

BINA
BIRKENHEAD
HIGH SCHOOL ACADEMY
Junior School Vision Statement
G D S T

BE:	RESPECTFUL
BE:	<b>FORGIVING</b>
BE:	KIND

## Year 4 - Autumn

# DT Knowledge Organiser

Topic:

Torches

Links to other year groups: Year 4 & 6 Science Curriculum – Electricity.

### **Key Vocabulary:**

research – to find out

**evaluate** – to discuss & decide what would make it even better

**function** – what the product does

purpose – why it was designed

**existing** – something that is

already available

**user** – who it is for

innovate - design something new



#### Constructional Diagrams & Key Info: INTECTION MOULDED ABS PLASTIC BODY VALUE TORCH PRODUCT ANALYSIS THIS END CAP EXPLODED SKETCH. IS HEAT FIXED TO THE MAIN BODY INSIDE THIS MAKES CONTACT THEREIS A WITH THE CONTACT COPPER CONTACT PLASTIC SWITCH RING TO SWITCH FOR THE BATTERY TORCH ON ANDUFF LOOP/RING. METAL SWITCH PLASTIC RING. RECESS FOR BATTERY open closed switch switch Battery CLEAR PLASTIC BATTERE LENS COVER. PROTECTS POWER THE TORCH. I.S VOLTS THE BULB AND REFLECTOR. battery bulb ASSEMBLED.

#### **Important People:**

In 1899, **David Misell** an English inventor, invented the first torch.

It had three 'D batteries' placed in a tube that acted as a handle of the device. Batteries powered a small incandescent electric light bulb and a simple contact switch turned light on and off.

They were called "flash" lights because they could not throw light for too long and you had to turn them off to rest them from time to time.

Early torches ran on zinccarbon batteries that could not give constant current for longer time frames.

Lesson 1	To identify the features of torches and investigate their uses.
Lesson 2	To be able to create a simple circuit and investigate different types of switches.
Lesson 3	To investigate cases for a torch.
Lesson 4	To be able to design a torch for a particular purpose.
Lesson 5	To be able to make a torch.
Lesson 6	To be able to evaluate a finished product.