CiE iGCSE Physics 0625 Learning Plan

|  |
| --- |
| **Section 28: Electrical quantities 2** |
| Specification | Resources | Assessment |
| **Core**• State that the e.m.f. of an electrical source of energy is measured in volts* State that the potential difference (p.d.) across a circuit component is measured in volts
* Use and describe the use of a voltmeter, both analogue and digital
* State that resistance = p.d. / current and understand qualitatively how changes in p.d. or resistance affect current
* • Recall and use the equation R = V / I
* • Describe an experiment to determine resistance using a voltmeter and an ammeter
* Relate (without calculation) the resistance of a wire to its length and to its diameter
* Understand that electric circuits transfer energy from the battery or power source to the circuit components then into the surroundings

**Supplement*** Show understanding that e.m.f. is defined in terms of energy supplied by a source in driving charge round a complete circuit
* Recall that 1 V is equivalent to 1 J / C
* Sketch and explain the current-voltage characteristic of an ohmic resistor and a filament lamp
* • Recall and use quantitatively the proportionality between resistance and length, and the inverse proportionality between resistance and cross-sectional area of a wire
* Recall and use the equations P = IV and E = IVt
 | Video: Section 5 – Lesson 4 – Electrical quantities (Part 2)Powerpoint: Physics 28 – Electrical quantities 2. Textbook Pages 178-179 Potential DifferencePages 180-181 Resistance (1)Pages 182-183 Resistance (2)Pages 184-185 More about resistance factorsSection 28 checklist.doc | TextbookPage 179; Questions (1) to (2)Page 181; Questions (1) to (3)Page 183; Question (1) to (4)Page 185; Questions (1) to (2)Textbook answers: Page 330Talking Paper video – Section 28 – Electrical quantities 2Section 28 Exam Question - pdf Section 28 Exam Question mark scheme - pdf  |

Videos – www.igcsesciencecourses.com

Textbook Ref: Complete Physics for Cambridge iGCSE (Stephen Pople) - OUP

DVD Assessments – see resource DVD in textbook.