Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_

**Review – Bohr & Lewis Dot Diagrams**

**1. Complete the following chart below.** Remember that the Bohr diagram shows the # of protons in the middle and includes all the energy levels, while the Lewis dot structure only has the symbol of the element surrounded by the correct number of valence electrons. The group & period numbers are found by looking on the periodic table.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Element** | **Bohr Diagram** | **Period Number (PT)** | **Group Number (PT)** | **# of Valance Electrons** | **Lewis Dot Structure** |
| Calcium |  |  |  |  |  |
| Carbon |  |  |  |  |  |
| Oxygen |  |  |  |  |  |
| Fluorine |  |  |  |  |  |
| Neon |  |  |  |  |  |
| Sodium |  |  |  |  |  |
| Aluminum |  |  |  |  |  |

**Making Ions –** Remember that atoms want a filled outer orbital to be in the most stable state. *Complete the chart below showing what happens for each of the atoms to become an ion*.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Element** | **Lewis Dot**  | **# of Valance e-** | **Gain/Lose \_\_\_ e-** | **Valance Charge** |
| Na |  | 1 | L 1 | +1 |
| Be |  |  |  |  |
| Cl |  |  |  |  |
| S |  |  |  |  |
| Al |  |  |  |  |
| Ne |  |  |  |  |
| K |  |  |  |  |
| N |  |  |  |  |
| O |  |  |  |  |
| Ca |  |  |  |  |
| P |  |  |  |  |
| B |  |  |  |  |
| Mg |  |  |  |  |

**General Review - Naming**

*Write Formula Unit For the Below Ionic Compounds*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Name** | **Cation (+)** | **Anion (-)** | **Formula** |
| 1 | Sodium Chloride | **Na1+** | **Cl1-** | **NaCl** |
| 2 | Aluminum Chloride |  |  |  |
| 3 | Magnesium Phosphide |  |  |  |
| 4 | Lead (II) Oxide |  |  |  |
| 5 | Silver Fluoride |  |  |  |
| 6 | Cobalt (II) Oxide |  |  |  |
| 7 | Iron (III) Sulfide |  |  |  |
| 8 | Calcium Sulfate |  |  |  |
| 9 | Sodium Carbonate |  |  |  |
| 10 | Beryllium Iodide |  |  |  |
| 11 | Titanium (IV) Sulfate |  |  |  |
| 12 | Aluminum Phosphate |  |  |  |
| 13 | Manganese (III) Nitride |  |  |  |
| 14 | Zinc Sulfide |  |  |  |
| 15 | Lithium Chlorate |  |  |  |
| 16 | Calcium Oxalate |  |  |  |