

Learning Objectives

Class: Grade 12 LS/GS

Subject: Chemistry

Teacher: Mr. Viken Dishgekenian

Title: Chapter 1- The Gaseous State

Objectives:

- Define the partial pressure of a gas.
- Apply equation of state.
- Determine the mean molar mass of a gaseous mixture.

Title: Chapter 2- Rate of Reactions

Objectives:

- Define the rate of a reaction.
- Define instantaneous and average rates.
- Find the rate graphically.

Title: Chapter 3- Kinetic Factors

Objectives:

- Identify the kinetic factors
- Identify the half life of a reaction.

Title: Chapter 4- Chemical Equilibrium

Objectives:

- Identify the equilibrium state of a reaction.
- Apply Le Chateliers principle.
- Equilibrium constants k_p and k_c .

Title: Chapter 5- Strong Acid and Strong Base.

Objectives:

- Measure the pH of an aqueous solution.
- Identify a strong acid and a strong base
- Perform acid-base pH-metric titration

Title: Chapter 6- Weak Acid and Weak Base

Objectives:

- Know the Bronsted concept of acid-base.
- Identify a weak acid and a weak base.
- Classify acid-base conjugate pairs.
- Identify a quantitative reaction.

Title: Chapter 7- A Weak Acid and a Strong Base.

Objectives:

- Study the reaction between a weak acid and a strong base.

- Perform titration of a weak base using pH meter.
- Recognize buffer solution.

Title: Chapter 8- Functional Groups

Objectives:

- Classify organic compounds into families.
- Identify the functional groups.
- Positional and functional isomerism.

Title: Chapter 9- Alcohols

Objectives:

- Recognize alcohols.
- Know the systematic names of alcohols.
- Classes of alcohols.
- Know their chemical properties.

Title: Chapter 10- Aldehydes and ketones

Objectives:

- Identify aldehydes and ketones.
- Know their systematic names.
- Identify experimentally aldehydes and ketones.

Title: Chapter 11- Carboxylic Acids

Objectives:

- Identify carboxylic acids and their derivatives.
- Know the systematic nomenclature.
- Identify some chemical reactions.

Title: Chapter 12- Amines (Only for L.S.)

Objectives:

- Identify the amines and the amino acids.
- Classify the amines.
- Some chemical reactions of amines.
- Enantiomers and Cram representation.
- Condensation of amino acids.

Title: Chapter 14- Soaps (Only for LS)

Objectives:

- Identify the raw materials of soap.
- Recognize the saponification reaction.

Title: Chapter 15- Current Medicinal Drugs (Only for LS)

Objectives:

- Define medicinal drugs.
- Classify medicinal drugs according to their pharmacological effects.
- Recognize the overdose effects of some drugs.