

Atoms

- The _____ into which an _____ can be divided and still have the _____.

Structure of the Atom - Regions in the Atom

- Nucleus
 - The _____ of an atom
 - It contains 99.9% of the _____ of an atom
 - It is 100,000 times smaller than the size of the entire atom
- Electron Cloud
 - This is where _____ are located
 - Electrons pop around like popcorn in a region around the nucleus
 - It is mostly _____

Subatomic Particles

* _____ * _____ *

Protons

- The _____ located in the nucleus of an atom
- Every atom must have at least _____.
- Atoms do not lose or gain protons in normal chemical reactions.
- They are about the same size and mass _____.

Neutrons

- The _____ particles located in the nucleus of an atom.
- They are found in every atom's nucleus except for _____.
- Atoms do not gain or lose _____ in normal chemical reactions.
- The function of the neutron is to stabilize the nucleus.
- They are about the same size and mass _____.

Electrons

- The _____ particles found outside the nucleus in the _____.
- Electrons move very fast (about 13,000 km/h)
- Electrons are very tiny- _____
- They are not included in the formula for mass because _____.
- There are _____ energy levels in the electron cloud.
- Electrons follow a _____ to fill the energy levels.
- The more energy an electron has the _____ from the _____ it will be.
- The electrons in the _____ energy levels are called _____ electrons.

Formulas

- Atomic # = Protons ($A\# = P$)
- Protons = Electrons ($P = E$)
- $A = P + E$
- Protons + Neutrons = Mass ($P + N = M$)
- Mass - Protons = Neutrons ($M - P = N$)
 - Or Mass - A# = Neutrons ($M - A\# = N$)
- Mass - Neutrons = Protons
- Remember APE MAN