Year 5

DT

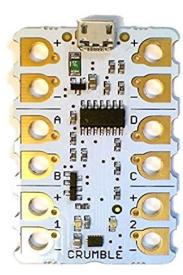
Electrical Systems:

Monitoring and Control

Knowledge Organiser

Crumbles and components

Crumble



Input Devices







Push Switch

Reed Switch

Toggle Switch







Micro Switch

Tilt Switch

Light-Dependant Resistor

Output Devices









Sparkles

Bulb

Large LED

Buzzer

Health and Safety

Electricity can be dangerous.
Listen to instructions carefully to stay
safe

Always connect crocodile clips carefully to one terminal only. Do not let them touch another terminal.

Always connect components the correct way round.

| Vocabulary | |
|--------------------------------|--|
| Program | a sequence of instructions that can be used to control electrical components |
| System | a set of related parts or components that together achieve a desired outcome |
| 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 |
| Reed Switch | a switch that closes when a magnet is near |
| Toggle Switch | a switch that uses a toggle or lever to activate |
| Push-to-make switch | a switch that is 'on' when pressure is applied |
| Push-to-break switch | a switch that allows a circuit to normally be 'on' and turns off when pressure is applied. |
| Tilt switch | a switch which can turn a circuit on/off when tilted |
| Light dependent resistor (LDR) | a component which increases or decreases resistance depending on the amount of light present |
| Light emitting diode (LED) | an output device that glows when electricity is passed through it |
| Purpose | the reason for making a product |
| Function | what a product does |
| Design Criteria | the precise goals that a project must achieve in order to be successful |
| Innovative | produced through or resulting in innovation; new and inventive |
| Appealing | attractive or pleasant to look at |
| Design Brief | the statement a client gives to a designer outlining what they want their product to be like |