SCHEME OF WORK

KIGOMA DISTRICT COUNCIL

TEACHER'S NAME: IVAN B.M

SCHOOL'S NAME: MBI SECONDARY SCHOOL

YEAR: 2024

SUBJECT: CHEMISTRY

TERMS: I AND II

CLASS: FORM I

COMPETENCE	GENERAL OBJECTIVES	MONTH	WEEK	MAIN TOPIC	SUB-TOPIC	PERIOD	TEACHING ACTIVITIES	LEARNING ACTIVITIES	T/L MATERIAS	REFERENCES	ASSESSMENT	REMARKS
ORIENTATION COURSE(2ND WEEK OF JANUARY)												
Using chemistry skills and knowledge in daily life.	To explain the concept of chemistry in daily life.	J ANUA R Y	3	1. INTRODUCTION TO CHEMISTRY	1. The concept of Chemistry	2	• To guide students to discuss the meaning of chemistry. • To guide students to discuss how materials and objects are made by application of chemistry e.g. soap, petrol, ethanol etc.	• To explain the concept of chemistry. • To name the substance made by applying chemical methods.	• Wall charts & pictures showing different chemical activities & industrial chemical process. Detergents, soft, drinks medicine etc.	i) Chemistry for secondary schools, form1&2, Oxford. ii) O-level CHEMISTRY Form 2, BEN. iii) O-level CHEMISTRY Form 2 Interactive CD, BEN. iv)You tube(for video clips)	• To give the meaning of chemistry. • To mention any other four objects made by application of chemistry. • In groups to mention area where chemistry is applied.	
					2. The importance of chemistry in life.	2	• To guide students to discuss how chemistry is applied in industrial and at home. • To guide students to discuss the importance of chemistry in daily life by giving examples on production of drugs and medicine, soap fertilizer and alcohol.	• To mention area where chemistry is applied. • To state the importance of chemistry in daily life, by giving examples.	• Wall charts & pictures of industrials, chemical hospital, pharmacy, domestic, kitchen, fertilizer, insect sides, hard drinks.			
Working safely in a chemistry laboratory.	Carrying out chemistry activities safely and efficiently.	FEBRUARY	4	2. LABORATORY TECHNIQUESE AND SAFETY	1. Rules and safety precautions in chemistry laboratory.	4	i) To guide students to discuss every laboratory rule and establish its importance. ii) To guide students to discuss the laboratory safety measures.	i) To prepare a list of ten safety rules in chemistry laboratory. ii) To explain the safety measure to a chemistry laboratory.	– Chemistry laboratory manual. – Wall charts of written laboratory rules. – Wall charts showing safety measure for a chemistry laboratory.		– To mention and explain the safety measure needed to avoid accidents in chemistry laboratory.	
			1		2. First aid and first aid kit.	4	i) To guide students to discuss activities which are likely to accidents in a chemistry laboratory. ii) To guide students to name every item found in a first aid kit. iii) To guide students to stimulate a mock use of each item in a first aid kit.	i) To identify possible causes of accidents in chemistry laboratory. ii) To name the items found in a first aid kit. iii) To demonstrate how each first aid kit item is used. iv) To use the first aid kit to provide first aid to an accident victim.	– Wall chart pictures showing possible laboratory accidents. – First aid kit containing all of its items.		• How many possible causes of accidents I a chemistry laboratory. • Name all The items found in a first aid kit. • Demonstrate how you can provide First aid.	
					3. Basic chemistry laboratory apparatus with their uses.	6	i) To guide students to names of different pieces of apparatuses used in chemistry laboratory. ii) To summarize the names of pieces apparatuses used in chemistry laboratory. iii) To guide students to categorize laboratory apparatus into apparatus for; • holding • taking measurements; volume and temperature • heating purposes iv) To guide students to practice the uses of apparatus for measuring; ▪ volume of liquids ▪ volume of gases ▪ masses of solids ▪ temperature	i) To name the different ii) pieces of apparatuses used in chemistry laboratory. iii) To copy the summary. iv) To categorize chemistry laboratory apparatus according to their uses. v) To use apparatus to measure volume, mass and temperature.		i) Chemistry for secondary schools, form1&2, Oxford. ii) O-level CHEMISTRY Form 2, BEN. iii) O-level CHEMISTRY Form 2 Interactive CD, BEN. iv)You tube(for video clips)	– List names of apparatuses used in a chemistry laboratory. – Categorize chemistry apparatus according to their uses.	
Treating and purifying water with environmental consideration.	To purify and use water while conserving the environment.	FEBRUARY	2		4. Warning signs	6	i) To guide students to draw a simple diagram of the following warning signs; ▪ Toxic ▪ Harmful ▪ Irritant ▪ Explosive ▪ Corrosive ▪ Oxidant ii) To guide students to discuss the meaning of different warning signs.	i) To draw and label the basic chemistry warning signs. ii) To explain the meaning of different warning signs.	– Oxidant $KMnO_4$, H_2O_2, – Irritant; H_2SO_4 – Explosive – Corrosive; H_2SO_4		Draw and label the basic chemistry warning signs.	

			2	3. HEAT SOURCES AND FLAMES	1. Heat sources	4	To discuss with students about how to use the following heat sources in a chemistry laboratory; – candle – spirit burner – corrosive burner (kibatari) – charcoal burner ii) To discuss with students about how Bunsen burner works.	i) To discuss with teacher about how to use the heat sources in a chemistry laboratory. To explain how a Bunsen burner works.	– Candle – Spirit burner – Kerosene burner (kibatari) – Charcoal burner – Bunsen burner		– Identify different kind of heat sources that can be used in chemistry laboratory. • Explain the working function of a Bunsen burner.	
Applying the scientific procedures in carrying out investigations in chemistry		FEBRUARY	3		2. Types of flames	04	i) To guide students to use different types of burners to produce luminous and non-luminous flames. ii) To guide students to discuss how different flames are used. ▪ flame test of elements ▪ production of light ▪ production of heat	i) To produce luminous and non-luminous flames from different fuel burns. ii) To state the uses of different types of flames.	– Spirit burner – Kerosene burner (kibatari) – Charcoal burner – Bunsen burner – Kerosene fuel		– Produce luminous and non-luminous flames from different burners.	
			4	4. THE SCIENTIFIC PROCEDURES	1. Significance of the scientific procedures.	02	i) To guide students to discuss about the measuring of the scientific procedures. ii) To discuss with students about how the scientific procedures are used in carrying out systematic investigations.	To explain the concept of scientific procedure.	– Wall charts showing the steps of scientific procedures. – Picture of chemists working in laboratory		– Explain the concept of chemists. – Explain the importance of scientific procedures.	
					2. The main steps of scientific procedures.	01	i) To discuss with students about the following steps of scientific procedures; • Observation of the scientific phenomena. • Statement of the problem. • Formation of hypothesis. • Observation and collection of data. • Data analysis and interpretation. • Making inference and conclusion.	– To describe each step of scientific procedures.	- Wall charts showing the steps of scientific procedures.	i) Chemistry for secondary schools, form1&2, Oxford. ii) O-level CHEMISTRY Form 2, BEN. iii) O-level CHEMISTRY Form 2 Interactive CD, BEN. iv)You tube(for video clips)	– Describe each step of scientific procedures.	
Dealing with nature and properties of matter.	Explaining the nature and properties of matter.	MARCH	1		3. Application of the scientific procedures.	4	To supervise the students' projects.	To apply the scientific procedure in carrying out a project on a chemistry problem.			Apply the scientific procedure in carrying out a project on a chemistry investigation.	
			2	5. MATTER	1. Concept of matter.	2	To guide students to discuss the meaning and definition of matter.	To explain the concept of matter.	Solid, liquid and gases.		Explain the meaning of matter with examples.	
					2. States of matter.		i) To guide students to apply the kinetic nature of matter to explain the existence of matter in three states; solids, liquids and gases. ii) To guide students to demonstrate the change of matter from one state to another. iii) To discuss with students the advantages of changing one state of matter to another. Distillation to form pure components of a mixture. ▪ Evaporation of dry things. formation of ice in refrigerator iv) Melting of metal to form alloy.	i) To describe the three states of matter. ii) To explain the importance of changing one state of matter to another.			Demonstrate how you can change one state of matter to another and explain their importance.	

Differentiate physical from chemical properties of matter.		MA R C H			2. Physical and chemical changes.	3	i) To discuss with students about the meaning and characteristics of physical change. ii) To guide students to carry out experiments on physical change, to include; ▪ melting of ice ▪ boiling of water ▪ condensation of steam ▪ formation of ice ▪ magnetization of iron ▪ sublimation of solid iodine ▪ grinding of chalk ▪ dissolving sugar or salt in water ▪ evaporation iii) To guide students to carry out the following chemical changes; ▪ decomposition of solid carbonate • burning of any fuel	i) To describe the characteristics of physical change. ii) To carry out experiments on physical changes of matter. iii) To describe the characteristics of chemical changes. iv) To carry out experiments on chemical changes.	– sugar – table salt – heat source – kettle – chalk – pestle and mortal – magnet – solid iodine – water – ice – Pb(NO3) solution, CuSO4 solution, Zn metal, CuCO3, – Acids – candle – Aluminium foil – Magnesium ribbon		– Describe characteristics of physical change. – Describe the characteristics of chemical changes.	
				3rd 4th	**MID-TERM ASSESSMENT (4TH WEEK OF MARCH)** **MID-TERM BREAK (28/03/2024 - 08/04/2024)**							

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