

NAME _____

Journal # _____

~SCIENTIFIC METHOD REVIEW GUIDE~

Answer all questions in your notebook in the "note" section.

- Name any 5 safety rules for the science classroom.
- Explain why each of the 5 rules is important.
- What are the 6 steps of the scientific method? List them in order.
 - state problem
 - form hypothesis
 - experiment
 - collect + record data
 - analyze
 - conclude
- Define each of the 6 steps.
- What is a hypothesis? *educated guess*
- What 2 groups are always in an experiment? Why is this important?
 - experimental } to compare
 - control
- What 2 variables are always in an experiment? Define each of them. *IV (purposely changed) DV (responds to IV)*
- What 2 types of data can you collect from an experiment? Define each and give an example of each. *Qualitative (likes) Quantitative (#s)*
- What is the definition of the metric system? *decimal system based on multiples of 10*
- What 2 things must you always have when measuring? *# & unit*
- What is the order of Units from biggest to the smallest? (Make the chart with the dots.)
- What is the definition of length & what units do you use? *How long an object is (m)*
- What is the definition of Mass & what units are used? *amount of matter in an object (g)*
- True or False: Mass is constant. *T*
- What is the definition of weight & what units are used? *measure of the pull of gravity (kg)*
- True or False: Weight is constant. *F*
- What is the definition of volume & how do you measure a liquid's volume? *how much space an object occupies (L)*
- How do you measure a solid's volume? An irregular solid's volume? *water displacement*
- What is the definition of temperature & what units are used? *how much heat is in an object (C)*
- What is the definition of time & what units are used? *span b/w 2 events (sec)*
- What are the 5 parts that all graphs must have?
- Where does the DV go on a graph? Where does the IV go? *- side - bottom*
- Name any 6 parts of the microscope and define each.
- Explain the process of finding a specimen using a microscope. *microscope notes*
- What happens when you move the slide to the right? When it is moved to the left? *see move right*
- What is TMP if the low objective is 40x? What is TMP if the high power objective is used at 100x? *- 1000x -> 400x*

$$[\text{eyepiece} \times \text{obj}] = \text{TMP}$$

K.H.D.S.d.c.m

LxWxH

27. Convert the following measurements.
- | | | |
|---------------|--------------|--------|
| 23.400 meters | <u>234</u> | dm |
| 5.56000 mL | <u>.0056</u> | Liters |
| 0.87000 Kg | <u>870</u> | grams |
| 09.78 cm | <u>.978</u> | dm |

