Thomas Estley Community College
Year 8 Summer Term
Knowledge Organiser

What are Knowledge Organisers?

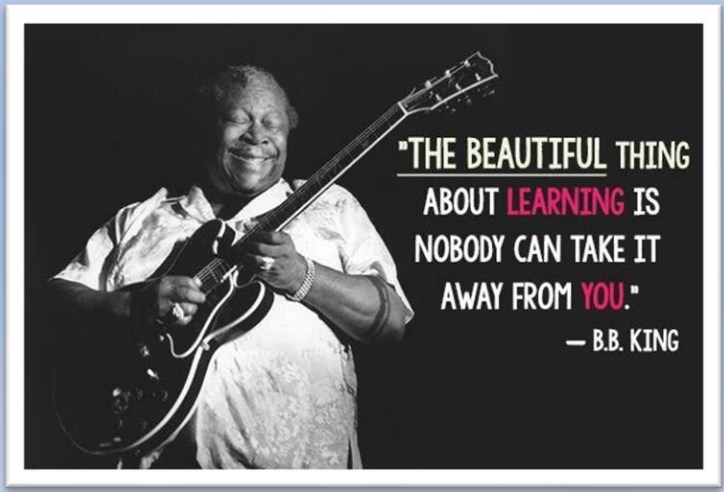
A knowledge organiser is an easy way that each subject can summarise the most important information. Each subject section will include key terms, short explanations, glossary words, diagrams etc making it clear to the student as to what is essential to learn. Each grid has an overall theme and these vary according to the subject being taught.

It will be the students responsibility to keep the knowledge organisers safe and refer to them over the whole academic year.

How will these be used at Thomas Estley?

At Key stage 3, you will be given a knowledge organiser each term. You need to keep these safe in your learning packs that you were provided with at the start of the academic year.

Your subject teachers will use these in a variety of ways, for both class work, remote learning opportunities and homework. They will be used to help with revision for class quizzes and retrieval practice activities. They will also be used for flip learning activities, where subject teachers will ask you to learn some information and then go in to it in more detail in class.



SUCCESS
THOMAS ESTLEY COMMUNITY COLLEGE

Revision Tips and Tricks!

Record It

Record yourself on your phone or tablet reading out the information. These can be listened to as many times as you want!

Teach it!

Teach someone your key facts and the get them to test you, or even test them!

Flash Cards

Write the key word or date on one side and the explanation on the other. Test your memory by asking someone to quiz you on either side.

Back to front

Write down the answers and then write out what the questions the teacher may ask to get those answers.

Hide and Seek

Read through your knowledge organiser, put it down and try and write out as much as you can remember. Then keep adding to it until its full!

Sketch it

Draw pictures to represent each of the facts or dates. It could be a simple drawing or something that reminds you of the answer.

Post its

Using a pack of post-it notes, write out as many of the keywords or dates as you can remember in only 1 minute!

Practice!

Some find they remember by simply writing the facts over and over again.

Read Aloud

Simply speak the facts and dates out loud as you're reading the Knowledge Organiser. Even try to act out some of the facts – it really helps you remember!

Year 8 Knowledge Organiser – Cryology

Cryology is the study of snow and ice.

These photos are of Muir Glacier in Alaska, USA. They were taken from the same location in 1941 and in 2004.

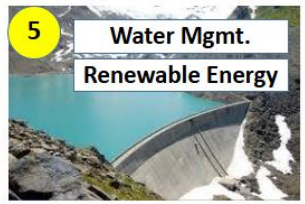
How has the Muir Glacier changed over time?

What might have caused this?

The glacier has experienced a significant retreat. Between 1892 and 1980, it retreated nearly 20 miles (32 kilometers). Further, between 1941 and 2004, it retreated more than 7.5 miles (12 kilometers) and thinned by over 2,600 feet (800 meters). This retreat has resulted in the valley previously occupied by the glacier being filled with ocean water, forming Muir Inlet.

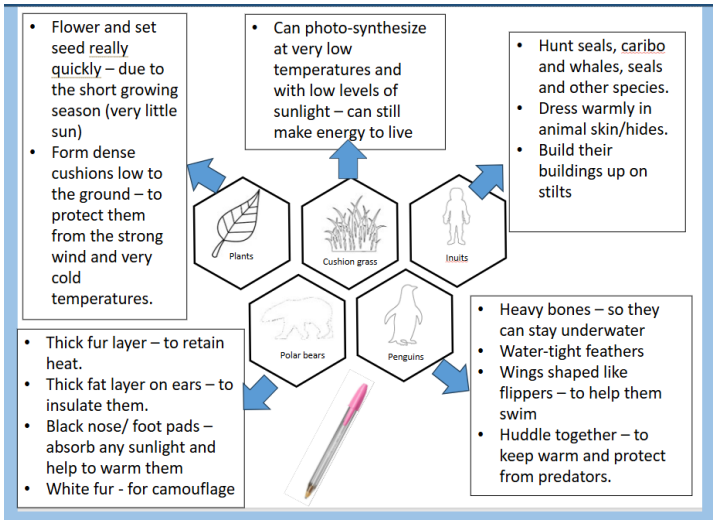
What should I already know?

The location of The North and South Pole



Keyword	Definition / Explanation
Glaciation	A long-term process where large areas of land are covered by glaciers or ice sheets, often during colder climatic periods known as ice ages.
Glacier	A large, slow-moving mass of ice formed from compacted snow, found in cold regions or high mountains. Glaciers shape landscapes through erosion and deposition.
Human Impacts	The effects of human activities on glacial environments, such as pollution, overdevelopment, and contributions to global warming, which can accelerate glacial melt.
Tourism	Travel to glacial regions for recreation or study. While it boosts local economies, it can also lead to environmental degradation, littering, and erosion.
Climate Change	Long-term alteration in global or regional climate patterns, largely driven by human activity. It causes glaciers to retreat and alters glaciated landscapes.

Adaptations

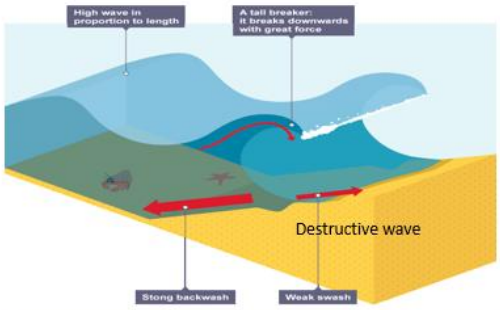


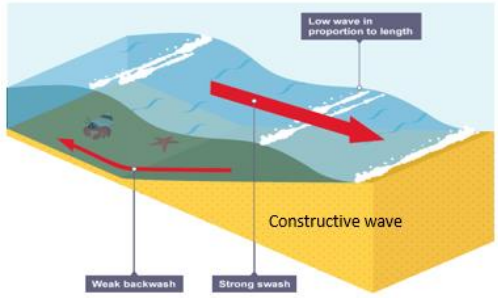
Human Impacts

In 2017, tourist spend over £3bn in the Lake District
Tourists trample and erode the footpaths, cutting groves into the ground
Quarrying is dirty, noisy and ruins the landscape. It brings a large number of lorries and heavy machinery to the winding roads
Visitor's dogs chase sheep
In 2017, tourism led to 37,776 full time (or equivalent) jobs in the area
Wealthier visitors often buy a 'second home' in the area. They are rarely there - local businesses do not have regular trade all year round
House prices are high. Young people cannot afford to buy and often have to leave the area.
Tourists leave a lot of litter behind in the fields, footpaths and around lakes and towns/villages
There is not a big enough year-round population to support local services such as schools, GP surgeries or dentists

Year 8 KO – Coasts

Types of wave

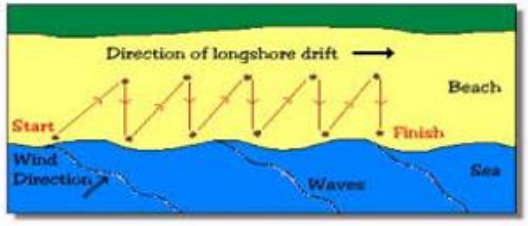




1. The energy of the swash and backwash determines the type of wave.
2. A **destructive wave** has a weak swash and strong backwash. The strong backwash removes sediment from the beach and the waves are steep and close together.
3. A **constructive wave** has a strong swash and a weak backwash. The strong swash allows sediment to build up the beach. The waves are low and further apart.

Formation of longshore drift

1. Sediment is carried by the waves along the coastline.
2. Waves approach the coast at an angle because of the prevailing wind.
3. The swash will carry the material towards the beach at an angle. The backwash flows back to the sea.
4. The process repeats itself in a zig zag movement.



What should I already know?

- The ocean is where the land meets the sea
- Wave come into land and go out to sea

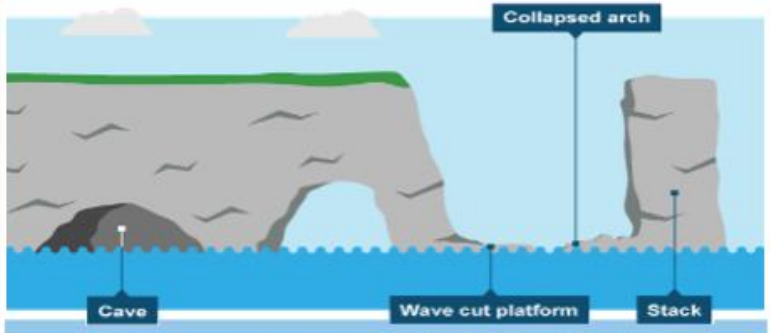
Coastal Defences

Hard Engineering Defences		
Groynes Revetments	**Wood barriers prevent longshore drift, so the beach can build up. Wooden posts with slats of wood or concrete laid on top of the beach to stop the sand being eroded .**	**• Beach still accessible. • No deposition further down coast = erodes faster. absorbs wave energy • Not effective in storms.**
Sea Walls	**Concrete walls break up the energy of the wave . Has a lip to stop waves going over.**	**• Long life span • Protects from flooding • Curved shape encourages erosion of beach deposits.**
Gabions or Rip Rap	**Cages of rocks/boulders absorb the waves energy, protecting the cliff behind.**	**• Cheap • Local material can be used to look less strange. • Will need replacing.**
Soft Engineering Defences		
Beach Nourishment	**Beaches built up with sand, so waves have to travel further before eroding cliffs.**	**• Cheap • Beach for tourists. • Storms = need replacing. • Offshore dredging damages seabed.**
Managed Retreat	**Low value areas of the coast are left to flood and erode naturally.**	**• Reduce flood risk • Creates wildlife habitats. • Compensation for land.**

Key Vocabulary and definitions

Erosion - The break down and transport of rocks – smooth, round and sorted.	
Attrition	Rocks that bash together to become smooth/smaller.
Solution	A chemical reaction that dissolved rocks.
Abrasion	Rocks hurled at the base of a cliff to break pieces apart.
Hydraulic Action	Water enters cracks in the cliff, air compresses, causing the crack to expand.
Transportation - A natural process by which eroded material is carried/transported.	
Solution	**Minerals dissolve in water and are carried along.**
Suspension	Sediment is carried along in the flow of the water.
Saltation	Pebbles that bounce along the sea/river bed.
Traction	Boulders that roll along a river/sea bed by the force of the flowing water.

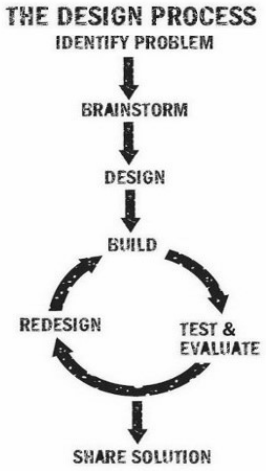
Formation of Coastal Stack



1) Hydraulic action widens cracks in the cliff face over time.
2) Abrasion forms a wave cut notch between HT and LT.
3) Further abrasion widens the wave cut notch to from a cave.
4) Caves from both sides of the headland break through to form an arch.
5) Weather above/erosion below –arch collapses leaving stack.
6) Further weathering and erosion eaves a stump.

Year 8 - Textiles Design and Technology

The Design Process



"The design process involves continually evaluating and redesigning to develop ideas"

"Research like product analysis helps to inspire our own ideas"

Product Analysis

- A is for Aesthetics
- C is for Cost
- C is for Customer
- E is for Environment
- S is for Size
- S is for Safety
- F is for Function
- M is for Material

Primary and secondary data

Primary sources of information are gathered by the designer and used to help improve their designs.

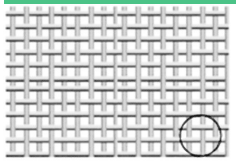
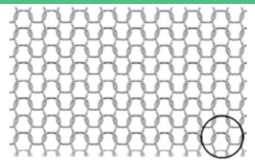
Secondary sources of information use data already found by other people or organisations that are relevant.

User centred design.

User centred design consider who the target market will be and thinks about their needs and wants. Examples of this could be:

- designing fastenings for small children to use
- creating products for the partially sighted, which might include bright colours or large buttons
- redesigning products using the ergonomic data of a wheelchair user

Fabric Construction

Woven	Knitted	Non– Woven
		
(a) 	(b) 	(c) 
Strong, non stretch, different weaves: plain, twill, satin. Use for shirts, jeans, bed linen	Cheaper to produce, stretch due to loop structure, can snag and cause runs. Used for sportswear, tights and jumpers	Very cheap, not strong (unless bonded), can be easily torn. Use for disposable products e.g. jay clothes, disposable hats, felt.

Cotton V's Polyester

Material	Source of origin	Sustainable?
Cotton		More sustainable than Polyester, because the plants can continually grow. Uses a large amount of water to grow, clean and process the fibres. Pesticides and dyes can be poisonous and cause pollution. Organic cotton is produced more
Polyester		Made from a fossil fuel (coal/oil) so not sustainable. Can be recycled though. Each time polyester is washed microfibre are release which is polluting the oceans and getting into the eco system.

The 6Rs

Rethink	Do we make too many products? Design in a way that considers people and the environment.	
Refuse	Don't use a materials or buy a product if you don't need it or if it's bad for people or the environment	
Reduce	Cut down the amount of material and energy you use as much as you can.	
Reuse	Use a product to make something else with all or parts of it.	
Recycle	Reprocess a material or product and make something else.	
Repair	When a product breaks down or doesn't work properly, fix it.	

The Impact Of Fast Fashion

Textile production produces harmful emissions and other pollution from chemicals and dyes.

Poor-quality clothing leads to more textile waste. Plastic based fibers release harmful gases in landfills.

Textile production uses scarce resources. The industry uses 100 billion cubic meters of water annually — about 4% of global freshwater withdrawal.

Microplastics enter the water system when synthetic materials are washed. Ocean species consume these plastics, and so do people eating seafood.

Key Terms:

Fast Fashion—clothes that are made quickly and cheaply to meet everchanging fashion trends. Often linked to poor working conditions.

Sustainability — when materials or products can be made without damage to people of the environment. E.g. Organic cotton and Bamboo.

Fairtrade— trade between companies in developed countries and producers in developing countries in which fair prices are paid to the producers

FAIRTRADE

My Holiday Plans

Year 8 sub-unit 4 - holidays

Este verano voy a ir de vacaciones a … This summer I am going to go on holiday to …	Argentina Chile Cuba España México	**Vamos a ir** We're going to go	**en autocar** – by coach **en avión** – by plane **en barco** – by boat **en coche** – by coach	**Será aburrido -** It will be boring **Será divertido -** It will be fun **Será guay** (It will be cool)
Voy a pasar - I am going to spend **Vamos a pasar -** We are going to spend	**1 semana allí** – 1 week there **2 semanas allí** – 2 weeks there			
Voy a quedarme en - I am going to stay in **Vamos a quedarnos en -** We are going to stay in	**la casa de mi familia** – my families house **un camping –** a campsite **un hotel barato** – a cheap hotel **un hotel de lujo** – a luxury hotel			
Voy a - I am going to **Vamos a -** we are going to **Me gustaría -** I would like **Nos gustaría -** we would like	**Bailar-** dance **comer comida deliciosa** – eat Delicious food **comprar recuerdos** – buy souvenirs **descansar** - relax **hacer buceo**, - go scuba diving **hacer turismo-** to go sight seeing **ir a la playa** – to go to the beach **, ir de compras** – to go shopping **montar en bici** – to ride my bike **tomar el sol** – to sunbathe			

Grammar

Future tense

Use the correct part of the verb IR (to go)

Voy (I am going to)

Va (he/she is going to)

Vamos (we are going to)

\+ a +

Infinitive

Bailar

Tomar el sol…

Questions

¿ Adónde vas de vacaciones? Where do you go on holiday?

¿ Para cuánto tiempo? For how long?

¿Con quién? Who with

¿Cómo viajas? - how do you travel?

¿**Qué actividades haces?** – What activities do you do?

Year 8 universals

Y – and
Pero – but
También – also
Sin embargo – however

Pienso que- I think that
Creo que – I believe that
En mi opinión – in my opinion

es – it is
era – it was
será – it will be

aburrido - boring
divertido - fun
interesante - interesting
emocionante - exciting

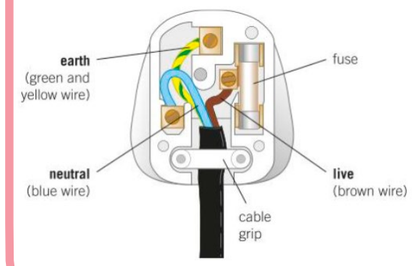
P4 Electricity

Knowledge organiser

Activate
Question • Progress • Succeed

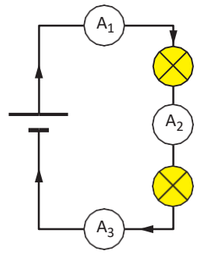
Wiring a Plug

- Most appliances are attached to the electricity supply using a three pin plug.
- These are usually made from a hard wearing plastic as plastic is an **insulator**.
- There are three wires in the plug; the Earth, the live and the **neutral** wire.
- Plugs contain a fuse which breaks the circuit if the current flowing gets too high.
- We use brass for the pins as it is a good conductor and hard wearing.
- Copper is used for the wires as it is an excellent conductor.



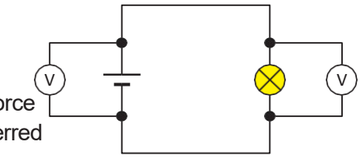
Current

- **Current** is the amount of **charge** flowing per second
- The charges that flow in a circuit are **electrons**, they are negatively charged
- **Electrons** leave the negative end of the **cell** and travel around the circuit to the positive end of the cell
- Current has the unit of Amps (A) and is measured with an **ammeter** (which is placed in series or in the main circuit)



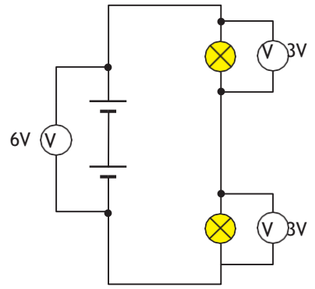
Potential difference

- **Potential difference** is the amount of energy transferred by the cell or **battery** to the charges
- The value of potential difference tells us about the force applied to each charge and then the energy transferred by each charge to the component which it passes through
- Potential difference has the unit of volts (V) and is measured with a **voltmeter** (which is placed in parallel to the circuit)



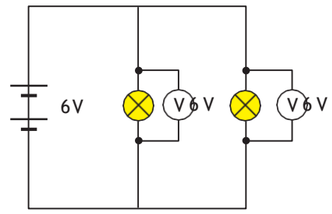
Series circuits

- **Series** circuits only have one loop
- If one component breaks, the whole circuit stops working
- Current is the same everywhere in a series circuit
- The total potential difference from the battery is shared between the components in a series circuit
- Adding more bulbs decreases the brightness of the bulbs



Parallel circuits

- **Parallel** circuits have more than one loop
- If one component breaks, the rest of the circuit will still work
- Current is shared between the different loops in the circuit
- The potential difference is the same everywhere in the circuit
- Adding more bulbs does not affect the brightness of the bulbs

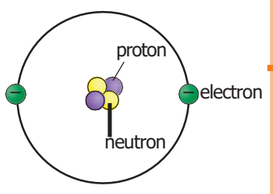


Electrical signals in the body

- **Nerve** cells are long and thin and carry electrical impulses around the body.
- Electricity from our surroundings can over power these impulses and cause us harm.

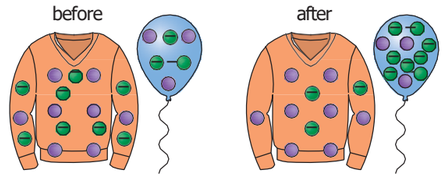
The atom

- The **atom** consists of a central nucleus with electrons orbiting around the outside in shells
- **Electrons** have a negative charged
- **Protons** are inside the nucleus and have a positive charge
- **Neutrons** are inside the nucleus and have a neutral charge



Static electricity

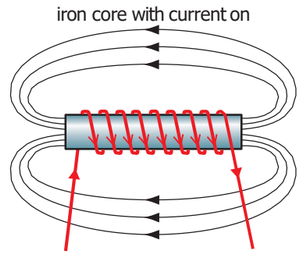
- Static electricity is the caused by the rubbing together of two **insulators**
- This causes electrons to be transferred, leaving one object with a positive charge, and one object with a negative charge



- Like charges will **repel**, opposite charges will **attract**

Electromagnets

- **Electromagnets** are made by wrapping a coil of wire around a magnetic **core**
- Electromagnets only work when electricity is flowing through the coil, which means that they can be turned on and off
- Electromagnets are also stronger than **permanent** magnets
- The electromagnet will produce the same magnetic field shape as a bar magnet



- You can increase the strength of an electromagnet by:
  - Increasing the number of turns on the coil around the core of the electromagnet
  - Increasing the current which is flowing through the coil of wire
  - Using a more magnetic material for the core, e.g. iron rather than aluminium

Key terms

Make sure you can write definitions for these key terms.

Ammeter, atom, attract, battery, cell, conductors, current, electrons, electric charge, insulator, neutral, neutrons, potential difference, protons, repel, resistance, parallel, series, voltmeter

Respiration

- Respiration is the process in which energy is released from the molecules of food which you eat
- Respiration happens in the mitochondria of the cell
- **Aerobic respiration** involves oxygen, it is more efficient as all of the food is broken down to release energy

glucose + oxygen → carbon dioxide + water

- The glucose is transported to the cells in the blood **plasma**
- The oxygen is transported to the cells in **red blood cells**, by binding with **haemoglobin**
- Carbon dioxide is a waste product and is transported from the cells to the lungs to be exhaled

Key terms Make sure you can write definitions for these key terms.

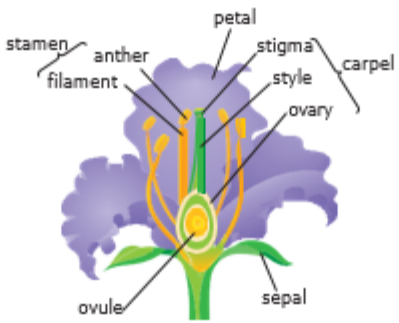
Algae Anther Chlorophyll Chloroplast Fertiliser Light intensity Magnesium Mineral deficiency Nitrates Palisade cells Phosphates Photosynthesis Potassium Producer Rate Spongy layer Stomata Waxy layer

Parts of a flower

Stamen

Male part of the flower

- The **anther** produces **pollen**
- The **filament** holds up the anther



Carpel

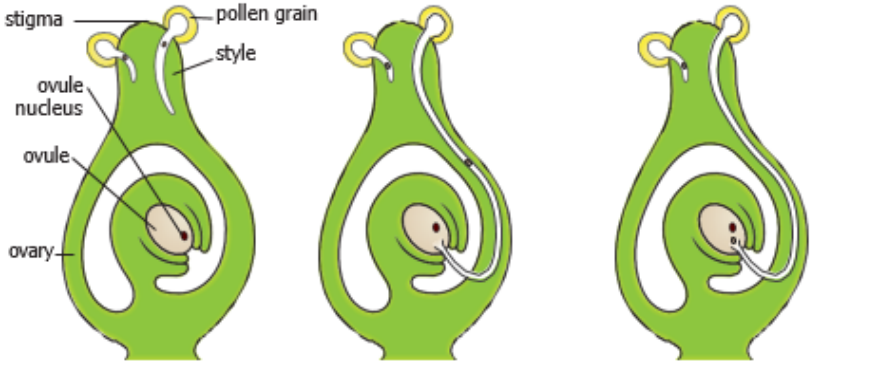
Female part of the flower

- The **stigma** is sticky to catch grains of pollen
- The **style** holds up the stigma
- The **ovary** contains **ovules**

Pollination and fertilisation

Pollination is the **fertilisation** of the ovule, the point at which the pollen is transferred to the ovule from the anther to the stigma, there are two types of pollination

- Cross pollination is between two different types of plant
- Self pollination happens within the same plant



The tube grows out of the pollen grain and down through the style.

The pollen nucleus moves down the tube.

The pollen nucleus joins with the ovule nucleus. Fertilisation takes place and a seed will form.

Germination is the process in which the **seed** begins to grow, for this to occur the seed needs:

- Water to allow the seed to swell and grow and for the embryo tostart growing
- Oxygen for that the cell can start respiring to release energy forgermination
- Warmth to allow the chemical reactions to start to occur within the seed

B4 Plants Knowledge organiser

Activate Question • Progress • Succeed

B4 Plants

Activate — Question • Progress • Succeed

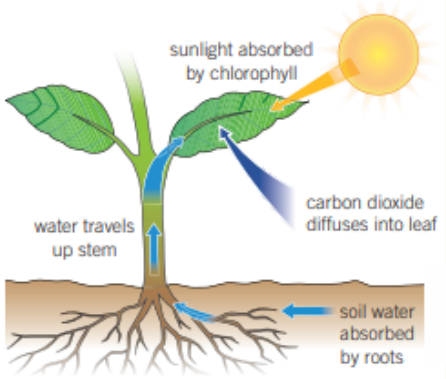
Knowledge organiser

Photosynthesis

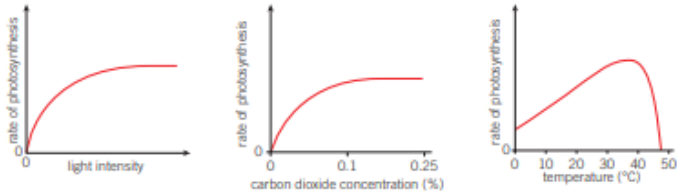
- **Photosynthesis** is the process which occurs in the chloroplasts to produce glucose using sunlight

water + carbon dioxide + sunlight → glucose + oxygen

- Any organism that can use photosynthesis to produce its own food is known as a **producer**, these are not just limited to plants but can include other organisms such as **algae**

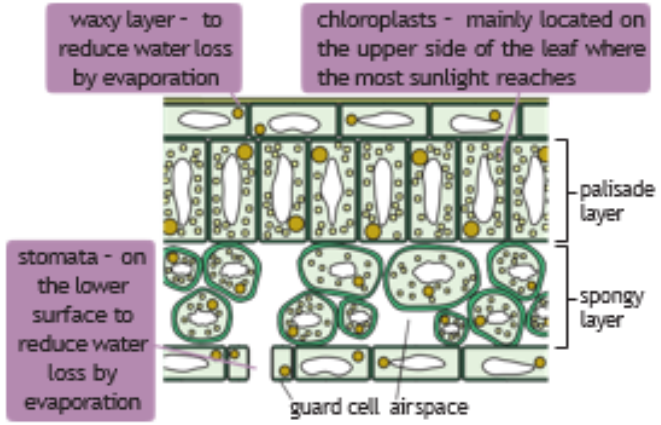


- The rate of photosynthesis can be affected by:
  - Light intensity – the higher the light intensity the higher the rate of photosynthesis up to a point
  - Carbon dioxide concentration – the higher the carbon dioxide concentration the higher the rate of photosynthesis up to a point
  - Temperature – the optimum temperature is the temperature at which photosynthesis occurs at the highest rate, before and after this the rate will be less



Leaves

- To best adapt for photosynthesis leaves have a number of adaptations
- They are thin to allow the most light through
- There is a lot of **chlorophyll** to absorb light
- They have a large surface area to absorb as much light as possible



Plant minerals

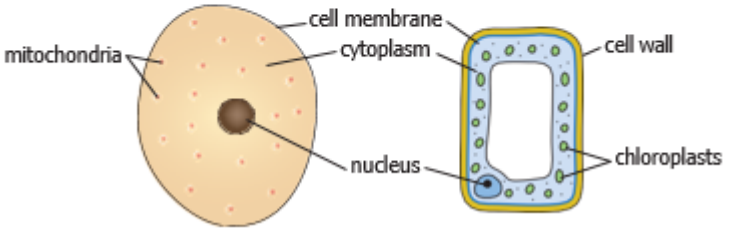
Plants need minerals for healthy growth, if they do not have enough of these minerals this is known as a **mineral deficiency**

Mineral	What is it used for?	What happens if there is not enough?
nitrates (contain nitrogen)	healthy growth	poor growth and older leaves yellow
phosphates (contain phosphorus)	healthy roots	poor growth, younger leaves look purple
potassium	healthy leaves and flowers	yellow leaves with deadpatches
magnesium	making chlorophyll	leaves will turn yellow

Fertilisers can be used to stop plants from suffering with mineral deficiencies

Plant and animal cells

- To be able to **observe** a **cell** we need to use a **microscope**, this magnifies the cell to a point to which we can see it
- Plant and animal cells have small structures inside known as **organelles**, each of these performs a certain role which allows the cell to survive



Year 8 Resistant Materials Knowledge Organiser

Design for maintenance and repair

Advantages of repairable products and those that can be maintained:

Can be updated, to be more efficient, lengthening their useful life time.
It is cheaper to repair than replace an entire product.
Repairable products are environmentally friendly

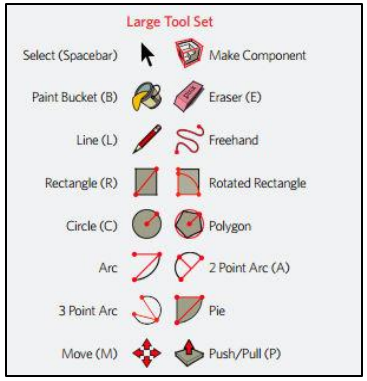
A **standard component** is a pre-manufactured product that is used in the manufacturing of another product. As well as saving time, using a standard component can ensure a consistent product is produced. Users can remove standard fittings to help them repair or replace parts . **Nuts , bolts , washers , zips , buttons are just some examples.**

CAD – Computer aided design.

2DDesign , Google Sketch-up
Advantages
- Easy to make changes
- Show clients 3D models of your idea
- Files can be emailed across the world instantly
- You can test your idea in a virtual environment

Disadvantages
- Software can be expensive
- You need training

CAD Tools



Computer aided manufacturing machines

Laser cutter

3D printer

Accurate , can be used to make multiple copies

Design movement : A design movement is a group of designers with a common cause view or idea who then produce designs based upon their views or ideas. Memphis Design movement , Art Deco , modernism and Art Nouveau are examples from the 20th century.

Input Components

These devices form the crucial control needed for a product to operate. Most input components need to be bought but some can be manufactured especially for a project. For instance, a pressure sensor.

Light dependent resistors (LDRs) are a type of variable resistor whose resistance increases with light.

Switches are simple input devices which allow electrical current to flow when pushed.

Motion sensors use infrared to detect changes in the environment to activate the system.

Thermistors are a type of variable resistor whose resistance changes when it becomes hot or cold.

Process Components

These devices are used in combinations to turn the signal from the input component into the signal to the output component. Careful designing and a good knowledge of the way circuits are designed is crucial

Resistors limit current flow in an electronic circuit and have to be placed before some components to prevent damage.
.

Integrated circuits (ICs) are manufactured for many different uses and functions. A tiny circuit is encased in silicone (a semiconductor material). Although they look complex, they follow the same logic as simple circuits. Because of their reduced size, smaller products can be achieved as more technology can be made to fit into smaller spaces.

Microcontrollers are tiny integrated circuits used widely in automatically controlled devices such as engine management in cars. These can be combined with drivers to control devices such as motors. Raspberry Pi and BBC micro:bit computers are examples used in schools

Output Components

The output is the end function of the product. In most cases, the output can be classed as light, sound, motion or a combination of two or more functions.

Light emitting diode (LED) come in different colours and levels of brightness. They have replaced the filament bulb in many everyday uses.

Light bulbs are not as widely used because of LEDs in an everyday context but minilight bulbs do not require soldering, so can still be useful.

Buzzers use electric current to create their own sound. Used in alarm systems.
Speakers allow a sound signal from a circuit to be amplified.

Motors are magnetic devices and are behind nearly all moving parts in electronic systems.

Analysing products

When a designer is developing a new design, it is useful to analyse existing products to see how successful they have been and identify any areas in which they could be improved

Solder

Soldering iron

Side cutters

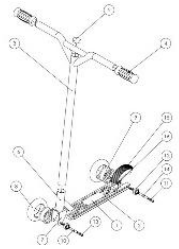
Tenon saw

Printed circuit board . Electronically connect components using copper tracks .

A **hazard** is any source of potential damage, harm or risk.

A **precaution** is a measure taken to prevent something dangerous or harmful happening

Exploded drawings show how a product is assembled. Each component is usually labelled.



Anthropometrics
Anthropometrics is the practice of taking measurements of the human body and provides categorised data that can be used by designers.

Soldering is a permanent addition method for electronic components.

Short-circuit In a circuit, often as the result of a solder bridge, electricity will flow in the shortest path back to the battery.

Insulator A material that does not conduct electricity and can therefore be used as a coating to components, circuit boards and wires. PVC is a example.

Conductor A material which allows heat or electricity to pass through it easily. Copper is an example .

Ergonomics is **a consideration that leads to a product being designed in a way to make it easy to use**. Size, weight, shape, position of buttons and controls are all aspects that contribute to it being ergonomically designed.

The British Empire

Year 8 History: Summer Term

Enquiry Question: Was the British Empire something to be proud of?

"… there is reason to doubt that the world would have been the same or even similar in the absence of the Empire. … When the British governed a country […] there were distinctive features of their own society they tended to spread. A list of the more important of these would run as follows:
The English language
Scottish and English banking
The Common Law
Protestantism
Teams sports
Representative forms of government
The idea of freedom and liberty
The last of these is perhaps the most important because it remains the most distinctive feature of the Empire."

Professor Niall Ferguson, Empire: How Britain Made the Modern World (2002)

"…the manmade famines, slave trading, ethnic cleansing and day-to-day violence of empire have been rendered almost invisible. The long list of what the Victorians liked to call "small wars" has likewise been forgotten, reduced to minor details as we focus almost exclusively on the "achievements" of empire and the "gifts" it gave to the world […] The British empire, like every empire in history, was created to enrich the imperial mother country, not to realise some vague civilising mission."

Professor David Olusoga, Should the empire really be a source of pride? (2016)

Key Words:

Empire - a large group of states or countries ruled over by a single monarch or state.
Colony - a country or area under the control of another country and occupied by settlers from that country.
Imperialism - a policy of extending a country's power and influence by taking over other countries.

Key Events:

1607 – The first permanent settlement in the Americas is established at Jamestown, Virginia.
1775 – The American war of Independence breaks out and lasts until 1783, America win.
1788 – The first ships carrying convicted criminals from England arrived in Australia. This marked the beginning of tens of thousands of people being transported, usually for petty crimes, across the world.
1876 – Queen Victoria took the title Empress of India.
1884-1885 - The Berlin Conference started the "Scramble for Africa".
1947 – Declaration of Indian Independence and the partitioning of India and Pakistan.
1950-1997 – The British Empire continues to break apart, as countries are given their independence.

Key Dates:

16th Century – Britain engages in the Transatlantic Slave Trade for the first time.
18th Century – Britain becomes the biggest contributor to the Transatlantic Slave Trade.
1807 – Britain bans the slave trade in the British Empire.
1833 – Britain abolishes slavery in the British Empire.
1865 – America abolishes slavery throughout the country, after a brutal civil war.

Key Words:

Slavery - when someone owns another person and are usually are forced to work.
Exploitation – treating someone unfairly in order to benefit from their work.
Emancipation – the name given to the process of being freed from slavery.
Abolition – the name given to getting rid of a system or practice.

Olaudah Equiano was an African writer whose experiences as a slave prompted him to become involved in the British abolition movement.

Key people:

A former slave, Mary Prince played an important role in the abolitionist movement. She had her life-story published in a book.

12, 521, 377

The estimated total number of people traded in the Transatlantic Slave Trade.

Enquiry Question: How did slavery impact the lives of those involved and what impact has it had even to this day?

Slavery

Beginner: Talking about food [Part 1]

Singular	**le café** *[coffee]*		**dégoûtant** *[disgusting]*
J'adore *[I love]*	**le chocolate** *[chocolate]*		**délicieux** *[delicious]*
J'aime beaucoup *[I like a lot]*	**l'eau** *[water]*		**dur** *[tough]*
J'aime *[I like]*	**le fromage** *[cheese]*	**parce que c'est** *[because it is]*	**épicé** *[spicy]*
J'aime un peu *[I like a bit]*	**le jus de fruits** *[fruit juice]*		**gras** *[oily, greasy]*
Je n'aime pas *[I don't like]*	**le lait** *[milk]*		**malsain** *[unhealthy]*
Je déteste *[I hate]*	**le miel** *[honey]*		**rafraîchissant** *[refreshing]*
Je préfère *[I prefer]*	**le pain** *[bread]*		**sains** *[healthy]*
	le poisson *[fish]*		**savoureux** *[tasty]*
	le poulet rôti *[roast chicken]*		**sucré** *[sweet]*
	le riz *[rice]*		
	la salade verte *[green salad]*		
	la viande *[meat]*		
Plural	**les bananes** *[bananas]*		**dégoûtant(e)(s)** *[disgusting]*
J'adore *[I love]*	**les chocolats** *[chocolates]*		**délicieux/euse(s)** *[delicious]*
J'aime beaucoup *[I like a lot]*	**les fruits** *[fruit]*		**dur(e)(s)** *[tough]*
J'aime *[I like]*	**les hamburgers** [*burgers]*	**parce qu'ils/elles sont** *[because they are]*	**épicé(e)(s)** *[spicy]*
J'aime un peu *[I like a bit]*	**les langoustines** *[prawns]*		**gras(se)(s)** *[oily, greasy]*
Je n'aime pas *[I don't like]*	**les légumes** *[vegetables]*		**malsain(e)(s)** *[unhealthy]*
Je déteste *[I hate]*	**les oeufs** *[eggs]*		**rafraîchissant(e)(s)** *[refreshing]*
Je préfère *[I prefer]*	**les oranges** *[oranges]*		**sain(e)(s)** *[healthy]*
	les pommes *[apples]*		**savoureux/euse(s)** *[tasty]*
	les tomates *[tomatoes]*		**sucré(e)(s)** *[sweet]*

PLEASE NOTE

[1] after "c'est" an adjective is always in its masculine singular form
Ex. J'aime la viande, c'est délicieux.

[2] however, in the second section after "ils sont" or "elles sont", adjectives agree both in gender and number
Ex. J'aime les oeufs parce qu'ils sont sains.
Ex. J'aime les tomates parce qu'elles sont saines.

Qu'est-ce que tu fais pour rester en forme? (What do you do to stay in shape?)

Au petit déjeuner – **at breakfast** Au déjeuner – **at lunch** Au dîner – **at dinner** Au collège – **at school** En vacances – **on holiday** A la maison – **at home** Le week-end – **on the weekend** Normalement - **normally** D'habitude- **usually** Pour rester en forme – **to stay in shape**	Je mange – **I eat**	des céréales – **some cereal** du pain grillé – **some toast** une pizza – **a pizza** un sandwich au fromage – **a cheese sandwich** du poisson – **some fish** des légumes – **some vegetables** des fruits- **some fruit**
	Je bois – **I drink**	du café - **some coffee** de l'eau – **some water** de la limonade – **some lemonade** du coca – **some coke**
	Je joue – **I play**	au foot / au tennis / au basket / au golf / au rugby
	Je fais – **I do**	du vélo - **cycling** de la natation - **swimming** de l'équitation – **horse-riding** du sport – **some sport**
	Je vais – **I go**	au gymnase – **to the gym** au centre sportif – **to the sport centre**

Je pense que - **I think that** Je crois que – **I believe that** Je trouve que – **I find that** A mon avis – **in my opinion** Selon moi – **according to me** Je dirais que – **I would say that**	C'est – **it is**	très - **very** vraiment - **really** assez – **quite** un peu – **a bit**	délicieux - **delicious** savoureux - **tasty** malsain - **unhealthy** sain - **healthy** dégoûtant- **disgusting** fade – **bland** amusant – **fun** fatigant - **tiring**

Pour avoir une vie saine – **to have a healthy life** Pour rester en forme – **to stay in shape** Pour être en bonne santé – **to be in good health**	Je vais – **I'm going**	manger – **to eat** boire – **to drink** aller – **to go** jouer – **to play** faire – **to do**	plus de légumes – **more vegetables** moins de fastfood – **less fastfood** moins de pizza – **less pizza** moins de gâteau – **less cake** plus d'eau – **more water** moins du coca – **less coke** au gymnase – **to the gym** au centre sportif – **to the sport centre** au parc – **to the park** au foot - **football** plus d'exercice – **more exercise** faire du sport – **do some sport**

<u>Qu'est-ce que tu vas faire pour rester en forme?</u>

What are you going to do to stay in shape?

Qu'est-ce que tu fais pour rester en forme? (What do you do to stay in shape?)

Au petit déjeuner – **at breakfast** Au déjeuner – **at lunch** Au dîner – **at dinner** Au collège – **at school** En vacances – **on holiday** A la maison – **at home** Le week-end – **on the weekend** Normalement - **normally** D'habitude- **usually** Pour rester en forme – **to stay in shape**	Je mange – **I eat**	des céréales – **some cereal** du pain grillé – **some toast** une pizza – **a pizza** un sandwich au fromage – **a cheese sandwich** du poisson – **some fish** des légumes – **some vegetables** des fruits- **some fruit**
	Je bois – **I drink**	du café - **some coffee** de l'eau – **some water** de la limonade – **some lemonade** du coca – **some coke**
	Je joue – **I play**	au foot / au tennis / au basket / au golf / au rugby
	Je fais – **I do**	du vélo - **cycling** de la natation - **swimming** de l'équitation – **horse-riding** du sport – **some sport**
	Je vais – **I go**	au gymnase – **to the gym** au centre sportif – **to the sport centre**

Je pense que - **I think that** Je crois que – **I believe that** Je trouve que – **I find that** A mon avis – **in my opinion** Selon moi – **according to me** Je dirais que – **I would say that**	C'est – **it is**	très - **very** vraiment - **really** assez – **quite** un peu – **a bit**	délicieux - **delicious** savoureux - **tasty** malsain - **unhealthy** sain - **healthy** dégoûtant- **disgusting** fade – **bland** amusant – **fun** fatigant - **tiring**

Pour avoir une vie saine – **to have a healthy life** Pour rester en forme – **to stay in shape** Pour être en bonne santé – **to be in good health**	Je vais – **I'm going**	manger – **to eat** boire – **to drink** aller – **to go** jouer – **to play** faire – **to do**	plus de légumes – **more vegetables** moins de fastfood – **less fastfood** moins de pizza – **less pizza** moins de gâteau – **less cake** plus d'eau – **more water** moins du coca – **less coke** au gymnase – **to the gym** au centre sportif – **to the sport centre** au parc – **to the park** au foot - **football** plus d'exercice – **more exercise** faire du sport – **do some sport**

<u>Qu'est-ce que tu vas faire pour rester en forme?</u>

What are you going to do to stay in shape?

Beginner: Talking about food [Part 1]

Singular	**le café** *[coffee]*		**dégoûtant** *[disgusting]*
J'adore *[I love]*	**le chocolate** *[chocolate]*		**délicieux** *[delicious]*
J'aime beaucoup *[I like a lot]*	**l'eau** *[water]*		**dur** *[tough]*
J'aime *[I like]*	**le fromage** *[cheese]*	**parce que c'est** *[because it is]*	**épicé** *[spicy]*
J'aime un peu *[I like a bit]*	**le jus de fruits** *[fruit juice]*		**gras** *[oily, greasy]*
Je n'aime pas *[I don't like]*	**le lait** *[milk]*		**malsain** *[unhealthy]*
Je déteste *[I hate]*	**le miel** *[honey]*		**rafraîchissant** *[refreshing]*
Je préfère *[I prefer]*	**le pain** *[bread]*		**sains** *[healthy]*
	le poisson *[fish]*		**savoureux** *[tasty]*
	le poulet rôti *[roast chicken]*		**sucré** *[sweet]*
	le riz *[rice]*		
	la salade verte *[green salad]*		
	la viande *[meat]*		
Plural	**les bananes** *[bananas]*		**dégoûtant(e)(s)** *[disgusting]*
J'adore *[I love]*	**les chocolats** *[chocolates]*		**délicieux/euse(s)** *[delicious]*
J'aime beaucoup *[I like a lot]*	**les fruits** *[fruit]*		**dur(e)(s)** *[tough]*
J'aime *[I like]*	**les hamburgers** [*burgers]*	**parce qu'ils/elles sont** *[because they are]*	**épicé(e)(s)** *[spicy]*
J'aime un peu *[I like a bit]*	**les langoustines** *[prawns]*		**gras(se)(s)** *[oily, greasy]*
Je n'aime pas *[I don't like]*	**les légumes** *[vegetables]*		**malsain(e)(s)** *[unhealthy]*
Je déteste *[I hate]*	**les oeufs** *[eggs]*		**rafraîchissant(e)(s)** *[refreshing]*
Je préfère *[I prefer]*	**les oranges** *[oranges]*		**sain(e)(s)** *[healthy]*
	les pommes *[apples]*		**savoureux/euse(s)** *[tasty]*
	les tomates *[tomatoes]*		**sucré(e)(s)** *[sweet]*

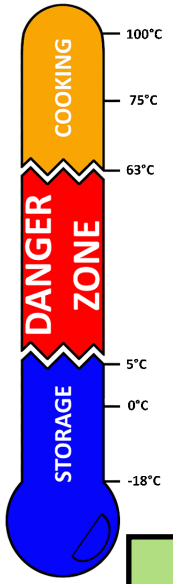
PLEASE NOTE

[1] after "c'est" an adjective is always in its masculine singular form
Ex. J'aime la viande, c'est délicieux.

[2] however, in the second section after "ils sont" or "elles sont", adjectives agree both in gender and number
Ex. J'aime les oeufs parce qu'ils sont sains.
Ex. J'aime les tomates parce qu'elles sont saines.

Year 8 - Nutrients

Food safety and hygiene is about protecting people and reducing the risk of food poisoning.



https://www.youtube.com/watch?v=zE0ypKtFuWQ

Carbohydrates are *macro*nutrients.

The main function is to **provide energy** to the body.

2 main types = **starchy** (complex) and **sugary** (simple)

Complex = long lasting energy;
Simple = short burst of energy

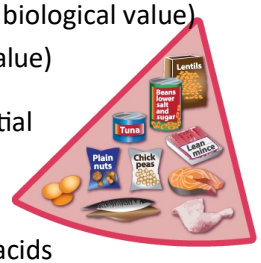
https://www.youtube.com/watch?v=PByM12M1n3A
https://www.youtube.com/watch?v=Xto8ZqCYDvY

Proteins are *macro*nutrients.

They're used by the body for **growth, repair** and maintenance of **muscle and tissue**.

2 main types = **HBV** (high biological value) and **LBV** (low biological value)

HBV = contain all 9 essential amino acids;
LBV = contain some but not all 9 essential amino acids



https://www.youtube.com/watch?v=61LeIea02ao
https://www.youtube.com/watch?v=KSKPgaSGSYA

vitamins and minerals are *micro*nutrients. They have a wide range of health benefits.

https://www.youtube.com/watch?v=K5pW7rpMTQw
https://www.youtube.com/watch?v=kteZneJm1EI
https://www.youtube.com/watch?v=1u5HOURq7kQ

The Eatwell Guide shows the types and proportions of foods people need for a healthy and well-balanced diet.

https://www.youtube.com/watch?v=7MlE4G8ntss
https://www.nhs.uk/live-well/eat-well/the-eatwell-guide/
https://www.youtube.com/watch?v=8aWqZd9RScQ

Key vocabulary

safety / hygiene
nutrients / sources / function
carbohydrates / protein / amino acids
HBV / LBV / protein complementation
fibre / vitamins / minerals / fat / water
deficiency / excess
convection / conduction / radiation

https://www.youtube.com/watch?v=fiFi-d0RwKo

Conduction is the transfer of heat through a **solid**

Convection is the transfer of heat through a **liquid** or **gas**

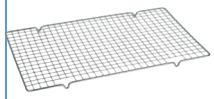
There are 3 methods of **Heat Transfer**

Radiation is the transfer of heat through electro-magnetic rays

https://www.youtube.com/watch?v=vg5k6t6uZwE

Year 8 - Cooking skills

Equipment

 Rolling pin	 Pastry cutter	 Cooling rack	 Baking tray	 Tin opener
 Juicer	 Garlic press	 Pasty mould	 Electric whisk	 Sieve

Skills and Processes

Bridge hold and Claw grip


Used in: fruit salad, pasta salad, sausage rolls, Spanish omelette, potato wedges and salsa

Rubbing in technique


Used in: jam tarts, bread rolls, Chelsea buns, cheese and onion pasties

Kneading

Used in: bread rolls, pizza wheels, Chelsea buns

Creaming

Used in: Dutch apple cake

Key word	Meaning
Gluten	The protein found in wheat, which is responsible for the elastic texture of dough.
Kneading	Working bread dough with the hands to stretch the gluten so it is elastic (helps the yeast to make bread rise).
Gelatinisation	When liquid is added to starch grains making them swell. Used to thicken sauces eg. cheese.
Simmering	When water or food in a saucepan bubbles gently (stays below boiling point).
Vegan	Don't eat or use ANY animal products.

Independent skills I need to learn in Year 8

- **Use the bridge hold and claw grip** to cut food safely and accurately.
- **Use a range of other preparation techniques** eg. peeling, chopping, slicing, dicing, grating etc.
- **Organise** all my ingredients and follow a recipe.
- **Use the cooker** (eg. hob and oven) safely.
- **Temperature control** know when to turn heat up and down accordingly.

Food safety

Using **colour coded chopping boards** and equipment prevents **bacteria** spreading and causing **food poisoning**.

Year 8

Knowledge Organiser for Term 3

Literary terms:

Verbs
Nouns
Adjectives
Adverbs
Alliteration
Simile
Metaphor
Personification
Imagery
Narrative
Hyperbole
Oxymoron
Context
Repetition

CHARLES DICKENS KNOWLEDGE ORGANISER

Overview

Charles Dickens (1812-1870) was a British **writer,** who is often considered to be one of the greatest novelists ever.

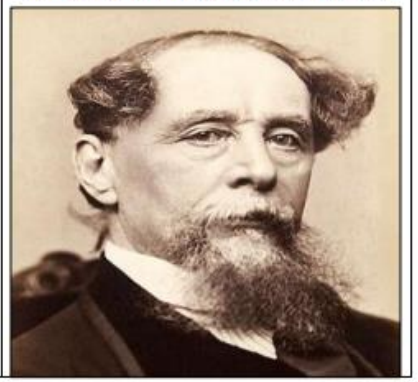
He lived during the reign of Queen Victoria, and therefore is known as a **Victorian writer.**

His novels were **very popular** throughout his lifetime, and made him famous. Since his death, his writing has become even more popular.

Some of his most famous novels include **Oliver Twist, Great Expectations**, and **A Christmas Carol.**

His works often **criticised some of the social problems** at the time, for example the gap between rich and poor, child labour, and life for orphans.

A photograph of Charles Dickens c. 1867-1867



Times in His Life

Early Life

-Dickens was born in Landport (Portsmouth) in Hampshire, England, on 7th February 1812.

-He was the 2nd of 8 children to John and Elizabeth Dickens.

-Charles lived an average early life. He was well looked after and had lots of opportunities to play and read books.

Late Childhood

-Things changed for Dickens around the time that he was 11/12.

-His father owed lots of money and was sent to debtors' prison. The young Charles had to work in a boot blacking factory. The conditions were poor and he was badly paid.

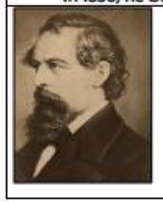
Rise to Writing

-Dickens became a clerk in a law office. Although he did not like working there either, he began to write. He was influenced by his experiences in the factory and law office.

-In 1833, Dickens wrote 'A Dinner at Poplar Walk', published monthly. This impressed some critics, and got him a job as a journalist at the House of Commons.

-In 1836, he became a magazine editor. This is the time that he wrote *Oliver Twist.*

Celebrated Author



- From the late 1830s right up until the 1860s, Dickens went on to write a number of hugely popular novels. These included *A Christmas Carol, David Copperfield,* and *Great Expectations.*

-His writing is thought to have made him lots of money, and also made him one of the first worldwide celebrities. His writing was so well-known that the style itself became known as 'Dickensian.' Even characters in his stories, e.g. Ebenezer Scrooge, Bob Cratchit, Fagin and the Artful Dodger have become well-known around the world.

Answers to Important Questions and Key Vocabulary

What did Dickens write about?		-Dickens wrote about lots of different topics, but social inequality was perhaps the subject that he focused on the most. -In the Victorian era in which Dickens lived, the rich lived very different lives to the poor. Whilst they lived in huge mansions and had many servants, the poor often couldn't make ends meet. Children were often made to work in appalling conditions. Dickens wrote about these issues, giving society valuable lessons.	**Key Vocabulary** Novelist Critic Inequality Popular Journalist Clerk Debtor Social Labour Victorian Publication Dickensian
Was Dickens popular during his life?		-Dickens was the most popular author in the western world during his lifetime. He was one of the first people known to be a true celebrity. This allowed him to do book readings and tour America.	
What are Dickens' most famous novels?		-Oliver Twist is one of Dickens' best-known novels. It tells the story of a young orphaned boy who is treated exceptionally harshly by others. He has to find his way to happiness through a cruel world. -Another famous Dickens' novel is A Christmas Carol. It is about a miserable man called Ebenezer Scrooge, who only cares about business and money. He is taught a lesson by three Christmas ghosts!	
What else do we know about Dickens?		-Dickens was a very superstitious man, who had a number of odd habits. For example, he often slept with his head facing north, as he believed that this would make him write better! -He was a critic of the church. He thought that it used to take advantage of people.	

Top 10 Facts!

1. Charles and his wife, Catherine, had 10 children before they separated.
2. The young Queen Victoria was a fan of Dickens' novels.
3. He is buried in the Poet's Corner of Westminster Abbey.
4. People now think that he probably had OCD (Obsessive Compulsive Disorder).
5. Dickens was interested in the paranormal and joined a group called The Ghost Club.
6. He wrote 15 novels and hundreds of short stories in total.
7. He helped to create a home for women who had fallen on times of hardship.
8. When he died of a stroke in 1870, he had half-written a mystery novel called *'The Mystery of Edwin Drood.'* It remains a mystery.
9. He was involved in a terrible train crash in which many people died, but survived.
10. People across the world celebrated his 200th birthday on 7th February 2012.

Charles Dickens Timeline

1812: Dickens is born in Hampshire, in England.

1824: Dickens' father went to debtors' prison. Aged 12, Charles worked in a factory.

1827: Dickens becomes an office clerk, and begins writing.

1833: Dickens' first work is published – *A Dinner at Poplar Walk.*

1836: Dickens is married to Catherine Hogarth.

1837: *Oliver Twist* is published.

1843: *A Christmas Carol* is published.

1853: He begins doing public readings of his works.

1867: He tours America.

1870: At the age of 58, Dickens dies at his home in Kent.

Victorian Life

KEY QUESTIONS:

- What was life like nearly 200 years ago?
- What were the differences for the poor people (proletariat) in contrast to the rich people (bourgeoisie)?
- Why did so many people flood to the cities instead of staying in the countryside?
- What was Dickens's family life like growing up?
- Why was there a difference between boys' and girls' lives in this period?
- Was it a dark or golden age?

KEY INVENTIONS

- The Railway
- Petrol cars/the combustion engine
- Telephone
- Electric lightbulb
- London underground
- Medical advances
- Rubber tyres

The Victorian Era was the period of time between **1837 to 1901** when Queen Victoria was on the throne. During her 63-year-reign, much was developed and technological advancements made England a focal point of the world. There was also a huge difference between how the rich and poor Victorians lived and there are many ways of life which are of interest to us today due to how different/shocking they are to modern living. Queen Victoria led the expansion of the British empire and saw major changes to all aspects of Britain due to exciting discoveries and inventions.

KEY VOCABULARY

Proletariat - working-class people regarded collectively
Bourgeoisie – the wealthy, middle class
Industrial Revolution - the rapid development of industry that occurred in Britain in the late 18th and 19th centuries, brought about by the introduction of machinery.
Migrate - move to a new area or country in order to find work or better living conditions:
Class System - method of social ranking that involves "money, power, culture, taste, identity, access, and exclusion".
Social Responsibility - To behave morally and ethically right in order to support everyone, not just one faction of the population.
Moral compass - a person's ability to judge what is right and wrong and act accordingly.
Reign – rule as a monarch.

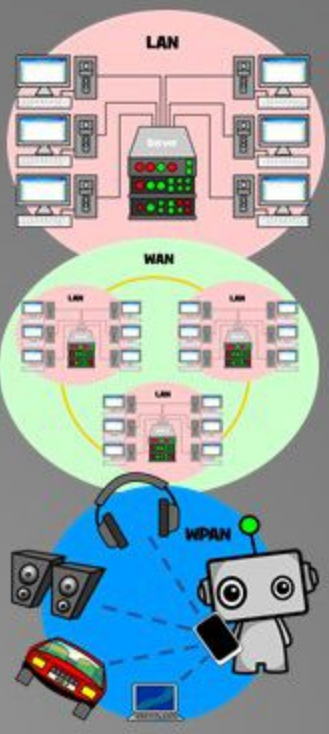
Year 8 Knowledge Organiser: Networks

Networks

LAN – Local Area Network, connects devices together over a small geographical location e.g. a building. They connect computers using a combination of Ethernet cables and switches and require a Network Interface Card.

WAN – Wide Area Network A computer network where devices are connected over a large geographical area (e.g. the internet). They require access to the internet via a router / modem.

WPAN – Wireless Personal Area Network used to connect devices to your personal computer system without the use of wires. Most commonly uses Bluetooth. E.g. connecting a peripheral device to your laptop, connecting a mobile phone to a car, wireless headphones to your phone etc.



LAN Hardware

Server

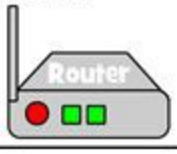
Stores all user data and information within a network in a central location. This allows users to log into any work station access their files.

Switch

Using Ethernet cables to connect to both the server and individual work stations, a switch directs information between the server and individual workstations.

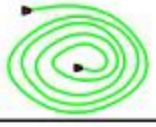
Router

Allows wireless connection of mobile devices to a network if within suitable range. Allows several devices to be connected at the same time.



Ethernet Cable

Networking hardware used to connect one network device to another. They can be used to share devices such as printers and scanners amongst many users.



Network Security

Firewall: Controls which programs on your computer can send and receive data packets.

Antimalware: Scans your computer system and files for malicious software.

Encryption: Scrambles data to make it unreadable.

Decryption: Unscrambles it so that it is readable.

Passwords

A strong password contains a mixture of numbers, letters, symbols and is at least 8 characters in length, for example:

Ce91!*8dj

Malware combines the words **'malicious'** (meaning 'harmful') and **'software'.** It is a program designed to cause damage to a computer or a computer network.

Viruses

A **virus embeds** itself within computer software. When the software is run it **creates copies of itself** using software as a host. A virus is capable of slowing down your digital device, can stop it running or even steal your data.

Spyware

Spyware is a type of program that **secretly records** what you do on a computer. Spyware can be used to **steal personal information** such as capture passwords, email addresses or banking information. They can even control your webcam.

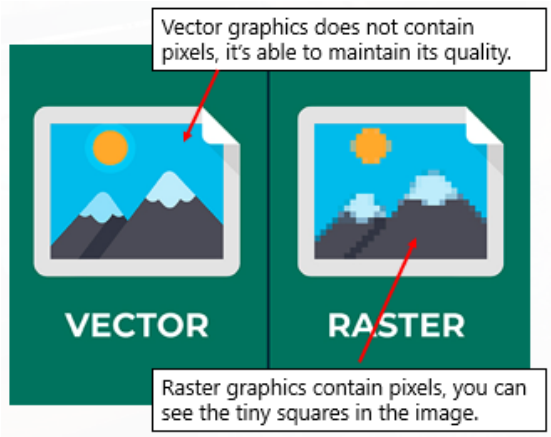
Worms

Worms attack systems connected to the internet. Like a virus, a worm is capable of **copying itself**, causing similar damage to a virus. However, worms are **standalone software** and don't require existing software to host them.

Trojan

A **Trojan** is a harmful piece of software, **pretending to be useful**. Commonly spread through **email attachments**, a user is typically tricked into loading it onto their computer. Attacks can vary from deleting files and stealing data to creating access points for hackers.

Graphics



Digital graphic	An image or visual representation that is created, stored, and displayed electronically using digital technology.
Raster Graphics	Composed of pixels, each with a specific colour. These are also known as bitmap images.
Vector Graphics	Made up of paths defined by mathematical equations, which makes them scalable without losing quality.
Canvas	An area where the image or design is displayed and edited.
Scalable	When an object or image is able to be made bigger or smaller without losing any image quality.
Outline colour	The colour of the border of a shape.
Fill colour	The colour inside of a shape

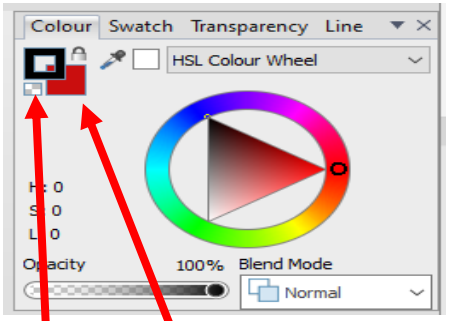
Describing shapes

6-cornered star, rounded corners, green fill, red dotted outline

Arc, pink fill, black outline

3-cornered polygon, rounded corners, yellow fill, blue dashed outline

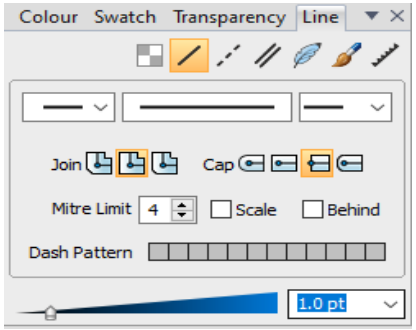
Colour tab



Fill colour

Outline colour

Line tab



Some useful DrawPlus

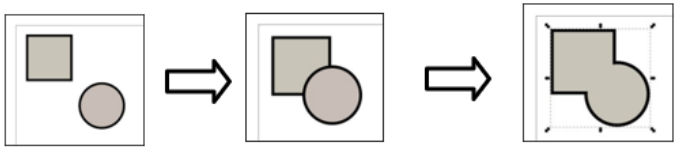
Pointer tool – Select, move, copy, rotate, shear or resize objects.

Knife tool – Cut selection into separate pieces which can be retained, deleted or moved.

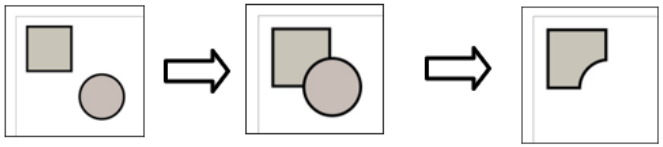
Quick shape tool – Draw quick shapes

Joining shapes

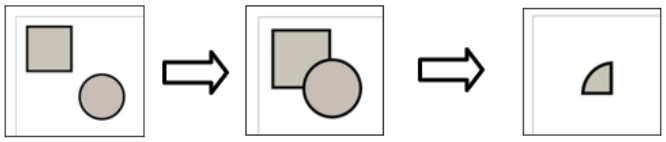
Add



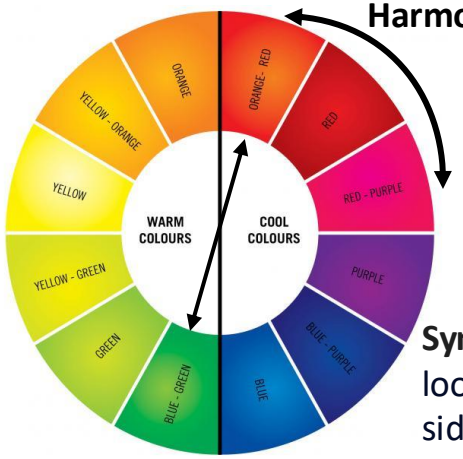
Subtract



Intersect



ART & DESIGN KNOWLEDGE ORGANISER



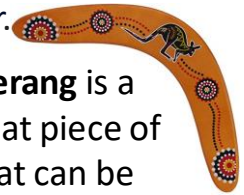
Harmonious colours are next to each other on the colour wheel.

Complementary colours are opposite each other on the colour wheel.

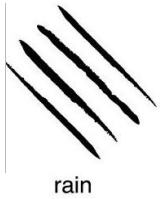
The **didgeridoo** is a long wooden wind instrument played by Australian Aborigines to produce a long deep sound.

Symmetry is when an object looks the exact same on one side as the other.

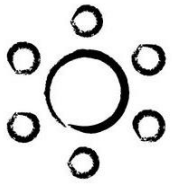
A **boomerang** is a curved flat piece of wood that can be thrown so that it will return to the thrower, traditionally used by Australian Aborigines as a hunting weapon.

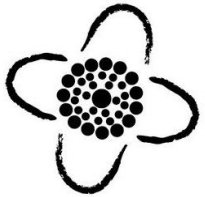


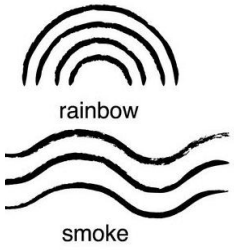
Clapping sticks are a traditional percussion instrument used during ceremonies and songs.



Symbols are used to tell the stories of the Dreamtime.







The **Bull-roarer** is a sacred object used in Aboriginal religious ceremonies, consisting of a piece of wood attached to a string, whirled round to produce a roaring noise.

Composition is the placement or arrangement of visual elements in a piece of work.

Monochromatic means varying tones of **ONE** colour from light to dark.

Media	Best practice
Coloured Pencils	• Apply using a soft circular motion • Start with the lightest colours and build up colour/tone • Harmonious colours add depth • Complimentary colours add definition • A sharp pencil will create a crisp finish • Avoid applying a thick stripy line of tone around the edge of shapes, blur it by applying soft pressure on the edge
Watercolour	• Mix your own variations of colour instead of using them straight out of the palette to make your work look more individual • Avoid adding too much water to your paint or the paper will start to bobble/wave • Apply colour in layers to build up tone • To blend colours on the page work quickly and place wet next to wet • When you want colour to stay separate make sure you don't apply wet next to wet • Consider layering mark-making on top of dry layers to add interest • Change your water regularly to avoid cross contamination
Pen / Biro	• Work from left to right (or right to left if you are left handed) to avoid smudging • Use a paper towel to blot any excess ink of the nib • Work quickly to avoid letting too much ink collect on the page • Experiment with thickness of line and mark-making techniques

The **Dreamtime** is the Aborigines belief of how the world and its creation began. Aboriginal culture includes ceremonies, body art, music, art and story telling.

Aborigines are the original inhabitants of Australia.