



My nature connection

CLIMATE
CHANGE:
WHAT'S
HAPPENING?

GRADE: 3-12
TIME: 60 MINS

Where do you see climate change affecting Minnesota?

Students will learn and gain a better understanding of climate change and how it is affecting Minnesota. Then, students will create a "Climate Poster" to solidify their understanding of climate change better and share what they've learned with others.



WHAT YOU'LL NEED

- Blank Paper or Cardboard
- Coloring Materials: crayons, pencils, markers, etc.
- Climate Activism Poster Examples

WHAT IS CLIMATE CHANGE?

INTRODUCTION

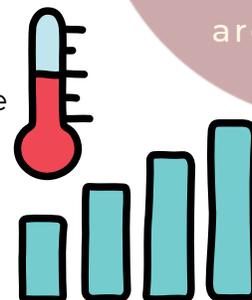
Have students write down what they know about climate change for five minutes. After the time is up, they can compare what they wrote with a partner and create a summary of climate change together.

Climate change is a long-term change in the average weather patterns that have come to define Earth's local, regional, and global climates. Humans have made significant advances in technology to be able to notice these patterns of change. These advances, like Earth-orbiting satellites, have been able to capture the warming of our planet and what is causing it.

The main cause of climate change is the burning of fossil fuels, such as oil, gasoline, and coal, by humans. When burned, fossil fuels release carbon dioxide (CO₂) into the air. When there is more CO₂ in the atmosphere, more of the Sun's energy is retained on Earth, which causes global temperatures to rise. Higher global temperatures impact weather, and plant and animal communities.

STUDENTS WILL:

1. Define climate change
2. Understand how climate change impacts the world around us



CLIMATE CHANGE IN MINNESOTA

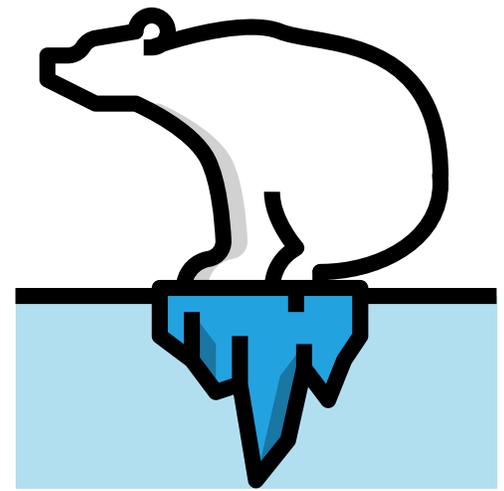
Minnesota's temperatures have risen 1-3 degrees Fahrenheit in the last century. That may not seem like a lot, but that means lakes are becoming more flooded and ice is melting much faster than before. When the lakes and streams flood, it interferes with our roads and housing, and destroys animals' homes.

According to the Environmental Protection Agency, "Higher temperatures and heavier storms could harm water quality in Minnesota's lakes and rivers. Warmer water tends to cause more algal blooms (the rapid growth of algae in our lakes and streams), which can be unsightly, harm fish, and degrade water quality. Severe storms increase the number of pollutants that run off from land to water, so the risk of algal blooms will be greater if storms become more severe".

Global Warming vs Climate Change

When you think of those two things, you might be wondering what the difference is. The two words are used almost interchangeably, making it confusing. See below for a simple definition of each.

- Global warming is the increase of global temperatures.
- Climate change measures the changes in weather conditions over long periods of time.



ART ACTIVITY- Climate Poster

Now that you've learned what climate change is and how it affects our planet, it's time for you to make your very own climate change poster! One of the best ways to educate and bring awareness to topics like this one is through ads and posters.

Some of the most famous climate activists have created simple yet powerful posters that leave lasting impacts. Check out the posters below for some inspiration. When you are done, discuss as a class what your poster means and represents.

Next, have students break into small groups to design their own climate change posters. When all groups are finished, have them present their posters to the class.



CONNECTING WITH QUESTIONS

- Where do you see the climate changing In your area?
- What can you do to slow the climate change process?
- What are activists doing In your area to bring awareness to climate change?
- What other environmental issues are you passionate about?

ADDITIONAL RESOURCES

<https://www.climatechangecommunication.org/wp-content/uploads/2020/02/global-warming-activism-november-2019.pdf>
<https://climate.nasa.gov/evidence/>
<https://www.epa.gov/sites/production/files/2016-09/documents/climate-change-mn.pdf>

TELL US WHAT YOU THINK!

Take a short survey at: campfiremn.org/mynatureconnection

Or here: Kids Survey - [click here](#) | Teachers/Parents Survey - [click here](#)

EDUCATION STANDARDS

Social Emotional Learning Competency:

Grade Level

Science Education Standard

Grade K

Grade 1

Grade 2

Grade 3

3.3.3.2.2 Recognize that the Earth is one of several planets that orbit the sun, and that the moon orbits the Earth.

Grade 4

4.1.2.1.1 Describe the positive and negative impacts that the designed world has on the natural world as more and more engineered products and services are created and used.

Grade 5

5.3.4.1.3 Compare the impact of individual decisions on natural systems.

Grade 6

6.1.2.1.4 Explain the importance of learning from past failures, in order to inform future designs of similar products or systems.

Grade 7

7.1.3.4.1 Use maps, satellite images and other data sets to describe patterns and make predictions about natural systems in a life science context.

Grade 8

8.3.2.2.3 Relate global weather patterns to patterns in regional and local weather.

Grades 9-12

9.2.4.1.2 Describe the trade-offs involved when technological developments impact the way we use energy, natural resources, or synthetic materials.