

NAMING IONIC COMPOUNDS I

Ionic compounds are named by the following simple rule:

Name the cation; then name the anion.

For example, NaCl is named **sodium chloride**. "NaCl" is the formula for the compound; "sodium chloride" is the name of the compound.

Notes:

1. Cations are positive ions. The **sodium** ion is Na^+ .
2. Anions are negative ions. The **chloride** ion is Cl^- .
3. The positive ion is named before the negative ion.
4. Metals form cations, e.g., K^+ , Mg^{2+} , Al^{3+} .
5. Nonmetals form anions, e.g., I^- , O^{2-} , N^{3-} .
6. A metal ion is named simply with the name of the metal. Ag^+ is a **silver** ion.
7. A nonmetal ion ends with "ide". Br^- is a **bromide** ion. S^{2-} is a **sulfide** ion.
8. Subscripts in the formula do not appear in the name. CaCl_2 is named **calcium chloride**. Al_2O_3 is named **aluminum oxide**.

You should be able to name the following:

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| a. NaI | h. Na_2O | o. BeI_2 |
| b. KBr | i. Li_3N | p. ZnBr_2 |
| c. MgF_2 | j. ZnS | q. CaF_2 |
| d. CaO | k. AlN | r. Ag_2O |
| e. BaS | l. AgCl | s. BaO |
| f. CaI_2 | m. KF ✓ | t. Na_3P |
| g. AlCl_3 ✓ | n. Al_2S_3 | |

Answers are on the other side.