

Climate Change Research Project

Grade 8 – Science and Technology



Lesson Details

Grade Level:	8	Curriculum Links:	Science and Technology	Time Needed:	3 hours
Learning Goal	To conduct research about a topic related to Ontario water bodies and the affect climate change is having on them. To create a group presentation based on their research and present it to the class.				
Success Criteria	By the end of this lesson, students will have researched an issue caused by climate change and its effect on Ontario water bodies and created a presentation illustrating their findings.				
Specific Expectations	<p><i>Understanding Earth and Space Systems: Water Systems</i></p> <ul style="list-style-type: none"> Assess how various media sources address issues related to the impact of human activities on the long-term sustainability of local, national, or international water systems; Assess the impact on local and global water systems of a scientific discovery or technological innovation; Demonstrate an understanding of the characteristics of the Earth’s water systems and the influence of water systems on a specific region; Identify factors that affect the size of glaciers and polar ice caps and describe the effects of these changes on local and global water systems. 				
Materials Needed	Worksheet (attached), Pencil, Computer, Internet Access,				

Lesson Description

Overview	In a group, students will be assigned a topic relating to Ontario water bodies. They will then research the effects of climate change on their subject and present their findings to the class.
Activity	<ol style="list-style-type: none"> Begin by introducing climate change to the class and discuss the impacts it has on the environment, in particular water bodies. Next, split the class into small groups and assign each group a topic relating to Ontario water bodies and climate change that they will research (E.g. invasive species in lakes, shoreline alteration, warming temperatures, fish population declines, turtle population declines, etc.). Distribute the attached worksheet and give the students time on a computer to begin their research and to prepare their presentation. Once everything is complete, the students should present their findings to the class.
Background Information	Climate change is an on-going discussion as it’s impact on the environment is devastating. The current warming temperatures are affecting water bodies, which in turn effects the life that occupies those ecosystems. For example, warmer air holds more moisture than cool air and as a result the warmer air sucks up more water from oceans, lakes, soils, and plants. In fact, most of the climate change impacts come down to water; agriculture, sea level rise, wildfires, and extreme weather all relates to water. In Ontario, we are experiencing a rise in invasive species as their ranges alter due to the changing climate, shorelines are being altered due to human impact and climate change, and native species are diminishing in numbers.

Lesson Description

Blacklist Masters	<ul style="list-style-type: none"> • Worksheet (attached) • Video Link(s): Threats to Ontario Turtles and Wetlands and Turtles in Ontario • For more information, please visit https://www.turtleguardians.com/sample-page/turtle-habitats/
Place-Based Learning	<p>Students will research their local wildlife in order to connect with and understand the threats against them. Students are encouraged to visit a local wildlife centre to learn more as part of their research.</p>
Inquiry-Based Learning	<p>Using Guided Inquiry, the students will work in groups to conduct research and present their findings.</p> <p>Ask the students:</p> <ul style="list-style-type: none"> • What is climate change? How does it impact the environment? • What is a water body? What is part of its ecosystem? • How is climate change impacting water bodies and the species that live within them?
Turtle Stories	<p>Visit a local wildlife centre to learn more about how you can get involved to help save Ontario water bodies and lessen the impact of climate change. Students are encouraged to share their experiences, pictures, and presentations on the Turtle Stories website, found here: https://www.turtlestories.ca/</p>
Turtle Guardian Program Links	<p>After completing Level 2 (Wetland Watchers) of the Turtle Guardian Program, students can move onto Level 3 (Conservation). In this level the students learn how to design their own conservation project with the help from staff or support from their school. For more information, please visit https://www.turtleguardians.com/what-is-a-turtle-guardian/</p>

My Notes



Climate Change Research Project

Group Members: _____

Assigned Topic: _____

Use the computer to research the following questions about your assigned topic. Then create a presentation with your information to be shared with the class.

Find a reliable article that discusses your topic. What is the source? What year is it from? What are the major points from the article?

Where in Ontario is this an issue? How is it affecting the local community?

Is this problem seen elsewhere in the country? Elsewhere in the world?

Are there any human impacts that are also causing problems, besides climate change?

What can we do to help the lessen the impacts of climate change on your topic?

What are three additional facts about your topic that you discovered while researching it?

1. _____
2. _____
3. _____