

YEAR 11 (A- F) – PHYSICS GCSE

WEEK 40 - 30th May to 3rd June

Topic: Standard form

Lesson Objective: Describe the importance of standard form
Research on 9 Epic Space Discoveries You Probably Missed in 2019.

Resources: Worksheets, interactive power point and online simulations

Date	Lesson	Topic	Mode of Teaching	
31 st May Mon (Boys)	4	LO- Describe the importance of standard form. Learning Outcome- Describe the importance of standard form Use and apply the concept of standard form.	Z	Teacher uses power point presentation to describe the importance of standard form.
30 th May. Sunday (Girls)	3			
1 st June. Tuesday – (boys)	1&2	LO- Solve worksheet questions based on the topic standard form Learning outcome Apply the concept by solving the questions.	Asy	Instruction will be given to solve worksheet questions
31 st May Monday – (girls)	1&2			
2 nd June. Wednesda y – (boys)	7	LO- Discuss worksheet questions based on the topic standard form. Learning outcome Apply the concept of standard form	Z	Teacher uses power point presentation to discuss the worksheet questions.
2 nd June. Wednesda y– (girls)	1			
3 rd June. Thursday – (boys)	7	LO- Research on 9 Epic Space Discoveries You Probably Missed in 2019. Learning outcome Collect the information by researching the 9 epic space discoveries in 2019.	Asy	Instruction will be given in the Google class room https://www.livescience.com/underrated-space-stories-2019.html
3 rd June. Thursday – (girls)	3			

YEAR 11 G/H (IGCSE) – PHYSICS

WEEK 40 - 30th May to 3rd June

Topic: Standard form

Lesson Objective: Describe the importance of standard form
 Research on 9 Epic Space Discoveries You Probably Missed in 2019.

Resources: Worksheets, interactive power point and online simulations.

Date	Lesson	Learning objective and Success Criteria	Mode of teaching	
31 st May Monday (boys & girls)	8	LO- Describe the importance of standard form. Learning Outcome- <ul style="list-style-type: none"> • Describe the importance of standard form • Use and apply the concept of standard form. 	Zoom/GM	Teacher uses power point presentation to describe the importance of standard form.
1 st June Tuesday (boys & girls)	7 & 8	LO- Solve worksheet questions based on the topic standard form Learning outcome <ul style="list-style-type: none"> • Apply the concept by solving the questions. 	Asy	Instruction will be given to solve worksheet questions.
2 nd June Wednesday (boys & girls)	8	LO- Discuss worksheet questions based on the topic standard form. Learning outcome <ul style="list-style-type: none"> • Apply the concept of standard form 	Zoom/GM	Teacher uses power point presentation to discuss the worksheet questions.
3 rd June Thursday (boys & girls)	2	LO- Research on 9 Epic Space Discoveries You Probably Missed in 2019. Learning outcome <ul style="list-style-type: none"> • Collect the information by researching the 9 epic space discoveries in 2019. 	Asy	Instruction will be given in the Google class room and link will be posted in GC. https://www.livescience.com/underrated-space-stories-2019.html

YEAR 12A/ B –PHYSICS

WEEK 40 - 30th May to 3rd June

Topic: **QUANTUM PHYSICS**

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	
June 3 rd Thursday	12 B	3	<p><u>Learning objectives:</u></p> <p>Define intensity (radiation flux density) of radiation.</p> <p>Describe and explain inverse square law of radiation.</p> <p><u>Learning Outcomes :</u></p> <p>Define Intensity as power per unit area. Obtain the unit of radiation flux. Use $I = P/A$ in numerical problems. Recognize that waves get weaker as they spread out in three dimensions from a source.</p> <p>Use the equation $\Phi = P/4\pi r^2$ to find the flux density at a distance r from the source. Use $I_1 d_1^2 = I_2 d_2^2$ in numerical problems</p>	Zoom	Teacher uses power point presentation and breakout sessions for students to collaborate and attain the objectives
June 3 rd Thursday	12 B	4	<p><u>Learning objectives:</u></p> <p>Define a quantum of energy as photon.</p> <p><u>Learning Outcomes :</u></p> <p>Identify a photon as a quantum of energy of electromagnetic radiation. Realize that shorter wavelength or higher frequency radiation has greater energy</p> <p>Use the equation $E = hf$ and $E = hc/\lambda$ to calculate the photon energy.</p> <p>Realise that quantum theory sharply contradicts wave theory which manifests energy as continuous.</p>	Zoom	Teacher uses power point presentation and breakout sessions for students to collaborate and attain the objectives

YEAR 12 A/ B – PHYSICS

WEEK 40 - 30th May to 3rd June

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

Topic: 5.23 Diffraction

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	
2 nd June Wednesday - 12 B	6	L.Objective – Explain the meaning of the term diffraction Learning outcomes- <ul style="list-style-type: none">• Understand what diffraction is.• Identify the factors that affect the amount of diffraction	Zoom	Teacher use simulations and video on diffraction of water waves (using a ripple tank). Change the width of the gap and if possible the wavelength.
3 rd June Thursday - 12 A	1,2	<ul style="list-style-type: none">• Explain the effect of varying the slit width and wavelength on diffraction.• Discuss the link between aperture width and amount of diffraction		

YEAR 13A/ B –PHYSICS

WEEK 40 - 30th May to 3rd June

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

Topic: - Research work on application of various topics covered during the course of study.

Resources: Student text book, interactive power point, and online

Date	Class	Lesson	Lesson objectives & Learning outcome	Mode of teaching	
31 st May Monday	13 A	1, 2	L.O - Explore how Particle physics has revolutionized the way we look at the universe and made a significant impact on various fields of science. Learning Outcome: Be able to appreciate how the impact of particle physics goes far beyond the laboratory and the textbook.	Zoom	Guidelines will be provided through Google classroom Discuss the importance of particle physics in various fields of science
3 rd June Thursday	13 B	3,4			
1 st June Tuesday	13 A 13 B	5 6	L.O - Explore how Particle physics has revolutionized the way we look at the universe and made a significant impact on various fields of science Learning Outcome: Be able to appreciate how particle physics is an important driver of new technologies which can stimulate industrial growth. Research on how Particle physics technologies are applied in: medical science; information technology and electronics; life sciences and engineering.	Asynchronous learning	Students should write a report or prepare a PowerPoint presentation.

YEAR 13A/ B –PHYSICS

WEEK 40 - 30th May to 3rd June

Work sent to the students through: Zoom Platform and Google classroom

Topic: **Resonance**

Date	Classes	Lesson	Lesson objectives & Learning outcome	Mode of teaching	
May 31 st Monday	13 B	6	Learning objectives: Distinguish between free, damped and forced oscillations	Zoom	Teacher uses power point presentation and breakout sessions for students to collaborate and attain the objectives
June 1 st Tuesday	13 A	4	Learning Outcomes : Recap and Define free, damped and forced oscillations Describe graphically how the amplitude of a forced oscillation changes with frequency near to the natural frequency of the system.		
May 31 st Monday	13 B	7	Learning objectives: Describe unwanted examples of resonance in design of machines, buildings and suspension bridges	GC	Teacher shares the link in GC https://www.youtube.com/watch?v=mXTSnZgrfxM Students turn in the short note at the end of the lesson.
June 3 rd Thursday	13 A	1	Learning Outcomes : Watch a video on Tacoma Narrows collapse Make a short note on how Both resonance from vortex shedding and aeroelastic flutter contributed to the failure. Extend the understanding to realize how resonance vibrations can be a problem in machines and buildings .		
June 2 nd Wednesday	13 B	3	Learning objectives: Wider Research on Resonance	Asynchronous	
June 3 rd Thursday	13 A	2	Learning Outcomes : Read and understand what is 1. Electrical resonance 2. Describe cooking food using Microwaves.		