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



Name:		
Partners:		
Problem: How doe	es 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 1:

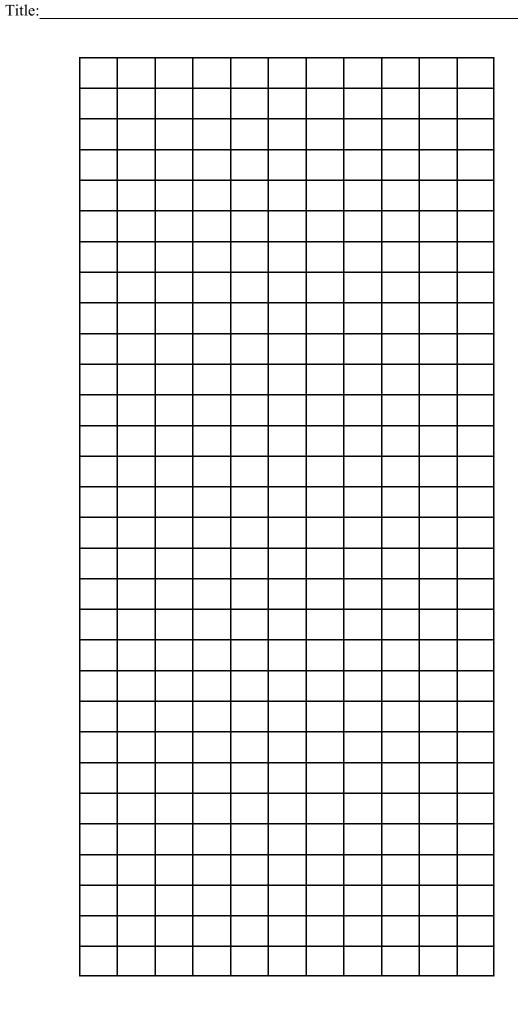
- 1. Draw the axes for a graph. Label the y-axis Solubility (g/L). Label the x-axis Temperature (°C). Mark the scale for the x-axis to go from 0 to 100.
- 2. Plot the data in the table below. Use a different colour for each solute. Include a legend to show the solute that each colour represents. Record in Observations

Temperature versus Solubility for Three Solutes

Temperature (°C)	Solubility in Water (g/L)*			
	Sugar (Sucrose)	Potassium Chlorate	Ammonium Chloride	
10	1910	50	320	
20	2040	70	370	
30	2200	110	410	
40	2390	150	460	
50	2610	210	500	
60	2870	270	550	
70	3200	340	600	

- 3. Connect the points for each solute by drawing a line of best fit.
- 4. Use dashes to extend (extrapolate) the line for each solute so that it crosses 100°C.
- 5. Give your graph a title.
- 6. Answer Analyze questions 1, 2, and 3, and answer Conclude and Apply question 1.

Analyze			
Observations:			



Ques	tions:
1.	Describe the shape of the lines on your graph.
2.	What happens to the lines as the temperature increases?
3.	Predict the solubility of each solute at 90 degrees Celsius?
Sucr	
Potas	ssium Chlorate:
Amm	nonium Chloride:
Con	clusion:
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