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.

<table>
<thead>
<tr>
<th>Element</th>
<th>Number of Valence Electrons</th>
<th># of electrons gained or lost to fill outer energy level</th>
<th>Charge (Oxidation Number)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Chlorine</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Beryllium</td>
<td></td>
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<tr>
<td>Fluorine</td>
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<tr>
<td>Lithium</td>
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<td></td>
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<tr>
<td>Oxygen</td>
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<td></td>
</tr>
<tr>
<td>Potassium</td>
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<td></td>
</tr>
<tr>
<td>Magnesium</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Phosphorous</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Aluminum</td>
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<td></td>
</tr>
</tbody>
</table>
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: ____________________