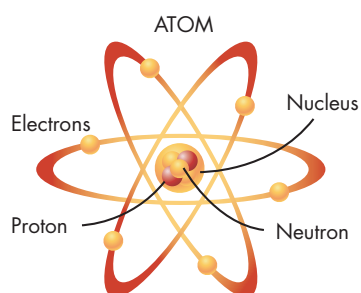


# WHAT IS ELECTRICITY?

Electricity is one of the most commonly used forms of energy. It runs through almost every appliance in your house. Without it, things like your lights, computers, televisions, or refrigerators wouldn't work!

Everything around you, including yourself, is made of tiny cells called atoms. Atoms are too small to see with our eyes, but scientists can see them with microscopes. Atoms are made up of three parts - neutrons, protons and electrons. When the electrons are excited and jump around, this is electricity.



There are two types of electricity, **static electricity** and **current electricity**.

Static electricity is the build up of **electrons** in one place.

Current electricity is the flow of electrons from electron to electron through a material, like wires and powerlines. The appliances in your home run on current electricity.

Electricity can come from a battery or mains power and will only flow in a circle. In science we call this a **circuit**.

## HOW IT WORKS

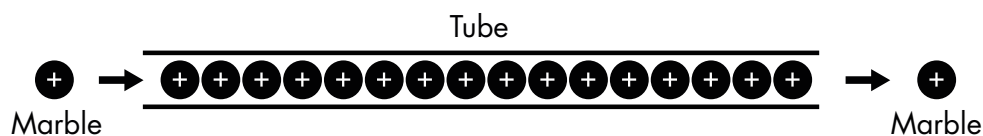
### Current Electricity

How does current electricity work?

Electricity that moves and flows from one place to another is known as current electricity.

The appliances in your home run on current electricity. This flow of electricity through a circuit can either come from a battery or mains power. Current electricity involves electrons bumping into each other along a wire and through a circuit.

Imagine a set of marbles in a long tube, just as a conducting wire is full of waiting electrons. If a marble is pushed onto one end, the marble at the opposite end, no matter how long the line is, will be pushed out the other end. When a battery or power station produces electrons, the build up of electrons are pushed out into the wire, travelling along bumping into each other.



# WHAT IS ELECTRICITY?

## Static Electricity

How does static electricity work?

The word static means something that does not move. Electricity that builds up in one place and isn't moving is called static electricity.

Have you ever jumped on a trampoline or rubbed your feet on nylon carpet then touched someone else and felt an electric shock? When you jump on the trampoline the electrons in your body jump around and get excited. This creates a build up of electrons in your body, so when you touch someone else, the electric charge is released and they are given a small harmless shock.

