**FPS – Bohr Models**

Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period\_\_\_\_\_\_\_\_\_\_

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| ***Figuring out the particles*** |
| http://i3.cpcache.com/product/1395996456/2_helium_tile_coaster.jpg?height=225&width=225 |
| 1. **Atomic number** = number of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 = number of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_So for Helium: electrons \_\_\_\_\_\_\_\_ protons \_\_\_\_\_\_\_\_\_1. **Mass** = neutrons + protons

**Neutrons** = mass – protons So for Helium: mass \_\_\_\_\_\_\_\_ -- protons \_\_\_\_\_\_\_\_\_ = neutrons \_\_\_\_\_\_\_\_\_1. Recap: Helium has \_\_\_\_\_\_\_ protons \_\_\_\_\_\_\_\_ neutrons \_\_\_\_\_\_ electrons
2. In the nucleus, let’s just write the number of protons and neutrons.
3. Now, add electrons to the first shell.

1st energy shell = \_\_\_\_\_\_\_\_ electrons2nd energy shell = \_\_\_\_\_\_\_\_ electrons3rd energy shell = \_\_\_\_\_\_\_\_ electronsIf you fill the 1st , add to the 2nd! If you fill the 2nd, add to the 3rd! |
| 1. When protons = electrons then it is a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. When there are more protons than electrons, it is a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. When there are less protons than electrons, it is a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
4. When there are a different number of neutrons, it is an \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

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| **Element** | **Atomic #** | **Atomic Mass** | **Protons** | **Neutrons** | **Electrons** | **Bohr Model** |
| Carbon | 6 | 12 | 6 | 6 | 6 |  |
| Hydrogen | 1 | 1 |  |  |  |  |
| Lithium | 3 |  | 3 |  | 3 |  |
| Magnesium | 12 | 24 |  |  |  |  |