

Science in Action



These activities will help you understand more about science in your life.

1. Science and Technology Hunt

Technology is a way of using science to create tools that make life easier for people. Go on a science and technology hunt! Each of the things on the following list is an example of science or technology at work. How many of them can you find?

- Something made of plastic.
- Something made from trees.
- Something that moves in a circle.
- Something that comes from the earth.
- Something that uses a switch.
- Something made of metal.
- Something that uses electricity.
- Something that uses wheels.
- Something that measures.
- Something that makes or uses sound.
- Something from the ocean.
- Something run by computers.

2. Weird Glop

Almost everything in the world is a solid, liquid, or gas. Things can change from solid to liquid to gas. Water can be a liquid or a solid or a gas. It changes to a solid when it freezes. When it boils and you see steam, it has become a gas.

Weird glop isn't really a solid or a liquid. Do not eat it!

In order to make glop, you will need:

- 1/2 cup cornstarch.
- 1/4 cup water.
- Spoon.
- Measuring cup.
- Bowl.
- Food coloring.

1. Pour the water into the bowl.
2. Add the cornstarch a little at a time while stirring.
3. Keep mixing until all your glop looks and feels the same.

How is weird glop different from water? How is it different from starch? Store the glop in a plastic bag. What can you do with it? Try adding food coloring to make blue, green, or red glop.

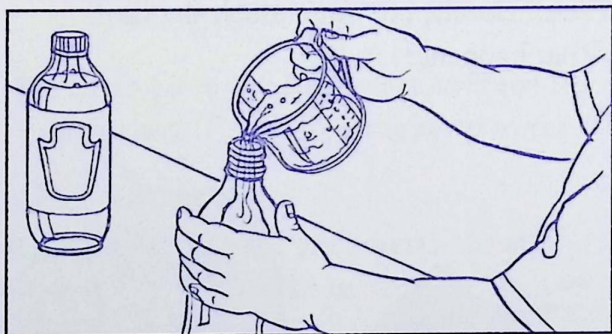
3. Balloon Blowing

Try to blow up a balloon without using your own breath. This will take several people working together.

You will need:

- 1/4 cup vinegar.
- A small plastic bottle (with a neck over which you can place the mouth of the balloon).
- 2 tablespoons of baking soda.
- A small balloon.

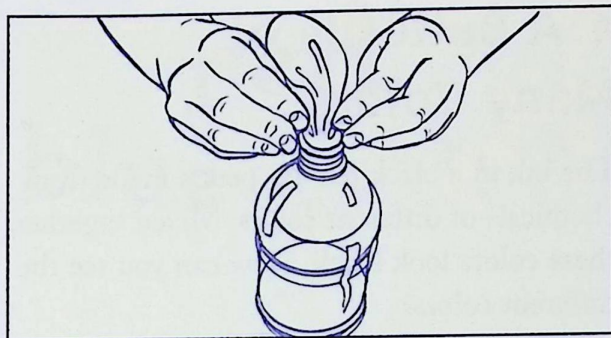
1. Pour the vinegar into the plastic bottle.



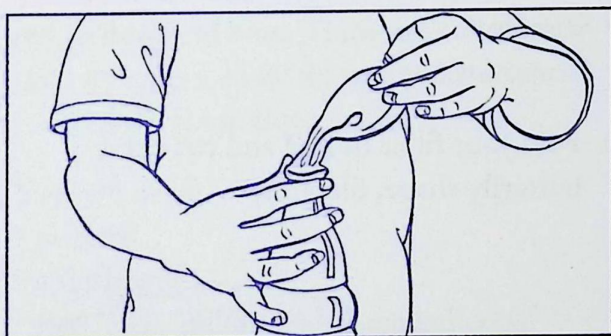
2. Stretch open the balloon mouth and carefully pour the baking soda into the balloon.



3. Place the balloon mouth over the bottle. Make sure that the balloon mouth is tightly around the neck of the soda bottle.



4. Hold the balloon to the side so that the baking soda does not fall into the bottle.



5. Shake the balloon so that the baking soda falls into the bottle.



What happened? Can you figure out why?

Try It!

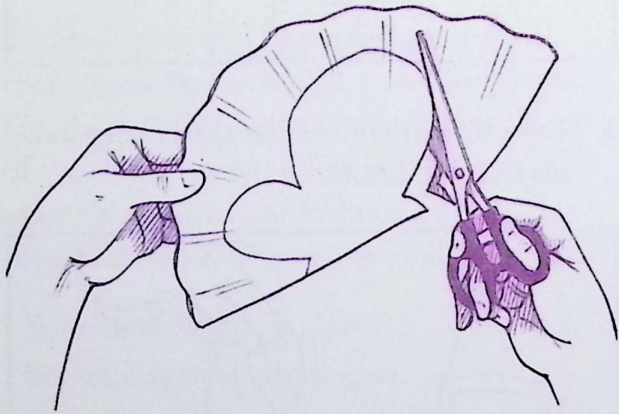
4. A Butterfly of Many Colors

The ink in a black felt-tip pen is made from chemicals of different colors. Mixed together, these colors look black. How can you see the different colors?

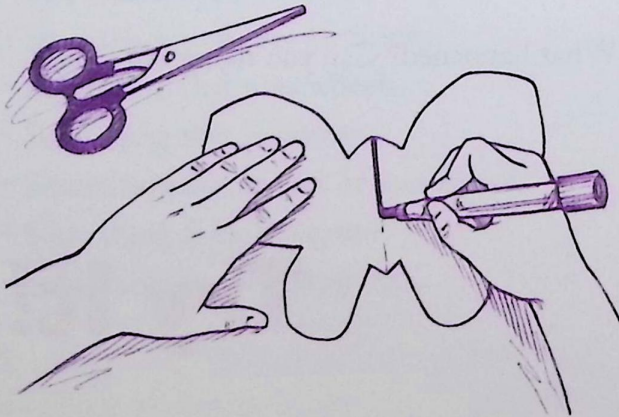
You will need:

- A black, water-soluble, felt-tip pen.
- A coffee filter.
- Scissors.
- 1 cup of water.

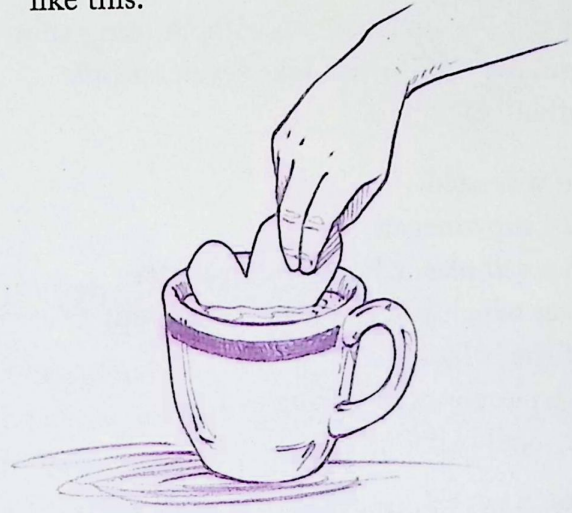
1. Fold your filter in half and cut out a butterfly shape, like this.



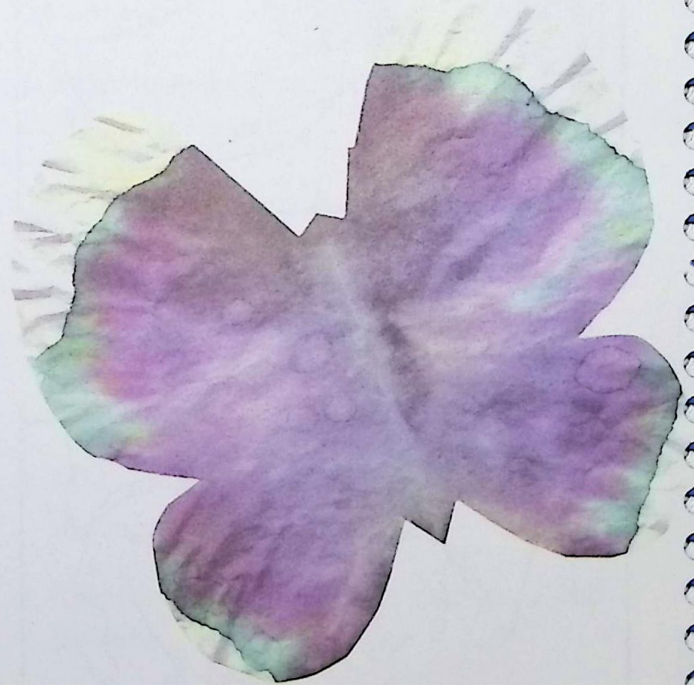
2. Using your felt-tip pen, run a heavy black line down the fold, like this.



3. Dip the filter into the cup of water, like this.



Watch closely, but don't touch the filter. What happens?



5. Magnetic Box

Make a magnetic attraction box.

You will need:

- A small cardboard box (or plastic container with a top).
- Steel wool.
- Plastic wrap.
- A magnet.
- Tape.

1. Have an adult cut the steel wool into small pieces for you.
2. Place the pieces in the bottom of the box so that they cover the bottom completely.
3. Place a piece of plastic wrap over the top of the box. Tape the plastic wrap to the box.
4. Move the magnet underneath the steel wool pieces to make patterns on the bottom of the box.

What kind of patterns can you make? How far away can you hold the magnet and still make the steel wool move?

Try It!

red
blue
yellow

6. Light and Color

All colors are made from three basic ones: red, yellow, and blue. These are called primary colors. How do you make other colors from these three colors?

You will need:

- Scissors.
- 4 flashlights.
- Red, blue, yellow, and green balloons.
- White wall or ceiling or white sheet of paper.
- Dark room.

1. Cut the necks off the balloons.
2. Stretch the balloons across the flashlights.
3. Turn off the lights in the room.
4. Shine the red light onto the white surface.
5. Shine the blue light onto the red.

What happens? What color do you get?

Red plus blue = _____

Red plus yellow = _____

Yellow plus blue = _____

Combine the green with red, yellow, or blue. What happens when you shine all four colors together?