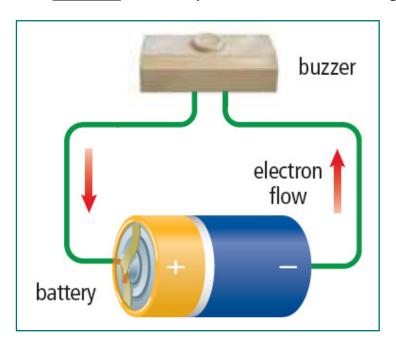
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## Science 9 8.2 Electric Current

A complete pathway that allows electrons to <u>flow</u> is called an <u>electric circuit</u>. Electrons flow through devices (<u>loads</u>) in the circuit that <u>convert</u> electricity to other forms of energy.



## **Basic Circuit Components**

**Source**: source of energy (either a **dry cell** or a b**attery**)

**Conductor**: wire where current flows (usually a wire)

**Load**: turns electricity into other forms (for example: **a bulb**)

**Switch**: turns circuit on or off (switch open = off, switch closed = off)

	conducting wire		bulb
	voltmeter		
+ -	cell	<b>─</b> / <b>←</b>	open switch
+	battery		closed switch

## **Current Flow**

The continuous flow of charge in a complete circuit is called **<u>current</u> electricity**.

<u>Electricity</u> is defined as <u>the amount of charge passing a point in a conductor every second</u>.

<u>Current</u> is measured in <u>amperes (A)</u>, and can be detected with an <u>ammeter</u>.

## **Conventional Current**

Scientists today know that the flow of electricity is from <u>negative to</u> <u>positive</u> (it follows the flow of <u>electrons</u>).

However, in the early days of electricity research, scientist mistakenly believed electricity flowed from **positive to negative**.

Descriptions of this flow from positive to negative still exists today, and is called **conventional current**.