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) – supplement5.4 Electrical Quantities (2)5.5 Electric CircuitsTextbook pages:Page 68 – Conductors, insulators and electric currentPage 68 – Measuring currentPage 69 – VoltagePage 71 – Measuring voltagesPage 71 – Electrical circuitsPage 72 – Series and parallel circuitsPage 73 – Current in a series circuitPage 73 – Current in a parallel circuit | Page 73 – 74Questions (1) to (6)Chapter 7 Textbook Answers (PDF)Chapter 7 - exam question - pdfChapter 7 - exam question mark scheme – pdfChapter 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))