Edexcel iGCSE Physics 4PH0 Learning Plan

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| **Section B9: Current and Voltage in Circuits** |
| Specification | Resources | Assessment |
| 2.8 explain why a series or parallel circuit is more appropriate for particular applications, including domestic lighting 2.9 understand that the current in a series circuit depends on the applied voltage and the number and nature of other components 2.10 describe how current varies with voltage in wires, resistors, metal filament lamps and diodes, and how this can be investigated experimentally2.13 know that lamps and LEDs can be used to indicate the presence of a current in a circuit 2.14 know and use the relationship between voltage, current and resistance: voltage = current × resistance V = I × R 2.15 understand that current is the rate of flow of charge 2.16 know and use the relationship between charge, current and time: charge = current × time Q = I × t 2.17 know that electric current in solid metallic conductors is a flow of negatively charged electrons 2.18 understand that:  voltage is the energy transferred per unit charge passed  the volt is a joule per coulomb. | Video: Section 5 – Lesson 2 - Electrical Quantities 1 – 5:11 to end. Section 5 – Lesson 4 – Electrical Quantities 2 - Beginning to 06:34 Section 5 – Lesson 5 – Electric CircuitsPowerpoint: Physics 26 – Electrical Quantities 1 – Slides 15 to end.Physics 28 – Electrical Quantities 2 – Slides 3 to 15.Physics 29 – Electric CircuitsTextbook: Section B9 – Current and voltage in circuitsP74 – Conductors, insulators and electric current.Page 75 – Measuring currentPage 75 – VoltagePage 76 – Measuring voltagesPage 76 – Electrical circuitsPage 77 – Series and parallel circuitsPage 79 – Current in a series circuitPage 80 – Chapter checklistDVD Revision check list | Textbook – page 80 – 81 End of Chapter B9 QuestionsSection B9 - Textbook Answers (PDF)Section B9 Exam Question – pdfSection B9 Question Mark Scheme - pdfDVD Multiple choice testTalking Paper – Section B9 – Current and Voltage in circuits |

Videos – www.igcsesciencecourses.com

Textbook Ref: Edexcel International GCSE Physics Student Book - Pearson

DVD Video Clips – see resource DVD in textbook.