

Year 4 - Spring - Design & Technology Knowledge Organiser - Electrical Systems

What I already know...

- how to cut and join a variety of construction materials such as card, plastic and reclaimed materials.

Key Vocabulary

a sequence of instructions that can be Program used to control electrical components.

a set of related parts or components that together achieve a desired out-System

come.

components that produce an outcome Output devices e.g. bulbs, motors and buzzers.

Input devices

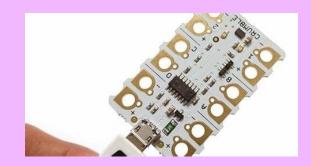
components that are used to control an electrical circuit e.g. switches.

Process

how a computer program controls one or more output devices.

What I will learn...

- to make a manually controlled series circuit with batteries, switches, bulbs, motors and buzzers.
- to make their own switches.
- to explain which parts of the circuit are input devices and which are output devices.
- how to find a fault in a circuit and correct it.
- how to program a microcontroller to program their product and enhance how it works.
- what a short-circuit is and how to avoid making them.



Making a difference at The Merton

Year 4 will become designers as they strive to use their knowledge of electricity along with their skills of computer programming to develop and make a product which will deter unwanted foxes from prowling around near a rabbits cage.

Making a difference at home

Why not sign up to the computer programming website 'Scratch'? It's free and will help you all hone your programming skills. (Remember never sign up to anything on the internet unless you have got an adult to help you).



