

Magic Lesson 4: Keeping Dry

Air can be used in many magic tricks. Try this trick to learn one way air can amaze!

Materials

Paper towel, drinking glass, plastic tub or bucket filled with enough tap water to reach the height of the glass

The Setup

- 1 Place the materials on the table

Magic Science Time!

- 1 Crumple the paper towel and place it in the bottom of the glass.
- 2 Turn the glass over and make sure that the paper will stay in place at the bottom of the glass.
- 3 Slowly lower the upside-down glass into the tub of water. Keep the glass as straight up and down as possible, until the entire glass is under the water.
**Good time for discussion topic #1*
- 4 Take the glass out of the water and let the water drip off the glass.
- 5 Turn the glass right side up and remove the paper towel. Let the audience feel the paper towel to determine if it is wet or dry.

Discussion

- 1 Will the paper towel in the cup get wet? Why or why not?
- 2 Why didn't the paper towel get wet when it was placed in the water?

Explanation

Air takes up space. The glass is filled with air when it's right side up and when it is upside down. When you turn the glass over and slowly lower it into the water, air remains in the glass.

The water cannot enter the glass because of the air inside the glass. The air creates pressure that is greater than the pressure of the water trying to get in. The towel in the top of the glass stays dry. If you were to tilt the glass on its side in the water, air would exit the glass and form bubbles. Water would then be able to enter the glass and soak the paper towel.

