


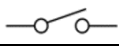





## P4 – Electricity Core Questions

	Question	Answer
1	What is a circuit?	A network of components connected by wires.
2	What is a component?	An electrical device with a function in a circuit.
3	What is a circuit symbol?	A simple picture to represent a component.
4	What is a cell and what is its circuit symbol?	A cell provides energy to the circuit. 
5	What energy is stored in a cell?	Chemical energy
6	How is energy transferred to the circuit?	Electrical working
7	What is a battery and what is its circuit symbol?	A group of two or more cells. 
8	What is a bulb and what is its circuit symbol?	A component that lights up when current flows through it. 
9	What is a switch and what is its circuit symbol?	A component that completes or breaks a circuit, controlling whether or not current flows. 
10	What is a resistor and what is its circuit symbol?	A component that reduces the current in a circuit. 
11	What is an ammeter and what is its circuit symbol?	A component that measures the current through a point in a circuit. 
12	What is a voltmeter and what is its circuit symbol?	A component that measures the potential difference across a component in a circuit. 
13	What is a series circuit?	A series circuit is a circuit made from only one loop
14	What is a parallel circuit?	A parallel circuit is a circuit made from multiple loops and junctions
15	How are voltmeters and ammeters connected in a circuit?	Voltmeters are connected in parallel, ammeters in series.
16	How does current behave in a series circuit?	Current is the same throughout the series circuit.
17	How does potential difference behave in a series circuit?	Potential difference changes at different points in the circuit.
18	How does current behave in a parallel circuit?	Current splits at junctions in a parallel circuit; it is different in different loops.
19	How does potential difference behave in a parallel circuit?	Potential difference is the same for each loop in a parallel circuit.
20	How does the potential difference across a bulb affect its brightness?	The higher the potential difference, the brighter the bulb.
21	What happens if two like charges are brought together?	They will repel.
22	What happens if two opposite charges are brought together?	They will attract.

23	What is the name of the force that causes charges to be attracted or repelled?	The electrostatic force
24	What is charge?	A property of a particle that is positive, negative or neutral.
25	What is the symbol for charge?	Q
26	What is the unit of charge?	Coulombs
27	What is the unit symbol for coulombs?	C
28	What is current?	How much charge passes a certain point each second.
29	What is the symbol for current?	I (the letter "i" in upper case)
30	What is the unit of current?	Amps
31	What is the unit symbol for amps?	A
32	What is an electrical conductor?	A material that allows current to flow through it.
33	Why do metals conduct electricity?	Because they have delocalised (free) electrons which can move.
34	Which formula relates charge, current and time?	$Q=It$
35	What is potential difference?	The amount of energy that each coulomb of charge carries.
36	What is the symbol for potential difference?	V
37	What is the unit of potential difference?	Volts
38	What is the unit symbol for volts?	V
39	Which formula relates energy, charge and potential difference?	$E=QV$
40	What is resistance?	A measure of how difficult it is for charge to flow through a circuit.
41	What is the symbol for resistance?	R
42	What is the unit of resistance?	Ohms
43	What is the unit symbol for ohms?	$\Omega$
44	What is Ohm's Law?	$V=IR.$