

YEAR 12A/ B –PHYSICS

WEEK 9 (17th May to 21st May) 3 lessons for both batches

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

Topic: Refraction:

Lesson Objective: Relate the refractive indices of the mediums to angles of incidence and refraction and the speed of travel.

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

Date	Class	Lesson	Lesson objectives & Success criteria	Mode of teaching																
17 th May Sunday	12 A	8	L.O –Understand the relation between refractive index of the medium, and the path of light rays Success criteria- Recap Snell’s law Solve questions to understand that at the interface between medium 1 and medium 2 $n_1 \sin \theta_1 = n_2 \sin \theta_2$ where refractive index is $n=c/v$	Zoom	Teacher uses interactive power point presentation ,breakout session in zoom app and mentimeter quiz to check their understanding															
19 th May Tuesday	12 B	6				18 th May Monday	12 A	1	L.O – Describe Total Internal reflection of light Success criteria- Predict whether TIR will occur at an interface Identify what is critical angle Calculate <i>critical angle</i> using $\sin C = 1/n$	Zoom	Teacher uses interactive power point presentation and breakout sessions for students to collaborate and attain the objectives.	21 st May Thursday	12 B	3	18 th May Monday	12 A	2	L.O-Dispersion Success criteria- -Devise a simple experiment to show dispersion of white light. Realise how rainbow is formed Sketch the path of light ray through a raindrop.	Asynchronous	Students to do a simple experiment on dispersion at home and record the effect. Research work on rainbows assigned through GC
18 th May Monday	12 A	1	L.O – Describe Total Internal reflection of light Success criteria- Predict whether TIR will occur at an interface Identify what is critical angle Calculate <i>critical angle</i> using $\sin C = 1/n$	Zoom	Teacher uses interactive power point presentation and breakout sessions for students to collaborate and attain the objectives.															
21 st May Thursday	12 B	3				18 th May Monday	12 A	2	L.O-Dispersion Success criteria- -Devise a simple experiment to show dispersion of white light. Realise how rainbow is formed Sketch the path of light ray through a raindrop.	Asynchronous	Students to do a simple experiment on dispersion at home and record the effect. Research work on rainbows assigned through GC	21 st May Thursday	12 B	4						
18 th May Monday	12 A	2	L.O-Dispersion Success criteria- -Devise a simple experiment to show dispersion of white light. Realise how rainbow is formed Sketch the path of light ray through a raindrop.	Asynchronous	Students to do a simple experiment on dispersion at home and record the effect. Research work on rainbows assigned through GC															
21 st May Thursday	12 B	4																		

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Topic: Applications of Polarisation

Lesson Objective: Discuss the various applications of polarisation.

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

Date	Class	Lesson	Lesson objectives & Success criteria	Mode of teaching	
17 th May Sunday	12 B	6	L.O –Explain polarisation by reflection and refraction	Zoom	Students consolidate and present the research work given last week on the applications of polarisation (group work)
19 th May Tuesday	12 A	4	Success criteria- Explain how Polaroid sunglasses reduce glare. Students will be able to appreciate why ski goggles often have polaroid filters with vertical orientation		
17 th May Sunday	12 B	7	L.O – Investigate and explain how to measure the rotation of the plane of polarization.	Zoom	Teacher uses interactive power point presentation and breakout sessions for students to collaborate and attain the objectives.
21 st May Thursday	12 A	1	Success criteria- Explore the role of polarimetry in finding the sugar concentration.		
20 th May Wednesday	12 B	3	L.O- Investigate structural stresses- stress analysis using crossed polaroids	GC	Students do research work on how polarisation can be used with models to investigate stresses in structures. Worksheet assigned through GC
21 st May Thursday	12 A	2	Success criteria- -Explain the benefits of being able to use polarisation to analyse stress concentration in engineering model		

