

IGCSE Physics (9-1) Specification 6(c)

(c) Electromagnetism

Students should:

- 6.8** know that an electric current in a conductor produces a magnetic field around it
- 6.9P** describe the construction of electromagnets
- 6.10P** draw magnetic field patterns for a straight wire, a flat circular coil and a solenoid when each is carrying a current
- 6.11P** know that there is a force on a charged particle when it moves in a magnetic field as long as its motion is not parallel to the field
- 6.12** understand why a force is exerted on a current-carrying wire in a magnetic field, and how this effect is applied in simple d.c. electric motors and loudspeakers
- 6.13** use the left-hand rule to predict the direction of the resulting force when a wire carries a current perpendicular to a magnetic field
- 6.14** describe how the force on a current-carrying conductor in a magnetic field changes with the magnitude and direction of the field and current

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