Edexcel International GCSE Physics 4PH1 Learning Plan

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| **Unit: 2 Electricity** | | **Chapter: 7. Current and Voltage in Circuits** | | **Hours: 6** |
| Content coverage | Learning outcomes | Resources | Assessment | |
| **Section 2: Electricity**  **c)** Energy and voltage in circuits | **2.7** explain why a series or parallel circuit is more appropriate for particular applications, including domestic lighting  **2.13** knowand use the relationship between voltage, current and resistance:  voltage = current × resistance  *V* = *I* × *R*  **2.14** know that current is the rate of flow of charge  **2.15** know and use the relationship between charge, current and time:  charge = current × time  *Q* = *I* × *t*  **2.12** know that lamps and LEDs can be used to indicate the presence of a current in a circuit.  **2.18** know that the voltage across two components connected in parallel is the same  **2.21** know and use the relationship between energy transferred, charge and voltage: Energy transferred = charge x voltage. *E = Q x V.*  **2.20** understand that:   * voltage is the energy transferred per unit charge passed * the volt is a joule per coulomb   **2.17** understand why current is conserved at a junction in a circuit | Video and Powerpoint:  5.2 Electrical Quantities (1)  5.3 Electrical Quantities (1) – supplement  5.4 Electrical Quantities (2)  5.5 Electric Circuits  Textbook pages:  Page 68 – Conductors, insulators and electric current  Page 68 – Measuring current  Page 69 – Voltage  Page 71 – Measuring voltages  Page 71 – Electrical circuits  Page 72 – Series and parallel circuits  Page 73 – Current in a series circuit  Page 73 – Current in a parallel circuit | Page 73 – 74  Questions (1) to (6)  Chapter 7 Textbook Answers (PDF)  Chapter 7 - exam question - pdf  Chapter 7 - exam question mark scheme – pdf  Chapter 7 - 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))