Grade 7 Science
Unit 3: Mixtures and Solutions
CORE LAB 2

Name:_____

Partners:

_____ _____

_____ _____

Problem: Are all solutes equally soluble in all solvents?

Materials:

4 cups	water	salt
measuring spoons	4 Popsicle sticks	vegetable oil flour

Procedure:

1. Copy the table of observations below into your science notebook. Give your table a title

2. Label the four cups 1, 2, 3, and 4.

3. Use a measuring spoon to pour about 2 mL of water (about half a teaspoon) into cups 1 and 2. Pour about 2 ml of vegetable oil into cups 3 and 4.

4. Record the solvent in your table.

5. Predict whether each of the two solutes (salt and flour) will dissolve in one, both, or neither of the solvents. Record your predictions.

6. Using the stir sticks, add a little salt to cups 1 and 3 and a little flour to cups 2 and 4. Record the names of the solutes in your table.

7. Stir each mixture. Observe the contents of each container to see if the solutes have dissolved. Record your observations in your table.

12. Clean up and put away the equipment you have used.

Hypothesis: Will each solute dissolve in water, oil or both?

Solute	Will Dissolve in?

Observations:

Title:_____

Container	Name of Solvent	Name of Solute	Observations (Solubility?)
1			
2			
3			
4			

Analysis:

1. Were your predictions correct? Explain

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2. Predict what would happen if you used ethanol (a type of alcohol) as a third solute. Give reasons for your prediction.

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Conclusion: What did you learn about the solubility of different solutes in different solvents?

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