Topic Introduction

Summarize your understanding of each paragraph.

For the purposes of this topic, students need to recall five types of reactions: ***combination***, ***decomposition***, ***substitution***, ***double-substitution***, and ***combustion***. In our textbook and other sources, the expression "displacement" is used rather than "substitution."

There are many alternative ways to classify reactions. Most classification methods are similar, however. An important distinction in addition to the list provided above is "precipitation reaction" *vs*. "acid-base reaction" – each, a subcategory of double-replacement.

Three of the five categories listed in the first paragraph can additionally be described as "Oxidation-Reduction" reactions. Sometimes this is shortened to the expression of "Redox." in a redox reaction, one species is reduced and another is oxidized.

Reduction involves a gain of electrons and oxidation involves a loss, so a redox reaction is one in which electrons are transferred between species. (Note, the word ***"oxidation" is not the same as the word "oxygen"*** – a potentially confusing expression to students.)

Excerpts adapted from: https://en.wikibooks.org/wiki/General_Chemistry/Types_of_chemical_reactions