POLAR TREC
Learning Resources

Details

Either
About 1 period
Download Share and Remix
Elementary and Up

Questions about Climate

Materials

- White Board/markers; or chart paper/markers.
- Have a large globe and or wall map available, if needed.

Overview

This elementary aged lesson can provide a basis for future extensions and research regarding climate change and enhanced green house gases. The purpose is to brainstorm and discuss what students currently know about climate. (It could be based on the model- "What we know, What we want to know, What we learned".)

Objectives

- Students will participate in brainstorming ideas of climate with classmates.
- Students will consider climate in relation to place, and wider geography
- Students will consider the differences regarding the topics of climate and weather.
- Students will understand climate is the long-term pattern of weather in a particular are.

Lesson Preparation

Lead students in a brainstorming, discussion and discovery exercise for them to think about and consider what they know about "climate". What is it? Where is it? How does it happen? As they hear their peers share ideas, new and widening ideas will surface.
Prior to the lesson, research definitions of climate; weather and some examples of types of climate with their geographic place names to have ready as examples.

Procedure

1. Open the discussion by saying "We will discuss and discover ideas regarding the word "climate". What do we know about "climate"?
2. Record ideas in your favorite brainstorm/mind map style, connecting concepts that relate to each other;

asking students to give examples or references when appropriate.
3. As students share their ideas, add in information that you think is applicable and ask questions to encourage ideas toward the definition of climate in the objectives. When the word "weather" comes up, stop and ask/discuss how climate and weather are different. (Tip: Weather is the clothes you put on for the day; climate is the clothing in your wardrobe. Weather happens in your town; climate happens in your state and region)
4. Once students have finished sharing, ask them to look over their ideas and pull together a definition of climate as a group. - Climate is the long-term pattern of weather in a particular are. Compliment them on everything they knew and now know about climate.
5. As students leave the lesson or classroom have them share a definition of climate with you in pairs. (peer work-they collaborate on the wording)

Extension

- A lesson to have students consider and share what the climate is where they live, with some examples of climates in other geographic locations; then have them choose/share in small groups what type of climate they would like to live in most.
- Further lessons using NOAA/National Weather Service sites
- A further extension of climate related to biomes.
- Continued lessons on climate and any changes they may notice or have heard about.

Resources

US Nine Climate Regions Map-NOAA/National Weather Service
US Climate Page-NOAA (with clickable map, data charts)
Weather and Climate Sites- NOAA

Assessment

Teacher Librarian Gretchen Nelson created this lesson plan as a capstone project for the 2015 teacher training course entitled: Climate Change: Seeing, Understanding, and Teaching, held in Denali National Park. The course is facilitated by the Arctic Research Consortium of the U.S. (ARCUS) in partnership with Alaska Geographic and the National Park Service.

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Standards

Alaska State Science Standards
Geography /C-1) students analyze the operations of Earth's physical systems, including ecosystems, climate systems, water cycle and tectonics.

Science/B-Concepts of Physical Science –A student should understand and be able to apply concepts, models, theories, universal principles and facts that explain the physical world.