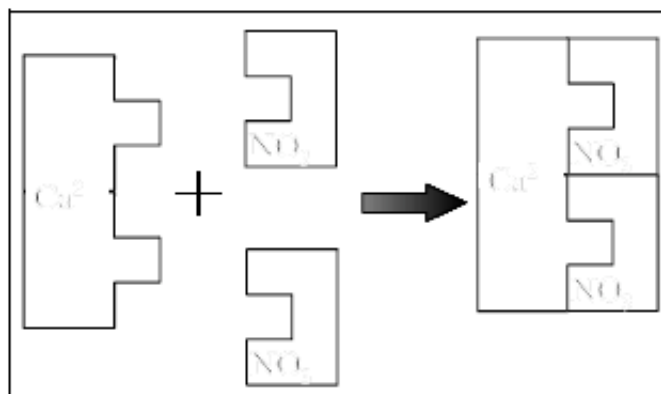
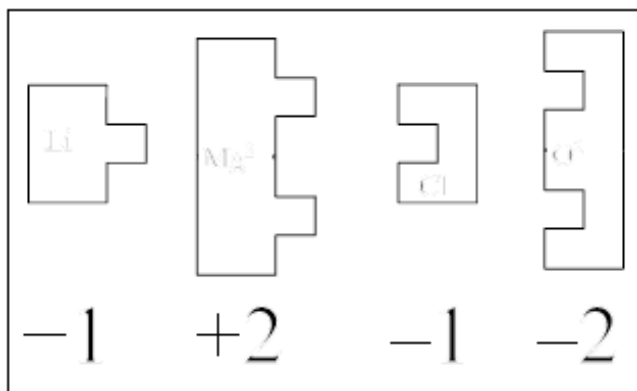


Lab: Polyatomic Puzzle Pieces



Background:

Polyatomic ions bond in the same way that monatomic ions do, as we practiced in the first “Ionic Puzzle Pieces” lab. Remember, to get the correct formula for a compound, the puzzle pieces for the ions need to be put together so there are no tabs or indentations left over (see diagrams above). Putting the pieces together in this way makes the *positive charge equal and opposite to the negative charge, giving the compound a total charge of zero.*

Directions:

1. Use the puzzle pieces provide to assemble the ionic compounds listed on the following pages.
2. In the box provided, draw the model of the compound you made.
3. Based on the model, write the formula of the compound also in the box provided.

Mg ²⁺ and MnO ₄ ⁻¹	Ca ⁺² and SO ₃ ²⁻
Fe ²⁺ and OH ⁻¹	Au ⁺ and CrO ₄ ⁻²

Ca^{2+} and CrO_7^{-2}	Al^{+3} and HCO_3^{-1}
Fe^{+3} and CO_3^{-2}	H^{+} and SO_4^{-2}
NH_4^{+} and PO_4^{-3}	NH_4^{+} and SO_4^{-2}
Ca^{2+} and PO_4^{-3}	NH_4^{+} and OH^{-1}