

GRADE 10 CHEMISTRY TERM 3 LESSON PLANS - KICD
CURRICULUM DESIGN

Grade 10 Chemistry LESSON PLAN: Week 1, Lesson 1

SCHOOL	LEVEL	LEARNING AREA	DATE	TIME	ROLL
.....	Grade 10	Chemistry			

WEEK 1: LESSON 1

Strand:

Physical Chemistry

Sub Strand:

Acids and Bases

Specific Learning Outcomes:

By the end of the lesson, the learner should be able to:

- Explain the characteristics of acids and bases in aqueous solutions
- Describe the dissociation of acids and bases in water to form hydrogen and hydroxide ions
- Appreciate the role of water in the dissociation of acids and bases

Key Inquiry Question(s):

- What common household substances are acidic and/or basic in nature?

Core Competencies, Values, and PCIs:

Core Competencies	Values	PCIs
Critical thinking and problem solving	Responsibility	Safety and security (chemical handling)
Communication and collaboration	Respect	Health education

Learning Resources:

- Grade 10 Chemistry Curriculum Design
- Chemistry Learner's Book pg. 120
- Test tubes, beakers, distilled water, dilute HCl, dilute NaOH

Organization of Learning:

Introduction (5 minutes):

- Teacher asks learners why lemon juice tastes sour while soap feels slippery.
- Learners share daily observations, leading to the definition of aqueous solutions.

Lesson Development (25 minutes):

- **Step 1:** Teacher explains the concept of dissociation and how water acts as an ionizing solvent for acidic and basic compounds.
- **Step 2:** Teacher demonstrates adding drops of concentrated HCl and solid NaOH pellets into separate test tubes with distilled water; learners observe temperature changes.
- **Step 3:** Learners work in pairs to write dissociation representations showing that acids release hydrogen ions (H^+) and bases release hydroxide ions (OH^-) in water.
- **Step 4:** Groups present their equations; teacher clarifies that hydrogen ions (H^+) determine acidic behavior while hydroxide ions (OH^-) determine basic behavior in aqueous solutions.

Conclusion (10 minutes):

- Teacher asks oral review questions on the nature of ions released by acids and bases in water.
- Summary of the essential role of water in facilitating ionic dissociation.

Extended Activities:

- Identify and list five liquid substances at home and classify them as containing either acidic or alkaline solutions based on their properties.

Teacher Self-Evaluation: