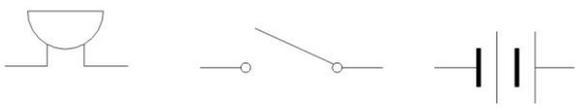
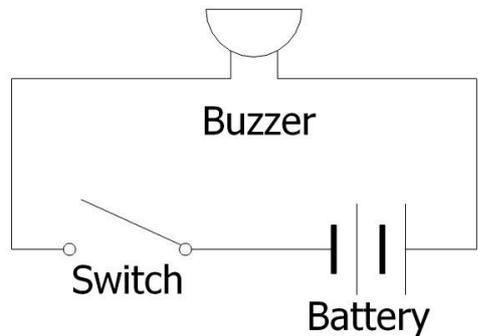
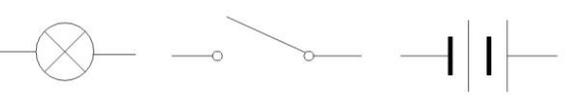
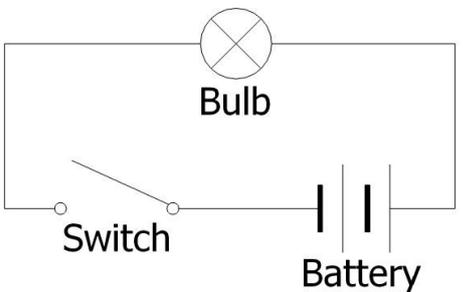




Build-a-House Worksheet – Suggested Answers

<p>Name the electrical parts (components) used in your doorbell and lighting circuits.</p>	<p>Buzzer Push-to-make switch Bulb and bulb holder (or lamp) Slide switch Battery holders Cells (or batteries) Crocodile leads (or wires)</p>
<p>Draw your doorbell circuit using these circuit symbols, and using lines to represent the wires. Label the components.</p> 	
<p>Draw your lighting circuit using these circuit symbols, and using lines to represent the wires. Label the components.</p> 	
<p>Why did you need to attach the crocodile clips onto bare metal, not onto plastic insulation?</p>	<p>The plastic is an insulator which prevents the current from passing. The bare metal ends are good conductors of electricity, so the current can pass through.</p>
<p>What will happen if you leave the circuit switched on for a long time?</p>	<p>You will drain the battery.</p>

Does it matter which way round you connect your buzzer?	Yes
Does it matter which way round you connect your bulb?	No
Your battery only gives 1.5 Volts, whilst mains electricity used to wire a real (UK) house uses 240 Volts. Suggest a hazard of mains electricity.	Electric shocks Electrocution Electrical fires
Extension questions	
Suggest a problem with using a push-to-make switch for a lighting circuit.	If you use a push-to-make switch for a lighting circuit then as soon as you take your finger off the switch the light will go out.
Suggest a problem with using a slide switch for a doorbell circuit.	If you use a slide switch for a doorbell then the person ringing the bell might just switch it on and leave it ringing, which would be really annoying!
Suggest reasons why houses in cold climates usually have sloping roofs.	Houses in many countries have sloping roofs, as it helps the rain to run off. In cold countries it is particularly important to have a sloping roof to help the snow slide off. A big build-up of snow is very heavy and can damage the roof. Many houses in hot, dry countries have flat roofs.
Which material in a pipe cleaner enables it to retain its shape when you bend it?	The metal (steel) core of the pipe cleaner is malleable, allowing the pipe cleaner to be bent easily and then retain its new shape.