17 TYPES OF CHEMICAL REACTIONS

SYNTHESIS (5)

- 1. Metals react with non-metals other than oxygen to form binary ionic compounds (salts).
- 2. Metals react with oxygen to form metallic oxides.
- 3. Non-metals react with oxygen to form non-metallic oxides.
- 4. Non-metallic oxides react with water to form oxyacids.
- 5. Metallic oxides react with water to form metal hydroxides.

DECOMPOSITION (5)

- 1. Binary compounds decompose to form the two elements that made it.
- 2. Metal carbonates decompose when heated to form metal oxides and carbon dioxide.
- 3. Metal chlorates decompose when heated to form metal chlorides and oxygen gas.
- 4. Oxyacids decompose to form non-metallic oxides and water.
- 5. Metal hydroxides decompose when heated to form metallic oxides and water.

SINGLE REPLACEMENT (5)

- 1. More reactive metals replace less reactive metals in compounds.
- 2. Reactive metals replace hydrogen in acids to produce an ionic compound and hydrogen gas.
- 3. More reactive metals replace hydrogen in water to produce a metal hydroxide and hydrogen gas.
- 4. Less reactive metals replace hydrogen in steam to produce a metal oxide and hydrogen gas.
- 5. More reactive halogens replace less reactive halogens in compounds.

DOUBLE RELACEMENT (1)

1. The ions of two compounds will exchange places to form two new compounds.

COMBUSTION OF HYDROCARBONS (1)

1. Hydrocarbons burn in air (react with oxygen) to produce carbon dioxide and water.