**FPS – Bohr Models**

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

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| ***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 = \_\_\_\_\_\_\_\_ electrons  2nd energy shell = \_\_\_\_\_\_\_\_ electrons  3rd energy shell = \_\_\_\_\_\_\_\_ electrons  If 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 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. | | | | | | |
| **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 |  |  |  |  | |