

YEAR 11 A- F – PHYSICS(GCSE)

WEEK 13 (22nd November to 26th November)

Work Sent to the students through Google classroom

Topic:– SP 13b and c , Sp 12c

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

Date	Lesson	Topic	Mode of Teaching	
22 th Nov Sunday (Girls)	3	Learning Objective : Explain how an alternating current in one circuit can induce a current in another circuit in a transformer Use the turns ratio equation for transformers to calculate either the missing voltage or the missing number of turns	Zoom	Teacher uses power point presentation that contains interactive questions and online simulation to discuss the working and uses of transformers
23 rd Nov. Monday (boys)	4	Learning outcome : Explain how a transformer works Recall that transformers can change the voltage of an alternating current Use the turns ratio equation for transformers.		
23 rd Nov Monday (Girls)	1	Learning objectives Use the power equation (for transformers with 100% efficiency):. $V_p \times I_p = V_s \times I_s$ Explain where and why step-up and step-down transformers are used in the transition of electricity in the national grid	zoom	Teacher uses power point presentation that contains interactive questions to discuss where and why step-up and step-down transformers are used in the transition of electricity in the national grid
24 th Nov Tuesday (Boys)	1	Learning outcomes Recall the law of conservation of energy. Use the power equation for transformers Describe how the national grid transmits electricity around the country Explain why step-up and step-down transformers are used in the national grid Use equations to explain the advantages of power transmission in high voltage cables		

23 rd Nov. Monday – (girls)	2	<p>Learning Objective :</p> <p>Use the turns ratio equation for transformers to calculate either the missing voltage or the missing number of turns</p> <p>Use the power equation (for transformers with 100% efficiency):. $V_p \times I_p = V_s \times I_s$</p>		Instruction will be given in GC to complete the given worksheet
24 th Nov Tuesday – (boys)	2	<p>Explain where and why step-up and step-down transformers are used in the transition of electricity in the national grid</p> <p>Learning outcome</p> <p>Use the turns ratio equation for transformers</p> <p>Use the power equation for transformers</p> <p>Use equations to explain the advantages of power transmission in high voltage cables</p>	GC	Instruction will be given in GC to complete the given worksheet
25 th Nov Wednesday – (girls)	1	<p>Learning Objective :</p> <p>Recall that a current carrying conductor placed near a magnet experiences a force and that an equal and opposite force acts on the magnet</p> <p>Explain that magnetic forces are due to interactions between magnetic fields</p>	zoom	Teacher uses power point presentation that contains interactive questions and online simulation to discuss motor effect
25 th Nov. Wednesday – (boys)	7	<p>Recall and use Fleming’s left-hand rule to represent the relative directions of the force, the current and the magnetic field for cases where they are mutually perpendicular</p> <p>Learning outcome</p> <p>Recall that forces are produced when a current flows in a magnetic field.</p> <p>Explain what causes the forces produced when a current flows in a magnetic field.</p> <p>Describe the factors affecting the force experienced by current carrying wire</p> <p>Use Fleming's left hand rule.</p>		
26 th Nov Thursday – (girls)	3 7	<p>Learning Objective:</p> <p>Use the equation: force on a conductor at right angles to a magnetic field carrying a current (newton, N) = magnetic flux density (newton per amp metre, N/A m) × current (ampere, A) × length (metre, m) $F = B \times I \times l$</p>	Zoom	Teacher uses power point presentation

26 th Nov Thursday – (boys)	<p>Use Fleming's left hand rule to describe the working of a dc motor</p> <p>Explain how loudspeakers change variations in current to variations in air pressure</p> <p>Learning outcome : Use the formula relating force, magnetic field strength, current and length. Describe how an electric motor works? Describe the use of split ring commutator in a dc motor Compare and contrast loudspeaker and microphone</p>	that contains interactive questions and online simulation to discuss working of dc motor and loudspeaker
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YEAR 11 G/H – PHYSICS (IGCSE)

WEEK 13 (22nd November to 26th November)

Work sent to the students through Google classroom

Topic: Unit 7.22 Atoms and radioactivity

Unit 7.23 Radiation and half-life

Lesson Objective: Explain the term radioactive decay.

Explain the terms background radiation and half life

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

Date	Lesson	Learning objective and Success Criteria	Mode of teaching	
23 rd Nov Monday (boys & girls)	8	<p>LO- To describe the effects on the atomic and mass numbers of a nucleus of the emission of each of the four type of radiation.</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	Teacher uses ppt to describe the effects on the atomic and mass numbers of a nucleus of the emission of each of the four type of radiation and balance nuclear equations in terms of mass and charge.
24 th Nov Tuesday (boys & girls)	7	<p>LO- To solve the worksheet file questions.</p> <p>Learning Outcome-</p> <ul style="list-style-type: none"> • able to reinforce the concepts of types of radiation and radioactive decay by solving the questions. 	GC	Teacher gives the instruction to solve the worksheet file questions.

24 th Nov Tuesday (boys & girls)	8	<p>LO- To discuss the text book and worksheet file questions.</p> <p>Learning Outcome-</p> <ul style="list-style-type: none"> able to reinforce the concepts of atomic structure, types of radiation and radioactive decay. 	Zoom	Teacher uses power point presentation to discuss the text book questions and worksheet file questions.
25 th Nov Wednesday (boys & girls)	8	<p>LO- To explain the sources of background (ionising) radiation from Earth and space.</p> <p>Learning outcome –</p> <ul style="list-style-type: none"> able to define the term background radiation. able to know that photographic film or a Geiger–Müller detector can detect ionising radiations. able to explain the sources of background (ionising) radiation from Earth and space. 	Zoom	<p>Teacher uses power point presentation to explain the sources of background (ionising) radiation from Earth and space.</p> <p>H.W- Text book page no.239 and 240</p> <p>Question no.1(a, b, c) and 2(a, b, c)</p>
26 th Nov Thursday (boys & girls)	2	<p>LO- To explain the term half life.</p> <p>Learning outcome</p> <ul style="list-style-type: none"> able to define the term half life. able to Know that the activity of a radioactive source decreases over a period of time and is measured in becquerels. able to use the concept of the half-life to carry out simple calculations on activity, including graphical methods. 	Zoom	<p>Teacher uses power point presentation to explain the term half life.</p> <p>H.W- work sheet file page no.83 &84 question no.1(a, b),2(b) and 3(a, b, c and d)</p>

- 25/11/2020 (Wednesday) H.W- Text book page no. 239 and 240
- Question no.1(a, b, c) and 2(a, b, c)
- 26/11/2020 (Thursday) H.W- work sheet file page no. 83 & 84
-Question no.1(a, b),2(b) and 3(a, b, c and d)

