**Unit 3 Study Guide - Matter**

**Concepts:**

* Know the difference between a solid, liquid, and a gas.
* Water can be all 3 states of matter: ice, water, and water vapor/ steam
* What are physical properties? Color, shape, size, texture, hardness
* Mass: the amount of matter an object has
* Volume: the amount of space it takes up
* Know what these tools are used to measure: pan balance, thermometer, graduated cylinder
* measure mass by pan balance/scale in grams (g),
* measure volume graduated cylinder in milliliters (mL)
* measure length using a meter stick/ruler in meters/feet.
* Know how to read a thermometer.
* What temperatures are hot or cold - including when water boils and freezes
* Water freezes at 0°C or 32°F
* Water boils at 100°C or 212°F
* Know how to read different graphs and charts to answer questions appropriately
* Know how to use math to determine the mass or volume of an object.
* Condensation: the process by which water vapor (gas) changes into liquid water
* Evaporation: the process by which liquid water changes into water vapor (gas)

**Vocabulary:**

**Density:** the mass of matter compared with its volume

**Evaporation:** the process by which liquid water changes into water vapor

**Gas:** matter that has no definite shape or volume

**Liquid:** Matter that has a volume that stays the same but takes the shape of its container

**Mass:** the amount of matter in an object

**Matter:** Anything that takes up space – everything!

**Solid:** matter with a volume and a shape that both stay the same

**Temperature:** how hot or cold something is

**Volume:** the amount of space that matter takes up