

Let's Experiment!

Natural science is a field of science that focuses on the physical world. Natural scientists study the Earth's natural processes. Learn about 2 natural processes through the experiments below!

Whirlpool Experiment

MATERIALS

- 2 clear, plastic 2-liter water bottles
- Duct tape
- Water
- Food coloring, any color

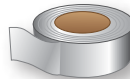
INSTRUCTIONS



1 Fill 1 bottle $\frac{3}{4}$ full with water.



2 Add a few drops of food coloring to the water.



3 Using the duct tape, attach the second bottle to the filled bottle. Check for leaks by flipping the bottles upside down. Add more tape if any water leaks out.



4 With the filled bottle on the top, spin the bottles in a fast circular motion. As the water travels down to the empty bottle, watch what happens to the water in the top bottle. You've created a whirlpool!

What's Happening?

Whirlpools form when opposing water currents clash. The currents wrap around each other to form a downward spiral.

Static Electricity Experiment



MATERIALS

- Shallow plastic tray
- 1 tbsp salt
- 1 tbsp pepper
- Spoon
- Piece of cloth (felt works best)

INSTRUCTIONS

- 1 Pour the salt and pepper onto the tray and mix them together.
- 2 Wrap the fabric around the spoon. Rub the spoon against the fabric to create friction. Do this for 10-15 seconds. This action causes static electricity and negatively charges the spoon.



What's Happening?

Both the salt and pepper are positively charged and attracted to the spoon. The pepper particles are lighter, however, which allows them to stick to the spoon.

- 3 Now that the spoon is negatively charged, hold it about an inch over the tray.
- 4 Notice how the pepper, which has a natural positive charge (like most items in nature), sticks to the negatively charged spoon. Static electricity makes this possible.