

GRADE TEN CLIMATE CHANGE RESEARCH TOPICS

Acid Rain:

Emily and Madison

- How is acid rain produced (both human sources and natural sources)?
- What are the specific chemicals (include chemical formula) that produce acid rain?
- Where is each chemical produced? Are there any other chemical reaction of consideration?
- Give examples of the impact of acid rain on earth.

El Nino / La Nina:

Troy

- What is El Nino / La Nina?
- What is the unpredictable nature of El Nino?
- What are the usual weather patterns for a normal year for El Nino /La Nina.
- What are the weather patterns for an El Nino year.
- Give examples specific examples for the impact on weather and on humans.

Hurricanes:

Anna and Brandon

- Describe in detail the structure of a hurricane.
- How and where to hurricanes form?
- How does the classification system work for hurricanes?
- Describe some of the institutions and methods used to predict the direction that hurricanes will travel.

Monsoons:

Sky and Zeke

- What are monsoons?
- What locations on earth are particularly affected by Monsoons?
- How are monsoons produced and how does this explain their seasonal nature?
- What differences in the Monsoon cycle have been noticed latest, possibly as a result of global warming?

Ozone Depletion:

- What is the ozone layer and what role does it play in the health of our planet?
- What is ozone depletion and what locations on earth are affect most by this problem?
- What are reasons for ozone depletion?
- Provide information about the chemical processes involved.
- What has been done to reduce the effect of this problem?

Permafrost:

Tommy

- What is permafrost.
- Why is the area of our planet that has permafrost gradually shrinking?
- Give detailed information (provide maps) of where permafrost was located on earth, where it is now found and what is predicted for the future.
- What are the consequences when permafrost thaws permanetly?

Polar Ice Caps and Glaciers: Ashley and Haley

- Give detailed information about areas of permanent ice on our planet (be sure to include Greenland and Antarctica).
- Describe significant events that have affected the amount of ice in Antarctica.
- What year is the north pole sea expected to melt completely? What effect may this have on the climate in other location on earth?
- What will the effect of rising sea levels be?

Tornadoes: Callie and Katie

- Describe the conditions required for tornado formation. How does a tornado form? What causes the rotation in the tornado funnel?
- Describe the F-scale used for tornado classification.
- Give examples of the force possible in this extreme weather event.
- Give information about tornado occurrence according to location. Include this information for Canada and for the world.

Smog: Hunter and Sky

- What is the cause of smog? What conditions must be in place for smog to occur?
- What areas of Canada and North American are affected by smog?
- What are the health effects of exposure to smog?
- What can be done to help reduce the amount of smog?

Sun Spots: Connor and Kerri-Lyn

- What are sunspots and what causes them?
- What are some of the details related to sun spots
- What is the sunspot cycle and how does it work?
- How does the sunspot cycle (sunspots) affect

Cloud Formation and Types: Allie and Addison

- What are clouds?
- How and why do clouds form or disappear?
- What are the different types of clouds?
- What can different types of clouds tell you about future weather?