7J Current Electricity	Knowledge, Skills and Understanding
Higher	Recall how electrical cells work Evaluate a physical model for electric circuits on how well it explains data or observations Use their knowledge of switches and parallel circuits to devise circuits for specified purposes Use a model to explain the idea of voltage Describe how voltage and energy are linked Explain why a voltmeter is connected in parallel. Apply their knowledge of voltage, current and electrical safety to novel situations
Intermediate	Describe the effects of breaking or removing bulbs in a circuit Use the idea of a complete circuit to test whether different materials conduct electricity Describe and explain how adding more bulbs affects the brightness of bulbs in a circuit Construct a circuit from instructions provided in the form of a circuit diagram Recall the link between current and bulb brightness Describe how changing the number or type of components in a circuit affects the current Describe what the current is like at different points in a series circuit Use a model to describe how an electrical circuit works Describe how changing the number or type of components in a circuit affects the current Recall the differences between how current behaves in series and parallel circuits and describe and predict what the current is like at different points in a series circuit and parallel circuit which components will be on or off with different combinations of switches closed Explain how switches can be used to control different parts of a parallel circuit Explain why the lights in a house are wired in parallel Analyse a given parallel circuit and say which components will be on or off with different combinations of switches closed Explain why the current increases when the voltage of the supply is increased Describe how voltage is divided between the components in a series circuit Describe how voltage varies in a parallel circuit Describe the relationship between resistance and current Describe how the resistance of a wire varies with its length and thickness Explain how a variable resistor works Explain why electricity is more convenient than other sources of energy, and classify some of its uses Explain some safety precautions to be followed when using electricity Explain how a fuse works Explain how a domestic ring main is a form of parallel circuit Identify errors in the wiring of a plug.
Foundation	Recall materials that are conductors and insulators State the meaning of: conductor, insulator, complete circuit, ammeter, current Describe why a cell is needed in a circuit Explain how switches work to turn a circuit on or off Identify common circuit components and their symbols Model circuits using simple circuit diagrams Measure current and state its unit Recall that current is not used up State what is meant by current Explain how switches and broken bulbs affect a circuit State what is meant by series circuit, parallel circuit State what is meant by: voltage, resistance State the units for voltage Describe how a voltmeter is used Recall how the current changes when the voltage of the supply changes Recall some dangers of electricity Recall some safety precautions to be followed when using electricity Identify electrical hazards in a scenario Describe the job that fuses do Recall how the different wires are connected in a plug