Matter and Atom notes

Matter

- Anything that has _____ and takes up _____ (has volume)
- Made up of different kinds of atoms
- Includes all things that can be _____.
- Does not include heat, sound, or light
- _____ Matter

Models

- Models are often used for things that are _____ or that are too difficult to be understood easily
- In the case of atoms, scientists use large models to explain something that is _____
- _____ were used to explain data or facts that were gathered experimentally.
- So, these models are also _____.

Early models of the Atom **Democritus-400 BC**

- Universe was made of _____ and tiny bits of stuff
- Called these tiny bits of stuff)_____
- Atomos-Greek for 'indivisible'
- Atoms could not be divided

Early models of the Atom **Dalton-1803**

- All elements are composed of _____.
- Atoms of the same element are _____.
- Atoms of different elements are _____..
- _____ consisted of atoms of different elements combined together

Early models of the Atom **Thompson-1897**

- Plum pudding model
- Atom made of _____ material with the _____ electrons scattered through it.

Early Models of the Atom **Rutherford-1911**

- Mostly _____.
- Small, positive _____.
- Contained protons
- Negative electrons scattered around the outside

Early Models of the Atom **Bohr-1913**

- Electrons move in _____ around the nucleus

Early Models of the Atom **Chadwick-1932**

- Discovered the _____.

The Electron Cloud Model- **Schrödinger- 1924**

- Electrons do not move in a _____. The _____ location of an electron is based on how much energy it has. The more energy an electron has, the farther from the nucleus. The small, positively charged nucleus is surrounded by a large space in which there are enough electrons to make the atom neutral