**FIRST MARKING PERIOD EXAM REVIEW**

Chapter 1 – Science Skills

* Know the difference among the terms, scientific theory, scientific law, and hypothesis
* Name and describe the 5 steps of the scientific method
* Be able to pick out the independent variable, dependent variable, and control group for an experiment
* Know what is meant by the precision of measurements and accuracy.
* Be able to do metric conversions.
* Be able to do English and metric conversions
* Know how to convert numbers to scientific notation
* Be able to read a ruler and a graduated cylinder to the correct number of decimal places.

Chapters 2 & 3 – Physical and Chemical Properties of Matter

* Know the classification of matterchart
* Know physical properties such as viscosity, malleability, conductivity, etc.
* Understand the concept of density so that you can calculate the density of any substance
* Know the signs of chemical change
* Know the difference between a physical and chemical change
* Be able to describe the properties of solids, liquids, and gases.
* Know Boyle’s and Charles’ Laws
* Know the 6 phase changes
* What happens to temperature during a phase change
* Know the terms Endothermic and Exothermic
* Be able to label a phase diagram

1. Name and describe the 5 steps of the scientific method.
2. What are the differences between a scientific law and theory?
3. Aveeno brand hand lotion gets rid of dry skin faster than Equate brand hand lotion.
   1. What is the independent variable?
   2. What is the dependent variable?
   3. What is the control group?
4. Change 0.0056 to scientific notation.
5. How many centimeters equal 78 inches. (2.54 cm = 1 in)
6. Convert 730 meters to centimeters (100 cm = 1 m)
7. Measure the following line in centimeters to the correct number of decimal places.

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1. What are the two categories of pure substances?
2. Name 1 mixture.
3. What is the difference between a homogeneous and heterogeneous mixture?
4. If a label says “shake well before using,” what category of matter is it?
5. What is malleability? Name something that has a high malleability.
6. What is viscosity? Name something that has a high viscosity.
7. What is a physical change?
8. What is a chemical change?
9. What are the 4 signs of a chemical change?
10. Describe solids, liquids, and gases in terms of **shape, volume, energy of particles, and arrangement of particles.**
11. Name the 6 phase changes.
12. Which phase changes are exothermic?
13. Which phase changes are endothermic?
14. During a phase change, what happens to the temperature?
15. Describe Boyles’ Law.
16. Describe Charles’ Law.
17. Draw the heating curve of water.
18. What other temperature is the same as the melting point?
19. A block has a mass of 30 grams and a volume of 5 cm3. What is the density of the block?