PRESIDENT'S OFFICE, REGIONAL ADMINISTRATION AND LOCAL GOVERNMENT

SCHEME OF WORK

Name of teacher: JACKSON ROBERT ISANGI **Name of School: MUHUKURU SECONDARY SCHOOL**
Year: 2025 **Term: 1 & 2**
Class/Stream: FORM ONE **Subject: PHYSICS**

MAIN COMPETENCE	SPECIFIC COMPETENCE	TEACHING ACTIVITIES	MONTH	WEEK	PERIODS	REFERENCES	TEACHING/LEARNING TOOLS	ASSESSMENT TOOLS	REMARKS
ORIENTATION COURSE(2ND WEEK OF JANUARY TO 3RD WEEK OF FEBRUARY)									
1.0 EXPLAINING THE MAIN CONCEPTS OF PHYSICS	**1.1 Concepts of physics**	i) Teacher to prepare students to brainstorm and discuss the concept of physics ii) Teacher to prepare students in their small group to discuss the relationship between physics with other subject. iii) The teacher to prepare students in groups to state the importance of studying physics	**FEBRUARY**	**4TH**	**02**	Patrick C. Sangu (2020) Physics for secondary schools book one by oxford university Press	- Manila card - Charts with diagram. - Science kit. - Charts of different machine and picture -	Exercise	
	1.2 Application of physics in real life	i)The teacher prepare students and discus the application of physics in real life ii)The teacher prepare students to discuss various applications of physics in daily life.	**MARCH**	**1ST**	**02**		- Chart with hospital and industrial machine. - Apparatus domestic tools	Homework	
2.0 INTRODUCTION TO LABORATORY PRACTICE	**2.1 Laboratory rules and safety**	i) The teacher to prepare students to discuss the laboratory rules. ii) The teacher to prepare students in group to discuss importance safety measures for the physics lab.		**2ND**	**04**		-charts of the physics laboratory rules. -wall pictures for safety measures for physics lab.	Exercise	

	2.2 basic principle of scientific investigation.	iii) The teacher to give correct names to the items in the first aid kit. iii) The teacher to identify warning sign and how to use warning signs in daily life. i) The teacher to prepare students in small group to discuss the concept of scientific investigation. ii) the teacher to prepare students to brainstorm the uses of scientific investigation method in solving problem.		**3RD**	**02**	Patrick C. Sangu (2020) Physics for secondary schools book one by oxford university Press	First aid kit. -wall chart of different warning sign. -internet, book and apparatus	Assignment	
MID-TERM ASSESSMENT (4TH WEEK OF MARCH) **MID-TERM BREAK (28/03/2024 - 08/04/2024)**									
3.0 APPLYING MEASUREMENT IN EVERYDAY LIFE	**3.1 Concept of measurement**	i) by using yes no cards the teacher prepare students to explain concept of measurement. ii) the teacher to prepare students to state importance of measurement in real life.	**APRIL**	**2ND**	**01**		-Metre rules -beam balance -solid -liquid -measurement tools	Classwork	
	3.2 basic fundamental quantities	i) the teacher to prepare students to define a fundamental quantities. ii)the teacher to prepare students to mention the three basic fundamental quantities. iii) state SI unit of basic fundamental quantities		**3RD**	**02**		-metre rule stop watch thermometer digital balance metre rule	Test	
	3.3 Derived quantities	i) By using think-pair – share technique students to discuss derived quantities. ii) The teacher to prepare students to state S.I units of derived quantities			01		Beaker Barometer	Groupwork	
	3.4 Basic apparatus/equipments and their uses	i) By using thumps up/down technique, the teacher to ask questions relating to basic apparatus used for measuring.		**4TH**	02		-Measuring cylinder -Digital balance	Homework	

	3.5 **Density and relative density**	i) The teacher to prepare students to investigate the source of error and how to minimize them. ii) The teacher to prepare students to discuss the concept of density a substance and its SI Unit. iii) The teacher to prepare students in groups to determine the density of regular solid, irregular solid and insoluble substances. iv) The teacher to prepare students to determine the density of liquids by using experiment. v) By using think-pair-share techniques the teacher to prepare students to describe the concept of relative density.			03		- Stop watch - Weight - Beam balance - Metre rule	Exercise	
					03	Patrick C. Sangu (2020) Physics for secondary schools book one by oxford university Press	-eureka can - Regular & Irregular solid	Homework	
4.0 **APPLYING THE CONCEPT OF FORCE** **IN DAILY LIFE**	**4.1** **Concept of force**	i) The teacher to use information from YES/NO cards to asses students understanding on the concept of force. ii) The teacher to prepare students to discuss the SI unit of force.	**MAY**	**1ST**	01		-Magnets -Rubber band -Weights -iron filings -Books -Internet	Exercise	
	4.2 **Types of force**	i) The teacher to prepare students to identify fundamental force. ii) The teacher to prepare students to describe the properties of fundamental forces.		**2ND**	02		-Spring balance -Stone, ball.	Assignment	
	4.3 **Effect of forces**	i) By using think-pair –share techniques the teacher to prepare students to discuss the effects of forces. ii) The teacher to prepare students to demonstrate effects of force on materials.		**3RD**	03		-Weights -Rubber -Block of wood stone, ball	Classwork	

TERMINAL ASSESSMENT (4TH WEEK OF MAY)
FIRST TERM BREAK (31/05/2024 - 01/07/2024)
UMISSETA SPORTS COMPETITIONS (16/06/2024 – 29/06/2024)

5.0 EXPLAINING ARCHMEDES PRINCIPAL AND LAW OF FLOTATION AND THEIR APPLICATIONS	**5.1 Archimedes principle.**	i) The teacher to prepare students to discuss the concept of upthrust. ii) The teacher to prepare students carry out the experiment to verify Archimedes principle experimentally. iii) The teacher to prepare students to state the relationship between apparent loss weight (upthrust) and real weight.	**JULY**	**1ST**	03		-spring balance -water -stone -water -beaker -stone -Eureka can	Test	
	5.2 **Law of flotation**	i) The teacher prepare students to distinguish between floating body and sinking body. ii) The teacher to prepare students to explain the conditions for a substance to float in fluid. iii)The teacher prepare students to relate upthrust and weight of floating body. iv) The teacher prepare students to state the law of flotation.		**2ND**	**09**		-bottle -balloon -wood -coin modal of ship. -test tube -lead shot Water -beaker -spring balance -water -eureka can -beaker	Groupwork	
6.0 DESCRIBING THE STRUCTURE AND PROPERTIES OF MATTER.	**6.1 Structure of matter**	i) The teacher use concept map technique to discuss with students the concept of matter ii) The teacher to prepare students to justify the particulate nature of matter by applying Brownian motion in liquids and in gases. iii) The teacher to prepare students to discuss the kinetic theory of matter. iv) The teacher to use YES/NO cards to lead students to classify the three states of matter.		**3RD** **TO** **4TH**	**04**	Patrick C. Sangu (2020) Physics for secondary schools book one by oxford university Press	-Various object -Liquids -Gases -Water -coloured substance -microscope Pollen grain -marbles	Homework	

	6.2 **Elasticity**	i) The teacher to prepare students to discuss the concept of elasticity ii) The teacher prepare students to demonstrate the relationship of tension and extension of loaded elastic material. iii) The teacher prepare students brainstorm the application of elasticity in real life.	**AUG UST**	**1ST**	03		-spring balance -ruler -slotted weight Iron rod -catapult -Bowand arrow	Exercise	
	6.3 Adhesion and cohesion	i) By using thump up/thump down technique the teacher to prepare students to answer questions reacted to adhesion and cohesion. ii)The teacher to prepare students to discuss the applications of adhesion and cohesion in daily life.			03		-test tube -sheet of glass -water -mercury.	Assignment	
	6.4 Surface tension	i) By using question and answer the teacher to prepare students to identify the application of surface tension.		**2ND**	03	Patrick C. Sangu (2020) Physics for secondary schools book one by oxford university Press	-Mosquito -larva -soap -Needle -Thread	Classwork	
	6.5 Capillarity.	(i) The teacher to guide students to discuss the concept of capillarity. (ii) The teacher to assist students brainstorm the application of capillarity in daily life.		**3RD**	01		-Glass tube with narrow bores of different kerosene lamp.	Test	

MID-TERM ASSESSMENT (4TH WEEK OF AUGUST)
MID-TERM BREAK (30/08/2024 - 16/09/2024)

	6.6 **Osmosis**	(i) The teacher to prepare students to carry out an experiment for verifying the concept of osmosis. (ii) The teacher to prepare students to brainstorm the application of osmosis.	**SEPT EMB ER**		02		-Irish potato -Beaker with water -sugar -salt	Groupwork	

7.0 COMPREHEND THE CONCEPT OF PRESSURE	**7.1 Concept of pressure and Pressure due to solid**	(i) By using think-pair-share technique the teacher to prepare students to explain the concept of pressure. (ii)The teacher to prepare students to state SI unit of pressure. (iii) The teacher to prepare students to explain dependence of pressure on surface of contact.			03		-Water -Bucket wit thin and thick handle -Bars of soap -Thin and thick wire loop	Homework Exercise	
	7.3 Pressure in Liquids	(i) The teacher to prepare students to describe the characteristic of pressure in liquids (ii) The teacher to prepare students to examine the variation of pressure with depth in liquids and derive the formula p=hpg		**4TH**	06	Patrick C. Sangu (2020) Physics for secondary schools book one by oxford university Press	- Cans with hole punches in different depth.	Classwork	
		(iii) The teacher to prepare students to solve problems involving pressure in liquids. (iv) The teacher to prepare students un deriving the relation f/a = F/A for pressure on small and large piston of hydraulic press.	**OCTOBER**	**1ST**			-Manometer	Test	
	7.4 Atmospheric pressure	(i) The teacher to prepare students to demonstrate the existence of atmospheric pressure. (ii) By using thick-pair-share techniques the teacher to prepare students to identify the application of atmospheric pressure. (iii) The teacher to prepare students to measure the atmospheric pressure.		**1ST** **2ND**	03		-Tumbler with lid, empty can, cold water, source of heat -Bicycle pump -Siphon -Water -Flushing tank.	Groupwork	
8.0 APPLYING THE KNOWLEDGE OF WORK, ENERGY AND POWER IN EVERY DAY LIFE	**8.1 Work**	(i) The teacher to prepare students to brainstorm the concept of work as applied to physics. (ii) The teacher to prepare students to state SI unit of work. (iii) The teacher to prepare how to determine the work done by an applied force.		**3RD**	03		Block of wood, thread, spring, clock	Homework	

	8.2 Energy	(i) The teacher to prepare students to discuss the concept of energy. (ii) The teacher to prepare students to brainstorm different forms of energy. (iii) The teacher to prepare students to demonstrate and explain the pushing effect of a compressed spiral spring when released and the existence of PE and KE using a spiral spring.		**4TH**	06		-Heavy body -tape measure -meter rule -Helical spring -object -stone -bob -tube light -motor	Exercise Assignment	
			NOVEMBER	**1ST**					
	8.3 Power	(i) (i)The teacher to use YES/NO cards to ask questions related to the concept of power. (ii) The teacher to prepare students to discuss the SI unit of power. (iii) The teacher to prepare students to determining the rate of raising a heavy body through a given distance.		**2ND**	03		-heavy body -stop watch -meter rule. -Heavy body -meter rule	Classwork	
9.0 APPLYING THE KNOWLEDGE OF LIGHT IN EVERY DAY LIFE	**9.1 Source of light**	(i) The teacher to prepare students to explain concept of light. (ii) The teacher to prepare students to identify the source of light. (iii) The teacher to prepare students to distinguish between luminous and non luminous bodies.		**3RD**	03		-sting -card board -torch -box with a hole -candle -kerosene -lamb -sun -flame	Test	
	9.2 Propagation and transmission of light.	(i) The teacher prepare students to perform experiment on the concept of rays and beam of light. (ii) The teacher to prepare students to discuss how to verify that light travels in a straight line (iii) The teacher to prepare students to identify transparent, translucent, opaque materials.		**4TH**	03		-ray box -candle -string -card board -source of light -oiled paper -iron sheet -glass -walls.	Groupwork	
	9.3 Reflection of light	(i) The teacher to prepare students to demonstrate the concept of reflection. (ii) The teacher to prepare students to distinguish regular and irregular of light. (iii) The students carry out an experiment to investigate the laws of reflection of light and from the result of experiment the teacher prepare students to state the laws of reflection of light. (iv) The teacher to prepare students to describe the position and size and nature of image formed by a plane mirror.			03		-ray box -plane mirror -ruler -source of light -sift board. -ray box -plan mirror -protractor -source	Homework Exercise	

	ANNUAL ASSESSMENT (1ST WEEK OF DECEMBER) **END OF YEAR BREAK (06/12/2024)**							