CiE iGCSE Physics 0625 Learning Plan

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| **Section 33: Electromagnetic Effects 2** |
| Specification | Resources | Assessment |
| **Core**Describe the pattern of the magnetic field (including direction) due to currents in straight wires and in solenoids • Describe applications of the magnetic effect of current, including the action of a relayDescribe an experiment to show that a force acts on a current-carrying conductor in a magnetic field, including the effect of reversing: – the current – the direction of the fieldState that a current-carrying coil in a magnetic field experiences a turning effect and that the effect is increased by: – increasing the number of turns on the coil – increasing the current – increasing the strength of the magnetic field **Supplement**State the qualitative variation of the strength of the magnetic field over salient parts of the pattern • State that the direction of a magnetic field line at a point is the direction of the force on the N pole of a magnet at that point • Describe the effect on the magnetic field of changing the magnitude and direction of the currentState and use the relative directions of force, field and current • Describe an experiment to show the corresponding force on beams of charged particlesRelate this turning effect to the action of an electric motor including the action of a split-ring commutator  | Video: Physics Section 5 –Lesson 9 – Electromagnetic Effects 2Powerpoint: Physics 33 –Electromagnetic effects 2Textbook Pages 206-207; Magnetic effect of a currentPages 208-209; ElectromagnetsPages 210-211; Magnetic force on a currentPages 212-213; Electric motorsSection 33 checklist.doc | TextbookPage 207; Questions (1) to (2)Page 209; Questions (1) to (4)Page 211; Questions (1) to (3)Page 213; Questions (1) to (3)Textbook answers: Page 330Pages 226-228; Further Questions and Revision SummaryTalking Paper video – Section 33 – Electromagnetic Effects 2Section 33 Exam Question - pdf Section 33 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.