

YEAR 11 (A- F) – PHYSICS

WEEK 5 (27th Sept to 1st 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	
28 st Sept Mon (Boys)	4	<p>Learning Objective : Draw and use electric circuit diagrams representing them with the conventions of positive and negative terminals</p> <p>Learning outcome : Describe the basic structure of an atom</p>	Zoom	<p>Teacher uses power point presentation that contains interactive questions.</p> <p>HW</p>
27 th Sept Sunday (Girls)	3	<p>Explain why metals are good conductors of electricity and plastic, wood.. are poor conductors</p> <p>Recognise the circuit symbols for a range of common electrical components</p> <p>Draw diagrams for circuits containing common electrical components, using conventions for positive and negative terminals.</p>		
29 th Sept Tuesday – (boys)	1	<p>Learning Objective: Explain that an electric current is the rate of flow of charge and the current in metals is a flow of electrons.</p> <p>Recall and use the equation: $Q = I \times t$</p>	zoom	<p>Teacher uses power point presentation that contains interactive questions</p>

28 th Sept Monday – (girls)	1	<p>Learning outcome :</p> <ul style="list-style-type: none"> • Explain the link between electric current and electric charge • Recall how to measure current using Ammeter • Understand that the total amount of current stays the same on its journey around the circuit. • Apply the equation to calculate the charge that flows, the current or the time the current flows. ($Q = I \times t$) 		
29 th Sept Tuesday – (boys) 28 th Sept Monday – (girls)	2 2	<p>Learning Objective :</p> <p>Explain that potential difference (voltage) is the energy transferred per unit charge passed and hence that the volt is a joule per coulomb.</p> <p>Recall and use the equation:</p> $E = Q \times V$ <p>Learning outcome</p> <ul style="list-style-type: none"> • Define the term 'potential difference' • Recall that a voltmeter is connected in parallel with a component to measure the potential difference • Explain the link between voltage across a battery or a component, the charge passing through it and the amount of energy transferred. • Define the unit of potential difference-volt • Apply the equation to calculate the energy transferred the charge that flows or the potential difference. ($E = Q \times V$) 	Zoom	<p>Teacher uses power point presentation that contains interactive questions</p> <p>Complete the text book questions</p> <p>HW- worksheet SP 10.5</p>

30 th Sept Wednes day – (boys)	7	<p>Learning Objective :</p> <p>Describe the differences between series and parallel circuits.</p> <p>Recall that current is conserved at a junction in a circuit.</p> <p>Learning outcome</p> <ul style="list-style-type: none"> • Describe and explain the difference between the brightness of identical lamps in series and parallel circuits • Describe the behaviour of current at a junction • Be able to determine the current in a series or parallel circuit. • Be able to determine the voltage across bulbs in a series or parallel circuit. 	Zoom	Teacher uses power point presentation that contains interactive questions
30 th Sept Wednes day– (girls)	1			
1 st Oct. Thursda y– (boys)	7	<p>Learning Objective :</p> <p>Complete worksheet file questions and describe the differences between series and parallel circuits.</p> <p>Learning outcome :</p> <ul style="list-style-type: none"> • Be able to determine the current in a series or parallel circuit. • Be able to determine the voltage across bulbs in a series or parallel circuit 	GC	<p>Instruction will be given in the Google class room to complete the worksheet</p> <p>SP 10b.5 (revised)</p>
24 th Sept. Thursda y– (girls)	3			

Home work: GL practice (worksheet)

YEAR 11 G/H (IGCSE) – PHYSICS

WEEK 5 (27th Sept to 1st October)

Work sent to the students through Google classroom

Topic: Unit 2.8 Electrical resistance

Lesson Objective: Explain the term resistance

Describe I-V graph of resistor, filament lamp and diode

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

Date	Lesson	Learning objective and Success Criteria	Mode of teaching	
28 th Sept Monday (boys & girls)	8	LO- Explain the term resistance Learning outcome - <ul style="list-style-type: none"> • Define the term resistance • Identify different types of resistance • Describe how to find total resistance when two resistors are connected in series/ parallel. 	Zoom	Teacher uses power point presentation to explain the term resistance
29 th Sept Tuesday (boys & girls)	7	LO- State and Explain ohm's law Learning outcome - <ul style="list-style-type: none"> • State and Explain ohm's law • Use and apply the equation of ohm's law 	Zoom	Teacher will use the power point presentation that contains the explanation of ohm's law.
29 th Sept Tuesday (boys & girls)	8	LO- Solve questions by applying the concept of resistance Learning outcome- <ul style="list-style-type: none"> • Recollect the knowledge about the concepts current, voltage and resistance in electrical circuits • Use and apply that concepts by solving questions. 	GC	Instructions will be given to solve the exam style questions.

30 th Sept Wednesday (boys & girls)	8	<p>LO- Investigate how current varies with voltage in a resistor</p> <p>Learning outcome-</p> <ul style="list-style-type: none"> • Plan an experiment to investigate how current varies with voltage in a resistor. • Plot the graph by using the collected data • Analyse I-V graph for a resistor. 	Zoom	<p>Teacher uses power point presentation and on line simulation to discuss how current varies with voltage in a resistor.</p> <p>H.W- worksheet file page no.22 and 23</p>
1 st Oct Thursday (boys & girls)	2	<p>LO- Investigate how current varies with voltage for a filament lamp and diode.</p> <p>Learning outcome-</p> <ul style="list-style-type: none"> • Plan an experiment to investigate how current varies with voltage for a filament lamp and diode. • Plot the graph by using the collected data • Analyse I-V graph for a filament lamp and diode 	Zoom	<p>Teacher uses power point presentation to discuss how current varies with voltage in a resistor.</p> <p>H.W- Text book page no.83</p> <p>Chapter questions</p> <p>Q1(a-d) and 2(a-c)</p>

H.W- worksheet file page no.22 and 23 - Wednesday

Text book page no.83, Chapter questions, Q1(a-d) and 2(a-c)- Thursday

