**Unit 1 Review KEY**

1. Fill in the blanks below:
   1. Science begins with \_\_*curiosity*\_\_\_\_\_\_\_ and often

ends with \_\_*discovery*\_\_\_\_\_\_\_\_\_\_.

1. Why is it important that scientists’ world wide use the standard system of measure called the Metric System?

*So that they can speak a common language, to share data.*

1. What are the steps of the scientific method?

*Ask a question*

**Do you remember your mnemonic?**

*Form a hypothesis*

*Perform a test*

*Analyze the test*

*Make a conclusion*

1. What are the requirements for a good hypothesis?

*Must be a statement – Don’t be wishy-washy – be specific*

1. What are the requirements for writing a good conclusion?

*Refer to the question – restate your hypothesis – backed up by data*

1. This vocabulary term that is an observed event in nature that

requires no explanation as to why it occurs. We just describe what happens.

*It’s a LAW*

1. This vocabulary term is a well tested observed event. It’s been proven over and over and tries to explain why the event occurs.

*It’s a Theory*

1. Can a Theory ever become a law?

*No, a theory is used to explain and support a law*

1. Fill in the blanks below:
   1. \_\_*Theories*\_\_\_ explain, \_\_\_\_\_*Laws*\_\_\_\_\_ describe.
2. A sprinter in a 100m race is timed with a wrist watch, and a stop watch. Which is more precise?

*Since the stop watch can measure to 1 or 2 decimal places,*

*it is more accurate*

1. What is the error associated with a meter stick?

*+ 0.5 mm, that is ½ of the smallest measurement of the meter stick*

1. What is the error associated with the clock on the wall?

*+ 0.5 seconds*

1. How many centimeters are in 10 inches?

*Since 1 inch = 2.54 cm, 10 inches would be 25.4 cm.*

1. What do the following metric prefixes mean?
   1. centi b. milli c. Kilo d. Mega

*1/100 1/1000 1000 1,000,000*

1. What is the equation to find density?

D = m/v

1. What is a possible unit for expressing density?

*Any unit of mass over any unit of volume*

1. A student wonders; “What is the most efficient temperature to pop popcorn kernels?” She chooses 10 kernels and heats them to different temperature ranges from 100C to 300C at 10C intervals.
   1. What would a good hypothesis be?
      1. *At 230C, 9 out of 10 popcorn kernels will pop.*

*(Your answer may vary)*

* 1. What is the manipulated variable?
     1. *The temperature*
  2. What is the responding variable?
     1. *Number of kernels popped*
  3. What type of graph would you use to analyze these results?
     1. *Scatter plot or point plot. There are too many data points to use a bar graph.*

1. How many feet are in a kilometer?

*1 ft x 1 ~~in~~ x 100~~cm~~ x 1000~~m~~ x 1~~km~~ = 3280 ft*

*12 ~~in~~  2.54 ~~cm~~ 1 ~~m~~ 1 ~~km~~*

1. It is a fact that Mr. Rita is 1.89 tall. What is wrong with this statement?

*1.89 what? Why meters of course, this is science class……….*

1. You find a shiny yellow piece of metal has a mass of 656.2grams and a volume of 34 cm3. Are you rich?

*d = m = 656.2 gm = 19.3 gm*

*v 34 cm3 cm3*

*YOU BET!!! The density matches Gold and this little beauty*

*Is worth about $27,000!!!!!*

*CHA- CHING!!*