

The Winds of Change: Climate Change in the Prairie Provinces

The Causes of Climate Change

Name: _____

Date: _____

Group Members: _____

Did You Know?

1. What are most forest fires in Canada caused by?

2. How much gas does your car burn to produce 2.5 kg of carbon dioxide?

Why is the Climate Changing Now?

3. What specific human activities are responsible for the rapid build-up of CO₂ in our atmosphere?

4. What are the “big three” greenhouse gases we’re concerned about?

5. Where do these “big three” greenhouse gases come from?

How are Climates Changing in the Prairies?

6. What province may have higher risk of drought?

7. What problems will higher temperatures with warmer climates create?

Melting Glaciers:

8. What will be affected by shrinking glaciers?

Extreme Weather

9. What are the specific extreme weather events that cause death and destruction on the prairies?

10. Examine the graph showing costs of weather-related disasters. How do the last 20 years appear different out of the last 70 shown?

How Do We Measure Up?

11. From the graph, which are the three nations that produce the largest amount of CO₂ emissions?

12. What activity is responsible for the greatest CO₂ output from individual residences?

13. What activities produce the 75% of greenhouse gases not produced by residences?

Connections

What connections can you make among what you've learned, your lifestyle, your family, school, community, or other regions?

Reflections

Reflect on your learning, understandings, and discoveries. "Write about one thing you did not know before starting this activity"

Questions

What questions do you still have, or what new questions have been raised?

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The Consequences of Climate Change

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Did You Know?

1. Historically what have been the most expensive weather-related disasters?

Climates Do Change

2. Use graph 3 to tell what has happened to the Earth's average temperature since 1980?

3. What is the projected temperature rise for the year 2100?

4. What might happen to temperatures south of Greenland and eastward off the Canadian Atlantic coastline?

Life in the North

5. What animals are vulnerable to changes in sea ice, and why are the females particularly vulnerable?

6. What is permafrost?

7. What will be affected if the permafrost melts with a warming climate?

Life in the Prairies:

8. How might a person living in a prairie city be affected as climate warms?

9. How might a person living in a farming community be affected as climate warms?

Changing Vegetation

10. What are some potential impacts on forests with the changing climate?

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Action on Climate Change

Name: _____

Date: _____

Group Members: _____

How Do We Measure Up?

1. How can you help to slow the rate of climate change?

Let's Meet the Challenge

2. Why should we not wait to take action on climate change?

3. Where can we practice energy efficiency in our everyday lives?

4. What will reducing greenhouse gas emissions now do?

What I am already doing...

What I can begin to do...

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