

Grade 6 project: Creating a Climate Forward City

Participants: Grade 6 students at an Elementary School in Edmonton

Task: Complete a team project where they create a physical model of a city which tackles climate change.

Students had to draw on their own knowledge perspectives, along with considering other perspectives (local and global), when negotiating and collaboratively deciding how they can make their city environmentally conscious.



Figures 1 & 2: Physical models of a climate forward city, created by two different groups



Pedagogical reflection

Students researched climate change initiatives across different countries

- ❖ Provided a starting point.
- ❖ Students reflected on the societal, cultural, and economic factors that influence how climate change is combatted.
- ❖ Guided or informed the decision-making process behind choosing which climate change initiatives will be prioritized and implemented in their city.

Conflict-resolution contract

- ❖ Students discussed how to navigate disagreement or miscommunication between team members.
- ❖ Students learned how to negotiate different ideas or knowledge perspectives amongst team members.
- ❖ Students wrote out specific conflict-resolution strategies to emphasize individual accountability.

The traditional approach to climate change education is to teach the science knowledge, expecting students to make decisions based on that knowledge. However, this approach fails to consider the complexity of decision making and the various perspectives involved.

Resource Implementation



This resource explores the ways climate change has impacted life in Chad and the African Indigenous knowledge that can be offered to combat climate change. Students can discuss both the scientific and socio-economic factors involved. Also, students can conduct their own research on how different parts of the world are affected by climate change. <https://regenerationinternational.org/2020/07/03/perspectives-from-chad-africa-covid-19-climate-change-and-indigenous-knowledge/>

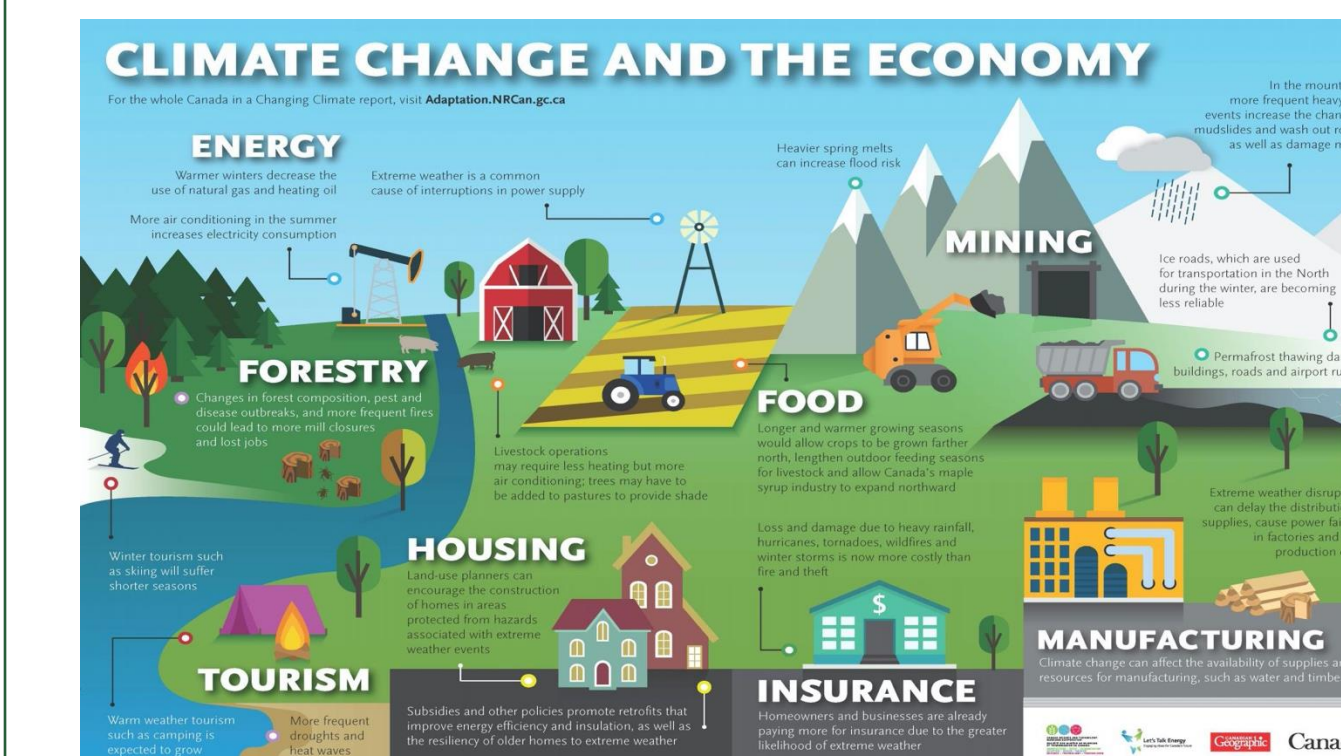
News

More political leaders are directly linking fossil fuels to climate change

Fossil fuel companies under fire in year of climate chaos and record profits

<https://www.cbc.ca/news/climate/fossil-fuel-companies-climate-change-political-leaders-1.6977578>

Teachers can use this Canadian news article to present the various causes of climate change, and have students consider why it continues to worsen despite the overwhelming evidence. This can present a discussion on how politicians think about climate change. To develop science reading comprehension skills, students can highlight scientific terminology in the article and write their definitions.



This illustrates how climate change affects not only our environment, but also other factors within our day-to-day lives. Students can create a connection map to demonstrate the unique relationships between these factors, thereby developing a holistic understanding of climate change. <https://energy.techno-science.ca/en/resources/climate-change-lesson-plans.php>

Information Sheets: Diverse Perspectives

Environmental

Focused on **LONG-TERM** goals such as:

- Preserving and protecting the environment for future generations
- Fighting climate change
- Reducing pollution
- Using renewable resources (such as solar energy, wind energy, etc)
- Eliminating the use of non-renewable resources (such as fossil fuels, natural gas, coal, etc)
- Creating a **sustainable** society

Keyword alert
Sustainability: humans using resources in a way that ensures there is enough left for future generations

Environmental perspectives:

- may support stricter rules or policies that prioritize protecting our ecosystem **over** policies that help the economy.
- are influenced by **scientific evidence**.



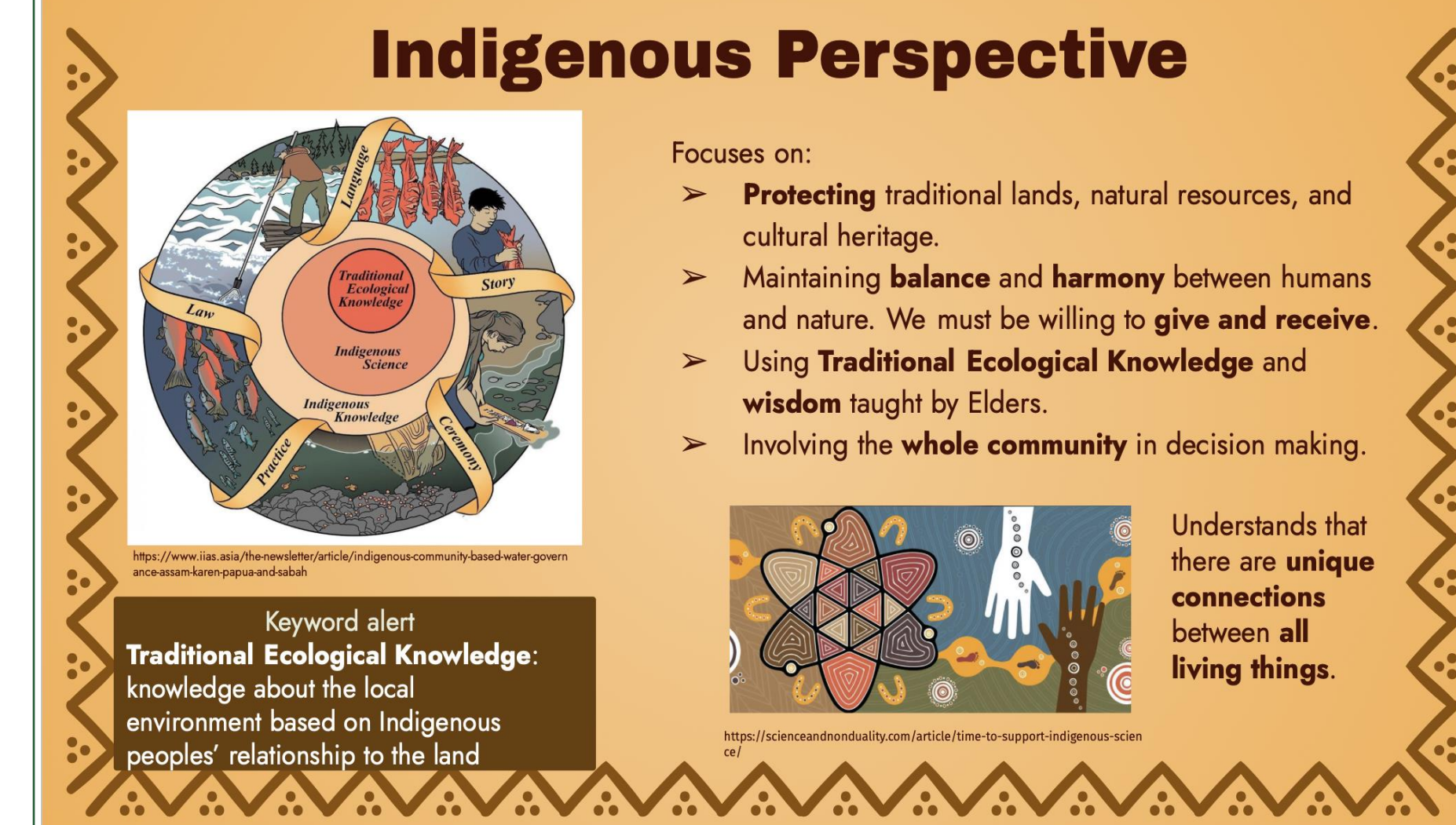
Indigenous Perspective

Focuses on:

- **Protecting** traditional lands, natural resources, and cultural heritage.
- Maintaining **balance** and **harmony** between humans and nature. We must be willing to **give and receive**.
- Using **Traditional Ecological Knowledge** and **wisdom** taught by Elders.
- Involving the **whole community** in decision making.

Keyword alert
Traditional Ecological Knowledge: knowledge about the local environment based on Indigenous peoples' relationship to the land

Understands that there are **unique connections** between **all living things**.



Politician Perspective

Focuses on:

- **National security** and public safety
- **Economic growth** (such as **creating more jobs**)
- Achieving **short-term** goals
- **Infrastructure** development

Decision making is influenced by:

- Public opinion
- Maintaining position of power
- Minimizing costs (such as by **using non-renewable resources**)

Keyword alert
Infrastructure: Physical structures such as roads, power lines, or buildings that improve the economy and quality of life in a given place.



- ❖ These information sheets, which support perspective-based decision making, will be implemented in future years when completing this project.
- ❖ Provides insight into how different perspectives on climate change can impact the considerations students make with land development.
- ❖ Though these perspectives are segmented in a simplistic manner, discussing what other perspectives are not included, as well as how perspectives can overlap and interact with one another, can enrich students' understanding of climate change.