GES IGCSE 2 Physics: Half Termly 2 Topic Sheet for January – March 2020

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| TOPIC: Electricity |

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| Theme: To explore Electricity, develop calculation and practical skills. | Level: IG2 (10T& Y11) |
| Objectives: To develop an understanding of the scientific concepts in Physics –Electricity | |

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| Units Overview | Key Areas/Words | |
| 1. What is electricity? 2. Define current, voltage and resistance 3. Explain what Ohms Laws is and how it is experimentally verified 4. Plot a graph displaying the voltage and current for an Ohmic resistor 5. Define electrical power and use the equations 6. Perform calculations to determine the electrical energy used by components 7. How can the current and voltage be determined in series and parallel circuits? 8. Calculate the total resistance for series and parallel circuits 9. Calculate the voltage for each component 10. Calculate the current through different components in a circuit. 11. What factors affect the resistance of a wire? 12. Explain how the length and cross sectional area affects the resistance of a wire 13. Perform calculations to determine the resistance of a wire 14. What are fuses? 15. Explain the purpose of a fuse 16. Explain how a fuse works | Electricity  Charge  Electrons  Current  Resistivity  Area  Time  Resistance  Series  Parallel  Static  Insulator  Ohms law  Proportional  Component  Proportional  Factor  Length  Fuses  Safety  Energy  Power  Heat  Relationship | The electrons flow from …  Flow is affected by …  The resistance is …  The resistance of a wire is affected by …  Fuses are used to …  Uses of electricity are … |

Resources: departmental textbooks and worksheets, exam board resources and practical equipment, chromebooks