**Matter Test Review Guide** Name:

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| 1. Define and describe an atom. | Smallest particle that makes all matter. |
| 1. What is matter? | Anything that has mass and takes up space. |
| 1. What is an element? Give two examples of elements you know. | A substance that makes matter. It is made of one type of atom. Iron and Oxygen. |
| 1. What are the three main states of matter? | Solids, liquids, and gasses |
| 1. How do the states of matter change as you increase the thermal (heat) energy? | Solids go to liquids, liquids go to gasses |
| 1. Draw a picture of the atoms in each of the three states of matter. |  |
| 1. Which state (phase) of matter has…   --a definite shape, definite volume?  --an indefinite shape, definite volume?  --an indefinite shape, indefinite volume? | Solid  Liquid  Gas |
| 1. Atoms are always moving. What word do we use to describe their movement? | Vibrating |
| 1. Why do materials expand when we add thermal (heat) energy? | Atoms get more energy, spread out, move faster (atom dance) |
| 1. What are the particles that make up atoms called? | Protons, neutrons, and electrons |
| 1. How do scientists learn about atoms if they are so difficult to see? | They observe elements and the physical and chemical changes/properties of matter |
| 1. What is a physical property? | Describing matter using the five senses |
| 1. List four physical properties of a banana. | Color-yellow  Smell-fruity  Taste-sweet  Feels-smooth |
| 1. What is a chemical property? | How matter behaves and acts, especially with other matter |
| 1. Give two examples of chemical properties. | Flammability  Able to combine with oxygen |
| 1. What is a physical change? | Changing matter’s appearance, not making anything new |
| 1. Give two examples of physical changes. | Cutting a cake  Breaking a mirror |
| 1. What is a chemical change? | Materials combine to make something new, not easily reversed |
| 1. What piece of science equipment do you use to measure the volume of a liquid? | Graduated cylinder |
| 1. Describe how you would find the volume of an object using the displacement method. | 1. Fill cylinder with water to 50 mL. 2. Drop object in cylinder. 3. Subtract the difference in volume. 4. The number you get is the volume of the object. |
| 1. What is volume? | The amount of space an object takes up. |
| 1. What is the formula we use to calculate density? (Put into words, too.) | D=M  V (Density equals Mass divided by volume) Elf mooning! |
| 1. Define mass. | The amount of “stuff” in something. |
| 1. What is a mixture? Give two examples of mixtures. | 2 or more substances mixed together, NOT chemically combined. Trail mix, inks and dyes |
| 1. What do we mean by boiling point? | Matter turning from a liquid to a gas |
| 1. What happens at the melting point? | Matter turning from a solid to a liquid |
| 1. Define solubility. | A measure of how much substance can be dissolved in a liquid. |