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

Name:_____

Partners:

_____ _____

_____ _____

Problem: How does temperature affect the solubility of a solid in a liquid solvent?

Materials:

balance	graduated cylinder	thermometer
beaker	stirring rod	measuring spoon
salt	stopwatch	

Hypothesis:_____

_____

Procedure:

Part 2—Design Your Own Solubility Study

1. Based on the evidence from Part 1, how does temperature affect solubility for a solid solute that is mixed with a liquid solvent? Write a hypothesis.

2. Design an investigation to test your hypothesis. Here are some other tips and reminders that you might find useful.

   • There is more than one safe way to increase the temperature of a liquid.
   • Heating a liquid is not the only way to investigate the effect of temperature on solubility.
   • Which variables will you control? Which variable will you change (independent variable), and which variable do you expect will change in response (dependent variable)?
   • How will you guarantee safety for yourself and everyone else in the class?
   • How will you record your data?

3. Write the procedure for your investigation. Get your teacher's approval. Then, carry it out.

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

5. Answer Analyze question 4, and answer Conclude and Apply question 2.

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

Procedure:

Identify the following :

Independent Variable: _____

Dependent Variable:_____

Controls (at least 5):

Conclusion: (What happened to the solubility of each solid solute as the temperature of the water increased? How well did your results support your hypothesis_____