

LESSON: Creative Climates

GRADE: 3

OBJECTIVES:

Earth's Systems

- **3-ESS2-2** Obtain and combine information to describe climates in different regions of the world.

MATERIALS & RESOURCES:

- Large sheets of paper
- Pencils, markers, crayons
- Access to Internet

PRESENTATION:

Tell children they are being given a very important, scientific, weather related mission.

Then use the following information to brief them on their mission.

Your Mission

As head of the new National Geographic Climate Observation Post, you need to create a Climate Map to illustrate the world's different climate zones.

Briefing

Climate affects almost every aspect of the lives of every living creature. As the head of the Climate Observation Post, you'll want to make sure you know all about the world's weather, climate, and climate controls .

There are six climate zones in the world: tropical, dry, mild, continental, polar, and high elevation. Within each zone are further distinctions that indicate a more specific type of climate.

This lesson is adapted from the National Geographic Education website:

http://education.nationalgeographic.com/archive/xpeditions/activities/08/climates.html?ar_a=1

DIRECTIONS:

1. Using the climate map as a guide, print out a world map and photographs of four of the world's climate zones. Use the photographs to illustrate your climate map, and color in the climate zones with shades that seem right to you. You might want to use blue for polar regions, for instance, or red for desert regions.
2. Students can also highlight the lines of latitude on your map. Ask what they recognize about the climate zones and their relationship to latitude?
3. Think about the weather where you live. During the year, do there tend to be comfortable temperatures most of the time or extremes of hot and cold? A lot of rain or snow, or a little?
4. Ask an older person to help you learn what the weather is like in a city or town far away. Why do you think the weather is different there? Is one of the two places far to the north or south, high in the mountains, or near an ocean?
5. Draw two pictures of yourself, one where you live now and then another showing what you would wear or do if you lived in that other place.
6. Do you think there are some animals that live where you do but couldn't live in that other location? Add pictures of local animals to your two drawings.
7. Present you "findings to the class". Students could create their own weather reports for other parts of the world and act out the report.

Additional Activities:

1. Keep track of the weather for a week in your hometown and in five other cities: Cairo, Egypt; Nome, Alaska; Sydney, Australia; Moscow, Russia; and Manaus, Brazil. (Check www.nws.noaa.gov or www.weather.com for weather information.)
2. On a world map locate all six locations. Which had the least and the most precipitation (rain or snow)? Which had the highest and lowest average daily temperatures? Identify the climate zone for each location.
3. How does the climate in which you live affect how you live? Does it influence how you spend your time, like being outdoors or indoors? Does it affect what people do for a living?
4. Have you ever traveled away from home? Did you experience a different climate?
5. Explore the positive aspects of climate and weather as well as those that are disastrous or inconvenient to human beings.

6. Different climates encourage biodiversity, and it's important to reinforce that weather affects more than just people. For example, at certain times of the year, rain is a necessity—not a nuisance—even if a softball or soccer game gets rained out. There is a story about a family planning a picnic and their neighbor who is a farmer. On the day of the picnic, it rained! The family really disappointed because they had been looking forward to the picnic. Their neighbor, the farmer, was elated to see it rain. His crops needed water and his pond was nearly dried up. Rainfall is a necessary element of our climate. Whether it's a good or bad thing depends on your perspective.

Garden Unit Directions:

1. Look at USDA Plant Hardiness maps. After researching about climate with the previous directions, ask how the climate is related to what can be grown in this zone. What aspects of climate affect gardening?

TIME:**90-120 minutes**