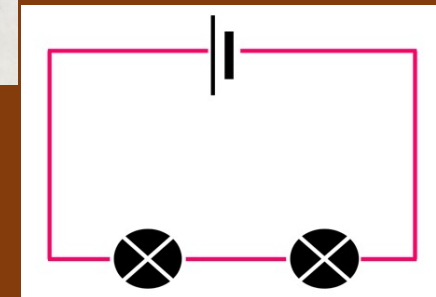
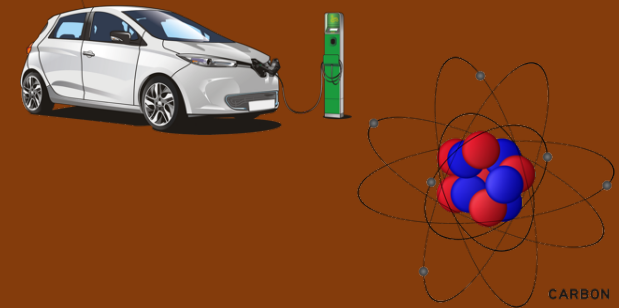


Electricity and Current

- What Electricity Is
- Atoms and Electrons
- Static Electricity
- Current Electricity
- Drawing Circuit Diagrams
- Parts of an Electric Circuit
- The Cell
- Open vs. Closed Circuits
- Electric Current
- Circuit Types
 - Series and Parallel
- Coulombs



Preview File

Please enjoy this preview of your Student Version of the presentation. Please note within this sample file:

- Some slides appear blank because they have been removed
- Student versions have portions of the text removed which is given in the teacher version and appear as _____ which the students are to fill in
- Other slides may have on them, this represents writing that has been removed on this sample

**The paid full version of your resource includes
both Google Slides and PowerPoint and is
Google Classroom Ready**



Electricity!

It's Enlightening!



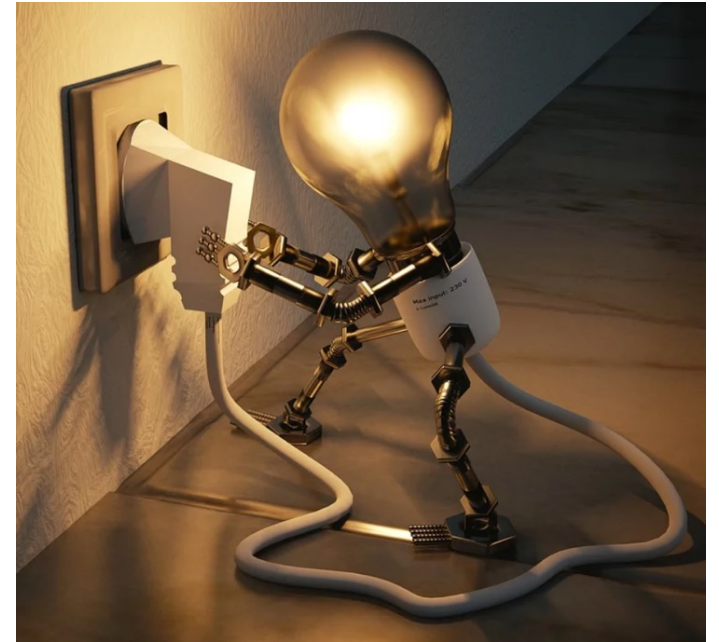
Electricity – Think About It

What is electricity?

Where does it come from?

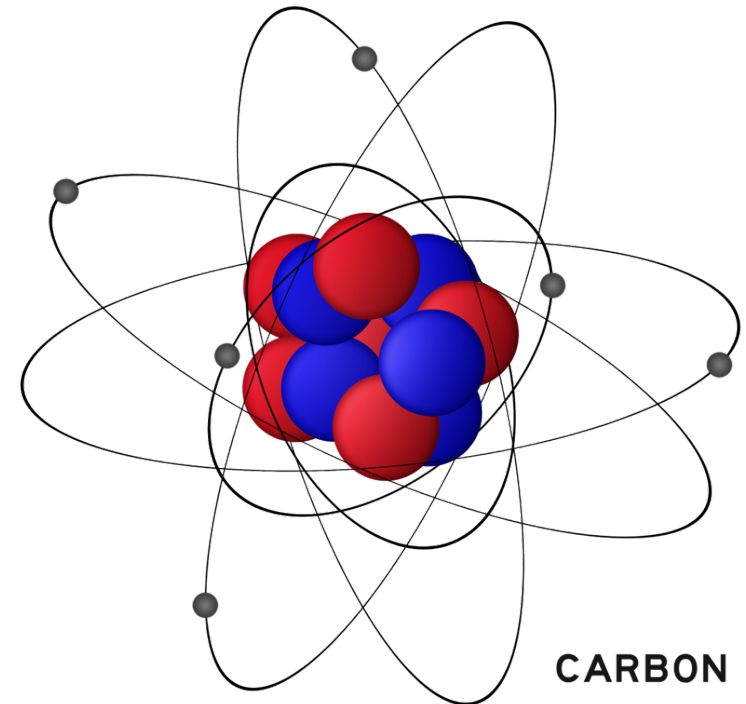
What do we use it for?

How would your life be different without it?



Electricity

- Everything in the world is made up of atoms
- Each atom is made of smaller parts
- One of those parts is called an electron



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Static Electricity

- Static electricity is the charge that stays on an object
- These charges are usually created through friction
- _____
- Examples of static electricity include static shocks, lightning



Current Electricity

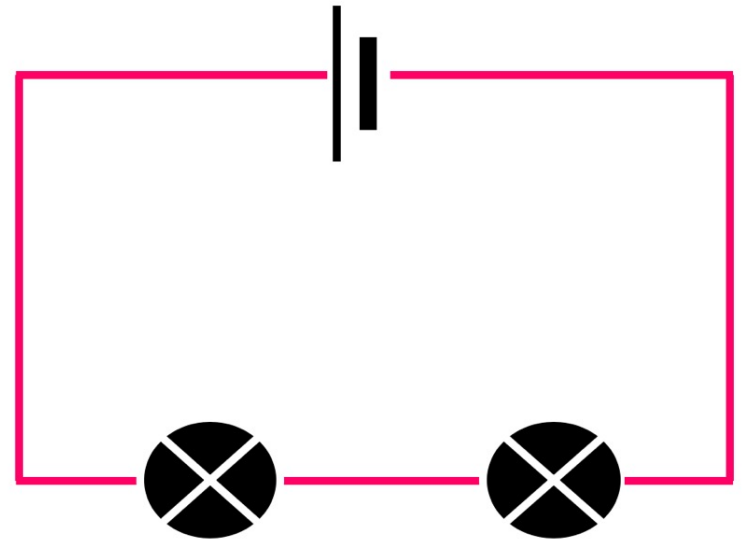
- Type of electricity used in our homes
- _____
- A current will move along a wire or a path called a circuit
- Circuit means to “go around”

Drawing Circuit Diagrams

- Called “schematic circuit diagrams”

- _____

- Circuit components are symbols which are simple and usually look similar to what is happening



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Parts of an Electric Circuit

For Example

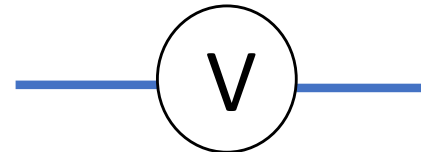
Two or more = battery



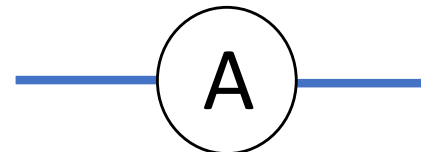
Light Bulb



Voltmeter



Ammeter



The Cell



- The cell stores chemical energy and transfers it to electrical energy when a circuit is connected

- _____



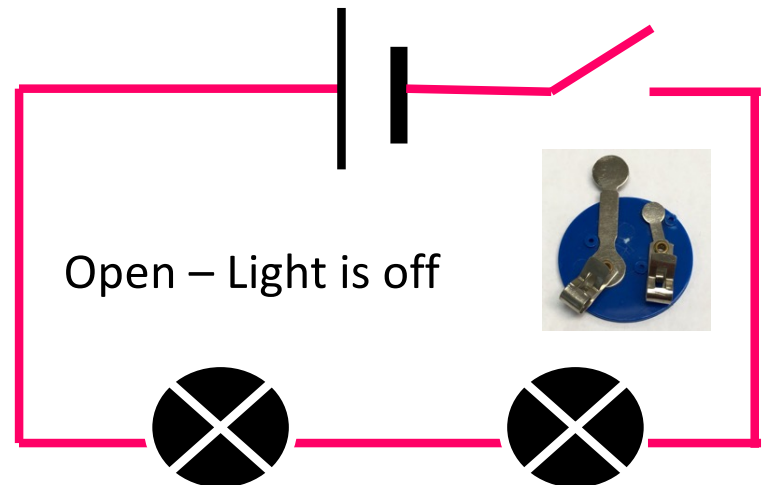
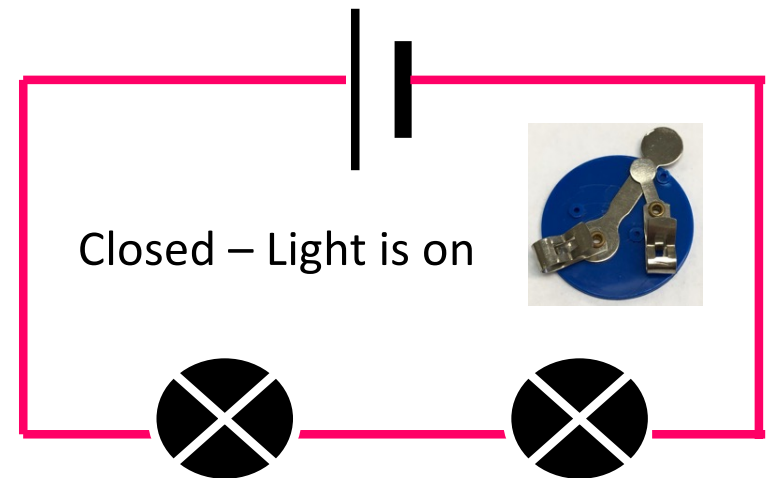
- The chemical energy inside a cell is carried by electrons from the negative terminal to the positive terminal and is used up as it pushes current around the circuit

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Open vs. Closed Circuits

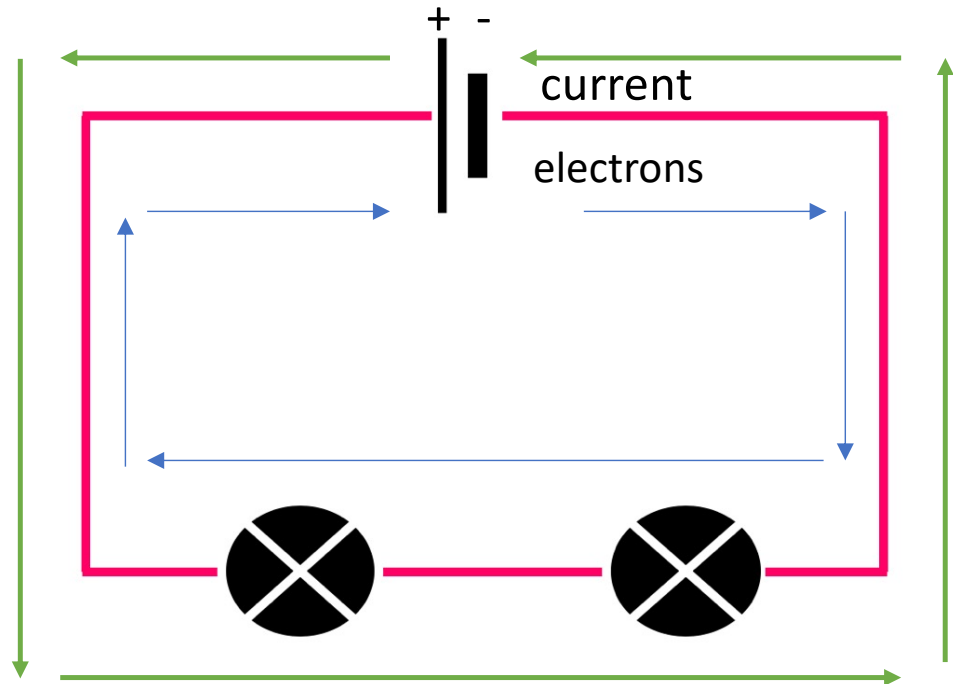
- A circuit can be described as either
- Closed circuit: the circuit is operating and the current is flowing
 - I.e. The light switch is “on” and so are the lights.
- Open circuit: The circuit is NOT operating

- _____



What is an Electric Current?

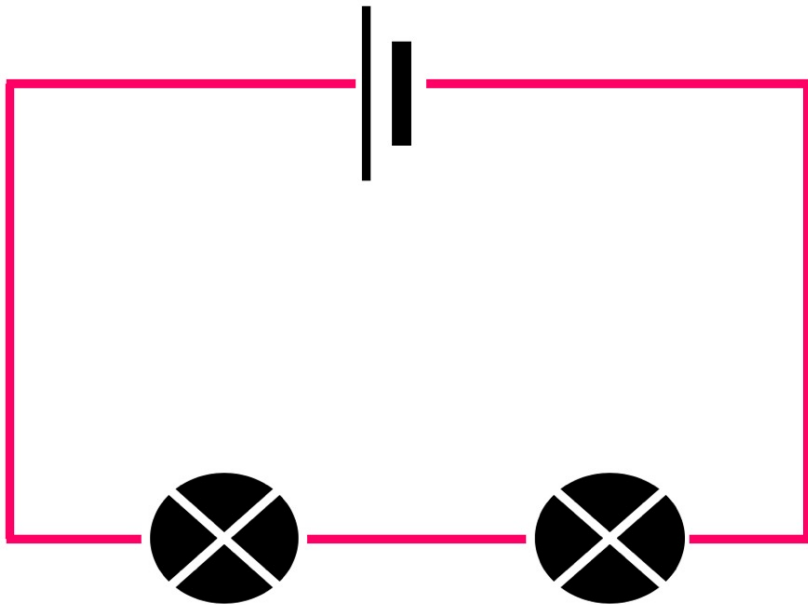
- An electric current is a flow of microscopic particles called **electrons** flowing through wires and components
- _____



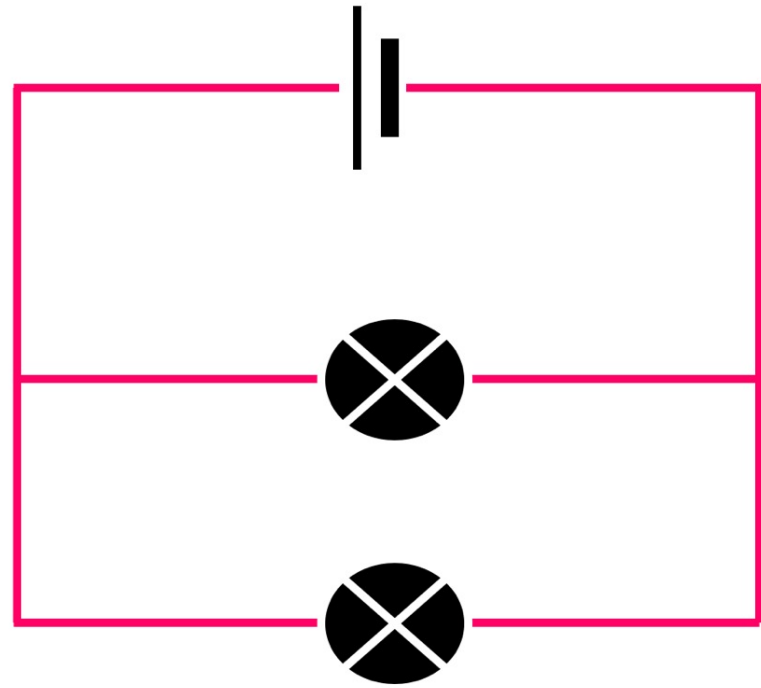
Types of Circuits

There are two types of electrical circuits;

SERIES CIRCUITS

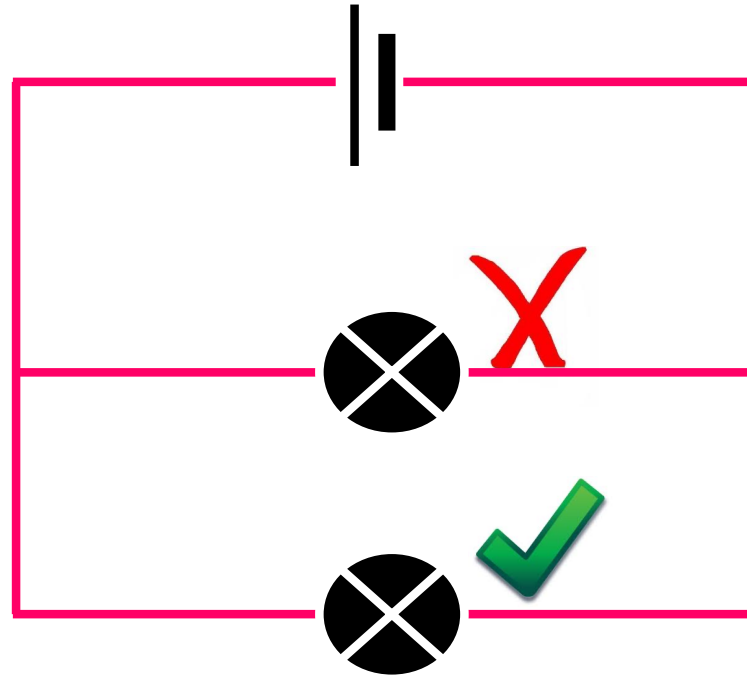


PARALLEL CIRCUITS



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Parallel Circuits



- The components are connected side by side
- _____
- If one bulb 'blows' there is still a complete circuit so the other bulb will stay lit

Key Term - Current

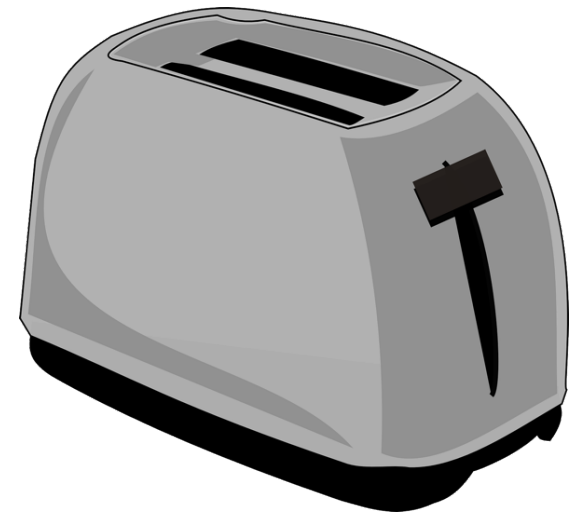
- The flow of electricity around a circuit is called current and runs from positive to negative
- Current (abbreviated I , e.g. $I = 1$) is measured in amps (A) and is _____

Coulombs (C)

- _____

- _____

- Therefore, if the current flowing through a wire, toaster, or hair dryer is 1 amp, that means that 6.25×10^{18} electrons flowed past that point every second



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Check Your Understanding

How many electrons pass a point every second if the current is 12.6 A ?

Check Your Understanding

What is the current if 3.125×10^{18} electrons pass a point every second?