

Types of Chemical Reactions Worksheet

For each chemical reaction:

- Figure out what the product(s) would be
- Write the chemical formula for the reactants (use the criss cross rule!)
- Balance the equation

1) Synthesis Reactions: two different molecules or atoms join to form a single substance. ($A + B \rightarrow AB$)

Complete and balance the following equations:



Note – In gases such as:

- oxygen
- nitrogen
- hydrogen
- iodine
- chlorine
- bromine

When the element is on its own, two atoms pair together!

i.e. H_2

2) Decomposition Reactions: a single substance is broken down into two or more simpler substances. ($AB \rightarrow A + B$)

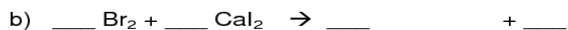
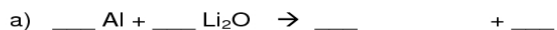
Complete and balance the following equations:



3) Single Displacement Reactions: a free element (Z) reacts with a compound (AB) and takes the place of an element in the compound. ($Z + AB \rightarrow ZB + A$)

Note: metals displace metals, non-metals displace non-metals!!

Complete and balance the following equations:



4) Double Displacement Reactions: elements (or polyatomic ions) in two different compounds switch places. ($AB + YZ \rightarrow AZ + YB$)

