Video Notes #2 - Matter

**Objective 7: I can define atoms, matter, and elements.**

 – tiny particles that make up part of an element, which is made up of protons, neutrons and electrons. All atoms of the same element have the same .

Matter – Anything that has mass and takes up space.

Elements – a that is only made up of one atom.

**Objective 8: I can explain the properties of atoms.**

All atoms of the same have the same properties.

Example:

Iron atoms: All iron atoms have the same mass and occupy the same amount of space!

**Objective 9: I can describe Elements and how they are organized.**

Anything made of just kind of atom is called an Element!

Elements cannot be broken down into other substances!

There are elements that combine in a lot of ways that make up all and things.

**Objective 10: I can describe matter and how it is classified.**

Matter is composed of extremely tiny particles called .

These particles are too to be seen with .

Atoms have all the properties of matter: and .

 can be classified into two general categories: and pure substances.

 : Consists of two or more substances that are together but not chemically .

Pure substances: are made of only one kind of matter and has .

**Objective 11: I can define and explain the states of matter.**

 , , and are four states of matter. We will only focus on the first three!

SOLIDS:

* **Particles of solids are tightly , vibrating about a fixed position.**
* **Solids have a shape and a definite .**

LIQUID:

* **Particles of are tightly packed, but are far enough apart to slide over one another.**
* **Liquids have an shape and a volume.**

GAS:

* **Particles of are very far apart and move .**
* **Gases have an shape and an volume.**