

Experiment: Do All Liquids Dissolve in Water?

When people wash dishes by hand, they use a liquid dish detergent. The dish detergent does not sit in a glob in the bottom of the sink—it dissolves in the water. Try this experiment to see if all liquids dissolve in water.

What You Need

- Isopropyl alcohol (rubbing alcohol)
- Corn syrup
- Vegetable oil
- Water
- 6 clear plastic cups
- Masking tape
- 3 drinking straws
- 1 tsp. (5 ml) measure
- 1 tbsp. (15 ml) measure



Do **not** drink any of the liquids in this experiment.

What You Do

1. Use pieces of masking tape to label three of the cups with these labels: Alcohol, Corn Syrup, Vegetable Oil.
2. Use masking tape to create labels for the other three cups: Alcohol + Water, Corn Syrup + Water, Vegetable Oil + Water.
3. Pour 2 tsp. (10 ml) of alcohol into the cup with the appropriate label. (Use the cup with the label “Alcohol,” **not** the cup labeled “Alcohol + Water.”)
4. Pour 2 tsp. (10 ml) of corn syrup into the appropriate cup, and 2 tsp. (10 mL) of vegetable oil into the appropriate cup.
5. Pour 2 tbsp. (30 ml) of water into each of the three cups with “+ Water” on the label.
6. Pour the alcohol into the cup labeled “Alcohol + Water.” Observe the cup from the side as you pour. Watch what happens and record your observations on the next page.
7. Stir the alcohol and water with a straw and see whether the alcohol seems to dissolve in the water. (Keep watching from the side.) Record your observations.
8. Repeat steps 6 and 7 for each of the other two liquids (corn syrup and vegetable oil). Make sure you pour each liquid into the correct cup. Record your observations after doing each step.

