

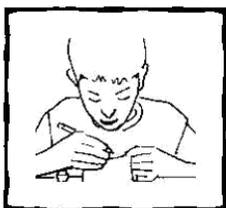
SPILL THRILL

This activity illustrates the strength of the "stickiness" of water **molecules**.

Predict: How much above the bottom of a slit can a cup be filled with water?
What path will the overflowing water take?

You Will Need:

food coloring	1 clear plastic cup
scissors	a bowl or saucer to catch overflow
two pennies	a large container of water
ruler	marker



Instructions: Notice the thickness of two pennies.

In the plastic cup, mark and cut a slit the width of the 2 pennies (3 mm) in the top of the cup that should narrow to a point (approximately 3 cm) from the top.

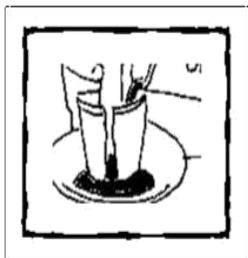
Put several drops of food coloring into the water to tint it.

Notice how the water dissolves or dilutes (breaks apart) the food coloring. Insert a ruler into the cup and hold it vertically.

Slowly and gently pour water into the cup. You will be able to fill the cup with water to a level considerably above the bottom of the slit!

Continue to fill the cup having someone else observe the height on the ruler at which the water finally spills out of the slit. (Subtract the measurement to the bottom of the slit to determine the distance above the bottom of the slit water was able to rise.)

Record your findings on the scoreboard.



Think About It!

Water is always moving through the **water cycle** and through the **watershed**. Gravity pulls water down, just as it causes a ball to fall from the air. As the rain falls to the earth, it will take the path of least resistance and continue to flow downhill, eventually reaching the Gulf of Mexico. When there is a strong rainstorm, the vast amounts of water moving through the watershed become a powerful force carrying pollutants and even large objects along its path.

Imagine that your cup represents a ditch or small pond. Imagine that your ditch or pond was located near a shopping center, industrial plant, or farm. On a separate sheet of paper, tell what kinds of pollutants you think might **impact** your body of water if it is near to one of those locations. Then describe how you think **cohesion**, **adhesion**, and **surface tension** would impact your body of water on a rainy day.

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