

Flash Floods

Companion Text: If You See the Moon, by Zia Wells

Subject Area & Grade Level: Science, 3rd Grade

Materials: Inexpensive potted plants, large measuring cups

Objectives

After this lesson, students will be able to:

- Follow procedures, observe effects, and make measurements in an experiment
- Describe what causes a flash flood
- Explain the relationship between droughts and flooding

Staging Activity

Read the story once through without stopping. Then, return to page 27 and re-read pages 27 through 30. Ask students to turn to a partner and discuss whether or not what happened in the book would be considered a flash flood.

Core Activity

Split students into groups of three or four, and give each group two potted plants and a large measuring cup. Have each group choose a recorder, and then have each group member make a prediction about how much water it would take to flood the plant *if poured quickly*. Once all predictions are recorded, write the following procedure on the board, and review it with students, step by step:

- 1.) Fill your measuring cup all the way
- 2.) Get ready to watch for overflow
- 3.) Have one member of your group pour the water quickly but in a controlled manner into the first plant, being ready to stop at any second.
- 4.) As soon as you see any water overflow, yell “Stop” to your pourer
- 5.) Record the amount of water *used* (not the amount leftover)
- 6.) See if you can pour the same amount of water into the second plant without it spilling over

Extension

Ask students to raise their hands if they were able to pour the water into the second plant without it overflowing (by pouring it slower). Describe a flash flood as a huge amount of rain falling very quickly, so that there is not time for the ground to absorb it. If the same amount of rain falls over a longer period of time, it will not flood (like plant #2). In this story, the arroyo was expected to fill up with water after a big rain, so it would not be considered a flood, but a blessing. It is similar to a flash flood, however, in its swiftness, since the whole riverbed filled up overnight. Ask students why they think flash flooding might be more common in the American Southwest compared to other parts of the country. Explain that in the Southwest, flash floods are



common after periods of drought because the ground is so dry and composed primarily of clay, through which water does not easily pass.



Copyright © 2008, Wocto, LLC. All Rights Reserved. Visit us at www.wocto.com.