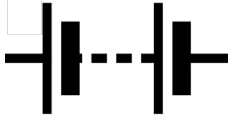


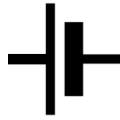


### Circuit Symbols

Identify the following circuit symbols. You may use a name more than once.



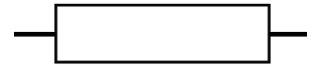
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\_\_\_\_\_



\_\_\_\_\_



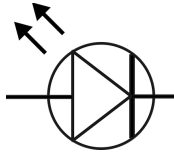
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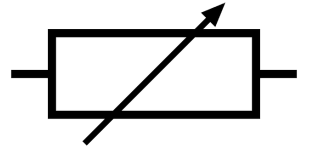
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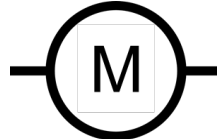
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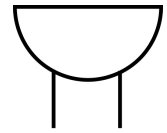
\_\_\_\_\_



\_\_\_\_\_



\_\_\_\_\_



\_\_\_\_\_

### Word bank

ammeter      battery      bulb      buzzer      cell      lamp  
 LED          motor      resistor      switch      voltmeter

What three things do all circuits need to work?

\_\_\_\_\_  
\_\_\_\_\_

A student connects a bulb and a cell together with one piece of wire in a line. Explain why the bulb does *not* light up.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

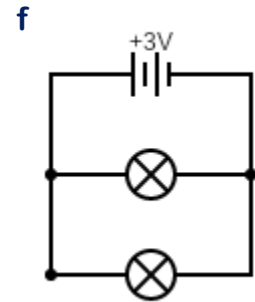
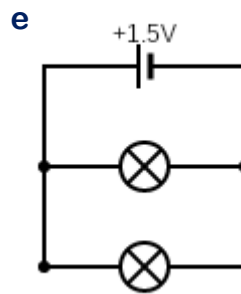
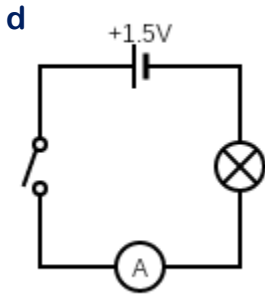
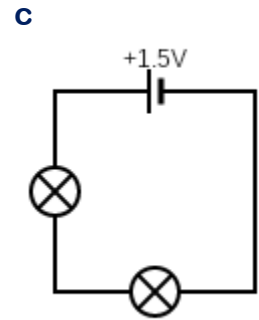
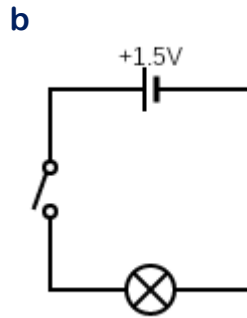
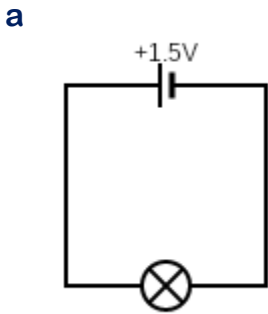
Look at the symbol for a switch above. Suggest why it has been drawn this way and what it shows.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



Circuit Symbols

Build the following circuits from the diagrams below.



Describe each circuit you have built. Include any observations that you make.

- a. \_\_\_\_\_
- \_\_\_\_\_
- b. \_\_\_\_\_
- \_\_\_\_\_
- c. \_\_\_\_\_
- \_\_\_\_\_
- d. \_\_\_\_\_
- \_\_\_\_\_
- e. \_\_\_\_\_
- \_\_\_\_\_
- f. \_\_\_\_\_
- \_\_\_\_\_



### Circuit Symbols

In the box below, design your own circuit.

Before you build your circuit, make a prediction of what will happen to each component.

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Was your prediction correct? Why?

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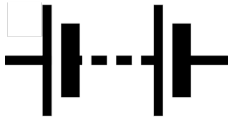
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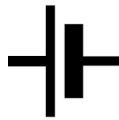


### Circuit Symbols

Identify the following circuit symbols. You may use a name more than once.



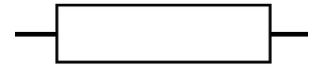
battery



cell



switch



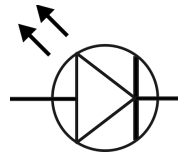
resistor



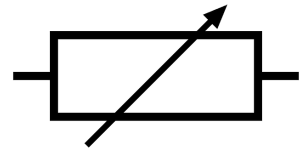
bulb



bulb



LED



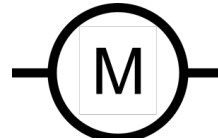
variable resistor



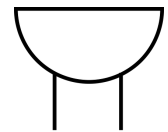
voltmeter



ammeter



motor



buzzer

### Word bank

ammeter    LED    battery    motor    bulb    resistor    buzzer    switch    cell    lamp    voltmeter

What three things do all circuits need to work?  
A power source, a component and conductors.

A student connects a bulb and a cell together with one piece of wire in a line. Explain why the bulb does *not* light up.

The circuit must be connected in a continuous loop. Connecting components in a line is an incomplete circuit.

Look at the symbol for a switch above. Suggest why it has been drawn this way and what it shows.

The switch symbol is an open switch. It shows two wires that are not touching to show there is a break in the circuit and that it won't turn on.