Become a Weather Person
Classroom Program
Teacher's Copy
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revised 12/7/99

Grade: Second

Subject: Weather in the Mojave Desert

Theme: The Mojave Desert is characterized by extreme temperatures, little rain, and strong winds.

Goal: Identify methods used to measure and record weather conditions.

Objectives: Using the appropriate measuring devise students will learn how to measure wind speed, temperature, rainfall, and moisture in the air.

Curriculum: (2)1.1 Observe, record, and describe the effects of weather.

Materials: Weather Observation Recording worksheet
Temperature worksheet

Background: An area is designated a desert based on precipitation and the rate of evaporation in an area. Red Rock Canyon National Conservation Area is located within the Mojave Desert. The area receives approximately 6 inches of rain per year (the Las Vegas valley receives approximately 4 inches per year). The rate of evaporation exceeds 6 inches per year.

This dry environment of the Mojave Desert is classified as a rain shadow desert. A rain shadow desert is created when mountain ranges lie parallel to moist, coastal area. Clouds form and carried moisture falls on slopes facing the winds. When the winds move over the crest and down the far side, they are very dry. Descending air also makes it hard for additional clouds and precipitation to form. Without another source of moisture, rain shadow deserts are formed on the far side of these mountain ranges.

The Mojave Desert lies east of the Sierra Nevada range in California. Moisture and winds from the Pacific Ocean move east and the moisture falls on the mountains. This results in dry wind and air descending on the Las Vegas area including Red Rock Canyon.

Source: Mojave Desert Discovery

Key Points:

- The desert is a harsh environment to live in due to the extreme weather conditions.
- Meteorologists use specialized instruments to measure the weather.

Vocabulary:

meteorologist: a person that studies the science of the atmosphere, especially weather and weather conditions, and weather forecasting.
anemometer: device to measure wind speed
psychrometer: a device used to measure the amount of moisture in the air.
rain gauge: an instrument used to measure the amount of rain that has fallen in a 24 hour period.
thermometer: an instrument used to measure the temperature.

Activities:
When the ranger comes to your classroom they will do a couple of activities. Included will be a discussion about the weather in the Las Vegas Valley and an explanation of a rain shadow desert. Students will also learn how wind, moisture, rain, and temperature are measured. Individually, each student will get a chance to measure the temperature on their playground.

Pre-visit: Try and go over the vocabulary. They're big words and we know they are hard for the students to remember. But if they are familiar with them then chances of them remembering after we show them the instruments are better.

Review how to read a thermometer with the children.

The week prior to your visit by the rangers fill out the "Observing the Weather Chart". Talk about how the chart may look different at a different part of the year, like around Winter or Spring break.

Post-visit: On a daily basis have the students compare the weather to one city in the United States and one city abroad. Create a chart that shows the different temperatures. Do this for one month. Another option is to do this activity during different seasons.

References: Mojave Desert Discovery
Red Rock Web-site

The following page can be used if you are participating in the Junior Weatherperson program where your class is responsible for reporting daily temperatures to Red Rock Canyon for an entire month. As a follow up, your class would go to the Visitor Center at Red Rock Canyon and compare their readings from in town with those taken at the Center.

Recording Today's Temperature

Please call Red Rock Canyon at 363-1921 to report today's temperature.

Name of School:

Month and Year:

What time of day do you measure the temperature:

Date of Month	Temperature	Date of Month	Temperature
1		17	
2		18	
3		19	
4		20	
5		21	
6		22	
7		23	
8		24	
9		25	
10		26	
11		27	
12		28	
13		29	
14		30	
15		31	
16			