Name/Period: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Atomic Model Activity**

|  |  |  |  |
| --- | --- | --- | --- |
| Atomic  Particle | Charge | Scale  Bigger than…  Smaller than… | Energy  High or Low |
| Proton |  |  |  |
| Electron |  |  |  |
| Neutron |  |  |  |

Most of the atom is filled with \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

## BOHR DIAGRAMS

### Rules for arranging electrons:

1. The 1st energy level can hold up to 2 electrons.
2. The 2nd energy level can hold up to 8 electrons.
3. The 3rd energy level can hold up to 18 electrons.

### What term is used to describe the electrons in the outermost energy level?

|  |  |
| --- | --- |
| Sketch an Atom | |
| Draw 5 protons in the nucleus and label with the charge. |  |
| Draw 6 neutrons in the nucleus and label with the charge. |
| Draw 2 electrons in the 1st energy level and label with their charge. |
| Draw 3 electrons in the 2nd energy level and label with their charge. |
| What element is represented? |  |

|  |  |
| --- | --- |
| Sketch an Atom | |
| Draw 3 protons in the nucleus and label with the charge. |  |
| Draw 4 neutrons in the nucleus and label with the charge. |
| Draw 2 electrons in the 1st energy level and label with their charge. |
| Draw 1 electrons in the 2nd energy level and label with their charge. |
| What element is represented? |  |

How do you find the number of protons? \_\_\_\_\_\_\_\_\_\_\_\_\_\_

How do you find the number of electrons? \_\_\_\_\_\_\_\_\_\_\_\_\_

How do you find the number of neutrons? \_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |  |
| --- | --- | --- |
| Carbon | | |
| # P |  |  |
| # E |  |
| # N |  |
| # of Valence Electrons | |  |
| Atomic #: 6 Mass #: 12 | | |

|  |  |  |
| --- | --- | --- |
| Oxygen | | |
| # P |  |  |
| # E |  |
| # N |  |
| # of Valence Electrons | |  |
| Atomic #: 8 Mass #: 16 | | |

|  |  |  |
| --- | --- | --- |
| Chlorine | | |
| # P |  |  |
| # E |  |
| # N |  |
| # of Valence Electrons | |  |
| Atomic #: 17 Mass #: 35 | | |

|  |  |  |
| --- | --- | --- |
| Sodium | | |
| # P |  |  |
| # E |  |
| # N |  |
| # of Valence Electrons | |  |
| Atomic #: 11 Mass #: 23 | | |