

# Torches

## Construction

### Prior Knowledge

**Year 6**—In Year 6 you have already learned about how light travels and can be obscured and manipulated in science.

**Year 6**—Our current History sequence is the Shang Dynasty. Did you know that this ancient civilisation used shadow puppet theatres to deliver the news to their people?

**Year 4**—In DT, you designed, made and evaluated a pop up book using similar materials and techniques to the ones you will be using in this sequence.

**Year 4**—In science, year learnt about electricity and how to make a simple series circuit including the components needed and how to represent this in a circuit diagram.



How does light travel?

What is an electrical circuit?

How can a torch be made reliable?



### My Component Knowledge:

Lesson 1: I can build an electrical circuit.

Lesson 2: I can explore multiple possible design options.

Lesson 3: I can create a realistic design specification.

Lesson 4: I can cost my product.

Lesson 5: I can follow my plan to build a product.

Lesson 6: I can critically evaluate my own work.

### My Composite Knowledge:

I can select and use appropriate materials and techniques to join materials to create a product, in this case a torch. I can

### My Powerful Knowledge:

I understand the importance of giving consideration to the target audience when creating both design and success criteria. I know that electrical conductors and electrical insulators play a huge part in the safety of all electrical devices. I understand that an electrical circuit must be complete for electricity to flow including the switch being closed.

### Key Vocabulary

**Tier 1:** make, light, battery, crocodile leads, electricity, torch

**Tier 2:** design, research, brief, product, consumer, user, costing, circuit, diagram, annotate

**Tier 3:** prototype, evaluate

