

YEAR 11 A- F – PHYSICS (GCSE)

WEEK 9 (25th October to 28th October)

Work Sent to the students through Google classroom

Topic:– SP 10. Electricity and Circuit

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

Date	Lesson	Topic	Mode of Teaching	
<p>26th Oct Mon (Boys)</p> <p>25th Oct. Sunday (Girls)</p>	<p>4</p> <p>3</p>	<p>Learning Objective :</p> <p>Explain the energy transfer as the result of collisions between electrons and the ions in the lattice.</p> <p>Describe the advantages and disadvantages of the heating effect of an electric current.</p> <p>Use the equation: $E = VIt$</p> <p>Learning outcome</p> <p>Describe the energy transfer that occurs when a current passes through a resistor.</p> <p>Use the electron and ion model and the idea of electrical work to explain the energy transfer in a resistor and the resulting dissipation of energy in the surroundings.</p> <p>Explain how unwanted energy transfers in wires can be avoided</p> <p>Recall the advantages and disadvantages of the heating effect of an electric current.</p> <p>Use the equation $E = I \times V \times t$ to calculate the energy transferred, the current, the potential difference or the time.</p>	Zoom	<p>Teacher uses power point presentation that contains interactive questions.</p>
<p>27th Oct. Tuesday – (boys)</p>	<p>1</p>	<p>Learning Objective:</p> <p>Describe power as the energy transferred per</p>	zoom	<p>Teacher uses power point presentation that</p>

<p>26th Oct. Monday – (girls)</p>	<p>1</p>	<p>second and recall that it is measured in watts. Recall and use the equation: $P = E/t$, $P = I \times V$ and $P = I^2 \times R$</p> <p>Learning outcome :</p> <p>Define power and the units used to measure it.</p> <p>Recall and use the equation to calculate the power, the energy transferred or the time taken. ($P = E/t$)</p> <p>Explain how power transfer depends on the potential difference across a device and the current through it.</p> <p>Recall and use the equation $P = I \times V$ and $P = I^2 \times R$</p> <p>.</p>		<p>contains interactive questions</p>
<p>27th Oct. Tuesday – (boys)</p> <p>26th Oct. Monday – (girls)</p>	<p>2</p> <p>2</p>	<p>Learning Objective :</p> <p>Describe how, in different domestic devices, energy is transferred from batteries and the a.c. mains to the energy of motors and heating devices.</p> <p>Explain the difference between direct and alternating voltage.</p> <p>Describe, with examples, the relationship between the power ratings for domestic electrical appliances and the changes in stored energy when they are in use.</p> <p>Learning outcome</p> <p>Describe energy transfers from d.c. batteries and the a.c. mains supply to motors and heaters. Compare alternating and direct current (in terms of movement of charge) Describe the power ratings of some domestic electrical appliances and changes in stored energy when they are in use.</p>	<p>Zoom</p>	<p>Teacher uses power point presentation that contains interactive questions</p> <p>Complete the text book questions</p>

28 th Oct. Wednesday – (boys)	7	Learning Objective : Reinforce energy transfer, heating effect, power and problems based on energy and power.	Zoom	Instruction will be given to complete the worksheet Worksheet
28 th Oct. Wednesday – (girls)	1	Learning outcome Explain energy transfer and heating effect. Recall the formula and calculate energy and power in different situations		

YEAR 11 G/H (IGCSE) – PHYSICS

WEEK 9 (25th October to 28th October)

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Topic: Unit 6.20 Magnetism and electromagnetism

Lesson Objective: Explain the terms magnetism and electromagnetism

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

Date	Lesson	Learning objective and Success Criteria	Mode of teaching	
26 th Oct Monday (boys & girls)	8	LO – Explain the term magnetism Learning outcome- <ul style="list-style-type: none"> • able to describe the properties of magnetically hard and soft materials. • able to explain the term induced magnetism. • able to investigate the magnetic field pattern for a permanent bar magnet and between two bar magnets 	Zoom	Teacher uses the power point presentation to explain the term magnetism.

<p>27th Oct Tuesday (boys & girls)</p>	<p>7</p>	<p>LO- Describe the term magnetic field line.</p> <p>Learning outcome -</p> <ul style="list-style-type: none"> • able to describe the term overlapping magnetic field lines. • able to describe how to create a uniform magnetic field 	<p>Zoom</p>	<p>Teacher uses power point presentation to explain the term overlapping magnetic fields.</p>
<p>27th Oct Tuesday (boys & girls)</p>	<p>8</p>	<p>LO- Revise the concepts electrical resistance and mains electricity.</p> <p>Learning outcome-</p> <ul style="list-style-type: none"> • able to reinforce the concepts electrical resistance and mains electricity. 	<p>Zoom</p>	<p>Teacher uses power point presentation to reinforce the concepts by discussing the questions.</p>
<p>28th Oct Wednesday (boys & girls)</p>	<p>8</p>	<p>LO- Describe the term electro magnetism</p> <p>Learning outcome-</p> <ul style="list-style-type: none"> • able to define the term electro magnetism. • able to realize the magnetic field around solenoid. • able to describe the methods to increase the strength of the magnetic field. 	<p>Zoom</p>	<p>Teacher uses power point presentation to describe the term electromagnetism.</p>