

In DT we are learning about... **Electronics - Can you design, make and evaluate a night light to illuminate a child's bedroom?**

Key vocabulary



Electricity - a type of energy used to power lots of things
Circuit - the path the electric current follows input device components that are used to control an electrical circuit e.g. switches.
output device - components that produce an outcome e.g. bulbs, motors and buzzers.
current - the flow of electricity
Conductor - something that allows electricity to flow through it
Insulator - something that does not easily allow heat or electricity to flow through it

to illuminate a child's bedroom?

Sticky knowledge



- Electricity is a type of energy. It is used to power lots of things
- Electricity can flow through wires and cables. It can also, be stored in batteries or cells.
- A circuit is the path the electric current follows. It must have no breaks in it (a closed circuit) for electricity to flow.
- The electricity flowing through a circuit is known as the current. The current can be deliberately allowed to flow or broken using a switch.

Key Designers

Thomas Edison
 Sally Storey
 Night light designs



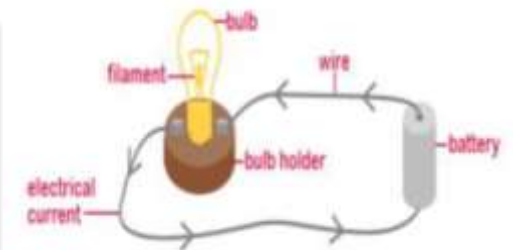
Links to previous learning

In year 2, children learned:

- A chair that is stable will not fall over and will support weight
- Structures are more stable when they have a wider base
- A chair can have legs, a back, a seat, joins, arms and support
- Some materials are stronger and more rigid (stiffer) than others, e.g. card is stronger and more rigid than paper
- Joining materials together e.g. with glue or tape can make them stronger
- Folding or rolling paper/card into a tube makes it stronger
- Adding an extra layer of materials can make it rigid

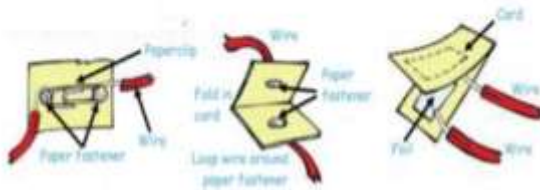
In Year 3, children learned:

- Shell structures are structures with a solid outer surface (curved or flat) and a hollow inner area and are used to protect, contain or present products



Switches

-Homemade switches can be made using this equipment:



Characteristics needed for this topic:

- Problem Solving
- Improving/resilience
- Curiosity



Aspirations



- Electrician
- Electronic Engineer
- Electronic Designer
- Electronics teacher