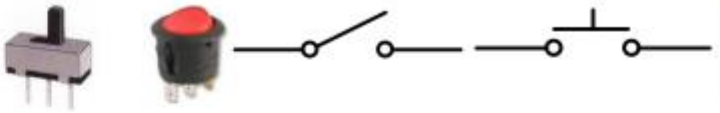
Electronic Components

Switches

When the **switch** is on, it allows a flow of **current** around the **circuit**. When the switch is turned off, the circuit breaks and the power flow is interrupted.

Symbols



Resistors

A **resistor** is an electrical component that restricts the flow of electric current

Capacitors

A **capacitor** is an electronic component that stores and releases electricity in a **circuit**.

LED (Light emitting Diode)

a light-emitting diode (**LED**) is a semiconductor device that emits light when an electric current is passed through it

Tools and Equipment

Soldering Iron

Soldering iron holder

Side cutters

Pliers

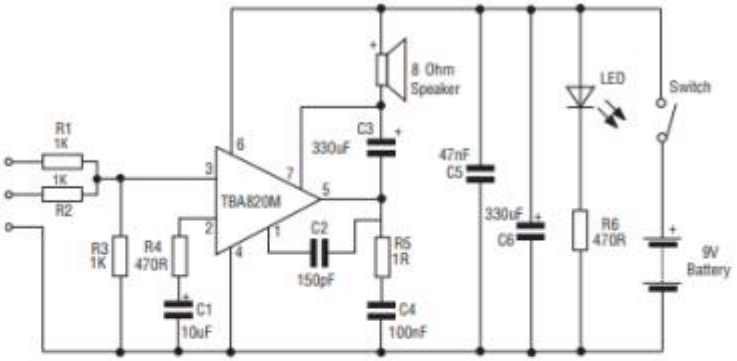
Wire Strippers

KS3 Knowledge organiser

Electronics

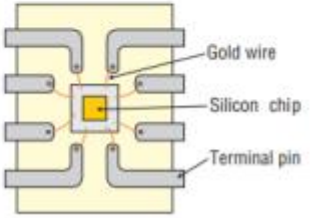
Circuit Diagrams

The diagrams shows the circuit and pin layout for the amplifier circuit used in this project. All amplifier ICs are represented in circuit diagrams by a triangle. The numbers placed around the edge indicate the pins the components need to be connected to.



Integrated Circuits (IC's)

Engineers can now place all the components of a circuit onto a single piece of silicon. This makes the circuit more reliable and easier to construct. The diagram right shows the typical inside of an IC. The terminal pins or legs are connected to the silicon chip with a series of very fine gold wires.



Printed Circuit Board (PCB)

A **printed circuit board**, or **PCB**, is used to mechanically support and electrically connect electronic components using conductive pathways, tracks or signal traces etched from copper sheets laminated onto a non-conductive substrate