**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.
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| 1. Which state (phase) of matter has…

--a definite shape, definite volume?--an indefinite shape, definite volume?--an indefinite shape, indefinite volume? | SolidLiquidGas |
| 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-yellowSmell-fruityTaste-sweetFeels-smooth |
| 1. What is a chemical property?
 | How matter behaves and acts, especially with other matter |
| 1. Give two examples of chemical properties.
 | FlammabilityAble 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 cakeBreaking 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.
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| 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.  |