

Ionic Bonds

- Ionic bonds form between _____ and _____.
- In naming simple ionic compounds, the _____ is always first, the _____ second (e.g., sodium chloride).
- Ionic compounds dissolve easily in _____ and other polar solvents.
- In solution, ionic compounds easily _____.
- Ionic compounds tend to form _____ with _____ melting temperatures.

Naming Ionic Compounds

- Write the _____ first and the _____ second
- Use _____ to indicate the number of atoms of each type present in the compound
- No prefixes
- Change the _____ syllable of the _____ to say _____

Directions: Complete the chart below.

| Element | Number of Valence Electrons | # of electrons gained or lost to fill outer energy level | Charge (Oxidation Number) |
|--------------------|-----------------------------|--|---------------------------|
| Sodium | | | |
| Chlorine | | | |
| Beryllium | | | |
| Fluorine | | | |
| Lithium | | | |
| Oxygen | | | |
| Potassium | | | |
| Magnesium | | | |
| Phosphorous | | | |
| Aluminum | | | |

Directions: For each of the following elements, draw Lewis dot diagrams and arrows to show the transfer of electrons. Then, write the chemical formula and name for the compound.

1) Sodium + Chlorine

Formula: _____

Name: _____

2) Potassium + Iodine

Formula: _____

Name: _____

3) Magnesium + Oxygen

Formula: _____

Name: _____

4) Calcium + Sulfur

Formula: _____

Name: _____

5) Calcium + Chlorine

Formula: _____

Name: _____

6) Magnesium + Fluorine

Formula: _____

Name: _____

7) Potassium + Bromine

Formula: _____

Name: _____

8) Potassium + Oxygen

Formula: _____

Name: _____

9) Sodium + Oxygen

Formula: _____

Name: _____

10) Aluminum + Chlorine

Formula: _____

Name: _____

11) Calcium + Fluorine

Formula: _____

Name: _____

12) Magnesium + Iodine

Formula: _____

Name: _____