

Key Q's and Vocab: Atomic Structure

These should be copied by hand into your CHILL ☺

Vocab:

1. Protons – positive subatomic particle that determines the identity of an element that is found in the nucleus of an atom
2. Neutron – neutral subatomic particle found in the nucleus that stabilizes the nucleus and if changed in quantity will change the mass of an atom.
3. Electron – negative subatomic particle found in the electron cloud that can either be gained or lost (gaining or losing electrons will cause the charge of an atom to change)
4. Bohr model of an atom – atomic diagram that represents energy shells as rings around a nucleus
5. Ions – can be either positive or negative and are formed when electrons are gained or lost
6. Valence electrons – electron on the outermost energy shell
7. Periods – horizontal rows on the periodic table that coincide with the energy shell where an element's valence electrons are located
8. Groups – vertical columns on the periodic table that coincide with the number of valence electrons for an element

Key Questions (answer these in a different color ink):

1. An element has 37 protons and 36 electrons
 - a. Determine the identity of the element.
 - b. Determine the charge of the element.
 - c. Did the element gain or lose electrons?
 - d. Did the element gain or lose protons?
 - e. Sketch a Bohr model with the proper number of energy shells present.
 - f. On your Bohr model for question 1e, put the proper number of valence electrons for a neutral atom of the element.