

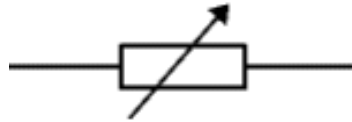
Use the circles to help you with your learning

😊 I know this well

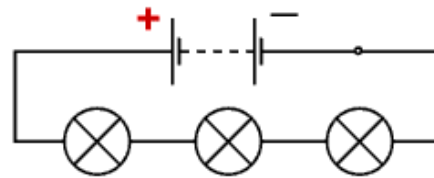
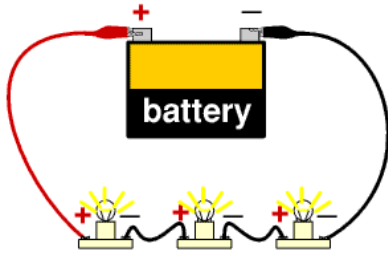
😐 I know this a bit

☹ I don't know this yet

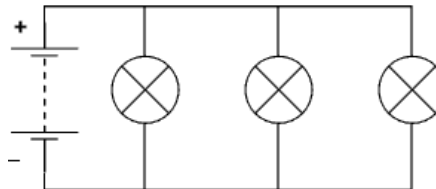
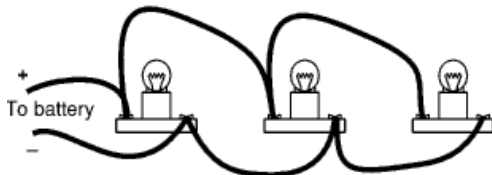
I know, and can draw the circuit symbols for a cell, a battery, a bulb/lamp, a bell, a buzzer, a motor, an ammeter, a voltmeter, a switch, a resistor, variable resistor, thermistor, LDR, capacitor and connecting wires.



I know what is meant by, and can identify, a series circuit.



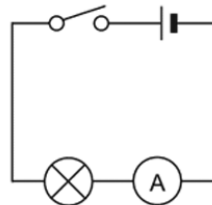
I know what is meant by, and can identify, a parallel circuit.



I know that an electrical current is a flow of electrons (negative charges) around a circuit.

I know that current is measured in Amperes (or 'Amps', A), using an ammeter.

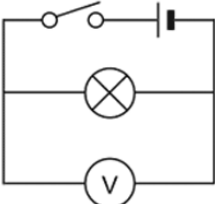
I know that an ammeter is placed 'into' a circuit to measure current.






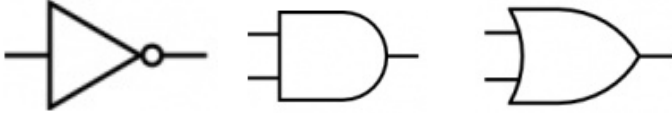
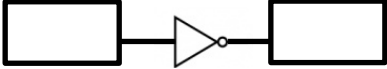
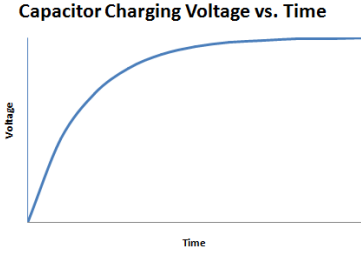
I know that in a series circuit, current has only one path to flow round the circuit.

I know that current will be the same anywhere in a series circuit.

I know why that in a series circuit, if one lamp goes out, all the others will go out.

I know that in a parallel circuit, current has more than one path to flow around the circuit.	<input type="radio"/>
I know why that in a parallel circuit, when one lamp goes out, the other lamps may remain lit.	<input type="radio"/>
I know that Voltage describes how much energy is given to the electrons flowing around a circuit.	<input type="radio"/>
I know that Voltage is measured in Volts (V) using a voltmeter.	<input type="radio"/>
<p>I know that a Voltmeter is connected in parallel to components in a circuit.</p> 	<input type="radio"/>
I know that in a series circuit, the voltages across all the components in the circuit will add up to the power supply voltage.	<input type="radio"/>
I can draw circuit diagrams to correctly show how ammeters and voltmeters are connected in a circuit.	<input type="radio"/>
I will be able to design electrical circuits to solve a variety of problems.	<input type="radio"/>
I know what is meant by 'resistance' and how it affects the current flowing through a circuit.	<input type="radio"/>
I know that resistance is measured in Ohms (Ω)	<input type="radio"/>
<p>I can carry out calculations involving the relationship between</p> <ul style="list-style-type: none"> • voltage (V) • current (I) and • resistance (R) <p>This relationship is known as "Ohm's law."</p> <div style="border: 2px solid red; padding: 5px; display: inline-block; margin: 10px 0;"> $V = IR$ </div>	<input type="radio"/>
I know how a variable resistor differs from a normal fixed resistor, and can explain two common uses for variable resistors.	<input type="radio"/>

		
<p>I know that a thermistor is a special kind of resistor whose resistance changes with temperature. ("TURD"- Temperature up, Resistance down.)</p>	<input type="radio"/>	
<p>I know that a Light Dependant Resistor (LDR) is a special kind of resistor whose resistance changes with light level ("LURD"- Light up, Resistance down)</p>	<input type="radio"/>	
<p>I "may" be able to use the formula $V = IR$ for a thermistor and an LDR, using information from a table or a graph.</p>	<input type="radio"/>	
<p>I know that the three parts to any electronic system are 'Input', 'Process' and 'Output.'</p>	<input type="radio"/>	
<p>I can give examples of electronic systems used in everyday life.</p> <div style="text-align: center;">  </div>	<input type="radio"/>	
<p>I can identify, and give my own examples, of input devices used in electronic systems.</p>	<input type="radio"/>	
<p>I can identify, and give my own examples, of output devices used in electronic systems.</p>	<input type="radio"/>	
<p>I can select appropriate input / output devices for given situations</p>	<input type="radio"/>	
<p>I "may" understand that there can only be two states present in an electronic system, and they can be described as</p> <ul style="list-style-type: none"> • 1 or On or High • 0 or Off or Low 	<input type="radio"/>	
<p>I "may" know that a logic gate is a device which processes digital signals.</p>	<input type="radio"/>	
<p>I "may" be able to identify the symbols for the three logic gates</p> <ul style="list-style-type: none"> • NOT gate • AND gate • OR gate 	<input type="radio"/>	

	
<p>I "may" be able to describe how each of the logic gates will process a variety of input signals, and state the output signal for each.</p>	<input type="radio"/>
<p>I "may" be able to describe the input signal(s) required to produce an output signal of 1/On/High for each of the logic gates.</p>	<input type="radio"/>
<p>I "may" be able to identify the logic gate appropriate for given input or output signals</p>	<input type="radio"/>
<p>I "may" be able to construct an electronic system using one logic gate to solve a given problem</p>	<input type="radio"/>
<p>I "may" be able to draw a block diagram representing an electronic system with one logic gate in the process stage</p> 	<input type="radio"/>
<p>I "may" be able to construct an electronic system using more than one logic gate to solve a more complex problem</p>	<input type="radio"/>
<p>I "may" know that a capacitor can be used as an input device for timing circuits.</p>	<input type="radio"/>
<p>I "may" know that the voltage across a capacitor will increase (until it reaches supply voltage) as it charges.</p> 	<input type="radio"/>
<p>I "may" know that a capacitor will take longer to charge if:</p> <ul style="list-style-type: none"> • The capacitors value of capacitance is larger • The resistance in the circuit is larger <p>And vice versa.</p>	<input type="radio"/>