**Atomic Structure**

1. Atoms are made of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ have a positive charge and are located in the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_of the atom.
3. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ have a negative charge and are located in the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_of the atom.
4. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ have a neutral charge and are located in the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_of the atom.
5. Fill in the table below

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Element | Atomic Number | Atomic Mass | # of Protons | # of Electrons | #of Neutrons | Metal, nonmetal, or metalloid |
| He |  |  |  |  |  |  |
| S |  |  |  |  |  |  |
| Sr |  |  |  |  |  |  |
| Cu |  |  |  |  |  |  |

**Atom Drawings- Bohr Model of an Atom**



Electrons circle around the nucleus in orbits or electron shells.

6. Draw the Bohr model of Beryllium

1. Draw the Bohr model of Phosphorous.
2. Draw the Bohr Model of Nitrogen

**Isotopes**

1. Using the picture below, What is the difference between Carbon and Carbon-14
2. Carbon-14 is an isotope of carbon. What is an isotope? (look at number 9)
3. Draw Oxygen-16 and Oxygen-18. Which one of these are an isotope and why?