

WEEK NO.	CLASS NO.	GENERAL OBJECTIVE	SPECIFIC OBJECTIVE
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FORM 3 SCHEME OF WORK

TERM 1			
MEASUREMENTS AND UNITS			
1	1 2 3	QUANTITIES	<ul style="list-style-type: none"> Fundamental quantities and fundamental units (base units) Derived Quantities and Derived Units Multiples and Sub Multiples
2	4 5 6	QUANTITIES	<ul style="list-style-type: none"> Scientific Notation Significant Figures
3	7 8 9	MAN'S EFFECT ON THE ENVIRONMENT	<ul style="list-style-type: none"> Discuss the causes and consequences of alerting the environment Examine the conservation aims to <ol style="list-style-type: none"> Preserve the habitat Protect wildlife and ensure their propagation Protect our natural resources Outline an individual role in conservation
LIGHT			
4	10 11 12	LIGHT RAYS	<ul style="list-style-type: none"> Explain the meaning of (i)Ray, (ii) Parallel, converging and diverging beams Observations to show that light travels in a straight line Explain shadows, solar and lunar eclipses and the pin-hole camera
5	13 14 15	REFLECTION OF LIGHT REFRACTION	<ul style="list-style-type: none"> Experiment to show $i=r$ Laws of reflection Measuring of Refraction
6	16 17 18	REFRACTION	<ul style="list-style-type: none"> Examples of refraction of light in (i)Rectangular prisms (ii)Triangular prisms Laws of refraction Definition of Refractive Index
7	19 20 21	REFRACTION CRITICAL ANGLE AND TOTAL INTERNAL REFLECTION	<ul style="list-style-type: none"> Experiment to verify Snell's law (Perspex block with four pins) Dispersion of white light (glass prism) Applications of total internal reflection (i)Binoculars (ii)Light Pins (iii)Telecommunications

TERM 2

1	1	DISPERSION	<ul style="list-style-type: none"> Using a prism
	2	DIVERGING LENS	<ul style="list-style-type: none"> Action on a Parallel Beam
	3	CONVERGING LENS	<ul style="list-style-type: none"> Action on a Parallel Beam
2	4	CONVERGING LENS	<ul style="list-style-type: none"> Properties of an image formed by a lens Definitions: principal axis, principal focus, focal length, focal plane, magnification. Draw scale diagrams to locate image etc with a converging lens
	5	SCALE DIAGRAMS	
3	6, 7, 8,		
4	7	OPTICAL INSTRUMENTS	<ul style="list-style-type: none"> Converging lens used as a magnifying glass (i) in a camera (ii) in a projector (iii) telescope (iv) microscope
	8	THE EYE	<ul style="list-style-type: none"> Structure of the eye Function of the eye
	9		
5	10	THE EYE	<ul style="list-style-type: none"> Understand that the colour perceived by the eye depends on the colour of the light reflected by the object Discuss defects of vision including short and long sightedness Explain how these defects may be corrected using lenses
	11		
	12		
6	13	THE EYE	<ul style="list-style-type: none"> Discuss the difference between the eye and the camera Investigate the role of light in photosynthesis Investigate the use of coloured glass to preserve food or drink from light
	14	USES OF LIGHT	
	15		
7	16	FORCES	<ul style="list-style-type: none"> Newton's laws of motion Definition of force and the Newton Recognise that force is a Vector quantity
	17		
	18		

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FORM 3 SCHEME OF WORK

TERM 3

1	1 2 3	FORCES	<ul style="list-style-type: none"> • Vector addition of forces • Recognise that a force may be needed to maintain constant speed if there are resistive forces. Give examples • Understand the origin of gravitational forces as it depends on the mass of the body producing the gravitational field
2	4 5 6	INERTIA AND MOMENTUM	<ul style="list-style-type: none"> • Students should understand the term "inertia" both in terms of a stationary body and one in motion. It is a property of the mass of the body • Define momentum and give formula and units ONLY
3	7 8 9	<p align="center">PRESSURE</p> <p>(It is expected that you attempt to do this from Mr. Pardasie's handout)</p>	<ul style="list-style-type: none"> • Define pressure and the Pascal • Understand atmospheric pressure • Investigate how atmospheric pressure varies above sea level • Understand that a gas exerts pressure due to the collision of its molecules with the inner walls of the container • Understand why compressing or heating a gas increases its pressure (using molecular theory) • Liquids exert a pressure • Use of the equation $P=h\rho g$ • Describe an experiment to demonstrate how the pressure varies with depth in a fluid
4	10	WORK, ENERGY AND POWER (Definitions and basic calculations)	<ul style="list-style-type: none"> • Define work done • Define the unit of work done (ie the Joule) • Define energy
	11		<ul style="list-style-type: none"> • Examples of the types of energy • Principle of conservation of energy • Define potential energy
	12		<ul style="list-style-type: none"> • Change in gravitation potential energy, $\Delta E_p = mg\Delta h$ $E_k = \frac{1}{2}mv^2$ • Define power(P), formula and manipulation • Define the unit of power(the Watt)
REVISION OF YEAR 3 WORK			