

CHM 101
Chapter 7 Study Guide / Learning Objectives

Chapter 7 in your textbook is primarily concerned with chemical reactions. We then discussed several types of reactions. Some of these you must know in detail (ionic reactions in aqueous solutions - also called "double replacement" or "exchange" reactions), while others you will only be expected to have basic knowledge about.

At the end of this chapter, you should be able to...

[Terminology]

- Define terms related to chemical reactions: **precipitate, molecular equation, net ionic equation, spectator ions, acid, base, salt, oxidation, reduction.**

[Chemical reactions]

- Identify a given chemical reaction as a **combination, decomposition, single replacement, double replacement, or combustion** reaction.
- Show how electrons are transferred in **oxidation-reduction reactions.**
- For a reaction that takes place between ions in water, write a net ionic equation from a molecular equation.

[Ionic reactions in aqueous solutions - double replacement reactions]

- Describe the three kinds of products you can get from a double replacement: solid, liquid, or gas.
- Identify compounds that do not dissolve in water using a **solubility table.**
- Write the **products** of a double replacement reaction and **balance** the resulting chemical equation (for **precipitations** and **neutralizations**).
- **Label** the solid product of a double replacement reaction.
- Identify **acids** from their chemical formulas or properties.
- Identify **bases** from their chemical formulas or properties.

[Oxidation-reduction reactions]

- Classify reactions as: combination, decomposition, single replacement, double replacement, or combustion.

[Practice]

- (p147b-147g) Q&P 8, 10, 12, 16, 18, 22, 36, 54, 58, 74, 84