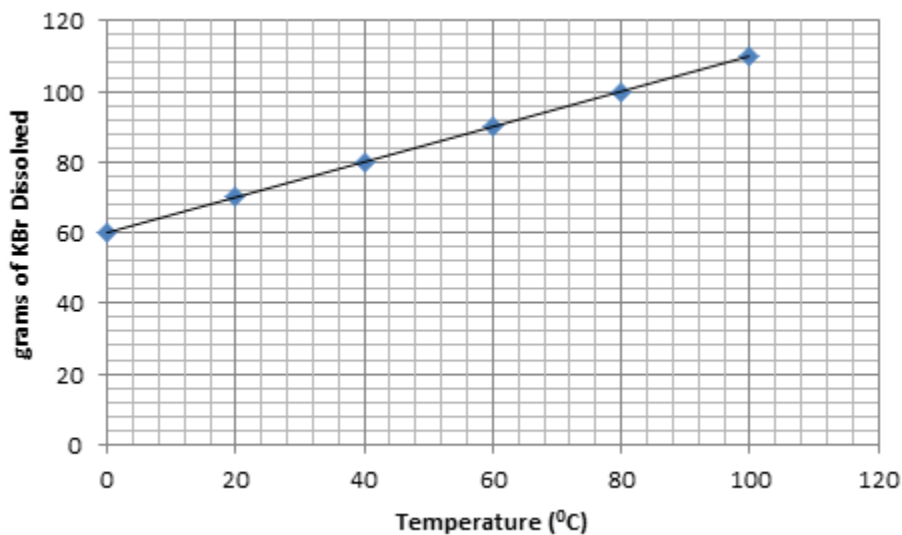


## 8th Grade Science – Week 1

Use the table and graph below for questions 1-5

### Student Made Table in a Laboratory Notebook

Step of Scientific Method	Notes
Formulated Question	If the temperature is increased of water, can you dissolve more or less mass of a solid?
Hypothesis	At lower temperatures of water, greater amounts of a solid can be dissolved.
Experiment	Measure the maximum amount of potassium bromide (KBr) solid that can be dissolved at different temperatures.
Data Analysis	Refer to the graph
Conclusion	



1. What must be a constant during the experiment?
  - (A) Temperature
  - (B) Mass of Potassium Bromide (KBr) solid
  - (C) Amount of water
  - (D) Independent Variable
2. What is a reasonable conclusion for this experiment?
  - (A) Greater amounts of solids dissolve at lower temperatures of water
  - (B) Greater amounts of solids dissolve at higher temperatures of water
  - (C) Greater amounts of gases dissolve at higher temperatures of water
  - (D) No conclusion can be made with the evidence from the experiment

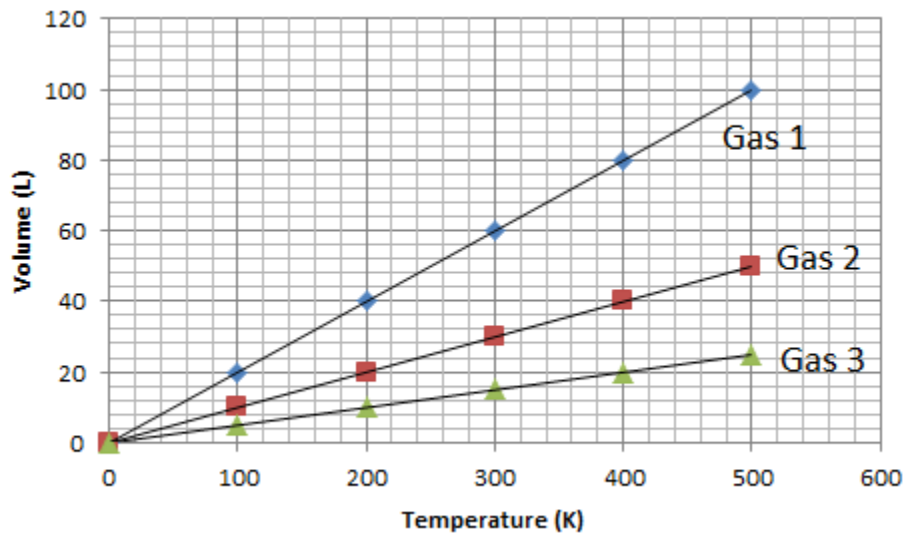
## 8th Grade Science – Week 1

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3. The scientific method demonstrated that
  - (A) The hypothesis is supported by the experimental data.
  - (B) The experiment was poorly planned and conducted.
  - (C) The question posed cannot be answered conclusively.
  - (D) The hypothesis is proved to be an invalid proposed explanation.
  
4. The independent variable in this experiment is
  - (A) The amount of solid that can be dissolved
  - (B) The temperature of the water
  - (C) The type of solid used
  - (D) The number of times the experiment was performed
  
5. At 120°C, how many grams of Potassium Bromide (KBr) can be dissolved in this specific amount of water?
  - (A) 120 grams
  - (B) 130 grams
  - (C) 140 grams
  - (D) 150 grams

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Questions 6-10 refer to the graph below of an experiment testing different gases at different temperatures.



6. If Gas 2 has a volume of 40 L, what temperature will it be at?  
(A) 100 K  
(B) 200 K  
(C) 300 K  
(D) 400 K
7. What volume will Gas 1 have at 600 K?  
(A) 100 L  
(B) 110 L  
(C) 120 L  
(D) 130 L
8. What is the slope of the graph for Gas 3?  
(A) 0.01 L/K  
(B) 0.03 L/K  
(C) 0.05 L/K  
(D) 0.08 L/K
9. In these experiments, which is the dependent variable?  
(A) Volume of the gas  
(B) Temperature of the gas  
(C) The type of gas  
(D) The type of container to hold the gas
10. What can be concluded about the gas experiments?
  - I. Increasing the temperature of a gas will increase its volume
  - II. Increasing the temperature of a gas will decrease its pressure
  - III. Different gases have different volumes at specific temperatures

(A) I only  
(B) I and II only  
(C) I and III only  
(D) I, II, and III