Name: _____ Period: _____

Supplemental Worksheet

Read Section 4.3 in your textbook for more help in naming compounds and formulas.

Naming Ionic Compounds

When an atom gains one or more electrons, it becomes an "anion" with a negative charge. The name of the ion has the last 3 letters replaced with "IDE" (Chlorine → Chloride, for example).
When an atom loses one or more electrons, it becomes a "cation" with a positive charge. The name of the ion stays the same. (Sodium is still called Sodium, even when it is a cation).

Example: What is the name of the compound formed when Cesium reacts with Iodine?
Cesium is still called "Cesium."
Iodine becomes "Iodide."
Answer: Cesium Iodide
Name the rest of these formulas:

1. Sodium reacts with Fluorine: _____
2. Potassium reacts with Bromine: _____
3. Rubidium reacts with Chlorine: _____
4. Cesium reacts with Fluorine: _____
5. Lithium reacts with Chlorine: _____

Example: What is the chemical formula that results when Potassium (an alkali metal) reacts with Chlorine (a halogen)?
Potassium has a +1 charge. K^+
Chloride has a -1 Charge. Cl^-
Only one of each is required to make a neutral compound.
Answer: KCl
Identify the chemical formulas in this list:

1. Lithium reacts with Iodine: _____
2. Cesium reacts with Fluorine: _____
3. Potassium reacts with Chlorine: _____
4. Sodium reacts with Iodine: _____
5. Rubidium reacts with Bromine: _____

Example: What is the chemical formula that results when Magnesium (an alkali earth metal) reacts with Chlorine (a halogen)?
Magnesium has a +2 charge. Mg^{2+}
Chloride has a -1 charge. Cl^-
2 Chloride ions are required to balance the charge of the Magnesium ion.
Answer: $MgCl_2$ (magnesium chloride)