












CP10 Magnetism and the Motor Effect






CP10a Magnets and magnetic fields

Step	Learning outcome	Had a look	Nearly there	Nailed it!
 3 rd	Describe how magnets affect each other.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
 4 th	Explain the difference between permanent and induced magnets.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
 4 th	Describe the uses of permanent and temporary magnetic materials.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
 4 th	Describe the shapes of magnetic fields, including variations in strength.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
 4 th	Describe how the shape of magnetic fields can be shown using plotting compasses.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
 5 th	Explain how a magnetic compass can be used as evidence for the Earth's magnetic core.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

CP10b Electromagnetism




Step	Learning outcome	Had a look	Nearly there	Nailed it!
 6 th	Recall that a current can create a magnetic effect.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
 7 th	Relate the shape and direction of the magnetic field around a straight wire to the direction of the current.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
 6 th	Recall the factors that affect the strength of the magnetic field around a wire.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
 7 th	Describe the magnetic field inside and outside a coil of wire carrying a current.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
 8 th	Explain the shape and strength of the magnetic field around a solenoid.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

CP10c Magnetic forces







Step	Learning outcome	Had a look	Nearly there	Nailed it!
 6 th	H Recall that forces are produced when a current flows in a magnetic field.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
 7 th	H Explain what causes the forces produced when a current flows in a magnetic field.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
 6 th	H Recall Fleming's left-hand rule.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
 7 th	H Use Fleming's left-hand rule.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
 8 th	H Use the formula relating force, magnetic field strength, current and length.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

CP11 Electromagnetic Induction (Paper 6)

CP11a Transformers

Step	Learning outcome	Had a look	Nearly there	Nailed it!
 5 th	Recall the law of conservation of energy.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
 5 th	Recall that the power of an electrical current is given by the current multiplied by the voltage.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
 8 th	Use the formula relating the input and output current and voltage for a transformer.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

CP11b Transformers and energy

Step	Learning outcome	Had a look	Nearly there	Nailed it!
 6 th	H Recall the factors that affect the size and direction of an induced potential difference.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
 7 th	H Describe how the magnetic field produced by an induced potential difference opposes the original change.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
 8 th	H Explain how a transformer works.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
 6 th	Recall that transformers can change the voltage of an alternating current.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
 6 th	Describe how the national grid transmits electricity around the country.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
 7 th	Explain why step-up and step-down transformers are used in the national grid.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>