Chemical Reaction Equations: Conserving Matter
You will show the molecular models, balanced equations, and word equations for 4 different chemical reactions.

First, you will need to decide on different colours for each element on your poster – create a legend/key to show these. You may cut the following out to glue onto your paper or make your own.

H - ○ O - ○ Cl - ○
N - ○ S - ○ Zn - ○

Second, you will represent each atom or ion by a circle of the appropriate colour, the basic starting point (the skeleton equation in molecules) will be given to you.

Third, you will need to add atoms and molecules in order to balance the equation on the left and right.

Fourth, you will write the balanced chemical equation: using element symbols, chemical formulas, and coefficients.

Fifth, you will write the word equation for the chemical equation.

Example:
Balancing Equations

Use with textbook pages 131-132.

1. Complete the following molecular models to represent balanced equations by drawing additional molecules but not changing the identity of them. When you are done, the total number of atoms of each element on the reactant side of the equation must equal the total number of atoms of the same elements on the product side.

a) \[ \text{H}_2\text{O} \rightarrow \text{O} + \text{H}_2 \]

b) \[ \text{HCl} + \text{Zn} \rightarrow \text{Cl} + \text{ZnCl}_2 + \text{H}_2 \]

c) \[ \text{HH} + \text{NN} \rightarrow \text{HN} \]

d) \[ \text{OSO} + \text{OO} \rightarrow \text{SO}_2 \]