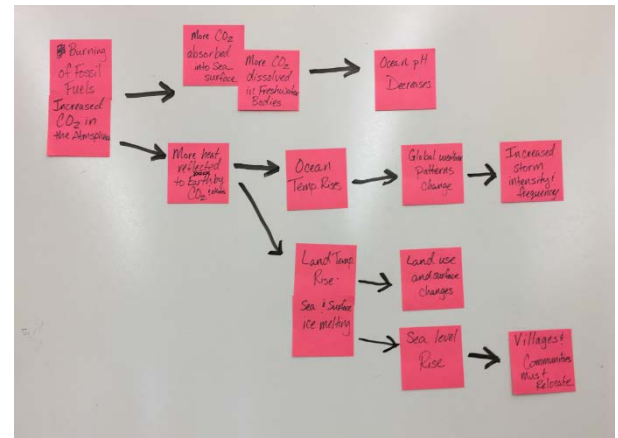


Causes and Effects of Climate Change

(Grades 6-12)

Overview

This session focuses on the causes and effects of climate change, starting with opportunities for students to access and connect to their prior knowledge through developing cause and effect flow charts. Students engage in an activity to reinforce that a good scientific explanation is supported by strong and reliable evidence, the evidence is based on carefully collected data and information, and the evidence is from a reliable source. Small groups then add evidence to their global cause and effect flow charts as they engage in additional activities, access new information, and deepen their understanding of climate change. Finally, local causes and effects are discussed and added to the flow charts.



Learning Outcomes

Students will be able to:

- Build a model (cause and effect flow chart) of global causes and effects of climate change;
- Recognize and gather evidence from reliable sources to support explanations of climate change;
- Determine how global impacts of climate change manifest their effects on local economies, cultures, and communities.

NGSS Connections

- **Disciplinary Core Ideas:** MS.ESS3.C: Human impacts on Earth’s Systems, MS.ESS3.D: Global Climate Change, HS.ESS2.D: Weather and Climate, HS.ESS3.D: Global Climate Change
- **Science and Engineering Practice:** Constructing explanations and designing solutions, Developing and Using Models
- **Crosscutting Concepts:** Cause and Effect

Climate/Ocean Literacy Connections

- 3.F: Changes in the ocean-atmosphere system can result in changes to the climate, that in turn, cause further changes to the ocean and atmosphere. These interactions have dramatic physical, chemical, biological, economic, and social consequences. Also, 3.A and 3.G



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