Atomic Structure Worksheet

Name: _____
Core: _____

1. Name the three particles of the atom and their respective charges are:

   a. _____ _____

   b. _____ _____

   c. _____ _____

2. The atomic number tells you the number of _____ in one atom of an element. It also tells you the number of _____ in a neutral atom of that element. The atomic number gives the "identity "of an element as well as its location on the Periodic Table. No two different elements will have the _____ atomic number.

3. The _____ of an element is the average mass of an element's naturally occurring atoms.

4. The _____ of an element is the total number of protons and neutrons in the _____ of the atom.

5. The mass number is used to calculate the number of _____ in one atom of an element. In order to calculate the number of neutrons you must subtract the _____ from the _____.

6. Give the symbol and number of protons in one atom of:

   Lithium _____ Bromine _____

   Iron _____ Copper _____

   Oxygen _____ Mercury _____

   Arsenic _____ Helium _____

7. Give the symbol and number of electrons in a neutral atom of:

   Uranium _____ Chlorine _____

   Boron _____ Iodine _____

   Antimony _____ Argon _____

8. Name the element which has the following numbers of particles. Be specific. (Include charges and mass numbers where possible.)

26 electrons, 29 neutrons, 26 protons _____

53 protons, 74 neutrons _____

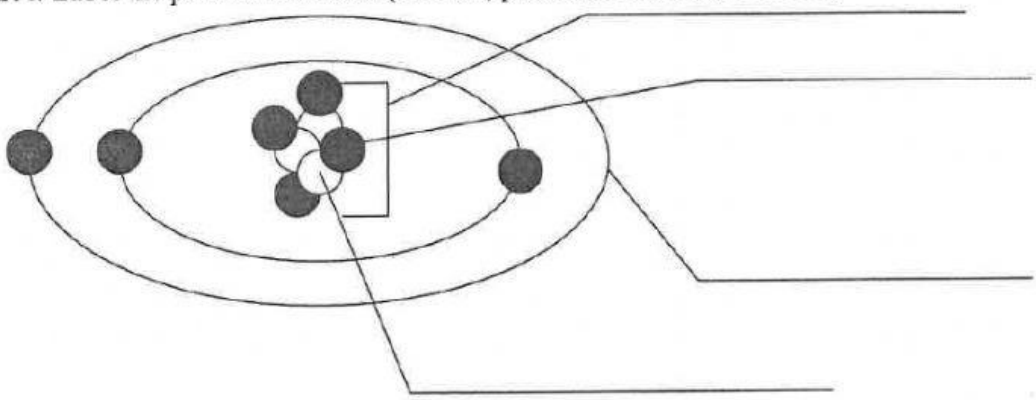
2 electrons (neutral atom) _____

20 protons _____

0 neutrons _____

On the Inside

Part 1: Label the parts of this atom (nucleus, protons, electrons, neutrons)



Part 2: Answer these:

1. The subatomic particle with no electrical charge is the

_____

The subatomic particle with a positive charge is the _____

The subatomic particle with a negative charge is the _____

There are the same number of these two particles in an atom

_____ and _____

The atomic number is the same as the number of _____

2. Where is most of the mass of an atom located?

_____

6. Which particles account for the mass of the atom? (Atomic mass or mass number) _____ and_____

7. Complete the following table

Symbol	Atomic Number	Number of Protons	Number of Neutrons	Number of Electrons	Mass
	9				
B					
S					
	19				
		13			