

**Lab: Soluble or Insoluble**

*Although they are similar in appearance, salt and sugar do not share similar characteristics when it comes to solubility. In this activity, you will investigate if salt and sugar are soluble or insoluble in two different solvents: water and vegetable oil.*

**Purpose:** To determine whether salt and sugar have similar characteristics of solubility in different solvents.

**Hypothesis:**

*Do you think salt and sugar will behave in the same way when dissolved in water and oil? Why or why not?*

---

---

---

**Materials and Equipment:**

- 4 plastic cups
- pen
- measuring spoons
- water
- vegetable oil
- salt
- sugar
- stir sticks

**Procedure:**

*In the space below, write down what steps you would take to solve the problem and complete this lab.*

1. Create an observation chart to use in completing the lab.

2.

---

---

3.

---

---

4.

---

---

5.

---

---

6.

---

---

Name: \_\_\_\_\_  
Science Unit 3

Date: \_\_\_\_\_  
Lesson 8: Factors Affecting Solubility

### Observations

Container	Solvent	Solute	Observations
A			
B			
C			
D			

### Discussion

- 1) Did sugar dissolve the same way in each solvent? Did salt?
- 2) Did sugar and salt act the same way?
- 3) Were your predictions correct? Why or why not?
- 4) What factors affected the solubility of sugar and salt? Explain.
- 5) Use the particle theory to explain why water is a good solvent for many different solutes.