

		exposure to electromagnetic radiation, including: (a) microwaves: internal heating of body cells (b) infrared: skin burns (c) ultraviolet: damage to surface cells and eyes, leading to skin cancer and eye conditions (d) X-rays and gamma rays: mutation or damage to cells in the body.		contains interactive questions.
23 rd March Tuesday (Girls)	4	<u>Learning Objective :</u> Complete the worksheet posted in GC	GC	Instruction will be given in GC to complete the worksheet.
25 th March Thursday (Boys)	6	<u>Learning outcome:</u> Students will be able to reinforce the concepts learned in the previous lesson by completing the worksheet.		

YEAR 10 A-F - PHYSICS

WEEK 30 (21st March to 25th March)

Topic: Work and Power/ Particle Model

Lesson Objective: SP8a Work and Power
SP14 Particle Model

Resources: Student text book, worksheet file, interactive power point from Board works and Online animations

Worksheets and Zoom link will be posted in google classroom

Date	Lesson	Lesson objectives & Learning outcome	Mode of Teaching	
21 st March Sunday (Boys)	1	L.O: • Describe how to measure the work done by a force and understand that energy transferred (joule, J) is equal to work done	Zoom/ GM	Teacher uses a ppt presentation to discuss what is work done and how can it be measured and calculated. Explains what is meant by power and works out numerical.
21 st March Sunday (girls)	2	• Define power as the rate at which energy is transferred and use examples to explain this definition. • Recall and use the equation of work done and power Learning outcome: Students will be able to • Recall and use the equation linking work done, force and distance.		

		<ul style="list-style-type: none"> • Explain what power means. • Recall and use the equation linking power, work done and time. 		
23 rd March Tuesday (Boys)	5	L.O: <ul style="list-style-type: none"> • Use a simple kinetic theory model to explain the different states of matter (solids, liquids and gases) in terms of the movement and arrangement of particles 	Zoom/ GM	Teacher introduces the different states of matter, as well as the concept of Kinetic Theory and its relationship to each states of matter. Also discusses what happens to particles when a substance changes state.
24 th March Wednesday (girls)	5	<ul style="list-style-type: none"> • Recall and use the equation: density (kilograms per cubic metre, kg/m^2) = mass (kilograms kg) / volume (cubic metres, m^3) $\rho = m/V$ Learning outcome: Students will be able to <ul style="list-style-type: none"> • Describe the arrangements of particles in solids, liquids and gases • Use the particle model to explain the different properties of solids, liquids and gases 		
23 rd March Tuesday (Boys)	6	L.O: <ul style="list-style-type: none"> • Explain the differences in density between the different states of matter in terms of the arrangements of the atoms or molecules. 	Zoom/ GM	Teacher uses a animation to explain the difference in the density of different states of matter and discusses how to find the density of different substances
24 th March Wednesday (girls)	6	<ul style="list-style-type: none"> • Describe that mass is conserved during change of state and how physical changes differ from some chemical changes Learning outcome: : Students will be able to <ul style="list-style-type: none"> • Use the particle model to explain why solids, liquids and gases have different densities • Describe what happens to the mass of a substance when it changes state 		
25 th March Thursday (Boys)	4	L.O : Solve the worksheet posted GC	GC	Teacher will post the worksheet in the GC Students will solve and turn in the worksheet
25 th March Thursday (Girls)	1	Learning outcome: Students will be able to reinforce the concepts learned in the previous lesson by solving the worksheet		

YEAR 12 A/ B –PHYSICS

WEEK 30 (21st March to 25th March) - (3 lessons)

Work sent to the students through: Google classroom / Zoom Learning Platform

Topic: **Optics**

Resources: Student text book, worksheet file, interactive power point from Board works and Online PHET simulations

Date	Class	Lesson	Lesson objectives & Learning outcomes	Mode of teaching	
21 st March Sunday	12 A	8	<p><u>Learning objectives:</u> Recognize situations where total internal reflection is used.</p> <p><u>Learning Outcomes :</u> Complete an activity involving TIR of 90⁰-45⁰-45⁰ glass prisms. Discuss the advantages of TIR prisms as reflectors over mirrors. Realise the Uses of Fibre Optics in</p> <ol style="list-style-type: none"> 1. Illuminating models or road signs using only one bulb 2. Endoscopy - seeing down inside a patient's body 3. Communications – sending information along 	GC	Teacher uses power point presentation and breakout sessions for students to collaborate and attain the objectives
23 rd March Tuesday	12 B	6			
22 nd March Monday	12 A	1	<p><u>Learning objectives:</u> Identify refraction in dispersion of white light in a prism.</p>	Zoom	Teacher uses power point presentation and breakout sessions for students to collaborate and attain the objectives
25 th March Thursday	12B	3	<p><u>Learning Outcomes :</u> Predict the path of the light rays during dispersion.</p>		
22 nd March Monday	12 A	2	<p><u>Learning objectives:</u> Explain the different angles of deviation of colours.</p>	Zoom	. Teacher uses power point presentation and breakout sessions for students to collaborate and attain the objectives
25 th March Thursday	12B	4	<p><u>Learning Outcomes:</u> Use Snell's law and $n = 1/\sin C$ in problems. complete the worksheet questions</p>		

YEAR 12 A/ B – PHYSICS

WEEK 30 (21st March to 25th March) - 3 lessons for both batches

Work sent to the students through: Whatsapp group / Google classroom / Zoom Learning Platform

Topic: 5.24 Wave interference

Resources: Student text book, worksheet file, interactive power point from Board works and Online animations

Date & Class	Lesson	Lesson objectives & Learning outcomes	Mode of teaching	
21 st March Sunday - 12 B	6	<p>L.Objective – Show an understanding of experiments that demonstrate two-source interference using light.</p> <p>Learning outcome:</p> <ul style="list-style-type: none"> Discuss and list the conditions needed for a two source interference pattern Discuss the experimental set up and approximate distances for interference with light – Young’s double slit experiment. https://www.youtube.com/watch?v=MDX3qb_BMs4 	Zoom	Teacher use simulations and video to explain the experimental set up for Young’s double slit experiment.
23 rd March Tuesday - 12 A	4			
21 st March Sunday - 12 B	7	<p>L.Objective - Describe the interference pattern produced by coherent light passing through two narrow close slits.</p>	Zoom	Worksheet given in two levels to practise the application of the formula $\lambda = xd/D$
25 th March Thursday - 12 A	1	<p>Learning outcome:</p> <ul style="list-style-type: none"> Use an interactive program/video using different colour laser pens and slits of different widths to show the effect of changing any variable in the equation. Solve problems using the equation $\lambda = xd/D$ for double-slit interference using light 		
24 th March Wednesday - 12 B	3	<p>L.Objective – Plan an experiment to determine the wavelength of the light from a laser pen. (Young’s double slit experiment)</p>	Zoom	Breakout session in groups to plan the experiment to determine the wavelength of the light using Young’s double slit experiment.
25 th March Thursday - 12 A	2	<p>Learning outcomes-</p> <ul style="list-style-type: none"> Design an experiment to investigate the interference pattern produced by coherent light passing through two narrow close slits. Identify the appropriate apparatus. Plan the procedure. State how the results will be used. Consider the uncertainties involved. 		

HOMEWORK: Complete the exam style questions from worksheet.

