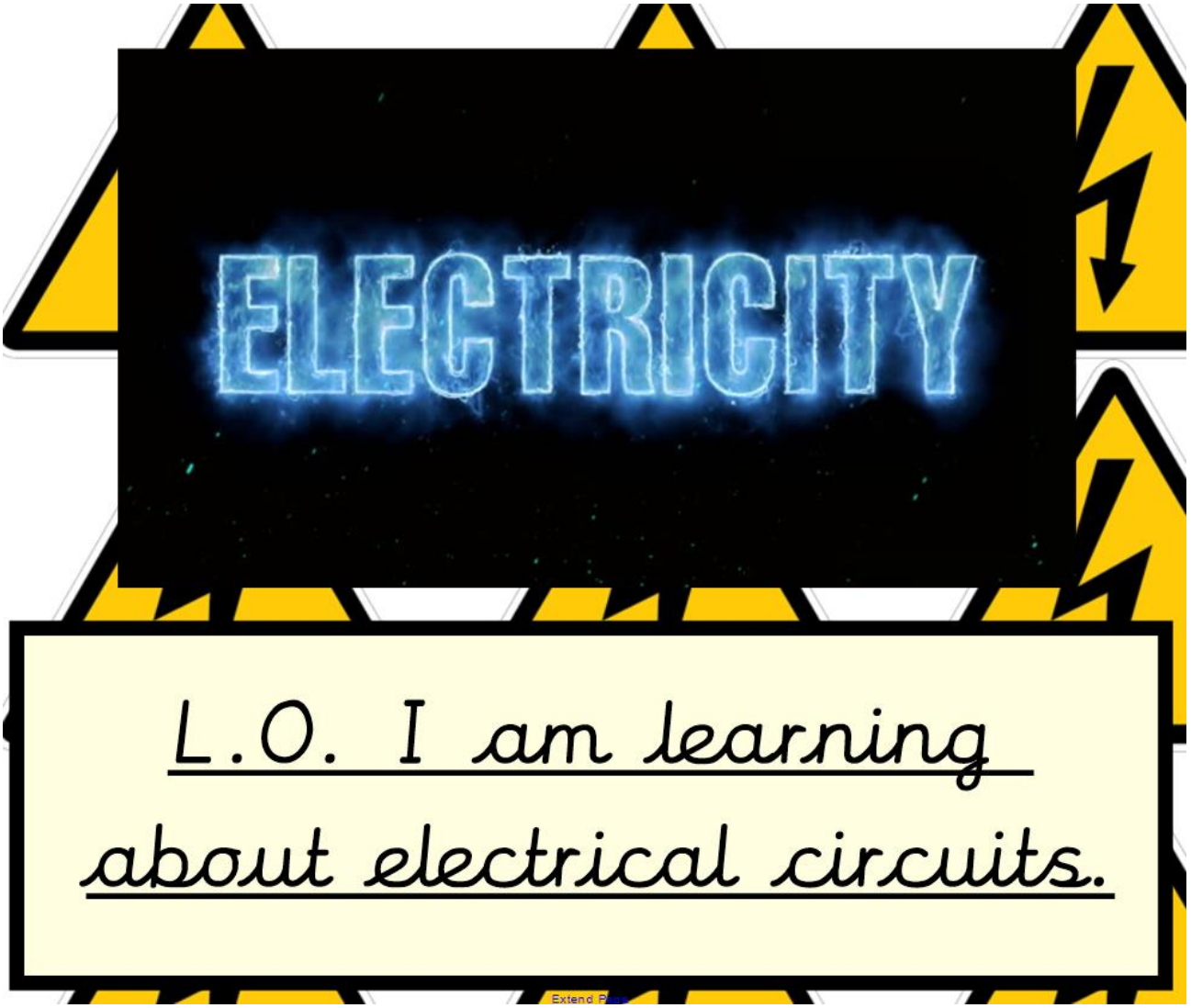

TASK 1

Read the statements you have been given about electricity. Draw a table with the headings 'True, False, Not Sure' and write the following statements into the column you think.

True	False	Not sure

Lightning is electrical.	Increasing the voltage makes the bulb brighter.	Before electricity was installed in homes, people used oil or gas lamps and candles for light.	This is the scientific symbol for a battery: 	Circuit components include buzzers, switches, wires and motors.
The power does not return to the battery in a circuit.	The first battery was invented in the 1900s.	An electrical circuit does not need to be complete to work.	Benjamin Franklin invented electricity.	Energy jumps through the air from one component to another in a circuit.
This is the scientific symbol for a closed switch: 	Thomas Edison created the first reliable lightbulbs.	There does not need to be a power source for a circuit to work.	Electricity has always been available in homes.	Batteries have a positive and a negative end.

Voltage
Crocodile clip
Cell
Electricity
Circuit
Motor
Conductor
Circuit diagram
Current
Bulb
Buzzer
Wire
Symbols
Switch
Components
Insulator
Positive / negative

This is the vocabulary we will be using in this unit. Are there any words you are unsure of? You could use dictionary.com to find out what they mean.

In 1752, Benjamin Franklin tied a metal key to a kite during a thunderstorm. He wanted to prove that lightening is electrical. Until that point, people didn't really know much at all about electricity.

It wasn't until 1800 that the first battery was invented and it was many years later, in 1883, that the first reliable light bulbs were patented by Thomas Edison.

It wasn't until the First World War that having electricity installed in homes became more widespread. Before then, people relied on oil or gas lamps and candle for light. These were dangerous because some let off noxious fumes and the fire risk was much greater.

Of course, the lightbulb isn't the only thing we use in our homes that runs off electricity.

Make a list of all the things you can think of that use electricity in your home.

What would life be like without these things?

TASK 2

An electrical circuit is a closed loop that connects components to a power source, allowing the energy to flow from the battery, through the components and back to the battery.

Can you name these components?

Watch this video which explains how an electric circuit works.

https://www.bbc.co.uk/bitesize/clips/zq3fb9q

Watch this video to find out how to make a bulb brighter.

https://www.bbc.co.uk/bitesize/clips/z6qd7ty

This is the view of the UK at night.
What can you see?

During World War 2, the Germans sent pilots to fly over the UK and bomb locations that would cause the most destruction.

How could they have use these lights to help them? Note down your ideas.

During World War 2, the blackout was a nationwide effort to turn off all lights in towns and cities. It was devised as a defence against German bombers, so they could not be guided by the lights.

What would life have been like during a black out in the blitz?

What if you had to find your way to an air raid shelter?