

DT

Light Up Signs

Year 4

What I should already know

- Have some understanding of how to construct a simple series electrical circuit. (See Y4 Science Electricity)
- Describe some techniques to make a firm and stable structure. (See Y2 DT Transport, Y3 DT Photo Frames)
- Choosing the correct materials based on their properties. (See Y2 Science Materials)



Sticky Knowledge

Know the features of commercially available lights which make them suitable for a specific purpose or user.

Know the correct materials to use to create a series circuit and why (conductors and insulators).

How to create a series circuit involving a bulb and a switch.

Know how to work safely with electricity.

Describe the process needed to make their product.

Know the correct techniques to make a firm and stable structure.

Technical Knowledge and skills

- Research and evaluate a range of different light up signs, their designers and their intended purpose.
- Conduct a survey to determine the particular needs and wants of a group or individual.
- Use a range of appropriate tools, materials and techniques to create a light up sign.
- Evaluate their light up sign against a set design criteria.

Vocabulary

Structure	The arrangement of the parts of something complex.
Switch	A device for making and breaking the connection in an electric circuit.
Component	A part or element of a larger whole.
Circuit	A system of electrical conductors and components forming an electrical circuit.
Conductor	Transmit (a form of energy such as heat or electricity).
Battery	A container consisting of one or more cells, in which chemical energy is converted into electricity and used as a source of power.
Freestanding	Not attached to or supported by another structure.
Stable	Not likely to give way or over-turn.
Frame	A rigid structure that surrounds something.