

Topic: Atom and Nucleus Date: _____

EQ: What are the characteristics and features of an atom?

Atoms:

- Make-up all
- Can't be
- Atoms of the same element are
- Atoms of different elements can join to form
- Atoms do have an overall charge, they are
- Made of . These are called
- Image of Carbon 12

Nucleus: Small area in a atom, the of the atom

- Positive are in the
- Neutral are in the
- The nucleus accounts for most of the Atomic of the atom
 - Atomic Mass =
 - Units:
- Image of Carbon 12 nucleus

Topic: Protons and Electrons

Date: _____

EQ: How are protons and electrons similar and different, and what rolls do they play?

Protons: Positively charged subatomic particle in an atom.

- charge
- located in the
- the number of protons give an atom its
- all atoms of the same element have the same number of

- different atoms have different numbers of
- Mass = AMU

Electron: Negatively charged subatomic particle in a atom

- The number of electrons is equal to the number of in an atom.
- Mass = AMU
- Electrons move in
- You never know the exact of an electron
- Electrons surround the nucleus in the electron or .
- The maximum number of electrons in the orbitals, for the 1st three levels is:
1st level =
2nd level =
3rd level =
The electrons in the outermost energy level are

- determine how an atom is