**Science 9 – Chemistry of Matter Test Review – Due for Monday, April 24, 2017**

**Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ TEST Date:** **TUESDAY,** **April 25, 2017**

1. Fill in the blanks with the correct word(s) for each of the following.
2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is a term which describes when a solid can be bent into different shapes (such as aluminum foil).
3. The \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of a substance **not** an example of a chemical property.
4. This type of material, called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, may cause metal containers or structural materials to become weak, leak, or collapse (such as bleach, battery acid, or hydrochloric acid).

1. When a substance (metal) reacts with oxygen to form rust it is an example of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
2. Nitrogen does not burn is an example of a *\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ property*.
3. The temperatures at which substance change state are characteristic physical properties (changing a solid to a liquid or changing a liquid to a vapor) is called the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ or \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ points.

1. The atoms in a gas, such as helium, are moving \_\_\_\_\_\_\_\_\_\_\_\_\_\_ than the atoms in solid, such as steel.
2. In order to make a liquid, like water, into a solid, we need to take away some \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
3. Viscosity is defined as how \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ a \_\_\_\_\_\_\_\_\_\_\_\_\_\_ flows.
4. Mixtures are a combination of more than one type of particle. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is an example of a heterogeneous mixture. All of the following are examples of a mixture
5. A \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ change is a change that is reversible using ordinary physical means.
6. An example of this state of matter called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ include florescent and neon light, lightning, and the aurora borealis.
7. An example of a homogeneous mixture is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
8. Calculate the density of a substance with a mass of 14 g and a volume of 2 cm3. Density = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

O. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is an example of a suspension (a mixture where particles will settle out if left alone).

1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is an example of an alloy (which is a homogeneous mixture of one or more metals or non-metals)?
2. This term, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, is the force of gravity on an object and is equal to the mass of the body time the local acceleration of gravity.
3. A person’s weight on the moon is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ than a person’s weight on the Earth.
4. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is a term or property that describes the ability of a substance to react with oxygen to produced carbon dioxide, water, and energy.
5. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is a measure of the resistance of a solid to being scratched or dented.

1. Identify the following as a ***chemical \*C\****or a ***physical*** \*P\*change.
2. Ripping paper into shreds \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. Wood has a grainy texture \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
4. Vinegar and baking soda combining to create salt and water \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
5. Rubbing alcohol is flammable \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
6. Helium is less dense than air \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
7. The boiling point of water is water at 100 degrees Celsius \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
8. Melting a popsicle \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
9. Hydrochloric acid is a clear liquid \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
10. Rust on a car \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
11. Water has a definite volume but no definite shape. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
12. Short Answer – ANSWER ALL OF THE FOLLOWING ON YOUR OWN PAPER
13. Can a gas (as shown in Bill Nye video) be measured (in terms of weight)? Explain.
14. Explain how the three phases of matter of water (as shown in Bill Nye video) are affected by the addition and the removal of energy. Use specific examples.
15. Is mass and weight the same? Explain.
16. TRUE OR FALSE: A substance is more or less dense than another substance. Density is a chemical property of a substance.
17. Indicate the difference of a solute and a solvent using an example.
18. Billy said that a chocolate chip cookies, a pizza, and a chocolate milk were all same type of mixtures. Help Billy with this situation by explaining the difference between the two types of mixtures learned in class in full detail.