

Solubility Races PreLab Worksheet

Problem

What factors affect the solubility rate of a solid in a liquid?

Choose one variable to be tested _____.

Observations

Hypothesis

Experiment (Student-Designed)

Complete the following on a separate sheet of paper, using the instructions provided in the PreLab Activity. Attach the sheet of paper to this sheet.

- A. Procedure
- B. Independent Variable
- C. Dependent Variable
- D. Materials List
- E. Diagram
- F. Data Table

Solubility Races Worksheet

What factors affect the solubility rate of a solid in a liquid? In these experiments, two variables will be tested. First, the effect of *particle size* on solubility rate, holding all other variables constant, will be investigated. The experiment will then be repeated at a different temperature, thus studying the effect of *temperature* on solubility rate, holding all other variables constant.

Standard Procedure—Particle Size

Observations

Hypothesis

Independent Variable

Dependent Variable

Constants

Conclusion

Errors

Standard Procedure—Temperature

Observations

Hypothesis

Independent Variable

Dependent Variable

Constants

Conclusion

Errors

Data Table

Time Needed to Dissolve (seconds)								
Solute	Room Temperature Water _____ °C				Hot Water _____ °C			
	1	2	3	Average	1	2	3	Average
NaCl (powder)								
NaCl (fine crystal)								
NaCl (coarse crystal)								