learning Resources

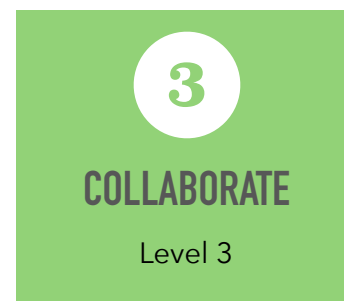
Link 1: [Turn infographics into a video and upload to our YouTube channel](#)

Link 2: [Piktochart](#)

Link 3: [Infographic Components](#)

Procedure

1. Have a conversation with your students around the social implications of climate change (Climate Refugees, minorities at risk). How can we bring awareness? How can we be part of the solution? What steps do we need to take to create partnerships and decolonize?
2. Review and discuss [Infographic components](#) together as a class: What are the common elements? What do they like? What is most memorable?
3. Review the FREE templates here: [Piktochart](#), [Infogram](#), [Easel.ly](#), and [Visme](#) (or have students use Word/Pages to create their own modeled off of examples provided in the resource section).
4. Have students follow these steps to create their infographic:
 - Identify a main point of question to address
 - Find 3 facts and 3 corresponding images (from [Creative Commons](#)) to build their infographic around
 - Use a free template to construct a compelling argument around their question or idea
5. **Share your infographic in the online classroom.** Students can work alone or in groups to share their work, each student is encouraged to comment on at least two of their peers' submissions.



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Students should identify their work with their City, Country, and Activity Number (e.g. Edmonton, Canada: Activity 3).

Optional Activity

Students can **create any medium of artwork** depicting their learning from the above activities. This artwork can reflect their knowledge on climate change challenges highlighting the actions being taken to combat the causes/consequences of this issue (refer to Paris Agreement activity & extension 1 for inspiration).

Once completed, students can upload their artwork to TakingITGlobal's Global Gallery [Decarbonize:Decolonize Youth Art for Climate Change](#) to share with others their perspective on the topic.

Resources

<https://www.pinterest.ca/pin/135178426299276333/>

<https://www.pinterest.ca/pin/295759900515056412/>

<https://www.pinterest.ca/pin/422845852506096908/>

<https://www.pinterest.ca/pin/434034482830272928/>



THANK YOU

Thank you again for being willing to reach beyond the classroom and connect your students to their peers, as a way of learning, engaging and developing a deeper understanding of the foremost problems facing our world today.

If you have colleagues who are interested in the video conference but were not able to register in time to participate, please let them know that they can watch the event in real time by visiting our livestream channel: <http://www.livestream.com/takingitglobal>.

If you have any questions or concerns, feel free to reach out to our team at encounters@tged.org.

About Us



The Centre For Global Education - The mission of The Centre for Global Education (CGE) is to help educate by providing global learning opportunities, enhanced through technology, informed by sound research and innovative teaching.



Canadian Commission for UNESCO - The Canadian Commission for UNESCO serves as a bridge between Canadians and the vital work of UNESCO—the United Nations Educational, Scientific and Cultural Organization. By promoting UNESCO values, priorities and programs in Canada and by bringing the voices of Canadian experts to the international stage, the Commission contributes to a peaceful, equitable and sustainable future that leaves no one behind.