Edexcel International GCSE Physics 4PH1 Learning Plan

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| **Unit: 2 Electricity** | | **Chapter: 6. Mains Electricity** | | **Hours: 4** |
| Content coverage | Learning outcomes | Resources | Assessment | |
| **Section 2: Electricity**  **a)** Units  **b)** Mains electricity | **2.1** use the following units: ampere (A), coulomb (C), joule (J), ohm (Ω), second (s), volt (V), watt (W).  **2.2** understand how the use of insulation, double insulation, earthing, fuses and circuit breakers in a range of domestic appliances  **2.3** understand why a current in a resistor results in the electrical transfer of energy and an increase in temperature, and how this can be used in a variety of domestic contexts  **2.4** knowand use the relationship:  power = current × voltage  *P* = *I* × *V*  and apply the relationship to the selection of appropriate fuses  **2.5** use the relationship between energy transferred, current, voltage and time:  energy transferred = current × voltage × time  *E* = *I* × *V* × *t*  **2.6** know the difference between mains electricity being alternating current (a.c.) and direct current (d.c.) being supplied by a cell or battery. | Video and Powerpoint:  5.7 Dangers of Electricity  Textbook pages:  Page 59 – Mains Electricity  Page 61 – Safety devices  Page 63 – The heating effect of current  Page 63 – Electrical power  Page 64 – Calculating the total energy transferred by an appliance  Page 65 – Alternating current and direct current | Page 66  Questions (1) to (4)  Chapter 6 Textbook Answers (PDF)  Chapter 6 - exam question - pdf  Chapter 6 - exam question mark scheme – pdf  Chapter 6 - Talking paper video | |

Videos – [www.igcsesciencecourses.com](http://www.igcsesciencecourses.com)

Textbook Ref: Edexcel International GCSE (9-1) Physics Student Book - Pearson (Arnold, Johnson, Woolley))