**Honors Chemistry** Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Review – Matter** Period \_\_\_\_\_\_\_

1. Name each of the following elements:

P \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Hg \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Cu \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Ca \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

I \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Cl \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Mg \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ S \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Li \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ H \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Si \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Pb \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Zn \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Write the chemical symbol for each of the following elements:

\_\_\_\_\_\_\_potassium \_\_\_\_\_\_\_aluminum \_\_\_\_\_\_\_sodium \_\_\_\_\_\_\_bromine

\_\_\_\_\_\_\_silver \_\_\_\_\_\_\_carbon \_\_\_\_\_\_\_tin \_\_\_\_\_\_\_ iron

\_\_\_\_\_\_\_oxygen \_\_\_\_\_\_\_fluorine \_\_\_\_\_\_\_ helium \_\_\_\_\_\_\_ nitrogen

1. Write 3 facts and draw a particle diagram for each type of matter listed below:

a. Element

b. Compound

c. Solution

(homogenous mixture)

d. Heterogeneous

Mixture

1. What does the Law of Definite Proportions state? Which type of matter does this relate most closely to?
2. Identify each of the following materials as a heterogeneous mixture (HM), solution (S),

compound (C) or element (E).

carbon dioxide \_\_\_\_\_\_ oxygen \_\_\_\_\_\_

sodium \_\_\_\_­\_\_ salt water \_\_\_\_\_\_

milk \_\_\_\_­\_\_ cereal \_\_\_\_\_\_

blood \_\_\_\_\_\_ smoke \_\_\_\_\_\_

pure water \_\_\_\_\_\_ sand \_\_\_\_\_\_

tap water \_\_\_\_\_\_ liquid with a precipitate \_\_\_\_\_\_

1. What is mass? How is the mass of an object determined?
2. Could two objects with the same volume have different masses?

Which, if either, would contain more matter?

1. If a compound and a mixture are both a combination of two or more materials/atoms, then aren’t they the same thing? If not, what about them is different?
2. What are the three states of matter of most concern to chemists?
3. What do we mean by *interparticle attractions*?

Describe each state of matter in terms of interparticle attractions.

1. What is *compressibility*? Describe each state of matter in terms of compressibility.
2. Classify each of the following as physical, (P) or chemical, (C).

\_\_\_\_\_a) a towel absorbing water \_\_\_\_\_g) baking a cake

\_\_\_\_\_b) rusting nail \_\_\_\_\_ h) boils at 88⁰C

\_\_\_\_\_c) mothballs subliming \_\_\_\_\_ i) deflating a basketball

\_\_\_\_\_d) is blue \_\_\_\_\_ j) volume

\_\_\_\_\_e) malleability \_\_\_\_\_k) sugar dissolving in water

\_\_\_\_\_f) alcohol evaporating \_\_\_\_\_l) sewing a hem

1. How is a qualitative observation different than a quantitative observation?

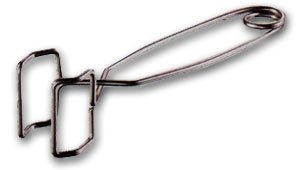
Give an example of each.

1. How are extensive properties different than intensive properties?

Give 3 examples of each type.

1. List the four main observations which indicate that a chemical change has occurred.
2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
4. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
5. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
6. Name the type substance that sometimes forms when two liquids are mixed together. Describe what this substance looks like (state of matter, etc.).
7. Name the following pieces of laboratory equipment:

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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1. Draw a concept map (or make a list) to describe each of the 6 phase changes that we discussed in class. Make sure to show both the starting and ending phase for each one.