

A background image of a power line tower in a field under a blue sky with clouds. The tower is a lattice structure, and several power lines are visible stretching across the sky. The ground is a mix of green and brown fields.

What is voltage and how does it affect the brightness of a bulb?

EBL Spring Term- Leopards

Voltage is the "push" that makes electricity flow through a circuit, similar to the pressure that pushes water through a pipe.

Where is it used?

Voltage is used in every electrical circuit to power devices like light bulb, motors, and appliances.

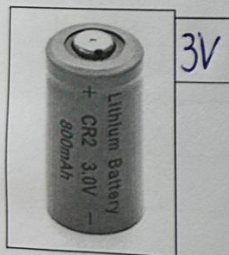
What is measured in?

Voltage is measured in volts (V), a unit that represents the electric potential difference between two points in an electrical circuit.

Write the correct voltage next to each picture.

Circle the battery that could be used inside a remote control.

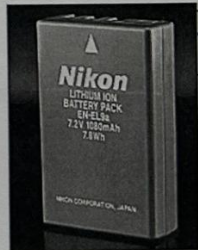
Tick the battery that could be used in a wrist watch.



3V



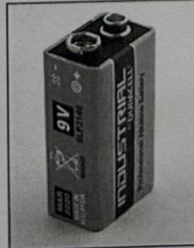
3V



7.2V



1.5V



9V

Monday 7th April 2025

What is voltage and how does it affect the brightness of a bulb?

What is voltage?

Voltage is the force that pushes electrons through a circuit to produce electricity, the push that makes electricity flow in a circuit, measured in volts. It also tells you how much electrical energy has been converted into other forms of energy.

Where is voltage used?

Voltage the push from powering household appliances and electronic devices to transmitting electricity such as batteries powering a torch or the mains electricity or powering a kettle.

What is it measured in?

It is measured in volts (V). In a circuit with a voltmeter close voltmeter. The difference of electrical potential between two points of an electrical or electronic circuit, expressed in volts.

Write the correct voltage next to each picture.

Circle the battery that could be used inside a remote control.

Tick the battery that could be used in a wrist watch.



3.0V



3V



7.2V



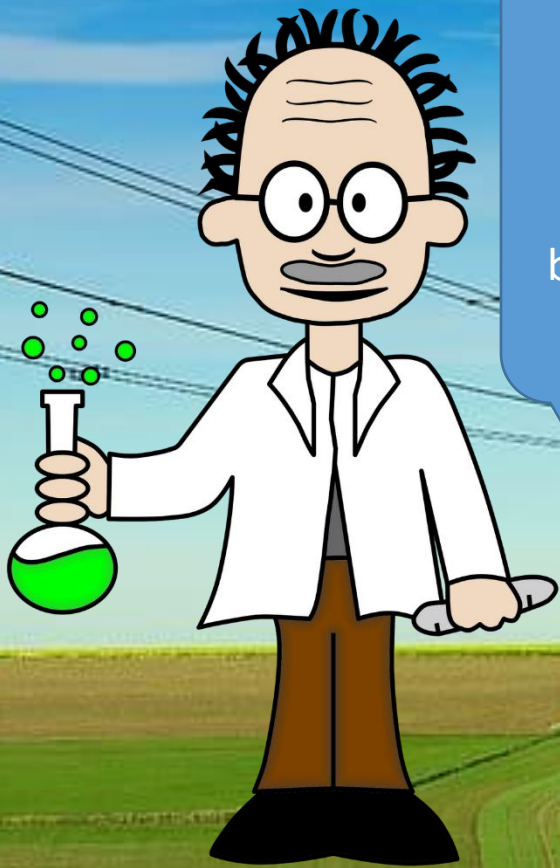
1.5V



9V

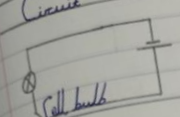
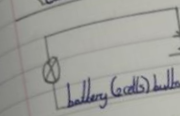
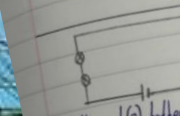
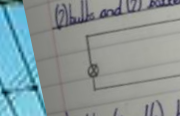
After that we looked for examples of where we see voltage and explored voltage on a variety of cells. We recorded this in our books.

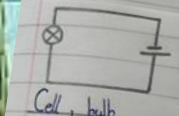
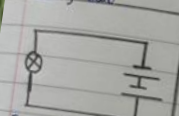
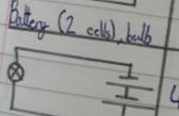
How does it affect the brightness of a bulb



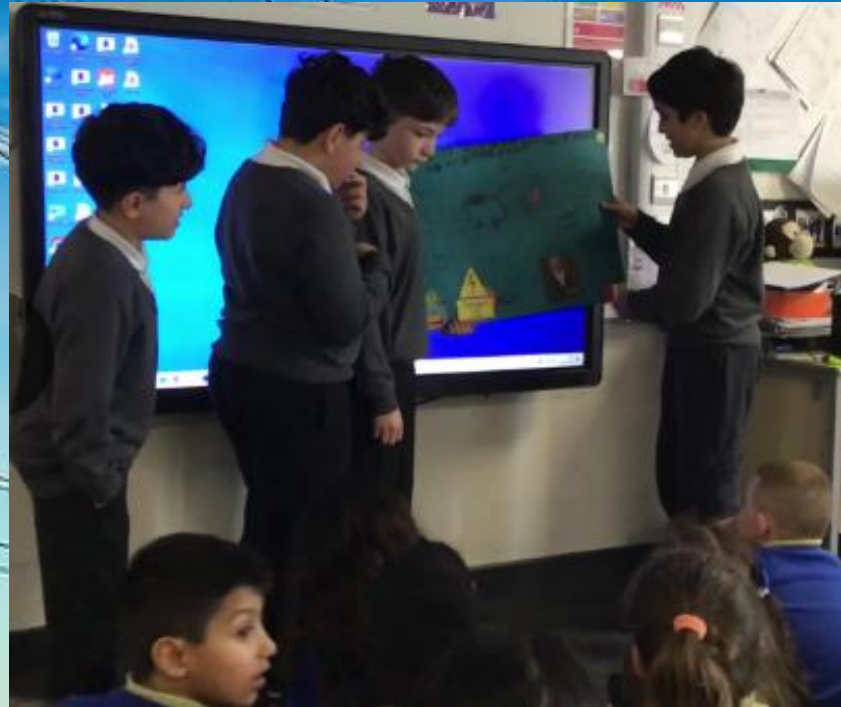
We tested how voltage affected the brightness of a bulb



Circuit	Voltage	Brightness of the bulb
 Cell, bulb	1.5V	Dim light
 battery (2 cells), bulb	3V	Dim light or orange light
 2 bulbs and 2 batteries	3V	Brightness didn't work but the other was dim
 battery (3 cells), bulb	4.5V	brightest

Circuit	Voltage	brightness of the bulb
 Cell, bulb	1.5V	dim
 Battery (2 cells), bulb	3V	brighter
 battery (3 cells), bulb	4.5V	brightest

VOICE 21- Oracy Task



Using the research, we prepared a speech to present our answer to the question- What is voltage and how does it affect the brightness of a bulb?

We shared this with classes across school.

We encouraged the audience to ask questions so that we could develop our presentation and provide a deeper understanding.