

**Properties****Light**

- Light travels in straight lines.
- We see things because light reflects off objects and travels to our eyes.
- Objects appear different colours

because they absorb some colours and reflect or transmit other colours.

- Light is made up of all the colours of the rainbow: red, orange, yellow, green, blue, indigo and violet.
- Light travels at different speeds through different transparent materials, such as glass and water. This causes rays of light to change direction and bend. This is known as refraction.

**Significant Scientists**

Ctesibius (born 285BC and died 222BC) was a Greek inventor and mathematician who invented the first alarm clock, by using water to show how much time had passed.

Joseph Swan (31 October 1828 – 27 May 1914) was an English physicist, chemist and inventor. He is known as the inventor of the first incandescent light bulb, and is the person responsible for developing and supplying the first incandescent lights used to illuminate homes and public buildings.

**Careers**

There are several careers that could be considered based on learning about the circulatory system, diet and exercise, digestive system and human organs, such as:

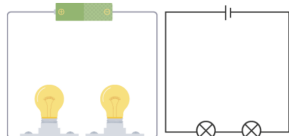
- Optometrist: a person who is trained to examine the eyes to detect defects in vision.
- Electrician: a tradesperson who specialises in the electrical wiring of buildings, transmission lines and stationary machines.
- Solar engineer: a person responsible for planning, designing, and implementing solar energy projects.
- Automotive engineer: a person responsible for designing, developing, testing and building electric cars and motorbikes.

**Properties**

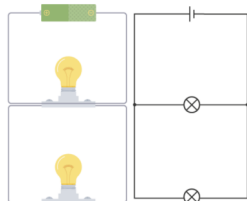
- Electrical circuits are drawn using symbols, some of which are shown below.

			
Wire	Cell	Simple switch	Bulb
			
Buzzer	Push switch	Battery	Motor

- There are two types of circuit we can make, called series and parallel.
- If you follow the circuit diagram from one side of the cell to the other, you will pass through all the different components.



- In parallel circuits different components are connected on different branches of the wire. If you follow the circuit diagram from one side of the cell to the other, you can only pass through all the different components if you follow all the branches.

**Conduct****Record**

- Planning different types of scientific enquiries will help us understand why things happen.

- Presenting findings in different ways, such as using tables, bar charts or line graphs may help us identify patterns.

Key vocabulary and meanings

* **Reflection** - the return of light, heat, sound, or energy from a surface.

* **Refraction** - the bending of light as it passes from one transparent substance into another.

Series circuit - a simple pathway that lets electrons flow to one or more resistors. A resistor is anything that uses power from a cell.

Parallel circuit - In a parallel circuit there is more than one path for the current to follow.

Watt - The watt is a unit of power. It is used to quantify the rate of energy transfer.

**Scientific vocabulary**