

Science Lessons
Letter F



Fingerprints

One of a Kind

Set up a center with Fingerprint Charts, magnifying glass and ink pad. Help students take their fingerprints and place them in the correct boxes on the chart. Using the magnifying glass encourage the students identify the Loop, Whorl and Arch patterns in their prints. Impress that no two prints are alike.

Floating

What Makes It Float?

Demonstration: Push a piece of flat foil in a tub of water and watch it sink. Now crumple another piece of foil into a ball. Push it in the water and watch it pop back up to float. The flat foil and the ball were made of the same material, but the ball has pockets of air, which help it to float. Air helps things float.

Sink or Float?

Provide several containers of water. Tell the students they are going to test several things to see if they will float or sink. Pass each child a bottle cap and ask them to make a prediction whether they think the cap will float or sink. Ask them to place the bottle cap in the water to see what happens. Have children test each of the items in the same manner, making a prediction first, then testing them. Do not pass out all of the items at once; instead, pass them out one at a time, randomly. Each child gets their own item to test in the water, but each pair of children shares a tub of water. Provide a variety of items such as:

styrofoam, packing peanuts, pennies, dried soup beans, small wooden blocks, small balls of modeling clay, pebbles, marbles, feathers, bottle caps, unifix cubes, etc.

Float and Sink the Boat

Before trying this activity, read Who Sank The Boat by Pamela Allen. Afterwards do a demonstration with a plastic boat or make one together out of modeling clay. Ask the children how many pennies, (buttons, marbles, etc.) they predict it will take to sink the boat. Compare and tally results discussing, "heavy and light". Great fun!

Float an Egg

Gently drop an egg into a glass half full of water. You can also use a hard-boiled egg for this experiment. The egg will fall to the bottom of the glass. The egg is heavier than the water and cannot float on it. Now add two tablespoons of salt to the water. Stir the water carefully until all the salt dissolves. What happens to the egg? The egg will float in the water. The salt makes the water heavier than the egg, so the egg can float in it.

Funnels

Funnel Play

Introduce the funnel. Discuss its possible uses, etc. In the water table provide several sizes of funnels, clear plastic bottles and cups for pouring water. Encourage children to experiment with the materials predicting and testing their predictions about how water goes through different size funnels.

Funnel Phone

You will need: two plastic funnels, a four-to-eight inch piece of plastic tubing 3/8 inch thick (available in hardware stores), duck

tape. Fit each end of the plastic tubing in each funnel and tape in place. Have one child hold a funnel to their ear while another child speaks into the other funnel. *How does sound get from one funnel to the next?* Explain that the sounds of our voice create *vibrations* called "sound waves". These waves travel through the tube and are magnified by the funnel.

Fossils

Fossilize a Sponge
(5 –to-10 Minute Science Activities for Young Learners pg.10)
Show how a fossil is formed with the following experiment. Cut a sponge into a bone shape. Stir Epsom salt into a cup of hot water until no more salt will dissolve. Add a few drops of food coloring, then pour the liquid into a shallow pan. Place the sponge into the liquid, then set it aside in a place where it will not be moved. Invite children to observe the sponge each day until the sponge is completely dry. Have them look closely at the holes in the sponge. This activity demonstrates how minerals attach to the sides of holes in bones, seashells, or plants and create a fossil.

Fat in Food ?
Have students rub an apple slice on one piece of brown paper bag and potato chips on another. Place each food next to its piece of paper. One the papers have dried, have children look at the spot where the food was rubbed. If they see a spot on the paper that means there is fat in that food. Remind children that they should not eat too many foods with a lot of fat in them. Predict and experiment with other foods.