CiE iGCSE Physics 0625 Learning Plan

|  |  |  |
| --- | --- | --- |
| **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 relay  Describe 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 field  State 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 current  State and use the relative directions of force, field and current  • Describe an experiment to show the corresponding force on beams of charged particles  Relate 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 2  Powerpoint: Physics 33 –Electromagnetic effects 2  Textbook  Pages 206-207; Magnetic effect of a current  Pages 208-209; Electromagnets  Pages 210-211; Magnetic force on a current  Pages 212-213; Electric motors  Section 33 checklist.doc | Textbook  Page 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 330  Pages 226-228; Further Questions and Revision Summary  Talking Paper video – Section 33 – Electromagnetic Effects 2  Section 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.