Circuits

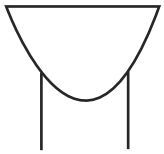
Electrical circuits are often represented by circuit diagrams. Rather than spending lots of time creating very artistic drawings of circuits, we use standard symbols that are much simpler, easier to draw and easier to interpret.

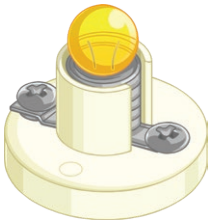
The symbols represent **components**, such as a bulb, ammeter and voltmeter, that can be used in a circuit diagram.

Circuits can be drawn in series, where one component comes after the other, or in parallel.

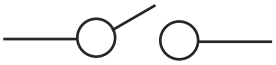
1. Using a ruler, match the word to the symbol diagram and component.

bulb

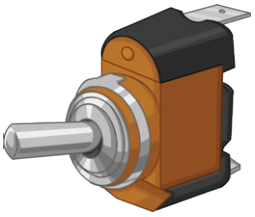




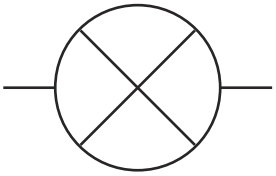
motor

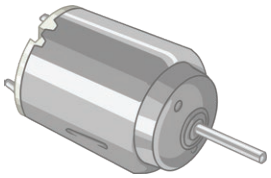


battery

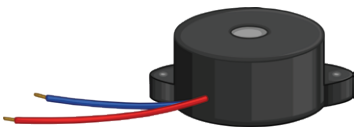


switch





buzzer



When it comes to drawing series circuits, there are certain rules that we must follow every time.

- Always draw circuits using straight lines.
- Use a pencil and a ruler to draw these lines.

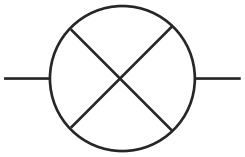
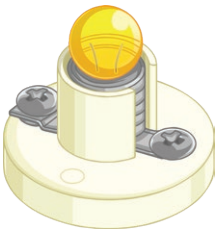
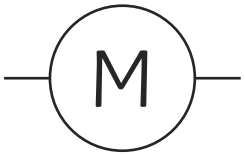
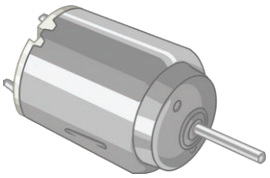
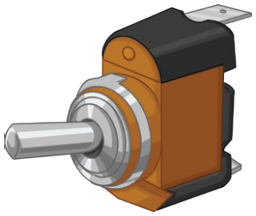
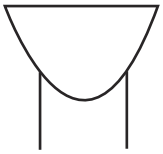
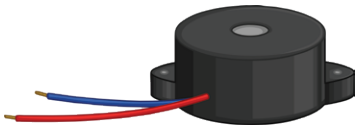
2. Draw a parallel circuit diagram for a circuit with the following components: four bulbs, one switch and a battery.

3. Write the definitions for a **conductor** and an ***insulator.*** Provide examples to support your definitions.

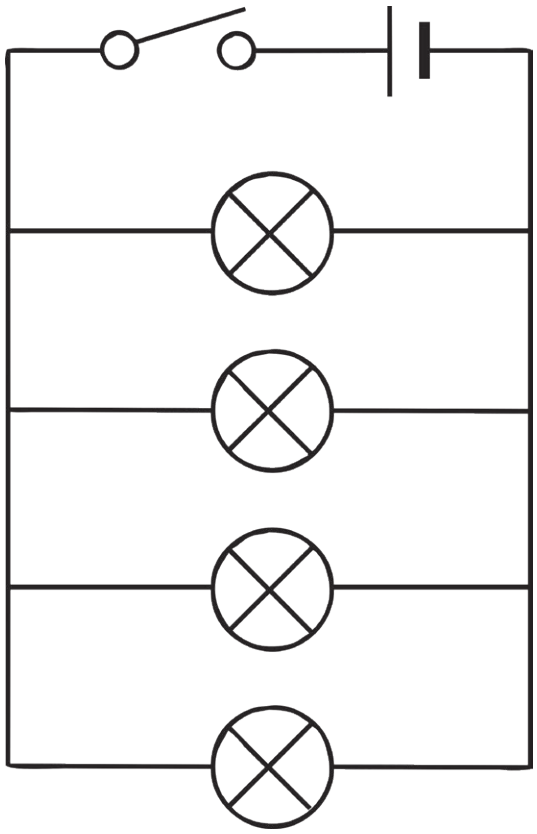
4. Write definitions for the keywords **voltage** and **current.**

Circuits Answers

1. Using a ruler, match the word to the symbol diagram and component.

bulb		
motor		
battery		
switch		
buzzer		

2. Draw a parallel circuit diagram for a circuit with the following components: four bulbs, one switch and a battery.



3. Write the definitions for a **conductor** and an **insulator**. Provide examples to support your definitions.

   A conductor is a material that will allow an electrical current to pass through it. An example of a conductor is a metal fork. An insulator is a material that will not allow an electrical current to pass through it. An example of an insulator is a wooden spoon. Student's examples may vary.

4. Write definitions for the keywords **voltage** and **current.**

   voltage - The strength of the push provided by the battery.

   current - The flow of charge around a circuit.