







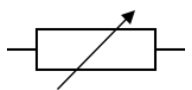
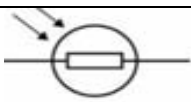



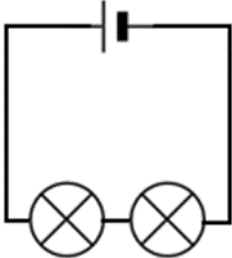
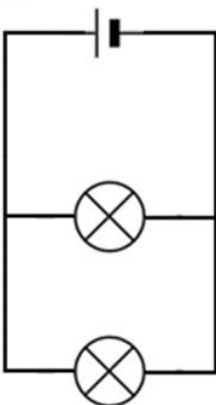
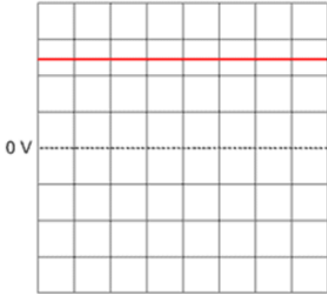
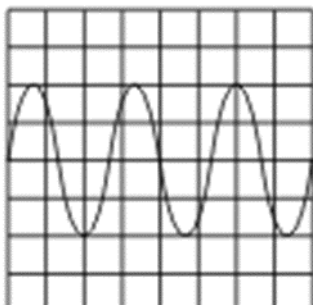


Year 9 Electricity: Fact sheet

NOTE: YOU CAN CONSIDER POTENTIAL DIFFERENCE = VOLTAGE

Electrical symbols		
1.		Switch (open)
2.		Cell
3.		Battery
4.		Lamp
5.		Voltmeter
6.		Ammeter
7.		Resistor
8.		Thermistor
9.		Variable resistor
10.		LDR
11.		LED
12.		Fuse
13.		Diode
Definitions and units		
14. What is electric current?	Flow of electric charge	
15. What are the units for current?	Amps (A)	
16. State 2 factors that affect the current in a circuit	<ul style="list-style-type: none"> • Voltage/ potential difference • Resistance 	

17. What is the work done per coulomb of charge that passes between 2 points called?	Potential difference or voltage
18. What are the units for potential difference?	Volts (V)
19. What reduces current in a circuit?	Resistance
20. What are the units for resistance?	Ohms (Ω)
21. How do you calculate voltage, when you know current and resistance?	Voltage = current x resistance
22. How do you calculate resistance, when you know voltage and current?	Resistance = voltage \div current
Series circuits	
23. What type of circuit is shown below? 	Series
24. How do you work out the resistance in a series circuit?	Add up the resistances of each component
25. The current in a series circuit is.....	the same through each component
26. The potential difference in a series circuit is.....	shared between the components
Parallel circuits	
27. What type of circuit is shown below? 	Parallel

28. How is a parallel circuit different to a series circuit?	A parallel circuit has branches in it
29. The current in a parallel circuit is....	Shared between the components
30. The potential difference in a parallel circuit is....	the same through each component
31. The total resistance of a parallel circuit is _____ than the lowest value resistor.	Lower/smaller
Household electricity	
32. What do we call current that always flows in the same direction?	Direct current (DC)
33. What do we call current that is constantly changing direction?	Alternating current (AC)
34. What type of current is provided by batteries and cells?	Direct
35. What type of current is provided by mains electricity?	Alternating
36. Which type of current is shown in this graph? 	Direct
37. Which type of current is shown in this graph? 	Alternating
38. What are the units for electrical frequency	Hertz (Hz)
39. What is the frequency of UK mains electricity	50Hz

40. What is the voltage of UK mains electricity?	230V
41. Name the wires, with their colours, in an electrical cable	Live brown Neutral blue Earth green and yellow stripy
42. Which wire takes current to the device?	Live
43. Which wire completes the circuit, by taking current away from the device?	Neutral
44. Which wire is there for safety, to stop the appliance becoming live?	Earth
45. What is the potential difference between the live and neutral wires?	230V
46. Which wire is at 0V?	Earth
47. Which wire is at nearly 0V?	Neutral

