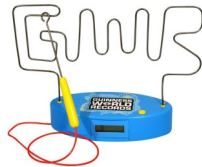


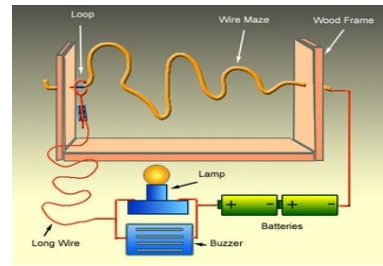
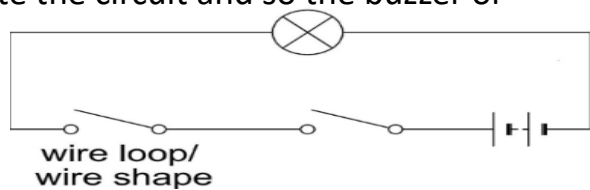
Real life examples

• Electricity is a type of energy that is used to power lots of things. For electricity to flow, there has to be a complete circuit with no breaks. The electricity flowing through a circuit is called the current and it can be used to power an output device such as a light.

• Games, such as operation and wire loop games, use electric circuits to make the game work.

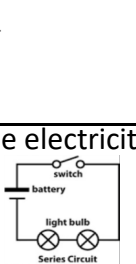
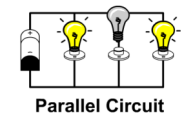


• When switched on, the tweezers or hoops act as a switch to complete the circuit and so the buzzer or bulb lights up.



Vocabulary:

circuit	the path through which electricity travels
component	a part or element of an electrical system
conductor	a material which allows an electric current to pass through it
input devices	components that are used to control an electrical circuit
insulator	a material that doesn't easily allow electric current to pass through it
parallel circuits	components are positioned on different branches of wire. If one branch breaks the other branches still work
series circuit	there is only one path that the electricity can flow through
switch	a device for making and breaking the connection in an electric circuit
wire	metal drawn out into the form of a thin flexible thread or rod



Steps to Success

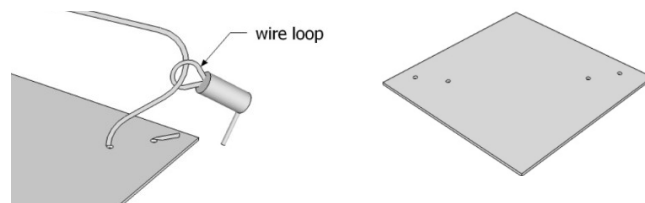
Designing:

- Who are you designing your game for?
- How will it stand up?
- What will happen if the wire is touched?
- What equipment will you need?
- How will you work safely?



Making:

- How long does your wire need to be?
- How will you bend and cut the wire?
- How will you add your components?



Evaluating:

- Does your game work?
- Does it suit your user?

Golden Threads

User	who the product is for
Purpose	the job your product is supposed to do
Design Decisions	making choices about your design
Innovation	using your own ideas or methods