**Quick Review from 6/9/14 KEY**

1. Identify each of the following activities in the scientific method as an observation (O), a hypothesis (H), an experiment (E), or a theory (T)
	1. Explains why nature behaves the way it does. \_\_T\_\_
	2. Collect data. \_\_O\_\_
2. Solve the following problems, stating answers to the proper number of significant figures
	1. 12.62 + 1.5 + 0.25 = 14.37 =14.4

$$\frac{12×5.47}{8.1}=8.103703704≈8.1$$

* 1. 10.4 + 3.75(1.5 x 104) = 10.4 + 5.6250 x 104 = 5.6 x 104
1. Write the name or symbol for the following elements
	1. Chromium Cr
	2. B boron
2. (4 points) Write the following measurements in scientific notation with 4 significant figures.
	1. 581962846 g 5.820 x 108 g
	2. 0.0000352329 mL 3.523 x 10-5 mL
3. What is the log of 6.49 x 105 (with proper number of sig figs) 5.812
4. Round the following numbers to 3 significant figures and write them in scientific notation.
	1. 3758298950 km

3.76 x 109 km

* 1. 0.000320241713 sec

3.20 x 10-4 sec

1. Classify each of the following as a homogenous mixture, heterogeneous mixture, element or compound
	1. Copper metal, Cu \_\_\_\_\_\_\_\_\_element\_\_\_\_\_\_\_\_\_
	2. Soft Drink \_\_\_\_homogeneous mixture\_\_\_\_\_\_\_\_\_\_\_\_\_\_
	3. Sugar, C12H22O11 \_\_\_\_\_\_\_\_compound\_\_\_\_\_\_\_\_\_\_
	4. Ham Sandwich \_\_\_\_\_\_\_heterogeneous mixture\_\_\_\_\_\_\_\_\_\_\_
	5. Baking Soda, NaHCO3 \_\_\_\_\_\_\_\_compound\_\_\_\_\_\_\_\_\_\_
2. Identify each of the following as properties of a solid, liquid or gas
	1. This substance has a definite volume and \_\_\_\_\_\_solid\_\_\_\_\_\_

shape.

* 1. The particles in the substance have negligible attractive forces. \_\_\_\_gas\_\_\_\_\_\_\_\_
1. Write the name for each of the following ions (include the Roman numeral when necessary) (5 points):
	1. Zn2+ zinc
	2. N3- nitride
	3. Na+ sodium
	4. Cl- chloride
	5. Cu2+ copper(II) or cupric
2. Identify each of the following transformations as a chemical or physical change (5 points).
3. Silver tarnishing \_\_\_\_\_\_\_\_\_chemical\_\_\_\_\_\_\_
4. Cutting the grass \_\_\_\_\_\_\_\_\_physical\_\_\_\_\_\_\_
5. A nail rusting \_\_\_\_\_\_\_\_\_chemical\_\_\_\_\_\_\_
6. Water boiling \_\_\_\_\_\_\_\_\_physical\_\_\_\_\_\_\_\_
7. A button falling off a shirt \_\_\_\_\_\_\_\_\_physical\_\_\_\_\_\_\_\_