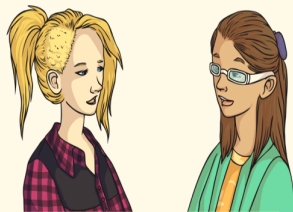


WALT: conduct an investigation.

Science

Electricity

WALT: conduct an investigation.



Aim

- I can plan an investigation.
- I can understand variations in how components function.

Success Criteria

- I can select an appropriate scientific enquiry.
- I can plan an investigation in detail.
- I can decide which variables to control.
- I can explain variations in functions.

Wire Length



Does wire length affect how components in a circuit work?

Discuss this question and predict:

- what difference it might make
- to which component/part of the circuit.



Planning Your Investigation Making Your Test Fair

In order to make sure that you carry out a fair test, which means that your results are accurate and can be trusted, then you need to be clear about your:

- **independent variable** (what you will change and compare)
- **dependent variable** (what you will measure – there should only be one dependent variable)
- **controlled variables** (these are aspects of the investigation you will keep the same so that they don't affect your results because you end up measuring their effect).

Investigation



Question:

Does wire length affect how components in a circuit work?

Prediction:

I predict that the longer the wire, the brighter the bulb will be.

Independent Variable:

I am going to change the length of the wires.

Dependent Variable:

This will effect the brightness of the bulb.

Controlled Variable:

I am going to keep the same cell and the same bulb.

Investigation



Equipment:

The equipment that I need is:

- *Bulb
- *Cell and cell holder
- *Different amount of wires

Method:

- 1) Gather equipment and check it is all in working order.
- 2) Create a circuit using one wire and measure the brightness of the bulb.
- 3) Repeat this using additional wires and measure the brightness of the bulb.

WALT: conduct an investigation.

Science

We are just planning today!

Use the video and have a look at the different equipment used to plan the beginning of your investigation.

We are not carrying out the investigation in this lesson!
We will do this in our follow up lesson later in the week!

