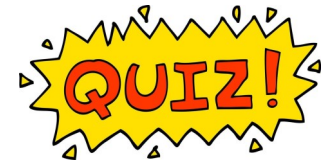


# Year 6 - DT Knowledge Organiser

## Electrical Components

### Quiz Board



### Design...

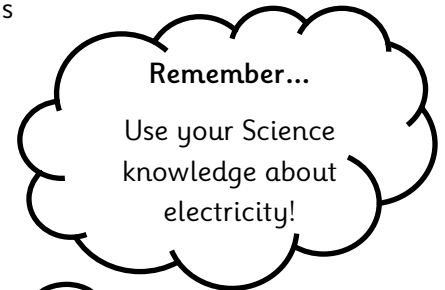
#### Design Criteria...

Your Quiz board needs to have a Vikings theme;

Create a drawing to explain your ideas;

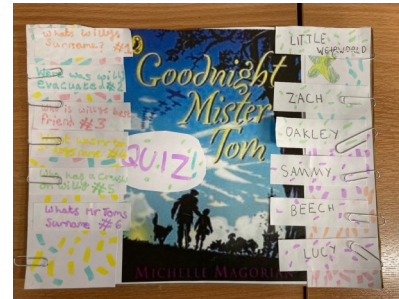
Your drawing needs to be **to scale** - half the size of your finished board;

It must have an electrical circuit.



### What I remember from Year 4...

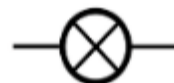
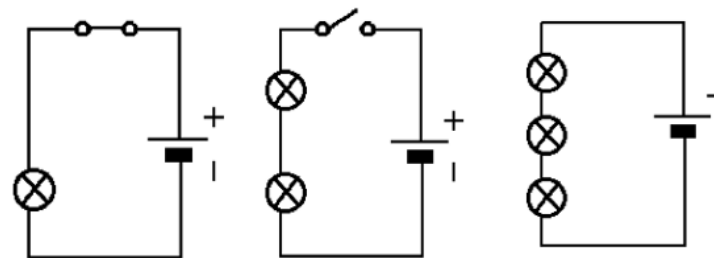
- A complete circuit contains a battery (cell), wires and an component that requires electricity to work. E.g. a bulb, motor or buzzer.
- A switch controls the flow of the electrical current around the circuit. When the switch is off, the current cannot flow.



### Key Knowledge...

Use your knowledge about The Vikings to create questions and answers (Correct and Red Herrings)!

Electrical circuits can be used in products to create different **outputs**, depending on the **input**.



buzzer



bulb



### Key Vocabulary...

**To scale** - A drawing that shows a real object with accurate sizes reduced or enlarged by a certain amount.

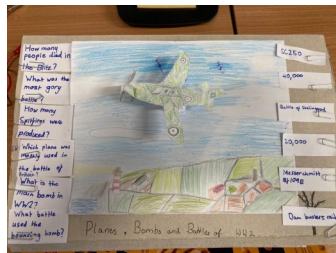
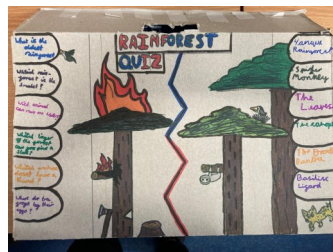
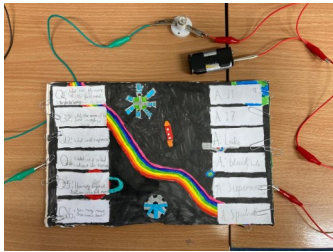
**Outputs** - What comes out of something. E.g, letters appearing on the screen, bulbs lighting.

**Input** - Information that is 'put in' to something. E.g, pressing keys on a keyboard, pressing a switch on.

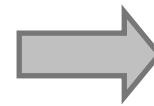
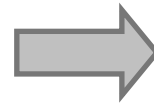
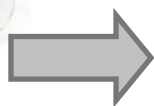
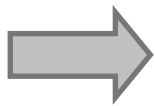
**Modify** - To adapt or change.

## Key Skills...

Create and modify a circuit to make a Quiz Board!

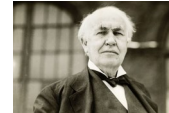


A correct answer matched needs to cause a bulb to light or a buzzer to sound.



## Thomas Edison

Thomas was born in 1847 and lived in the USA. He is known as one of the greatest inventors in History. Thomas invented the light bulb, the phonograph (which could record and play sound) and an early video camera called the kinetograph.



## Don't forget...

You may need to **modify** your circuit as you create it!



## Health and Safety...

### Remember...

- Work away from wet areas and liquids;
- Work carefully with glass light bulbs and clear them up carefully if they break;
- Check batteries aren't corroded or rusty and throw them away if they are.



An incorrect answer matched needs to cause no light or sound.