Physics Electricity triple

Content	RAG
Know all the standard circuit diagram symbols and draw and interpret diagrams	
Define electrical charge and calculate it by recalling and using the equation: charge flow = current x time (Q=It)	
Define current, potential difference and resistance.	
Recall and apply the equation: potential difference = current x resistance (V = IR)	
REQUIRED PRACTICAL: Describe how to investigate the factors affecting resistance of electrical circuits including length of a wire and resistors in series and parallel	
Recognise current-potential difference graphs for a resistor, filament lamp and diode.	
REQUIRED PRACTICAL: Describe how to investigate current-potential difference characteristic of a filament lamp, diode and resistor at constant temperature	
Describe what happens to current, potential difference and resistance in a series circuit	
Describe what happens to current, potential difference and resistance in a parallel circuit	
Draw series and parallel circuit diagrams	
Know that mains electricity supply has a frequency of 50Hz and is about 230V	
Explain the difference between direct and alternating potential difference	
Explain what each of the wires in a 3 core cable does.	
Relate power in a circuit to potential difference and current	
Recall and apply the equations: power = potential difference x current (P = VI) and power = current^2 x resistance (P = I^2 x R)	
Describe the energy transfers of different domestic appliances	
Recall and apply the equations: Energy transferred = Power x time (E = Pt) and Energy transferred = charge flow x potential difference (E = QV)	
Explain how the national grid transfers electrical power	

Content	RAG
PHYSICS ONLY: *Describe how static electricity is created and transferred*	
PHYSICS ONLY: *Draw the electric field pattern for an isolated charged sphere.*	
PHYSICS ONLY: *Explain the concept of an electric field*	