# YEAR 11 (A- F) – PHYSICS(GCSE)

**WEEK 10 (1st November to 5th November )**
**Work Sent to the students through Google classroom**
**Topic:– SP 10.i Electrical safety**

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

| Date | Lesson | Topic | Mode of Teaching | |
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| 1st Nov Sunday **(Girls)**<br><br>3rd Nov. Tuesday – **(boys)** | 3<br><br>1 | **Learning Objective :**<br>Explain the difference in function between the live and the neutral mains input wires.<br>Explain why switches and fuses should be connected in the live wire of a domestic circuit.<br>**Learning outcome :**<br>Identify few electrical hazards and the ways of reducing the risk of harm from those hazards.<br>Demonstrate a three pin plug and explain the difference between the functions of the live and the neutral wires.<br>Recall the potential differences between the live, neutral and earth mains wires.<br>Describe what is short circuit and how can we avoid it.<br>Explain how a fuse cuts off an electrical circuit.<br>Be able to choose the correct rating of fuse for a device . | **Zoom** | Teacher uses power point presentation that contains interactive questions and online simulation to discuss how electrical hazards can be avoided |
| 2nd Nov Mon **(Boys)**<br><br>2nd Nov Monday – **(girls)** | 4<br><br>1 | **Assessment**<br>Topics : SP 10 d - Resistance<br>SP 10 e- More about resistance<br>SP 10 f- Transferring Energy<br>SP 10 g- Power<br>**Learning outcome:** assessing students knowledge in the given topics | **zoom** | Assessment will be given in google form |

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| 3rd Nov Tuesday – **(boys)**<br><br>2nd Nov. Monday – **(girls)** | 2<br><br>2 | **Learning Objective :**<br>Explain the dangers of providing any connection between the live wire and earth<br>Explain the function of an earth wire and of fuses or circuit breakers in ensuring safety. .<br>**Learning outcome**<br>Explain the danger of a connection between the live wire and earth.<br>Explain how the earth wire and the fuse make circuits safer.<br>Explain how circuit breakers make circuits safer<br>Compare and contrast a fuse and a circuit breaker<br>Recall few appliances that only need Live and Neutral wires, and explain why they do not need an Earth wire.<br>Recall the symbol of double insulation | **Zoom** | Teacher uses power point presentation that contains interactive questions |
| 4th Nov. Wednesday – **(boys)**<br><br>4th Nov Wednesday– **(girls)** | 7<br><br>1 | **Learning Objective :**<br>Define an electric field as the region where an electric charge experiences a force.<br>Describe the shape and direction of the electric field around a point charge and between parallel plates and relate the strength of the field to the concentration of lines.<br>**Learning outcome**<br>Recall what an electric field is.<br>Recall how the direction of an electric field is defined.<br>Interpret information shown by field lines.<br>Describe the shape and direction of the electric field around a point charge and between charged electrical plates. | **Zoom** | Teacher uses power point presentation that contains interactive questions |

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| 5th Nov Thursday – **(boys)**<br><br>5th Nov Thursday – **(girls)** | 7<br><br>3 | **Learning Objective:** Reinforce their understanding of electrical circuit, resistance in various components, electrical energy and electrical safety.<br>**Learning outcome :** Solve exam style questions on electricity and circuits and clear their doubts by discussion on this topic | **zoom** | Instruction will be given in zoom to complete the given worksheet |

# YEAR 11 G/H– PHYSICS (IGCSE)

**WEEK 10 (1st November to 5th November)**

**Work sent to the students through Google classroom**

**Topic: Unit 6.21 Electric motors and electromagnetic induction**

**Lesson Objective: Explain the working of moving coil loud speaker and electric motor**

**Explain the term electromagnetic induction**

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

| Date | Lesson | Learning objective and Success Criteria | Mode of teaching | |
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| 2nd Nov Monday (boys &girls) | 8 | **Assessment -3**<br>Topics<br>Unit 2.6 - Mains electricity (Page no.59-66)<br>Unit 2.8-Electrical resistance (Page no.75-83) | GC | Teacher gives the test paper in Google forms. |

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| 3rd Nov Tuesday (boys & girls) | 7 | **LO-** To explain why a force is exerted on a current-carrying wire in a magnetic field.<br>**Learning outcome -**<br>• able to why a force is exerted on a current-carrying wire in a magnetic field<br>• able to use the left-hand rule to predict the direction of the resulting force when a wire carries a current perpendicular to a magnetic field. | Zoom | Teacher uses power point presentation to explain why a force is exerted on a current-carrying wire in a magnetic field. |
| 3rd Nov Tuesday<br>(boys & girls) | 8 | **LO-** To explain the working of moving coil loud speaker and the electric motor<br>**Learning outcome-**<br>• able to explain the working of moving coil loud speaker.<br>• able to explain the working of electric motor. | Zoom | Teacher uses power point presentation to explain the working of moving coil loud speaker and the electric motor. |
| 4th Nov Wednesday (boys & girls) | 8 | **LO-** To discuss the text book and worksheet file questions<br>**Learning outcome-**<br>• able to reinforce the concepts electromagnetism by solving the questions. | Zoom | Teacher uses power point presentation to discuss the questions. |
| 5th Nov Thursday (boys & girls) | 2 | **LO-** To explain the term electromagnetic induction.<br>**Learning outcome-**<br>• able to know that a voltage is induced in a conductor or a coil when it moves through a magnetic field or when a magnetic field changes through it and describe the factors that affect the size of | | Teacher uses power point presentation to explain the term electromagnetic induction. |

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| | | the induced voltage<br>• able to describe the generation of electricity by the rotation of a magnet within a coil of wire and of a coil of wire within a magnetic field, and describe the factors that affect the size of the induced voltage | Zoom | |