

How's the Weather? — in Africa!

KEYWORDS

Seasons, weather, desert, Africa

GRADE LEVEL

K-2

OVERVIEW

In this lesson students describe and later compare how weather affects human activity on two opposite sides of the world. Students first identify the seasons and weather in their community and how human activities are impacted by weather. They then cross the globe and compare how the weather of Northern Africa impacts human activities there. Students look for a connection between the two environments and conclude that although the weather and activities may be very different in both places, the impact of weather on human activities is a common thread in human communities all over the world.

CONNECTIONS TO THE CURRICULUM

Geography, Math, Science

CONNECTIONS TO NATIONAL GEOGRAPHY STANDARDS

Standard 3: "How to Analyze the Spatial Organization of People, Places, and Environments on Earth's Surface"

Standard 4: "The Physical and Human Characteristics of Places"

Standard 7: "The Physical Processes That Shape the Patterns of Earth's Surface"

Standard 8: "The Characteristics and Spatial Distribution of Ecosystems on Earth's Surface"

CONNECTIONS TO OTHER NATIONAL STANDARDS

National Council for Social Studies Standards

<http://www.socialstudies.org/standards/strands>

People, Places and Environments

TIME

Three 45 minute sessions

MATERIALS REQUIRED

- Copies of a [World Map](http://www.nationalgeographic.com/xpeditions/atlas/) <<<http://www.nationalgeographic.com/xpeditions/atlas/>>>
- Computer with Internet Access
- Paper
- Crayons or colored pencils
- Pencil
- Index cards with weather words describing each season
- Index cards or pictures of activities appropriate for each season

KEY VOCABULARY

- **seasons:** a traditional division of the year based on distinctive weather conditions. In temperate regions, there are four seasons, spring, summer, fall, and winter, while in tropical countries there are often only two, a dry season and a rainy season.

- **desert:** a dry, often sandy region with little rainfall, extreme temperatures, and sparse vegetation.
- **weather:** the state of the atmosphere with regard to temperature, cloudiness, rainfall, wind, and other meteorological conditions
- **physical environment:** all the external factors influencing the life and activities of people, plants, and animals

GUIDING QUESTION

How does weather in different environments (your home community and the Sahara Desert) influence human activities?

OBJECTIVES

Students will

- identify and describe the four seasons
- discuss how weather affects human activities
- discuss how weather affects animal behavior
- identify northern Africa on a world map
- view pictures of the Sahara Desert and animals of that region

GEOGRAPHIC SKILLS

- Acquiring Geographic Information
- Answering Geographic Questions
- Analyzing Geographic Information

SUGGESTED PROCEDURE

- **Opening**
Begin by writing the words, "winter, spring, summer, fall," horizontally across the board. Ask students which season is their favorite and the reasons why. Show students index cards that describe weather. These same words should appear in a word bank on the board. Ask volunteers to come and place words under the correct heading. Ask the students if some of the words could describe more than one season. Discuss kinds of weather in each season. Next, show students index cards or pictures with different activities on them. Again ask volunteers to place cards under the correct heading. Ask students if some of the activities could be done in more than one season. Discuss why some activities could only be done in one season, for example, sledding in winter.
- **Development**
Pass out paper to students. Have them fold the paper so that when opened there are four equal rectangular sections. Ask students to label the top of each rectangular with the name of a season and then draw a picture of what they like to do in that season. Next, show students a map of the world [\(<http://plasma.nationalgeographic.com/mapmachine/index.html>\)](http://plasma.nationalgeographic.com/mapmachine/index.html). Point out the United States and Northern Africa. For older students, you may opt to distribute copies of the world map, and have them identify where they live and Northern Africa by coloring in the different areas. Students should understand that Africa is far from the United States across the Atlantic Ocean. The Sahara Desert covers most of Northern Africa and is the largest subtropical desert in the world. To give students an idea of how big it actually is, tell them that the 48 contiguous states could fit into it easily. Show students pictures of the Sahara Desert by clicking

through images at [Surviving the Sahara](http://magma.nationalgeographic.com/ngm/0212/feature3/)
<<<http://magma.nationalgeographic.com/ngm/0212/feature3/>>>,
[Sahara Salt Trade Camel Caravans](http://news.nationalgeographic.com/news/2003/05/photogalleries/salt/)
<<<http://news.nationalgeographic.com/news/2003/05/photogalleries/salt/>>> and
[other African Desert photographs](http://www.nationalgeographic.com/adventure/0109/photo_1_popup.html)
<<http://www.nationalgeographic.com/adventure/0109/photo_1_popup.html>>.

Ask students to describe what they see in the photos. What is the weather like there? How would you describe it? What are the people doing in the pictures? Which of the activities that you do in your environment could the people who live in Northern Africa also do? What kinds of animals are in the pictures? What are they doing? After viewing the pictures of the Sahara Desert, and then discussing them, ask the class to come up with a definition of a (subtropical) desert.

- **Closing**

Ask students to first describe the weather in Northern Africa, and then ask them to compare the weather in Northern Africa to the weather where they live. The weather in Northern Africa is most similar to the weather in what season? Ask the students advantages and disadvantages of living where the weather is hot all the time. Would they rather live in a place where the weather changes with the seasons or stays the same? On the back of the paper where the students drew pictures of the seasons, ask them to draw a picture of the Sahara Desert and use words from the word bank that could describe the weather and activities people could do there.

SUGGESTED STUDENT ASSESSMENT

Ask the students to pretend that they work for an adventure company that provides activities for people all over the world. As employees of the company, it is their job to create posters advertising activities for where they live and activities for Northern Africa. Highlight any activities that are the same.

Extending the Lesson

- **Inquiry Extension:** Have students compare the weather where they live to a desert environment that is always cold, like ones at the North and South Poles.
- **Cross-Curricular Extension for Further Exploration:** Investigate what plant life can survive in the Sahara. (Science) What is the distance to the Sahara desert from your school? (Math)
- **Try This at Home:** Visit a local zoo. As you walk around to see the animals, compare the different environments they are from. How are they different? Are any of the animals from a desert?

ADAPTATIONS

- Students may work in pairs or small groups to complete the season/Sahara Desert comparison.
- Give some students handouts that are already divided into the seasons. Ask them to draw what the weather is like in each season.

RELATED LINKS

- [Map Machine](http://plasma.nationalgeographic.com/mapmachine/index.html) <<<http://plasma.nationalgeographic.com/mapmachine/index.html>>>
- [People and Places](http://plasma.nationalgeographic.com/places/) <<<http://plasma.nationalgeographic.com/places/>>>

RELATED ACTIVITIES

- [Why It's Essential](http://www.nationalgeographic.com/xpeditions/lessons/07/gk2/seasons.html)
<<http://www.nationalgeographic.com/xpeditions/lessons/07/gk2/seasons.html>>
- [A Reason for the Rain](http://www.nationalgeographic.com/xpeditions/activities/07/season.html)
<<http://www.nationalgeographic.com/xpeditions/activities/07/season.html>>
- [Protecting Africa's Wildlife](http://www.nationalgeographic.com/xpeditions/lessons/14/gk2/africawildlife.html)
<<<http://www.nationalgeographic.com/xpeditions/lessons/14/gk2/africawildlife.html>>>

NOTE TO TEACHER

This lesson should be taught over a couple of days. The first day of instruction should focus on mastering an understanding of the seasons and the second and third days, comparisons to Africa.

BACKGROUND INFORMATION

When we look at the world through a geographic perspective lens, we see it in a whole new way. We do not just look at the weather of a particular environment but rather how the weather impacts human activities there. Seeing things through a geographic perspective helps us understand how things are connected and predict what happens in other places around the world.

TEACHER AND STUDENT HANDOUTS

None