

Precipitation

Skill: Science

Objectives:

-Understand different forms of precipitation

Background Information

Precipitation is an important part of the water cycle. Precipitation occurs when water falls to the earth. This can be in different forms such as rain, sleet, snow and fog. If precipitation did not occur, all the water would evaporate into the air and it would not rain. There would be no water in any of the streams or lakes!

Some areas receive more precipitation than other areas. East Oklahoma has more precipitation than west Oklahoma. East Oklahoma receives about 52 inches of rain a year and west Oklahoma receives about 16 inches of rain a year. Why do you think that different areas receive different amounts of rain? Atmospheric moisture is one factor that effects the amount of rain an area receives. If the atmosphere has a higher moisture content, or contains more water, it will rain more in that area than in an area where the atmospheric moisture is low. What type of places have high atmospheric moisture? Places near the ocean will have a higher atmospheric moisture content than places far from the ocean.

How can you measure precipitation? Rain gages are the main way to measure rainfall. Rain gages can vary from a simple bucket all the way to sophisticated equipment. People can buy rain gages and put them in the yards, and measure the amount of rain they received. These are simple containers with depth marks on them. They let you know how much rain that spot received. Usually these rain gages are checked once a day, which will tell you the amount of rain that spot received over 24 hours. A more sophisticated rain gage will record the amount of rain over a period of time and will download it to a computer. These type of rain gages can give more information as well. For example, they can tell you how much it rained during a storm event.

Plants and animals have adapted to their areas amount of precipitation. In the desert, plants have adapted to use little water. In wetlands, plants have adapted to be able to grow in water. This is one reason why you should try to plant native vegetation in your yards. Native plants are simply easier to take care of because they are adapted to the areas precipitation and other environmental conditions. For example, if you live in a dry area and plant something that normally is found in a wet area, you will have to give it lots of water. If you plant something that is native to that area, you will not have to water it as often.

Procedure:

Read and discuss the background and vocabulary

Steps in the Activity:

1. Put about one inch of hot water in a large jar
2. Put a metal pan of ice cubes on top
3. Place the jar carefully in a dark place.
4. Use a flashlight to look for the "cloud"
5. Keep watching to see the tiny raindrops gather and fall to the bottom of the jar.

Vocabulary

- precipitation
- atmospheric moisture
- rain gage
- vegetation
- adapted

Materials

- Large clean jar
- Metal pan of ice cubes
- Flashlight

P.A.S.S.

4th Grade

Science

- Reading 1.1, 3.1b
- Process 3.1,3, 4.4
- Life 3.1

5th Grade

Science

- Reading 1.1a, 3.1b
- Process 3.1,3, 4.4
- Life 2.2

6th Grade

Science

- Reading 1.1a, 3.1b
- Process 3.1,5, 4.5
- Life 4.1
- Earth 5.2

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