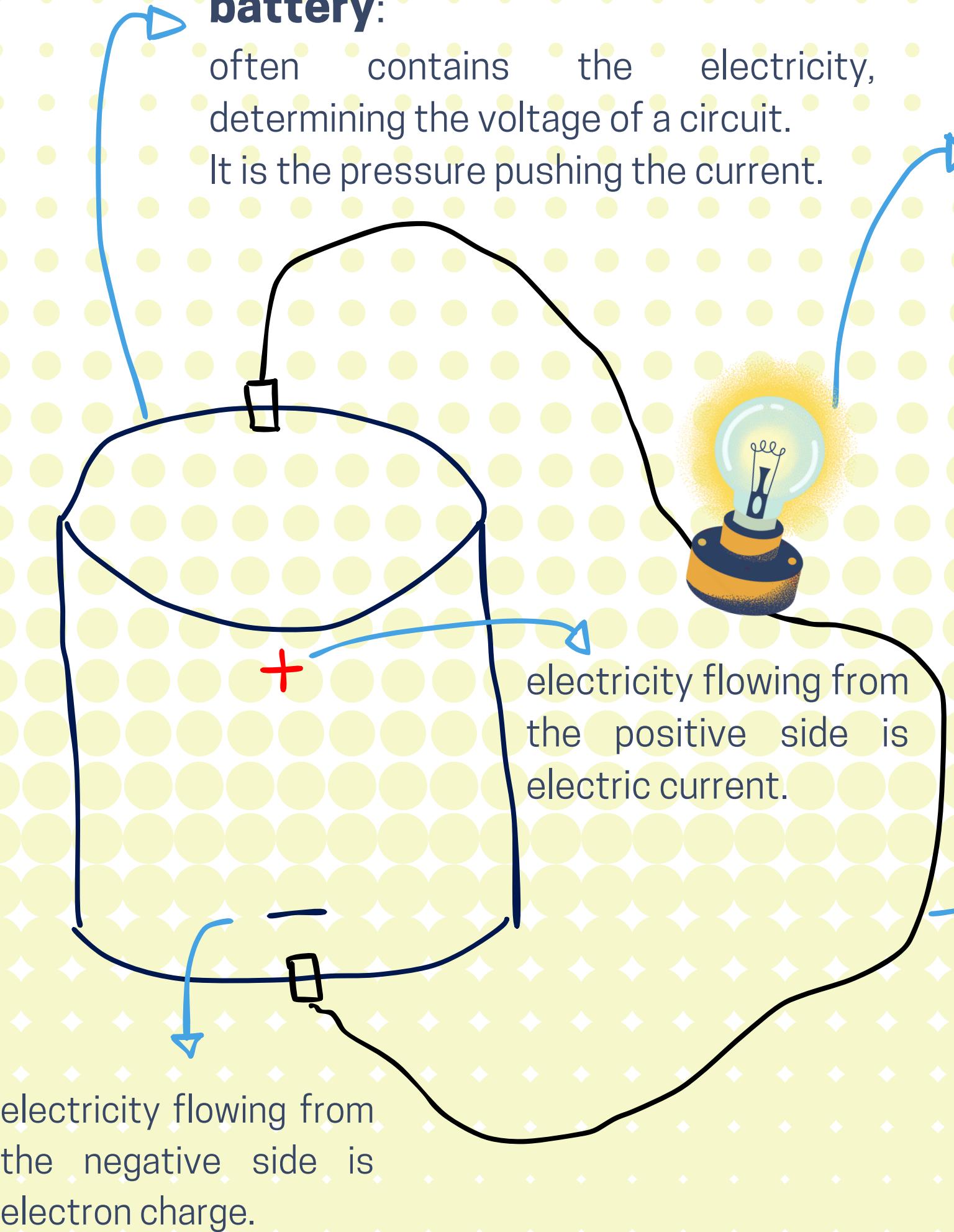


DYNAMIC ELECTRICITY



BASICS



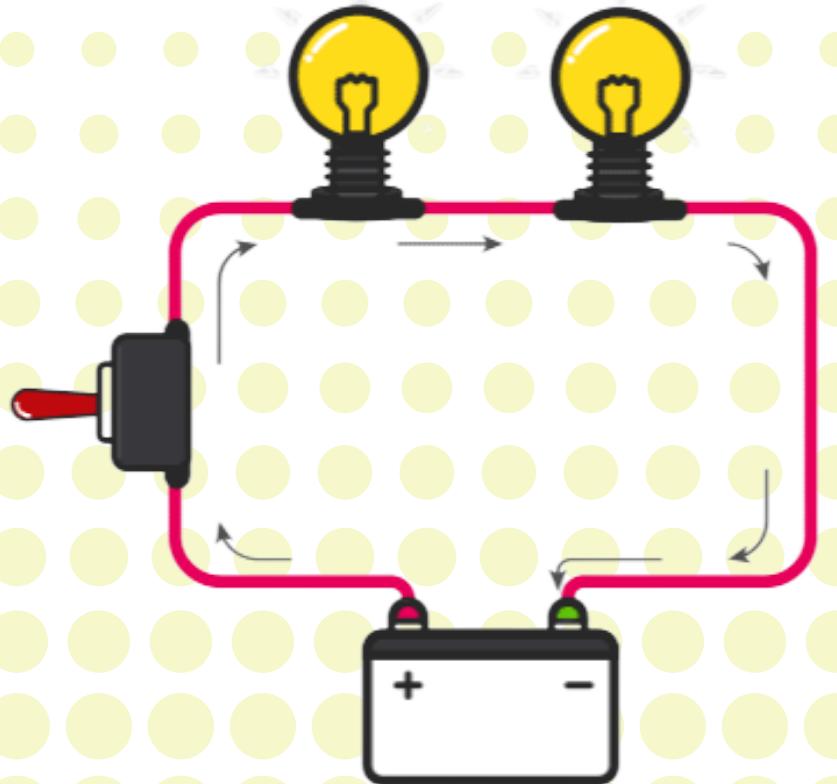
current:

the amount of electricity flowing in a wire.

$$V = R \times I$$

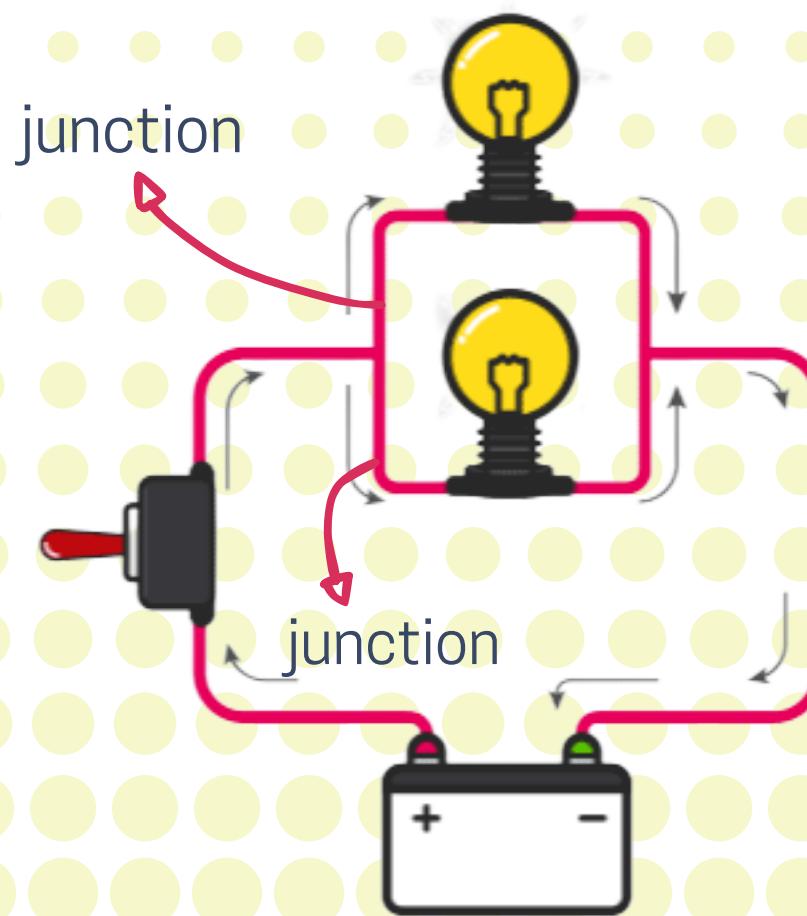
in dynamic electricity,
we often use the terms
voltage, **resistance**, and
current.

SERIES CIRCUIT



- series circuits **don't have junctions**.
- throughout a series circuit, they **share** the **same current**.
- the **bulbs** in a series circuit **will not light up the same**. Only the **first bulb's** will light up the **brightest** because it **receives the most pressure** when current is pushed.

PARALLEL CIRCUIT

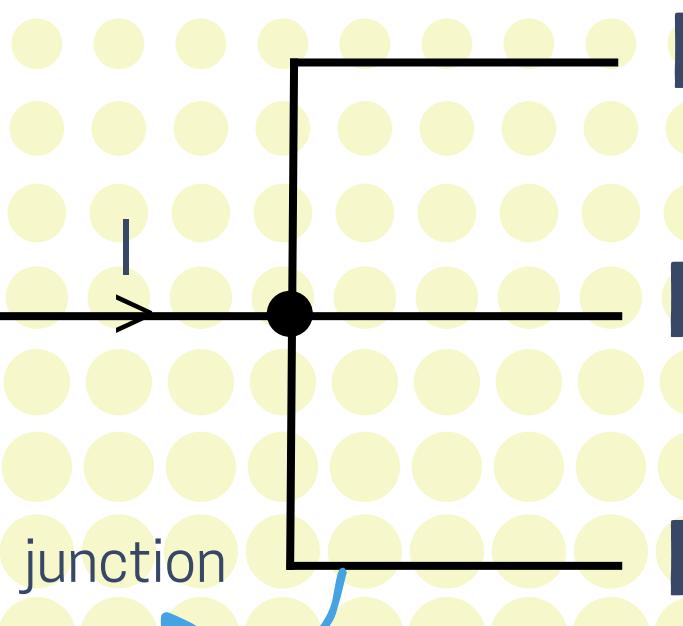


- parallel circuits have **junctions**.
- throughout a parallel circuit, they **share the same voltage**, the current will be divided into the junctions.
- the **bulbs'** in parallel circuit will **light up the same** because they all have the same pressure pushing current through the bulbs.

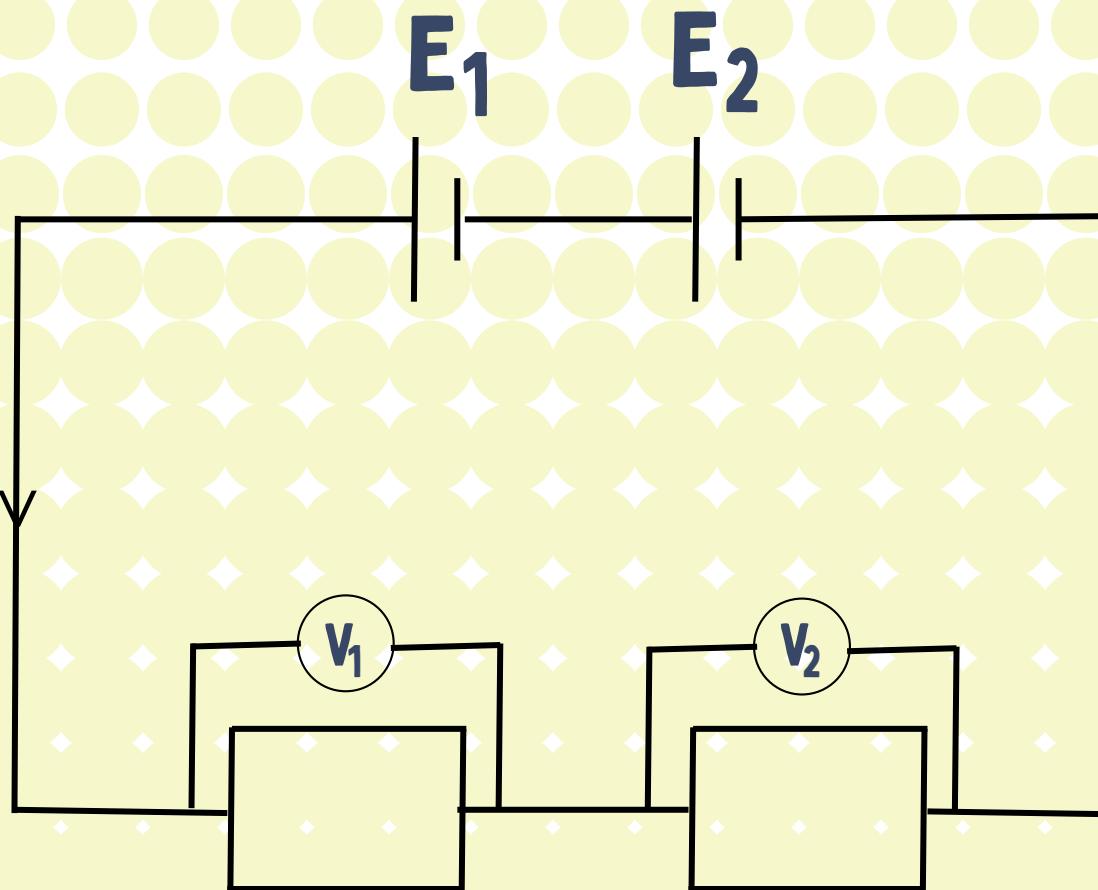
KIRCHHOFF'S LAW

it is the total amount of current flowing into a junction, always equal to the total amount of current flowing out of the junction

$$1. I = I_1 + I_2 + I_3 + \dots$$

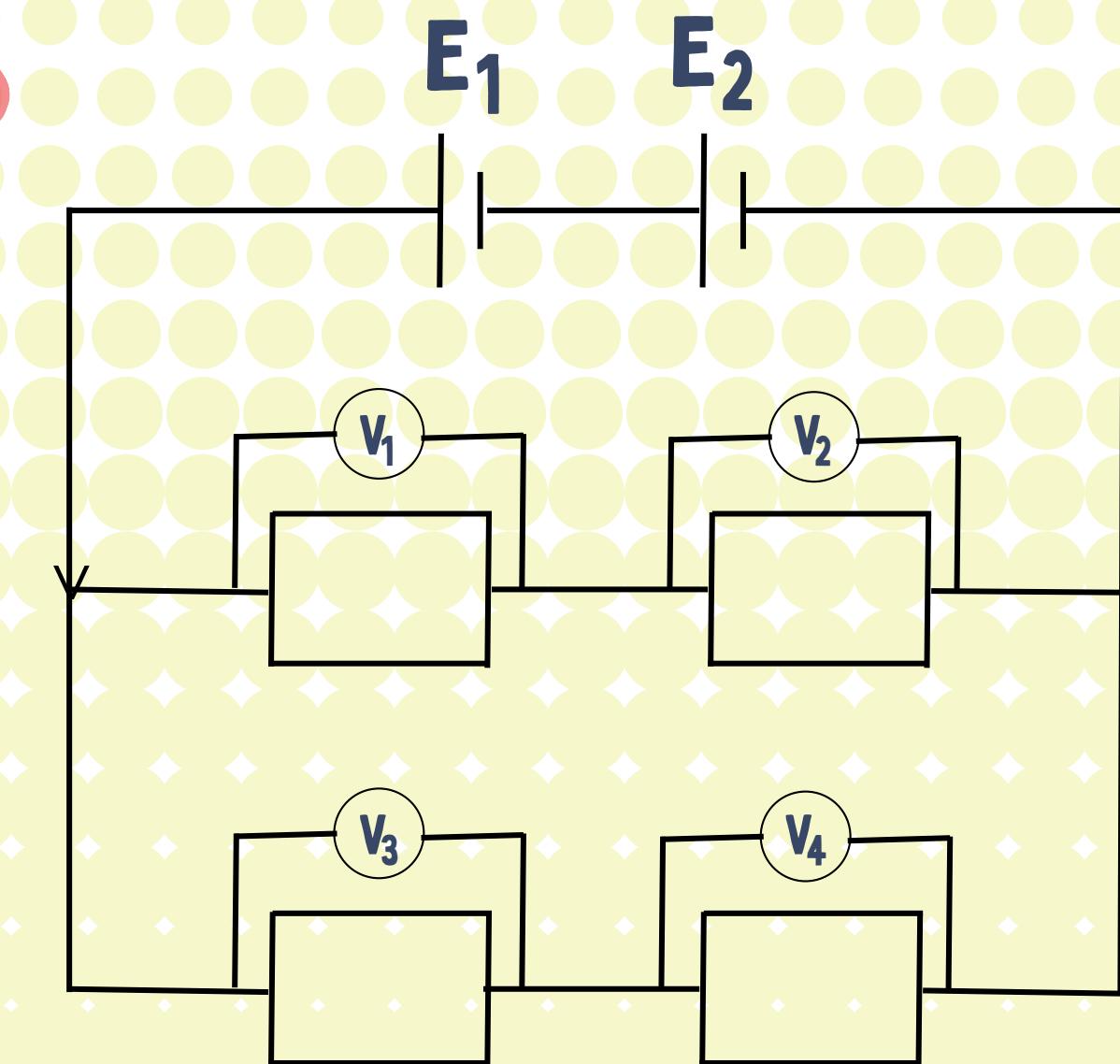


$$2. E_1 + E_2 = V_1 + V_2 + V_3 + \dots$$



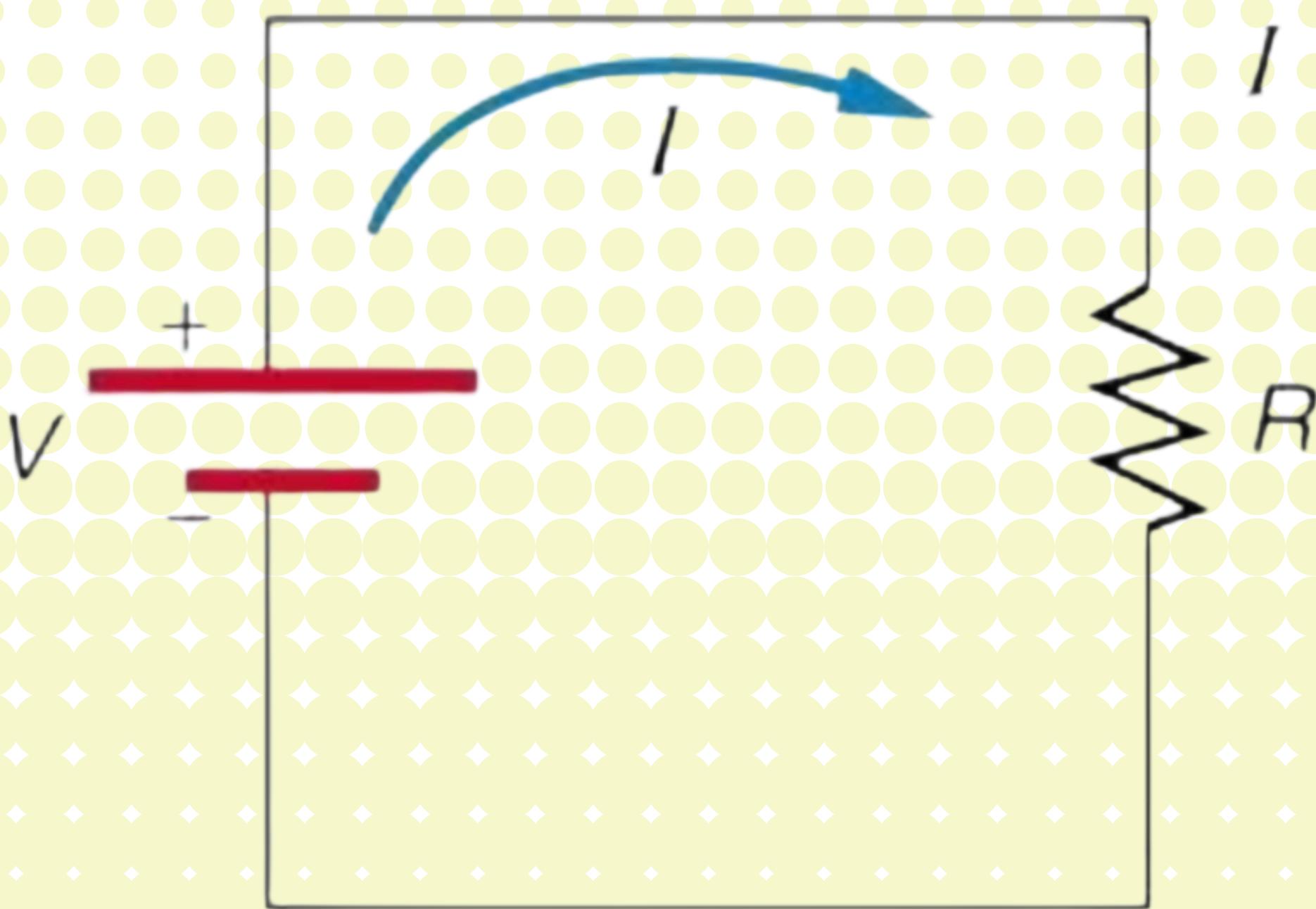
$$E_1 + E_2 = V_1 + V_2 = V_3 + V_4$$

&



OHM'S LAW

The amount of current is proportional to the voltage and inversely proportional to the resistance of the circuit.



symbol:

ohm = Ω

formula:

$$I = \frac{V}{R}$$

ELECTRICAL INSULATORS

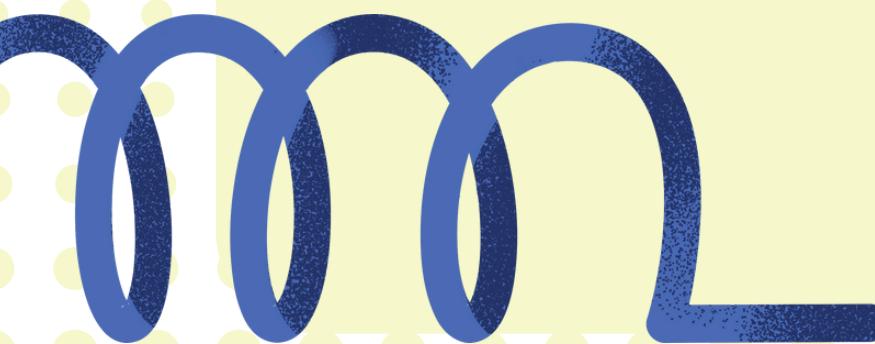
Most non-metal materials (e.g. rubber and plastic) can't conduct electricity because their electrons are not free to move, so can't carry electrical charge. This makes them electrical insulators.



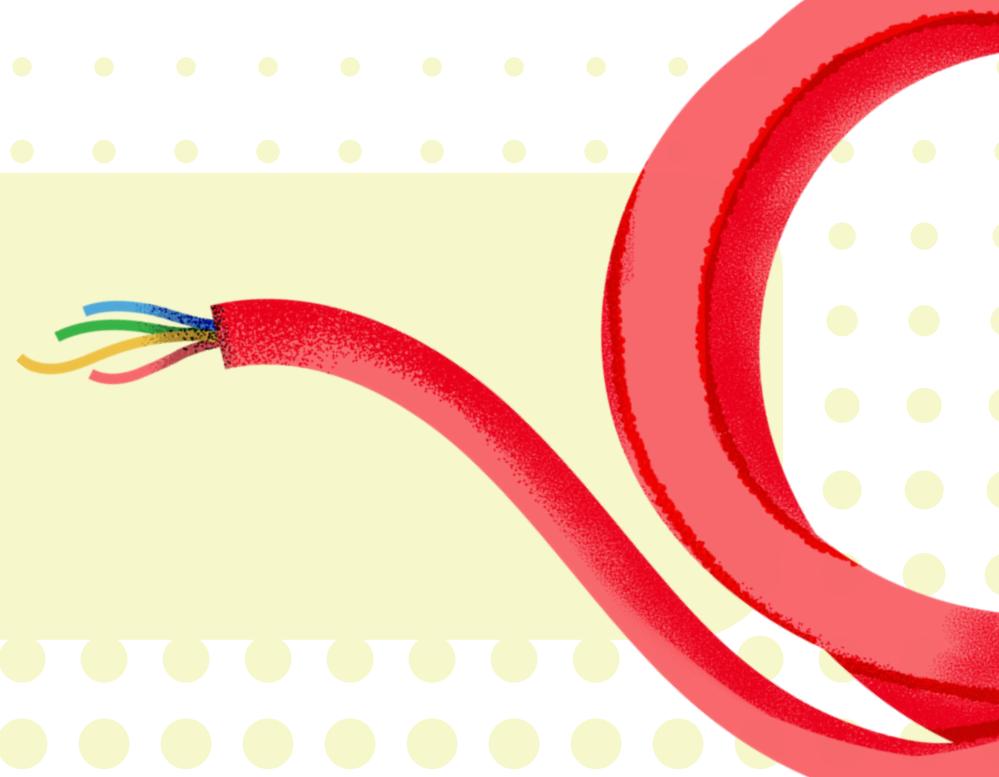


STATIC ELECTRICITY

When you rub a balloon on a jumper, the electrons move from the jumper to the balloon. Negative charge builds up on the balloon. This is called static electricity. If you touch the balloon, you may get an electric shock, as electrical charge travels through you to the ground.



QUICK QUIZ



1

Name something powered by electricity.

2

What is electricity?

3

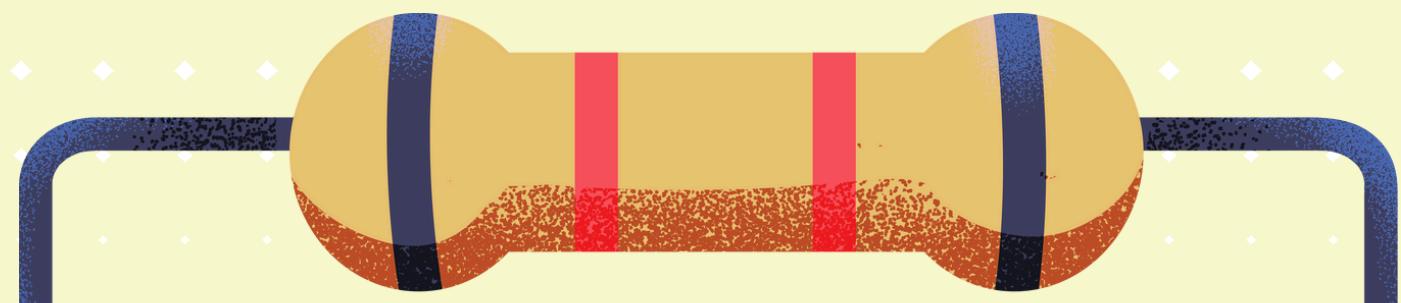
What makes a metal a good electrical conductor?

4

Name a material which is an electrical insulator.

5

What is static electricity?





QUICK QUIZ ANSWERS

1

Lights, appliances, transport or communication systems.

2

The flow of charged particles.

3

Electrons are free to move and carry electrical charge.

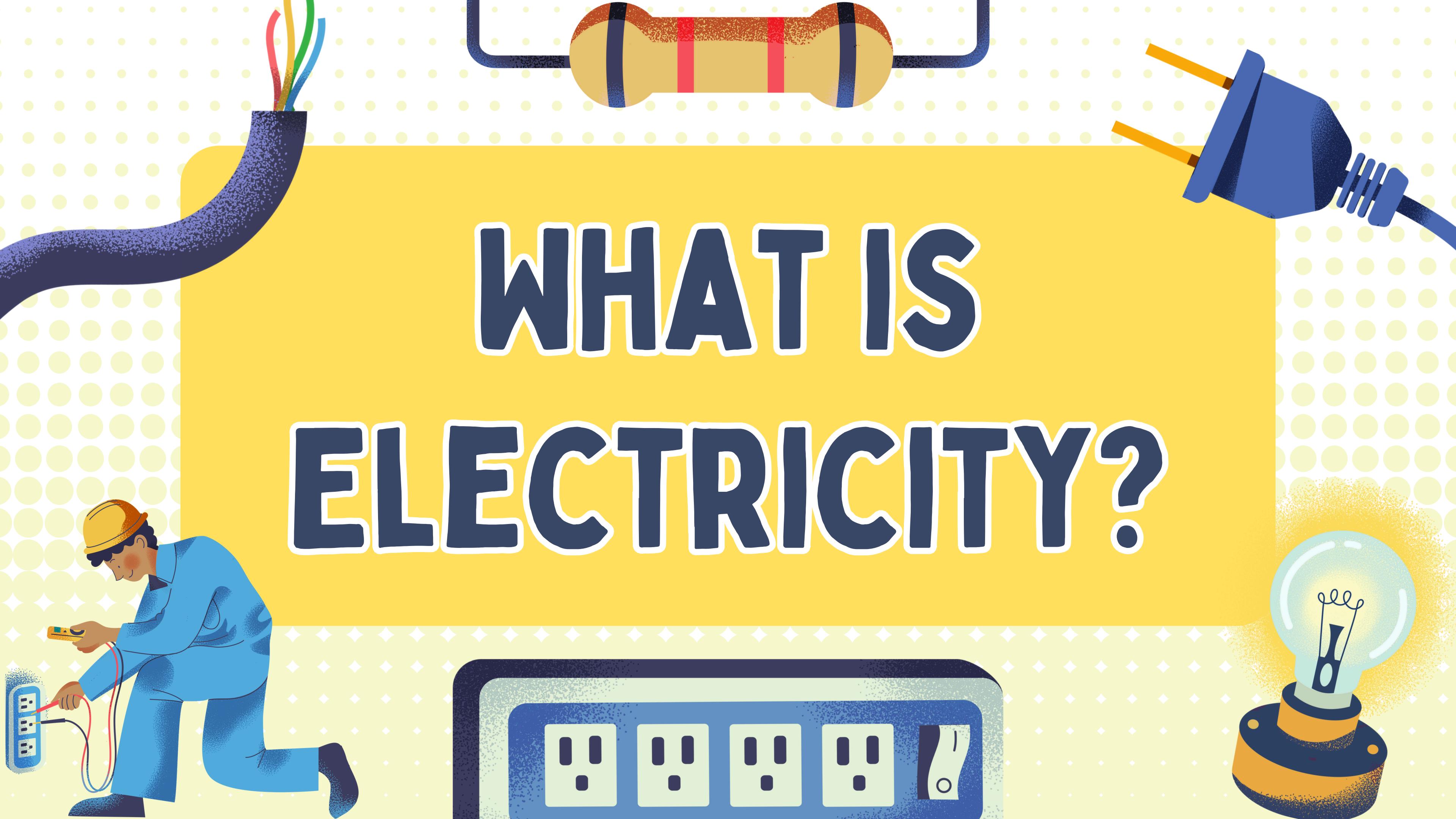
4

Wood, plastic or rubber.

5

The build up of electrical charge.





WHAT IS ELECTRICITY?

RESOURCE PAGE

Use these elements in your presentation
to keep it looking cohesive. Remember to
delete this page before presenting!

set:nAFTfdTkRLk



KEYBOARD SHORTCUTS

Press these keys whilst in present mode!



B = Blur

C = Confetti

D = Drumroll

0 = Bubbles

Q = Quiet

U = Unveil

0-9 = Timer

