

YEAR 11 (A- F) – PHYSICS (GCSE)

WEEK 12 (15th November to 19th November)

Work Sent to the students through Google classroom

Topic:– SP 13 a Electromagnetic induction

Resources: Text book, Worksheets, GCSE science free lesson video& power points.

Date	Lesson	Topic	Mode of Teaching	
15 th Nov Sunday (Girls)	3	<p>Learning Objective : To know that a current can create a magnetic effect and relate the shape and direction of the magnetic field around a long straight conductor to the direction of the current</p>	Zoom	An interactive session to clear student's doubts about magnets and electromagnets
16 th Nov. Monday (boys)	4	<p>Explain how inside a solenoid the fields from individual coils</p> <p>Learning outcome : Relate the shape and direction of the magnetic field around a straight wire to the direction of the current. Explain the shape and strength of the magnetic field around a solenoid..</p>		
16 th Nov Monday (Girls)	1	<p>Learning objectives Explain how to produce an electric current by the relative movement of a magnet and a conductor Recall the factors that affect the size and direction of an induced potential difference, and describe how the magnetic field produced opposes the original change.</p> <p>Learning outcomes Describe how to produce an electric current by induction on a small scale. Describe how different factors affect the size and direction of an induced current Describe how the magnetic field produced by an induced potential difference opposes the original change Compare the trace on an oscilloscope when we use a stronger magnet, more number of turns and increase the speed of movement of coil/ wire /magnet</p>	zoom	Teacher uses power point presentation that contains interactive questions and online simulation to discuss the production of electric current in small scale and factors affecting the induced voltage
17 th Nov Tuesday (Boys)	1			

16 nd Nov. Monday – (girls)	2	Learning Objective : Explain how electromagnetic induction is used in alternators to generate current which alternates in direction (a.c.) and in dynamos to generate direct current (d.c.)	Zoom	Teacher uses power point presentation that contains interactive questions and online simulation to discuss the production of electric current in large scale and working of microphone HW Research Bicycle dynamo
17 th Nov Tuesday – (boys)	2	Explain the action of the microphone in converting the pressure variations in sound waves into variations in current in electrical circuits Learning outcome Describe how electromagnetic induction is used in alternators and dynamos Explain how microphones work in terms of changing pressure variations into variations in electric current Compare the trace on an oscilloscope of an alternator and dynamo.		
18 th Nov Wednesday – (girls)	1	Learning Objective : Explain how electromagnetic induction is used in to generate current Recall the factors that affect the size and direction of an induced potential difference	GC	Instruction will be given in GC to complete the given worksheet
18 th Nov. Wednesday – (boys)	7	Learning outcome Describe how to produce an electric current by induction on a small scale and large scale Describe how different factors affect the size and direction of an induced current Compare the trace on an oscilloscope in different situations		
19 th Nov Thursday – (girls)	3	Learning Objective: REINFORCE electromagnetic induction and factors affecting the induced voltage	Zoom	Teacher uses power point presentation that contains interactive questions
19 th Nov Thursday – (boys)	7	Learning outcome : Children can answer the following progression questions confidently How can you produce an electric current using a magnet and conductor? What are the factors that affect the size and direction of an induced potential difference? How is induction used in generators and microphones?		

YEAR 11 G/H – PHYSICS (IGCSE)

WEEK 12 (15th November to 19th November)

Work sent to the students through Google classroom

Topic: Unit 7.22 Atoms and radioactivity

Lesson Objective: Describe the nature of alpha (α) particles, beta (β^-) particles, and gamma (γ) rays
Explain the term radioactive decay.

Resources: Text book, Worksheet file, interactive power point and online simulations.

Date	Lesson	Learning objective and Success Criteria	Mode of teaching	
16 th Nov Monday (boys & girls)	8	LO- To solve the worksheet file questions Learning outcome- <ul style="list-style-type: none"> able to apply the concepts of working of transformer and national grid 	GC	Teacher gives the instructions to solve the worksheet file questions in GC.
17 th Nov Tuesday (boys & girls)	7	LO- To discuss the text book and worksheet file questions. Learning Outcome- <ul style="list-style-type: none"> able to reinforce the concepts of working of transformer and national grid. 	Zoom	Teacher uses power point presentation to discuss the text book questions and worksheet file questions.
17 th Nov Tuesday (boys & girls)	8	LO- To describe the structure of an atom Learning outcome- <ul style="list-style-type: none"> able to describe the structure of an atom in terms of protons, neutrons and electrons and use symbols such as $^{14}_6\text{C}$ to describe particular nuclei. able to know the terms atomic number, mass number and isotope 	Zoom	Teacher uses power point presentation to describe the structure of an atom. H.W- work sheet file page no.80
18 th Nov Wednesday (boys & girls)	8	LO- To describe the nature of alpha (α) particles, beta (β^-) particles, and gamma (γ) rays Learning outcome - <ul style="list-style-type: none"> able to know that alpha (α) particles, beta (β^-) particles, and gamma (γ) rays are ionizing radiations emitted from unstable nuclei in a random process. 	Zoom	Teacher uses power point presentation to describe the nature of alpha (α) particles, beta (β^-) particles, and gamma (γ) rays

		<ul style="list-style-type: none"> • able to describe the nature of alpha (α) particles, beta (β^-) particles, and gamma (γ) rays. • able to describe the experiment for investigating the penetration powers of different types of radiation using radioactive sources. 		
19 th Nov Thursday (boys & girls)	2	<p>LO- To explain the term radioactive decay.</p> <p>Learning outcome</p> <ul style="list-style-type: none"> • able to describe the effects on the atomic and mass numbers of a nucleus of the emission of each of the four type of radiation. • able to understand how to balance nuclear equations in terms of mass and charge. 	Zoom	<p>Teacher uses power point presentation to explain the term radioactive decay.</p> <p>H.W- work sheet file page no.81 &82</p>

17/11/2020(Tuesday) H.W- work sheet file page no.80

19/11/2020 (Thursday) H.W- work sheet file page no.81 &82

