

Learning Objectives

Class: Grade 10

Subject: Chemistry

Teacher: Mr. Viken Dishgekenian

Title: Chapter 1- Atoms

Objectives:

- Describe the empty space structure of the atom.
- Study the periodic table of the elements.
- List the characteristics of each particle of the atom.
- Use the mole when treating with the quantitative aspects of matter.

Title: Chapter 2- Molecules

Objectives:

- Explain the formation of a molecule.
- Describe the formation of a covalent bond.
- Write Lewis structures for some molecules.
- Apply the VSEPR method to deduce the geometry of a molecule.
- Use the mole concept.

Title: Chapter 3- Ions

Objectives:

- Distinguish between cations and anions.
- Name some ions.
- Identify the formula unit of an ionic compound.

Title: Chapter 4- Chemical Reactions

Objectives:

- Identify a chemical reaction.
- Balance the equation of a chemical reaction.
- Stoichiometric calculations in a chemical reaction.

Title: Chapter 5- Water

Objectives:

- Know the role of water as a solvent.
- Distinguish between mass concentration, molar concentration and density.

- Identify the different categories of water.
- Identify the solubility of a salt.

Title: Chapter 6- Acids-Bases

Objectives:

- Determine the pH of an aqueous solution.
- Define acid and base.
- Write net equations for some acid-base reactions.
- Relate acidity and basicity of a solution to the concentrations of the H^+ and OH^- ions.
- Acquire the technique of acid base titration.

Title: Chapter 7- Qualitative Analysis

Objectives:

- Understand the importance of chemical analysis.
- Write net equations for the most important reactions.
- Detect the presence of an ion in solution.
- Learn how to solve stoichiometric problems.
- Understand the meaning of the yield of a reaction..