Bonding Basics

**Complete the chart using a periodic table to help you.**

|  |  |  |  |
| --- | --- | --- | --- |
| **Element** | **Atomic Symbol** | **Total # of Electrons** | **# of Valence Electrons** |
| Chlorine |  |  |  |
| Potassium |  |  |  |
| Magnesium |  |  |  |
| Fluorine |  |  |  |
| Aluminum |  |  |  |
| Sodium |  |  |  |
| Nitrogen |  |  |  |
| Oxygen |  |  |  |
| Hydrogen |  |  |  |
| Carbon |  |  |  |
| Iodine |  |  |  |

**Ionic Bonds**

* Atoms will transfer on or more \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to another to form a bond
* Each atom is left with a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ outer shell
* An ionic bond forms between a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Use the following image as an example to complete all other ionic bonds on your own.** You may either use the draw feature or insert shapes.



1. Potassium + Iodine
2. Magnesium + Oxygen
3. Lithium + Florine

**Covalent Bonds**

* Atoms \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ one or more electrons with each other to form the bond
* Each atom is left with a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ outer shell
* A covalent bond forms between two \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Use the following image as an example to complete all other covalent bonds on your own.** You may either use the draw feature or insert shapes.



1. Chlorine + Chlorine
2. Oxygen + Oxygen
3. Hydrogen + Oxygen + Hydrogen