Dancing Pepper and Soap

By : Alex & Eric Lee

Supplies needed

- Shallow Bowl or Plate
- Ground pepper
- Water
- Cotton swab or toothpick
- Liquid dish soap

Procedure - 1

1. To start, get a plate and fill it with enough water to reach the edges, but not overflow it.

Procedure - 2

2. Liberally add pepper to the water. Experiment with different amounts of pepper to see if using more or less will change the outcome of the experiment.

Procedure - 3

3. Now the kids will dip toothpick or cotton swab in the soap and immediately touch the water in the center of the plate. They should see the pepper move quickly from the center of the plate to the edges.

Why does it work??

Surface tension exists in water because water molecules stick to each other. This tension is so strong that when you first sprinkle pepper on to the water, it sits on top of the water instead of sinking into it.Why does pepper scatter when you add soap? When soap is added to the water, it breaks the surface tension in that area. That makes the water molecules close to toothpick or cotton swab pull away, carrying the pepper along with them.

Thank you!