

Thomas Estley Community College

Year 8 Spring Term

Knowledge Organiser



What are Knowledge Organisers?

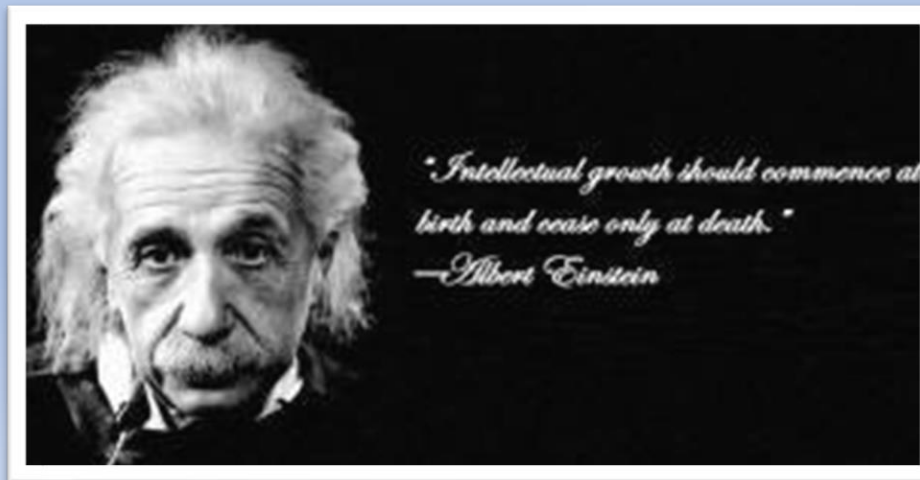
A knowledge organiser is an easy way that each subject can summarise the most important information. Each subject section will include key terms, short explanations, glossary words, diagrams etc making it clear to the student as to what is essential to learn. Each grid has an overall theme and these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



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 then 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.

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!



Back to front

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



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!



Sketch it

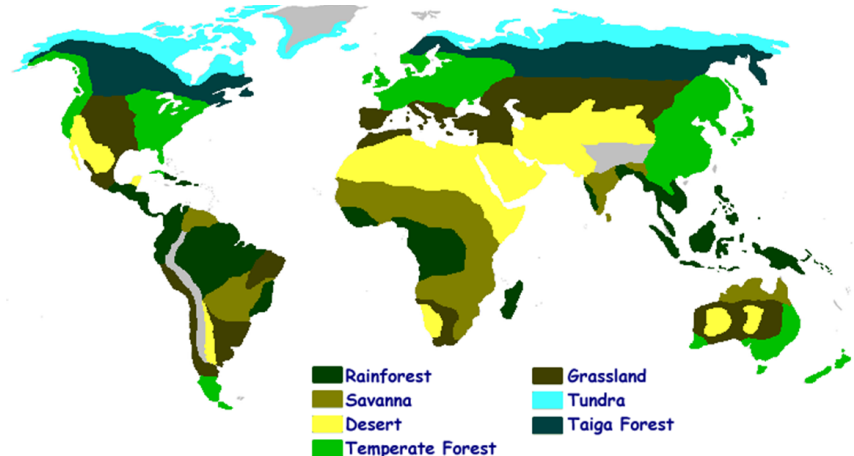
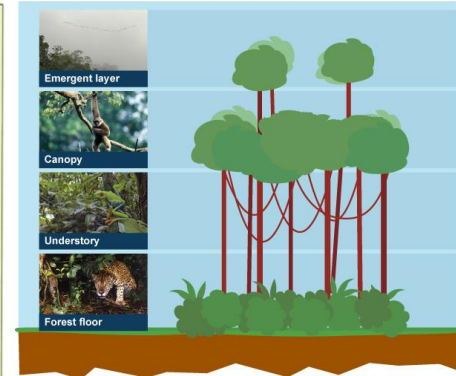
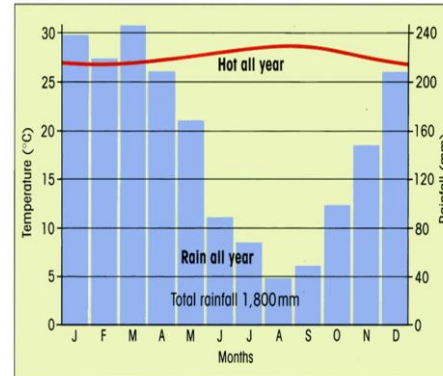
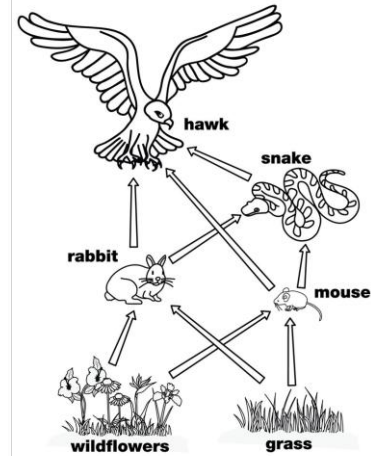
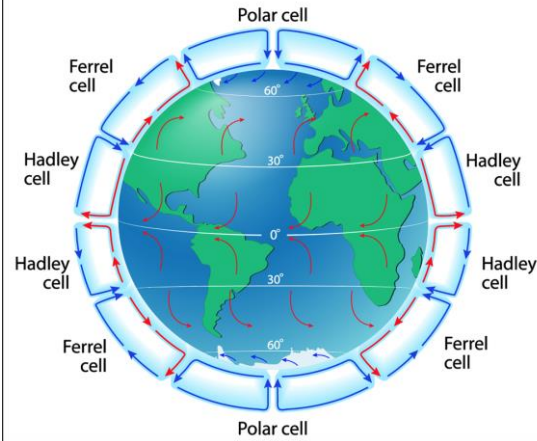
Draw pictures to represent each of the facts or dates. It could be a simple drawing or something that reminds you of the answer.

Geography Knowledge Organiser

Year 8: Ecosystems

Key Word	Definition
Climate	The average weather conditions over a 30 year period (e.g. rainfall, temperature).
Global Atmospheric Circulation	The large-scale movement of air and heat around the planet. Made up of six circulation cells: Hadley x2, Ferrel x2 and Polar x2.
Biome	A very large ecosystem which occupies a major climatic region.
Ecosystem	A community of plants and animals living together in the environment.
Biotic	The living parts of an ecosystem.
Abiotic	The non-living parts of an ecosystem.
Food Chain	A series of organisms each dependent on the next as a source of food.
Food Web	All the food chains in an ecosystem linked together.
Rainforest	The name of a biome found close to the equator where it is hot and wet.
Deforestation	The removal of trees.
Desert	The name of a biome found close to the tropics where it is hot and dry (< 250mm of rain a year).
Desertification	The process by which fertile land becomes unproductive.

GLOBAL ATMOSPHERIC CIRCULATION



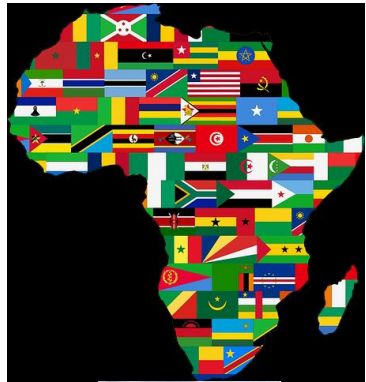
Useful websites...

<https://www.bbc.co.uk/bitesize/topics/ztgw2hv>

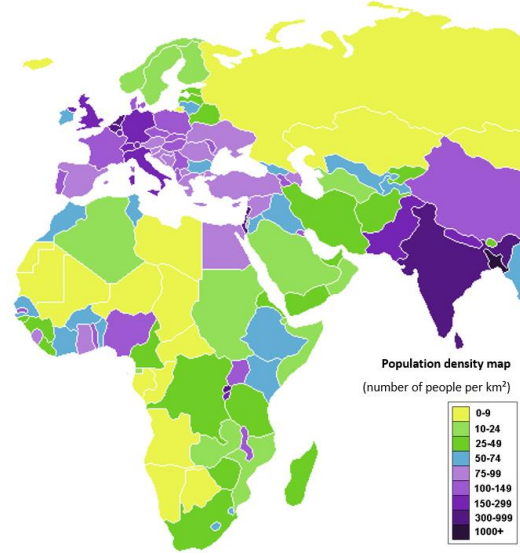
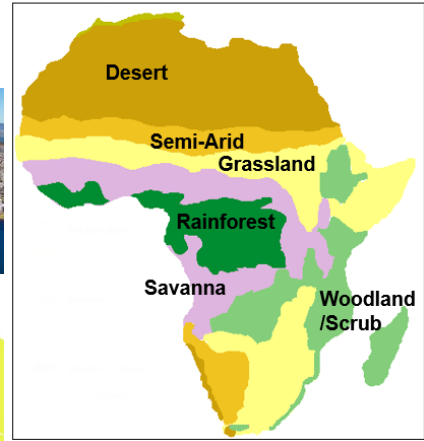
Geography Knowledge Organiser

Year 8: Africa

Key Word	Definition
Africa	One of the seven continents of the world, made up of fifty-four countries.
Political Map	A map that shows countries and cities. Often they use false colours to show this clearly.
Climate Graph	A graph which shows the climate of a place including temperature and precipitation.
Biome	A very large ecosystem which occupies a major climatic region.
Colonisation	The action of settling among and establishing control over the indigenous people of an area.
Population Density	The number of people per square kilometre.
Culture	Ideas, customs and social behaviour of particular people or society.
Ethnic Group	A community or population made up of people who share a common cultural background or descent.
Civil War	A war between citizens of the same country.
Natural Resources	Materials or substances occurring in nature which can be exploited for economic gain.
Trade	The buying and selling of good and services between countries.
Fairtrade	Trade where a fair prices are paid to the producers.



Biomes of Africa



Useful website...
<https://www.britannica.com/place/Africa>

Year 8 Computer Systems

Modern computer systems receive an input, process that data and then produce an output. The data can be stored in memory. They are designed to automate any process by a program. To execute programs that operate on data.

Computing systems need a **processor, memory, and storage**. Modern systems also rely heavily on **communication** between them.

Modern computer systems receive an input, process that data and then produce an output. The data can be stored in memory. They are designed to automate any process by a program. To execute programs that operate on data.

Communication Computing systems exchange information and form networks

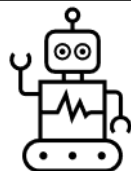
Programs and data are transferred between computing systems

Artificial Intelligence (AI)

Machine Learning

"AI has by now succeeded in doing essentially everything that requires 'thinking' but has failed to do most of what people and animals do 'without thinking' – that, somehow, is much harder!"

Donald Knuth, author of *The Art of Computer Programming*, in **1981**

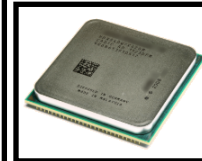


Hardware Components

The processor (CPU) is the component that **executes** program instructions.

An instruction may:

- Perform arithmetic or logic operations on data
- Perform input/output of data



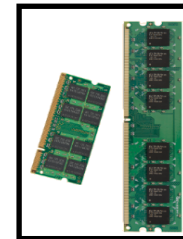
The **storage** (secondary memory) is the set of components that **stores** programs and data.

Storage is **persistent**: it retains its contents



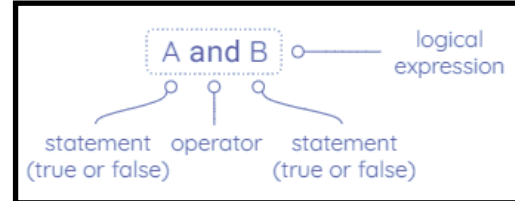
The main memory is the component that **stores** the programs and data **currently in use**. Main memory is referred to as RAM.

Memory is **volatile**: its contents are lost



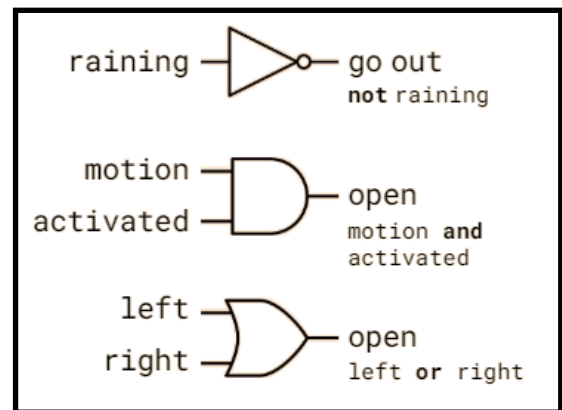
Logical Operators

Logical operations operate on statements that are **true** or **false**. There are three basic logical operations: AND OR NOT

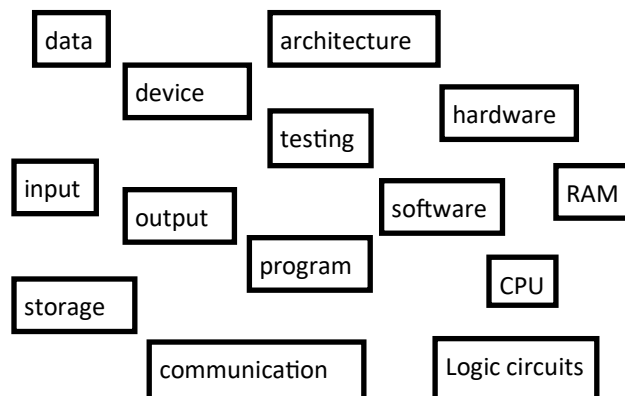


Logical expressions — logic circuits can be represented using diagrams

Logical operations — logic gates can be represented using symbols



More key words



FREE or OPEN software is where creators of a program can choose to provide access to its **source code**. This means that anyone can 'see inside' the program to understand how it works, check for errors, suggest improvements, and 'remix' it. Whilst still acknowledging the source.

Developing for the Web

Hyper Text Markup Language (HTML) is a basic programming language for building web pages. It uses a set of predefined tags that the web browser then interprets and displays.

The World Wide Web is responsible for standardising HTML and releasing updated specifications that revise existing tags and introduce new tags. Web pages contain different types of information including images, text and multimedia.

Key Vocabulary

Web Browser: An application used to view webpages eg Google Chrome, Firefox, Microsoft Edge, Safari, Internet Explorer.

HTML: (Hyper Text Markup Language) Used to write and create web.

Hyperlink: A link in a document or webpage that connects to another location.

Internet: A global network connecting millions of computers together.

Website: A webpage or group of webpages hosted on a web server and viewed in a web browser,

Using HTML to create websites

HTML can be written in a simple text editor like Notepad. As long as it is saved with file extension.html eg: myfirstwebpage.html it can be opened and viewed as a webpage from a browser.

```
<html>
  <body>
    <h1> My First Web page </h1>
    <p> This is my very first web page
      that I have created using Notepad </p>
  </body>
</html>
```

Key Facts

- Web pages contain different types of information including images, text and multimedia.
- There is no central storage for websites.
- The World Wide Web (WWW) is a huge collection of websites that we can access using the internet.
- Each website contains web pages which are navigated via hyperlinks.

HTML Tags:

<u><html></u>	States that the document is a HTML document .
<u><body></u>	Information appears in the body of the page.
<u><h1></u>	The main heading for the web page.
<u><p></u>	The beginning of a new paragraph.
<u></u>	Image for web page and file type of image example: Jpg, Png, gif
<u>
</u>	Add a blank line
<u><a href></u>	A link to other web sites

Ranking algorithm

Used to rank the importance of web pages and considers:

- when the page was last updated
- webpages that link to a found page
- other webpages that a found page links to

Gathering information

- Search engines use programs known as **crawlers** or **spiders** to find content on the World Wide Web.
- These crawlers visit links from one web page to another, recording common keywords that they find.
- By travelling along these links, the crawlers can eventually find newly created content.

Indexing

When crawlers finish their journey, they are stored in a data structure called an index.

The index records the following about each web page:

- Frequently used keywords
- Type of content found, (images, text, etc.)
- Date of last update

CSS Cascading style sheets:

- HTML defines the structure and content of your web page.
- CSS defines the style and layout of web pages.
- CSS can be used to change the style of a whole website, one web page or a single occurrence of an element, e.g.

`<h1 style="text-align:center">`

Threats to networks

Trojan Horse: Programs designed to lock you out of your computer and not let you access the data unless you pay a ransom

Virus: A malicious program that hides inside other files that users might believe are harmless

Spyware: Installed without you knowing and used to track all your activity when you browse the World Wide Web

Ransomware: Executable code that when run damages the files and stops the computer from operating normally

Worm: Exploits the vulnerabilities of a system by finding holes in its security

Extra Notes:

What happens when I view a web page?

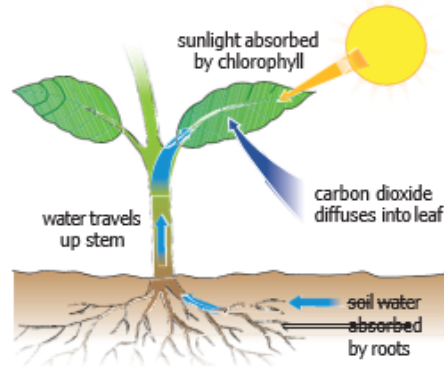


Photosynthesis

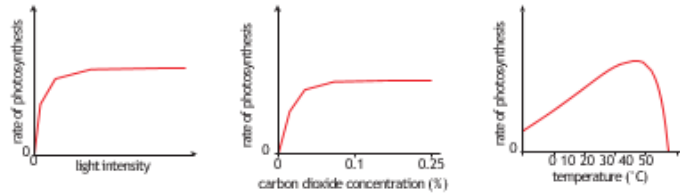
- **Photosynthesis** is the process which occurs in the chloroplasts to produce glucose using sunlight

glucose + carbon dioxide → 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**

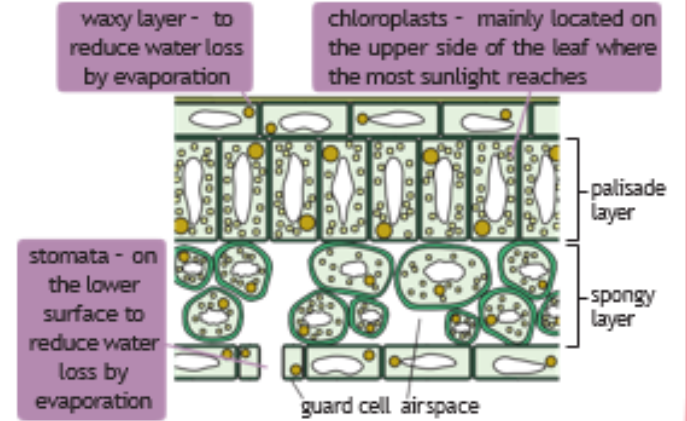


- The rate of photosynthesis can be affected by:
 - Light intensity – the higher the light intensity the higher the rate of photosynthesis up to a point
 - Carbon dioxide concentration – the higher the carbon dioxide concentration the higher the rate of photosynthesis up to a point
 - Temperature – the 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



B4 Plants *Activate* Knowledge organiser

Question • Progress • Succeed

Plant minerals

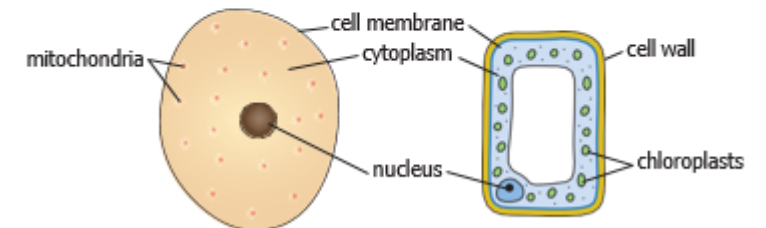
Plants need minerals for healthy growth, if they do not have enough of these minerals this is known as a **mineral deficiency**

Mineral	What is it used for?	What happens if there is not enough?
nitrate (contain nitrogen)	healthy growth	poor growth and older leaves yellow
phosphate (contain phosphorus)	healthy roots	poor growth, younger leaves look purple
potassium	healthy leaves and flowers	yellow leaves with dead patches
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



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

$$\text{glucose} + \text{oxygen} \rightarrow \text{carbon dioxide} + \text{water}$$
- 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.

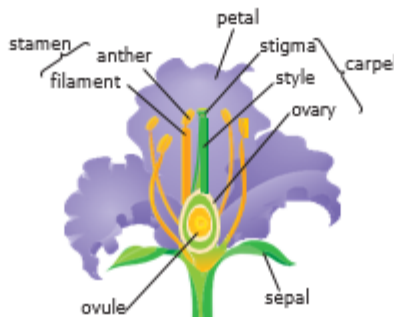
Algae Anther Chlorophyll Chloroplast Fertiliser Light intensity
 Magnesium Mineral deficiency Nitrates Palisade cells
 Phosphates Photosynthesis Potassium Producer Rate
 Spongy layer Stomata Waxy layer

Parts of a flower

Stamen

Male part of the flower

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



Carpel

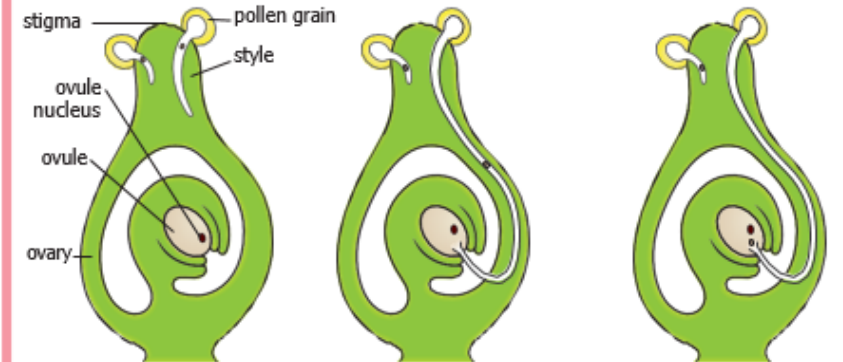
Female part of the flower

- 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 to start growing
- Oxygen for that the cell can start respiring to release energy for germination
- Warmth to allow the chemical reactions to start to occur within the seed

B4

Plants
 Knowledge organiser

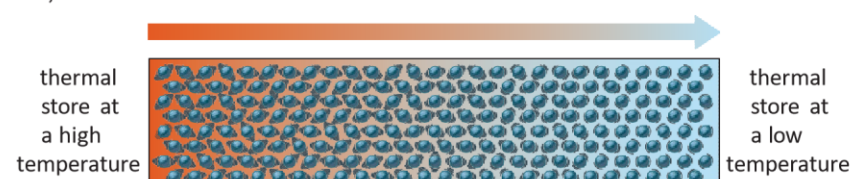
Activate
 Question • Progress • Succeed

C4 Heating and cooling

Knowledge organiser

Conduction

- **Conduction** is the transfer of thermal energy by the vibration of particles, it cannot happen without particles
- This means that every time particles collide they transfer thermal energy
- Conduction happens effectively in solids as their particles are close together and can collide often as they vibrate around a fixed point
- Metals are also good **thermal conductors** as they contain electrons which are free to move
- In conduction the thermal energy will be transferred from an area which has a high **thermal energy store** (high temperature) to an area where there is a low thermal energy store (low temperature)
- Gases and liquids are poor conductors as their particles are spread out and so do not collide often, we call these **insulators**

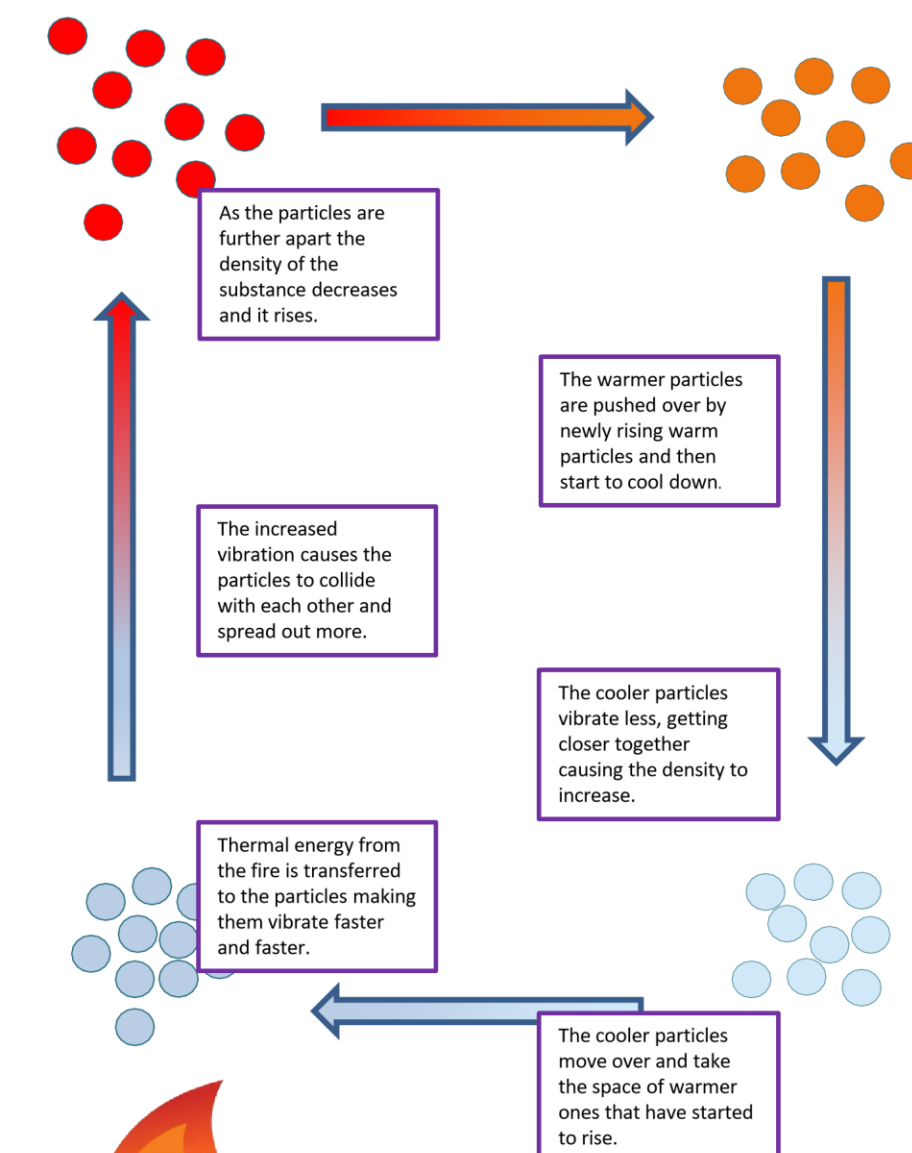


Convection

- **Convection** is the transfer of thermal energy in a liquid or a gas, it cannot happen without particles
- As the particles near the heat source are heated they spread out and become less dense, this means that they will rise
- More dense particles will take their place at the bottom nearest the heat source creating a constant flow of particles
- This is known as a **convection current**
- Convection cannot happen in a solid as the particles cannot flow, they can only move around a fixed point



Convection currents



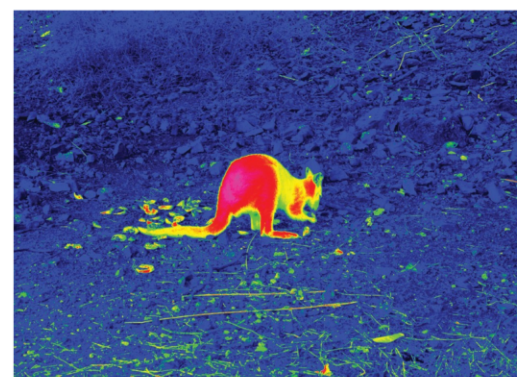
- Convection currents can be seen in any fluid as it gets heated. Most commonly you will see them in the air around us. As the sun heats the air convection currents cause air to rise. The air that moves in to take its place is what we call wind.

Energy and temperature

- The **temperature** of a substance is a measure of how hot or cold it is
- Temperature is measured with a **thermometer**, it has the units of degrees Celsius (°C)
- The **thermal energy** of a substance depends on the individual energy of all of the particles, it is measured in Joules (J)
- As all particles are taken into account, a bath of water at 30 °C would have more thermal energy than a cup of tea at 90 °C as there are many more particles
- The faster the particles are moving, the more thermal energy they will have
- When particles are heated they begin to move more quickly
- The energy needed to increase the temperature of a substance depends on:
 - the mass of the substance
 - what the substance is made of
 - how much you want to increase the temperature by

Radiation

- **Radiation** is a method of transferring energy without the need for particles
- An example of radiation is thermal energy being transferred from the Sun to us through space (where there are no particles)
- This type of radiation is known as **infrared radiation**, it is a type of wave just like light
- The hotter an object is the more infrared radiation it will emit (give out)
- The amount of radiation emitted and absorbed depends on the surface of the object:
 - Darker matte surfaces absorb and emit more infrared radiation
 - Shiny and smooth surfaces absorb and emit less infrared radiation, instead reflecting this
- The amount of infrared radiation being emitted can be viewed on a **thermal imaging camera**



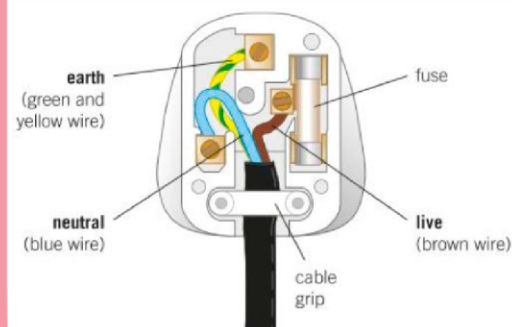
Keyterms

Make sure you can write definitions for these key terms.

conduction convection convection current density insulator infrared radiation temperature
 thermometer thermal conductor thermal energy store thermal imaging camera density

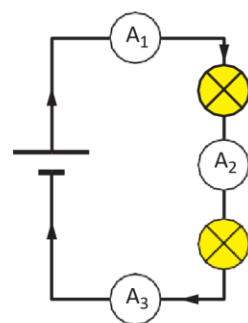
Wiring a Plug

- 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.



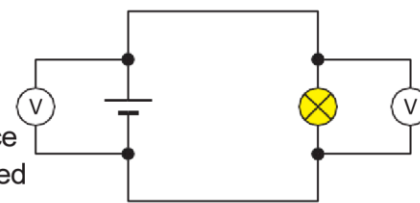
Current

- 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)



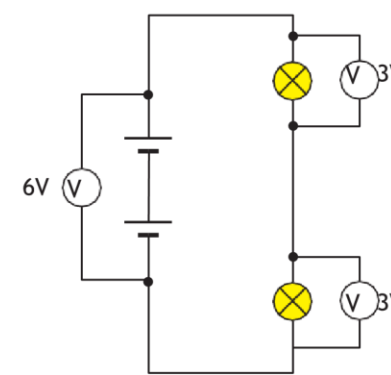
Potential difference

- 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)



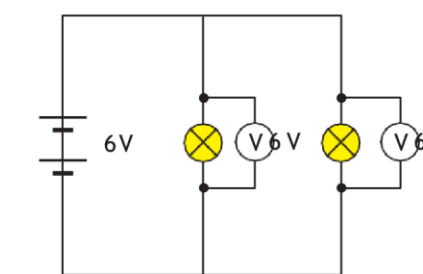
Series circuits

- 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



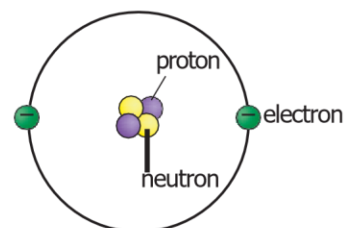
Electrical signals in the body

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



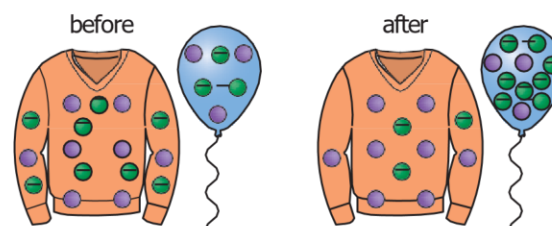
The atom

- The **atom** consists of a central nucleus with electrons orbiting around the outside in shells
- Electrons** have a negative charge
- 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 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

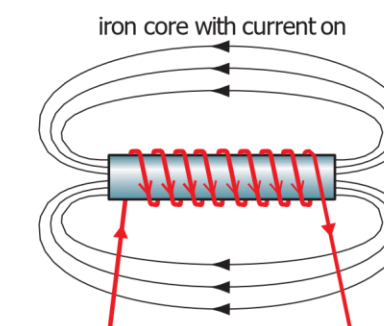


- Like charges will **repel**, opposite charges will **attract**



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

Romeo & Juliet

by William Shakespeare

Main Characters

Romeo Montague	The male heir of House Montague. He falls in love with Juliet, despite their families being in a long-standing feud. He is impulsive and dramatic, and kills himself when he thinks Juliet is dead.
Juliet Capulet	The female heir to House Capulet. Her family want her to marry a rich man, Paris, but she refuses. She pretends to be dead to avoid the marriage, but ends up killing herself after Romeo.
Friar Laurence	Thinks uniting Romeo and Juliet will end the feud. He marries them in secret, wishing for peace.
The Nurse	Always caring for Juliet, until she tries to convince Juliet to marry Paris.
Mercutio	Romeo's best friend. Fun-loving and energetic, he often gets involved in arguments and fights.

Key Vocabulary

Aqua Vitae	Water of life (liquor)
Fettle	Strengthen, prepare
Jocund	Cheerful, helpful
Prorogued	Delayed, postponed
Apothecary	A health professional trained in using drugs
Pernicious	Exceedingly harmful
Paramour	A lover, usually secret
Patriarchy	Where men hold the power within society
Adversary	Enemy, antagonist
Nuptial	Wedding

Verona was a city in Italy where the wealthy elites became the upper class, with lots of money and interest in arts. Romeo and Juliet is a tragedy, but also was aimed at the wealthy families that couldn't look past their own self-importance. It was written between 1591 and 1595, and took on different influences from myths and literature before Shakespeare's time. It has also been adapted into a wide range of modern stories, such as *West Side Story*, *Romeo Must Die*, and even *High School Musical*.

Language Devices Used

Sonnet	A 14-line lyric poem, usually written in iambic pentameter, that has one of several rhyme schemes.
Soliloquy	A speech in which a character is alone on stage and expresses thoughts out loud
Oxymoron	A figure of speech that combines apparently contradictory terms "sweet sorrow"; "loving hate"
Iambic Pentameter	5 verse feet with each foot an iamb (a total of ten syllables)
Foreshadowing	The use of hints or clues in a narrative to suggest what action is to come
Dramatic Irony	A contrast between what the audience perceives and what a character does not know
Couplet	2 consecutive lines of poetry that rhyme
Blank Verse	Unrhymed iambic pentameter
Monologue	A long, uninterrupted speech presented in front of other characters
Aphorism	A statement of truth or opinion expressed in a concise and witty manner.

Themes of the Play

Love and Violence	The play's main storyline is of the two young lovers who eventually kill themselves. The themes of love and violence are connected throughout the play.
Fate	Described as "star-crossed lovers", there is the idea that it is fate that is guiding the lovers towards doom. Romeo at one point says he will "deny" the stars, suggesting he believes he can reverse fate.
Individual vs. Society	Romeo & Juliet's love runs afoul of their families, and the political and religious authorities that govern Verona. It would appear that they represent the lower-classes that were ignored by the upper classes.
Language and Wordplay	There are approximately 175 instances of puns and wordplay throughout the play, showing his characters rebelling, joking, or using sexual innuendos throughout.

Romantic Poetry

Language Devices

Alliteration	Repetition of the same letter at the start of two or more words
Connotation	Associated meaning of the word
Extended Metaphor	When an author uses a metaphor throughout a long passage or even an entire poem
Imagery	Visually descriptive language
Metaphor	Saying something <u>is</u> something else, for effect
Onomatopoeia	Where words are used to imitate sounds
Personification	Making objects have human characteristics
Simile	Comparing using “like” or “as”
Sibilance	The repetition of an “s” sound in one or more words
Theme	The central idea of a piece of literature

Structure

Caesura	A piece of punctuation in the middle of a line that creates a pause in the rhythm
End-stopped line	A line ending in a full pause
Enjambment	A sentence which continues, without punctuation, into the line below
Meter	The measured pattern of rhythm in poetry
Repetition	A repeated word or phrase, usually used for emphasis
Rhyming Couplet	Two consecutive lines of poetry that rhyme
Rhyme	Words that share the same vowel sound and end the same.
Stanza	The paragraphs or verses within a poem

Context: Romanticism is the name given to a movement in literature between 1770s to mid 1800s. It was developed in reaction to the dominant style of the period before it, and involved a revival of classical ideas. These included Greek and Roman authors of the past. Romanticism was associated with radical and revolutionary political ideas, reacting against the conservative mood of European society.



Form

Ballad	A narrative poem written in four-line stanzas, with quick action and narrated
Blank Verse	Non-rhyming lines written in iambic pentameter
Dramatic Monologue	Where the speaker addresses an internal listener
Free Verse	Poetry without a regular pattern of meter or rhyme
Lyric	A poem that expresses personal and emotional
Ode	A poem written in praise or celebration of a person,
Pastoral	A poem about nature, or
Sonnet	A 14 line poem in iambic pentameter and a regular

Key Terms

Speaker	The voice behind the poem—not the poet. This is the narrator—who we imagine to be
Sublime	A sense of grandeur or power—something that inspires a feeling or awe and amazement.
Oppression	The exercise of authority or power in a cruel or
Individualism	A social theory preferring freedom of action for individuals rather than collective or state/

Key Themes

- Nature
- Sublime
- Oppression
- Individualism
- Religion
- Capacity for wonder
- Vision of childhood
- Self-expression / individual feeling
- Outcasts of society

Year 8 Spring Term French Revolution and Slavery

Lesson Content

The French Revolution - Overview

The causes of the Revolution

How bad was Louis XVI?

What did the Revolution change?

What was "The Terror"?

Who was Napoleon Bonaparte?

What happened to Napoleon Bonaparte?

The Slave Trade

Everyday Life

Punishment

Key resources:
www.tecchistoryks3.blogspot.com

Key dates

1776	American colonies declare themselves independent from Britain
1787-88	Poor harvests in France
14 th July 1789	French citizens storm the Bastille in Paris
January 1793	Louis XVI is executed
October 1793	Marie Antoinette is executed
Sept. 1793	The Reign of Terror begins. It lasts until July 1794
1799	Napoleon becomes First Consul of France
1804	Napoleon becomes Emperor of France
1815	Napoleon loses the Battle of Waterloo
18 th Century onwards	Sugar plantations expand rapidly in the Caribbean
1780-81	"The Brookes", a famous slave ship is constructed in Liverpool

Key people

Voltaire	French Enlightenment writer, historian, and philosopher famous for his advocacy of freedom of speech, freedom of religion, and separation of church and state
Louis XVI	The last king of France before the fall of the monarchy during the French Revolution.
Marie Antoinette	The last queen of France before the French Revolution. She was born an archduchess of Austria.
Maximilien Robespierre	French lawyer and statesman who was one of the best-known and most influential figures of the French Revolution.
Joseph-Ignace Guillotin	Guillotin proposed to the National Assembly that capital punishment should always take the form of decapitation "by means of a simple mechanism"
Napoleon Bonaparte	Born Napoleone di Buonaparte, a French statesman and military leader who became famous as an artillery commander during the French Revolution
Marshal Ney	French military commander and Marshal of the Empire who fought in the French Revolutionary Wars and the Napoleonic Wars. He was one of the original 18 Marshals of the Empire created by Napoleon I.
The Duke of Wellington	Anglo-Irish soldier and Tory statesman who was one of the leading military and political figures of 19th-century Britain, serving twice as Prime Minister
Sir John Hawkins	Sir John Hawkins was a pioneering English naval commander and administrator, slave trader, spy, merchant, navigator, shipbuilder, and privateer.
Edward Colston	Bristol-born merchant who made the bulk of his fortune from the slave trade , particularly between 1680 and 1692.
Oludah Equiano	Enslaved as a child, he was taken to the Caribbean and sold as a slave to a Royal Navy officer. He was sold twice more but purchased his freedom in 1766
Mary Prince	The First Woman to Present a Petition to Parliament. Mary Prince was born in 1788, to an enslaved family in Bermuda. She was sold to a number of brutal owners and suffered from terrible treatment

Key Words - Glossary

revolution	a forcible overthrow of a government or social order, in favour of a new system.	Revolutionary Tribunal	a court instituted by the National Convention during the French Revolution for the trial of political offenders.
The enlightenment	a European intellectual movement of the late 17th and 18th centuries emphasizing reason and individualism rather than tradition.	The reign of terror	a period of remorseless repression or bloodshed
famine	extreme scarcity of food	Coup d'état	a sudden, violent, and illegal seizure of power from a government.
The bastille	a fortress in Paris, used as a prison, built in the 14th century and destroyed July 14, 1789.	exiled	the state of being barred from one's native country, typically for political or punitive reasons.
Estates General	the legislative body in France until 1789, representing the three estates of the realm (i.e., the clergy, the nobility, and the commons).	Benin	a republic in W Africa, on the Bight of Benin , a section of the Gulf of Guinea: in the early 19th century a powerful kingdom,
National assembly	the elected legislature in France during the first part of the Revolution, 1789–91.	Triangular trade	the trade in the 18th and 19th centuries that involved shipping goods from Britain to West Africa to be exchanged for slaves, these slaves being shipped to the West Indies and exchanged for sugar, rum, and other commodities which were in turn shipped back to Britain.
Tuileries palace	a royal and imperial palace in Paris which stood on the right bank of the River Seine.	middle passage	the sea journey undertaken by slave ships from West Africa to the West Indies
Flight to Varennes	King Louis XVI of France, his queen Marie Antoinette, and their immediate family unsuccessfully attempted to escape from Paris	overseer	a person who supervises others, especially workers.
guillotine	a machine with a heavy blade sliding vertically in grooves, used for beheading people.	castration	the removal of the testicles of a male animal or man

Key Assessment: 50 minute assessment based on skills from Paper 1 GCSE History, Questions 6a – 8 or 9

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PANTOMIME

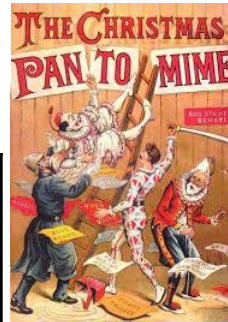


KS3
Spring 1

Origins of Pantomime

The origins of British Pantomime or Panto as it is affectionately known in the UK, probably date back to the middle ages, and blend the traditions of the Italian "Commedia dell'Arte, and the British Music hall to produce the art form that is Pantomime. "Commedia dell'Arte was a type of travelling street entertainment which came from Italy in the 16th century.

Commedia was a very physical type of theatre that used dance, music, tumbling, acrobatics and buffoonery. Commedia dell'Arte troupes had a repertoire of stories that they performed in fairgrounds and market places. Often the touring troupes were made up of family members who would inherit their characters, costumes, masks and stories from their parents or grandparents.



Main Characters

Another element of "Traditional" pantomime is the "Principal boy" role [played by a female] although the role is that of a boy hero. The female playing the principal boy usually dresses in short, tight fitting skirts [the shorter and tighter the better] accompanied by knee-high leather boots and fishnet stockings.

FAIRY TALE CHARACTERS

The Dame is played by a male member of the cast, dressed in drag; this character is usually portrayed as old, unattractive and fairly common, all qualities which she believes she is the exact opposite of! She befriends the two principals early in the story and is usually instrumental in all the good acts they perform in the course of the story; and quite often ends up "living happily ever after" either with the Principal Girl's kindly old widowed Father/Uncle/Guardian or with the ultimately-reformed Principal Baddie.

M
A
G
I
C



Audience Participation

Audience participation is an important part of pantomime. This can involve audience members shouting out and joining in songs. They can even be invited on stage to take part



The fairy Queen and the Demon King appear in all pantomimes, although their exact guise and title may differ. From Old King Rat to modern Fairy Liquid, Peter Pan and Hook, names vary according to the location and topicality of shows, but certain stage directions nearly always hold strong. Good enters from stage right and Evil from stage left. This tradition of Evil entering from the sinister side goes back to the mystery plays and the few working star traps [through which the demon used to be projected in a puff of smoke] can always be found in the down stage left position. This tradition seems to echo medieval times, when the entrances to heaven and hell were placed on these sides. The story nearly always revolves around the tried and tested formula of good conquering evil. And requires the principal baddie to make all the innocent character's lives a misery, from the beginning. But by the end of the show, all the baddies and their henchmen will have either been destroyed, or be made to see they error of their ways and turn into reformed characters.

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Homelessness

Year 8
Spring 2

Why Issue-Based Drama?

'Theatre, as the most public of art forms, has a particular part to play in the collective exploration of ideas, values and feelings – as a space and place in which society might be reshaped through the imagination.' (Nicholson 2005: 19)

- Greek Theatre
- Developing insight/understanding/empathy
- Transformation/Change
- Creates discussion
- Sensitive way to approach difficult topic

Individuals often become homeless as a result of extreme personal difficulties, which may take the form of:

- A troubled childhood
- Mental or physical illness
- Involvement in crime, which may have commenced at an early age
- Substance misuse
- Relationship breakdown
- Victimisation by violent crime
- Bankruptcy
- Ejection from the home of a relative or friend
- Eviction from a rented property



You will be introduced to Epic Theatre

Bertolt Brecht
1898-1956

German playwright, Bertolt Brecht's ideas are very influential. He wanted to make the audience think, and used a range of devices to remind them that they were watching theatre and not real life. This is a good type of theatre to use if you want to provoke your audience. It is a theatre of social change.

We are the national charity for homeless people. We help people directly out of homelessness and campaign for the changes needed to solve it altogether.

- The narration needs to be told in a montage style.
- Techniques to break down the fourth wall, making the audience directly conscious of the fact that they are watching a play.
- Use of a narrator. ...
- Use of songs or music. ...
- Use of technology. ...
- Use of signs. ...
- Use of freeze frames / tableaux .

Other Key Forms of Theatre that you will Explore

Documentary Theatre	Documentary theatre is theatre that uses pre-existing documentary material (such as newspapers, government reports, interviews, journals, and correspondences) as source material for stories about real events and people, frequently without altering the text in performance.
Promenade Theatre	As a genre, promenade theatre is extremely versatile. With no formal stage, and the audience and actors occupying the same space, it allows for experimentations with both new and old plays, and explores what the theatrical experience can entail for an audience. In moving the audience around throughout the performance, promenade theatre also pushes boundaries of setting in a way that can't be achieved in regular theatre.
Monologue	Characters express their thoughts through monologues, and use them to deliver important speeches to the audience and other characters. They can be used to share feelings, plans, anxieties—anything that a character needs to communicate that can only be accomplished through speech.

Section 4: Preventing Infections

Hygiene	Hand washing, disinfectants on work surfaces, keeping raw meat away from food
Isolation of infected individuals	Infected individuals kept separate from healthy individuals
Destroying and controlling vectors	By killing or controlling vectors e.g. mosquitos, aphids, rodents etc the spread of disease is reduced
Vaccination	Body is injected with a small amount of inactive pathogen. If you are infected your body has developed immunity to the pathogen.


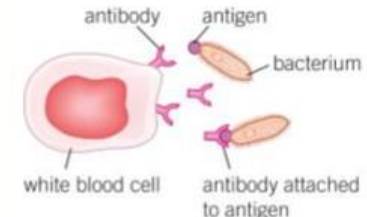
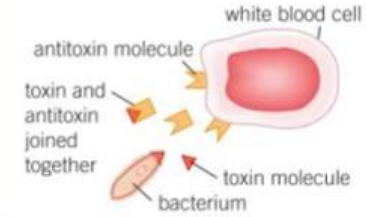
Section 6: Clinical Trials

Trial Stage	Purpose
Preclinical – cells, animals	Test for toxicity and efficacy before testing humans
Healthy volunteers	Very low doses to test for toxicity .
Patients	Larger groups. Test for toxicity, efficacy and dose . Placebos may be used in a double-blind trial .

Clinical Trial Key Terms

Placebo	A drug with no active ingredients , designed to mimic a real drug . Used to test if the effects of a drug on a patient are just psychological .
Double-blind trial	The volunteers do not know which group they are in, and neither do the researchers, until the end of the trial
Toxicity	How harmful the drug is. May have dangerous side effects .
Efficacy	How effective the drug is.
Dose	The amount of the drug given to the patient.

Section 5: Ways in which white blood cells destroy pathogens

Role of white blood cell	How it protects you against disease
Ingesting microorganisms 	Some white blood cells ingest (take in) pathogens, digesting and destroying them so they cannot make you ill.
Producing antibodies 	Some white blood cells produce special chemicals called antibodies. These target particular bacteria or viruses and destroy them. You need a unique antibody for each type of pathogen. When your white blood cells have produced antibodies once against a particular pathogen, they can be made very quickly if that pathogen gets into the body again. This stops you getting the disease twice.
Producing antitoxins 	Some white blood cells produce antitoxins. These counteract (cancel out) the toxins released by pathogens.

Section 7:

Drugs from plants	Traditionally drugs were extracted from plants
Penicillin	Discovered from penicillium mould

Section 1: Monoclonal antibodies

Monoclonal Antibodies

Monoclonal antibodies are identical copies of **one** type of **antibody** produced in a laboratory.

How to produce monoclonal antibodies:

1. A mouse is **injected** with a pathogen
2. White blood cells called **lymphocytes** produce **antibodies**
3. Lymphocytes are removed from the mouse and **fused** with rapidly dividing mouse **tumour cells**
4. The new cells are called **hybridomas**.
5. The hybridomas divide rapidly and release lots of **antibodies** which are then collected

Uses of Monoclonal Antibodies

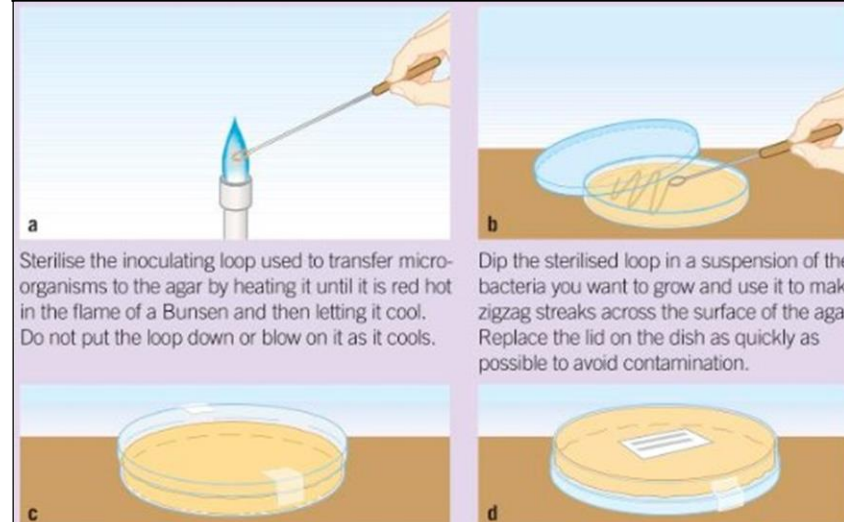
Used in treatment of diseases and monoclonal antibodies have been developed against the antigens on cancer cells.

Monoclonal antibodies are bound to radioactive substances (or toxic drugs and chemicals) that stop cells growing and dividing.

Monoclonal antibodies have side effects and are not as widely used in cancer treatment.

Monoclonal antibodies are used for diagnosis in pregnancy tests, in labs to measure levels of hormones and other chemicals in the blood to detect pathogens and to identify molecules in cells or tissues.

Section 2: Culturing microorganisms in the laboratory



a
Sterilise the inoculating loop used to transfer microorganisms to the agar by heating it until it is red hot in the flame of a Bunsen and then letting it cool. Do not put the loop down or blow on it as it cools.

b
Dip the sterilised loop in a suspension of the bacteria you want to grow and use it to make zigzag streaks across the surface of the agar. Replace the lid on the dish as quickly as possible to avoid contamination.

c
Fix the lid of the Petri dish with adhesive tape to prevent microorganisms from the air contaminating the culture – or microbes from the culture escaping. Do not seal all the way around the edge – as oxygen needs to get into the dish to prevent harmful anaerobic bacteria from growing.

d
The Petri dish should be labelled and stored upside down to stop condensation falling onto the agar surface.

Section 3: Preventing Bacterial Growth

Bacteria multiply by simple cell division if they have enough nutrients and a suitable temperature

You can investigate the effects of disinfectants and antibiotics on bacterial growth using agar plates and calculating the cross-sectional area of colonies grown or of clear areas of agar



Biology Topic B5 + B6

Communicable Diseases (Separate Higher)

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Section 4: More about Plant Diseases

Plants can be infected by a range of viral, bacterial and fungal pathogens as well as insect pests.

We cant detect a plant is diseased by looking for unusual growths, spots or discoloured leaves and malformed leaves and stems.

If a plant disease is suspected then it can be identified by:

Gardening manuals

Gardening websites

Test kits containing monoclonal antibodies

Taking infected plants to a laboratory to identify the pathogen

Monoclonal antibodies are used for diagnosis in pregnancy tests, in labs to measure levels of hormones and other chemicals in the blood to detect pathogens and to identify molecules in cells or tissues.

Section 6: Deficiency of Mineral Ions

Nitrate ions	Needed by plants for protein synthesis and growth. Lack of nitrate ions results in stunted growth of plants.
Magnesium ions	Needed by plants to produce chlorophyll. Lack of magnesium ions results in chlorosis (yellowing of leaves due to lack of chlorophyll)

Section 7: Plant defence responses

Type of plant defence used (mechanical, physical or chemical)	What is the plant being defended against?	Describe the defence being used
Mechanical	Herbivores eating it	Thorns or hairs
Chemical	Pathogens/bacteria Herbivores/animals	The chemical released is antibacterial or poisonous
Physical	Herbivores and pathogen entry	Dead bark coating which falls off
Physical	Insects such as aphids	Waxy cuticle/cellulose cell walls are hard to penetrate



The presence of pests



Stunted growth



Chlorosis



Thorns

The String Family

- Usually made from wood
- Sound is produced by plucking or bowing a string to make it vibrate
- Pitch is manipulated by changing the amount of the string which is vibrating (shorter = higher pitch)
- Sound is amplified through the body of the instrument which is hollow and resonates.



- The larger the instrument the lower the pitch

<https://www.youtube.com/watch?v=ImPVOFWMFNc>

The Brass Family

- Usually made from metal (Brass)
- Sound is produced by vibrating your lips into an egg-cup shaped mouthpiece
- Pitch is manipulated by 1) changing the length of the tube the sound travels through. This is done with valves, keys or a slide. 2) varying the tension of the lips.
- Sound is amplified by the air vibrating through the instrument and out of the bell as it exits the instrument.



<https://www.youtube.com/watch?v=6SKEvs9viaE>

The Woodwind Family

- Can be made from a variety of materials
- Sound is produced by either blowing across a hole (Flute/Piccolo) or through a mouthpiece with a single (Clarinet/Saxophone) or double (Oboe/Bassoon) reed.
- Pitch is manipulated by covering holes in the body of the instrument to allow the air to travel further.
- Sound is amplified by the air vibrating through the instrument and out of the key holes and bell as it exits the instrument.



<https://www.youtube.com/watch?v=Zv5-BooE9E8>

The Families of Instruments

- There are 4 families
- Instruments belong to a family based on how the sound is produced



Family	How is sound produced?
Strings	A string vibrates by being plucked or bowed
Brass	Lips are buzzed into an egg-cup shaped mouthpiece
Woodwind	Air is blown over a whole or through a mouthpiece with a single or double reed
Percussion	Instruments that are hit, scraped or shaken to produce sound

The Percussion Family

- Made from lots of different materials.
- Sound is produced by hitting, shaking or scraping the instrument.
- Pitch is manipulated by the size of the instrument being hit e.g. Xylophone – smaller bars = higher pitch
- Sound is amplified by the instrument resonating.



<https://www.youtube.com/watch?v=cUBU34RoJBU>

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DYNAMICS

Dynamics are the volume levels of loudness and quietness in music.

pp	p	mp	mf	f	ff
SOFTEST		MEDIUM		LOUDEST	
ff	f			mf	
FORTESSIMO Very Loud	FORTE Loud			MEZZO FORTE Medium Loud	
mp	p			pp	
MEZZO PIANO Medium Quiet	PIANO Quiet			PIANISSIMO Very Quiet	
CRESCENDO Gradually gets LOUDER			DIMINUENDO Gradually gets QUIETER		

RHYTHM

A pattern consisting of note and rest durations moving through time.

TIME SIGNATURE



NOTE AND REST DURATION

	SEMIBREVE	MINIM	CROTCHET	QUAVER	SEMIBREVE
NOTE					
REST					
DURATION	4 BEATS	2 BEATS	1 BEAT	1/2 BEAT	1/4 BEAT

HARMONY

Two or more pitches sounding at the same time to produce a chord and progression.



Harmony can create many moods and textures by creating chords based on SCALES.

The two most used scales are MAJOR & MINOR.



MAJOR

Are generally 'happy' sounding, and give a brighter mood.



MINOR

Are most likely 'sad' sounding and give a melancholy mood.



MELODY

A pleasing series of single tones and itches which create a musical phrase, often called the TUNE.



If you have a song stuck in your head, you are most likely thinking about the MELODY.



LOW

HIGH

NATURAL \natural
Cancels out a sharp or flat

SHARP \sharp
Raises a pitch by a semitone.

FLAT \flat
Lowers a pitch by a semitone.

TIMBRE

Timbre is the type of sound produced by different instruments.


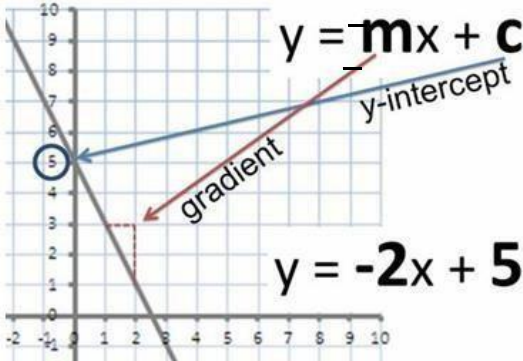
All instruments sound different to each other because their TIMBRE (sound) is different. A drum sound different to a violin and a trumpet sounds different to a drum.




Words to describe TIMBRE

REEDY	WARM
BRASSY	MELLOW
CLEAR	RESONANT
FOCUSSED	DARK
UNFOCUSSED	BRIGHT
BREATHY	HEAVY
ROUNDED	LIGHT
PIERCING	FLAT
HARSH	ROLLY



Topic	Key fact	Hegarty maths clip number
Expanding single brackets	 $2(y - 3) = 2 \times y - 2 \times 3 = 2y - 6 \checkmark$	160 - 161
Plotting linear graphs using a table of values	<ul style="list-style-type: none"> ✦ Need minimum 3 pairs of coordinates. ✦ Start at $x = 0$. ✦ Do the positive x co-ordinates first. ✦ X coordinate: along the corridor ✦ Y co-ordinate: up the stairs. ✦ $Y = mx + c$ will be a straight line. 	206
Identifying gradient and y- intercept	<p>The number in front of x is called the gradient and tells us how many up (+) or down (-) the graph goes for every 1 across (right).</p> 	207
Calculating with Decimals	<p>Addition and subtraction: line up the decimal point. Multiplication: Change to whole numbers and remember to put the point in at the end. Division: If dividing by a decimal times both numbers by 10, 100 or 1000. Do not put decimal back in.</p>	47 - 51
Four Operations with Fractions	<p>To add and subtract fractions you need to write all fractions in a sum with the same denominator by writing equivalent fractions. Multiplying: Cancel down whenever possible, then multiply the numerators together and multiply the denominators together. Dividing fractions: KFC (Keep the first, Flip the second and Change the sign to x)</p>	65 -78
Sharing in a given ratio	Always find 1 part	332 to 334
Ratio problems	Set out in columns and put information below the appropriate column	335 to 338

Multi-step Angle Reasoning	<p>Angles on a straight line add up to 180°. Angles in a triangle add up to 180°.</p> <p>Angles in a quadrilateral add up to 360°.</p> <p>Vertically opposite angles are equal.</p> <p>Angles around a point add up to 360°.</p>	477 - 480, 484 - 491, 812 - 815
Pie Charts	<ul style="list-style-type: none"> Find the angle for each category: $360^\circ \div \text{total frequency} =$ the number of degrees per piece of data To work out each category's associated angle we multiply the number of degrees per piece of data by each frequency.  <p>Top Tip: Always draw each angle clockwise, using the previous line drawn to start.</p>	427 - 429
Proportion	<p>Direct proportion: as one quantity increases so does the other</p> <p>Inverse proportion: as one quantity increases the other decreases</p>	339 to 342

Key Vocabulary

- Numerator - the top number in a fraction.
 - Denominator - the bottom number in a fraction.
 - Mixed number - a number consisting of an integer and a proper fraction.
 - Improper fraction - an improper fraction is a fraction where the top number (numerator) is greater than or equal to the bottom number (denominator): it is top-heavy.
 - Direct proportion - one quantity increases at the same rate as the other quantity increases.
 - Inverse proportion - one quantity increases at the same rate as the other quantity decreases.
 - Rate - a price or charge set according to a scale or standard hotel rates.
 - Quantity – the amount of something.
 - Expand – to multiply the term before bracket by the terms in the bracket.
 - Expression – collection of terms. E.g $4x + 8p$.
- ○
- Gradient – the steepness of a curve
- Linear Graph – straight line graph $y = mx + c$
 - Y-intercept – where the graph crosses the y axis

Mean, Median, Mode and Range (recap averages)	<p>Mean: Add up all the numbers and then divide by the number of items.</p> <p>Median: Put in order and then find the middle. If two middle values then add the two middle numbers and divide by 2.</p> <p>Mode: The number that appears the most. There can be more than one mode.</p> <p>Range: The difference between the largest and smallest numbers.</p>	404 -410 And 419 – 421
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Paris

Scan the QR code with your phone camera to practise on Quizlet



Complex connectives
 où: where
 qui: who/which
 quand: when
 si: if
 donc : so /therefore
 car: because
 parce que: because

A Paris
 Il y a
 La tour Eiffel
 Les Champs Elysées
 L'Arc de Triomphe
 La Joconde
 Le musée du Louvre/ Le Louvre
 La Seine
 La Grande Arche de la Défense
 Le Sacré Coeur
 La Cité des Sciences et de l'Industrie
 La Cathédrale Notre-Dame

In Paris
 There is



On peut **We can**
Je vais **I will/ I'm going**
FOLLOWED BY Infinitive verbs:

visiter	to visit
aller	to go
voyager	to travel
manger au restaurant	to eat at the restaurant
acheter des souvenirs	to buy souvenirs
voir les monuments	to see the monuments
voir les peintures	to see the paintings
faire les magasins	to go shopping
faire un tour en bateau mouche	to do a tour on a boat
faire du Segway/du roller	to go on a Segway/rollerskating
prendre des photos	to take photos
boire (une limonade au café) =	to have a drink
se promener (sur les bords de la Seine)	to go for a walk (by the river Seine)
se balader	to have a stroll (SLANG)
découvrir	to discover

Subject pronouns

Je	I
Tu	you (informal)
Il	he
Elle	she
On	we (informal)
Nous	we (formal)
Vous	you (plural or singular formal)
Ils	they (mixed or males)
Elles	they (females)

Les opinions




Je pense que..	I think that..
C'est	it is
C'était	It was
Ce sera	It will be
génial	great
intéressant	interesting
fatigant	tiring
captivant	captivating
ringaine	boring
banal	dull
dégoutant	disgusting
pas mal	not bad
ennuyeux	boring
Intensifiers:	
très	very
assez	quite
vraiment	really
SLANG	
super	super(very)
hyper	very
trop	so
carrément	totally

Voyager dans le monde Travel the world
 How to say **to** a country:

- en + feminine (end in E)**
 en France
 en Espagne
 en Italie
 en Ecosse
 en Angleterre
 en Cornouaille
- au+ masculine (end in a consonant)**
 au Portugal
 au Japon
 *au pays de Galles
- aux + plural (end in X or S)**
 aux Etats-Unis
 aux Caraïbes
 aux Canaries
 aux Seychelles
- To a city: **à** Paris
- To a region: **dans** le Devon

Comment? **How?**

à vélo	by bike
en avion	by plane
en bateau	by boat
en bus	by bus
en car	by coach
en métro	on the metro
en train	by train
en voiture	by car
à pied	on foot
à moto	by motorbike
C'est	it is
plus	more
moins	less
que	than
cher	expensive
confortable	comfortable
économique	cheap
bon marché	cheap
rapide	fast
lent	slow
écologique	environmentally friendly
pratique	practical

Quand?	When?
Samedi	Saturday
Dimanche	Sunday
matin	morning
après-midi	afternoon
soir	evening
Demain	tomorrow
La semaine prochaine	next week
Le weekend prochain	next weekend
L'année prochaine	next year
Hier	yesterday
La semaine dernière	last week
Le weekend dernier	last weekend
L'année dernière	last year
D'abord	first (of all)
Puis	then
Ensuite	next
Aussi	also
Mais	but
Après (ça)	after (that)
Finalement	finally

Past tense verbs

J'ai / on a visité	I/ we visited
J'ai/on a acheté	I/ we bought
J'ai / on a voyagé	I/ we travelled
J'ai/on a mangé	I /we ate
J'ai/on a vu	I/ we saw
J'ai on a pris	I/ we took
J'ai/on a fait	I/ we did
J'ai /on a découvert	I/ we discovered

MOTION VERBS —
NOTE: add E for fem/ S for plural

je suis / on est allé(e)s	I/ we went
je suis / on est monté	I/ we went up
je suis / on est resté	I/ we stayed
je suis / on est rentré	I/ we went back
je suis / on est arrivé	I/ we arrived
je suis / on est parti	I/ we left

SEE MORE ON YOUR VERB TABLE

¿Qué te gusta comer y beber?	What do you like to eat and drink?
¿Qué no te gusta comer?	What don't you like to eat?
¿Qué no te gusta beber?	What don't you like to drink?
Me gusta(n) mucho	I really like...
Me encanta(n)	I love...
No me gusta(n) nada	I don't like... at all.
Odio...	I hate...
Prefiero...	I prefer...
el agua	water
el arroz	rice
la carne	meat
los caramelos	sweets
la fruta	fruit
las hamburguesas	hamburgers
los huevos	eggs
la leche	milk
el marisco	seafood, shellfish
el pescado	fish
el queso	cheese
las verduras	vegetables

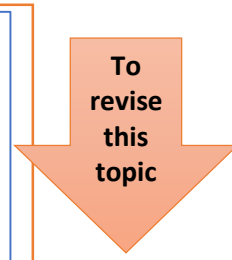


¿Te gustaría ir al cine?	Would you like to go to the cinema?
¿Te gustaría ir...?	Would you like to go...?
a la bolera	to the bowling alley
a la cafetería	to the café
al centro comercial	to the shopping centre
al museo	to the museum
al parque	to the park
a la pista de hielo	to the ice rink
al polideportivo	to the sports centre
a mi casa?	to my house



¿Cómo te preparas?	How do you get ready?
¿Cómo te preparas ?	How do you get ready?
Me baño.	I have a bath.
Me ducho.	I have a shower.
Me lavo la cara.	I wash my face.
Me lavo los dientes.	I brush my teeth.
Me visto.	I get dressed.
Me maquillo.	I put on make-up.
Me peino.	I comb my hair.
Me aliso el pelo.	I straighten my hair.
Me pongo gomina.	I put gel on my hair.

Una fiesta mexicana	A Mexican party
¿Qué vas a traer?	What are you going to bring?
¿Qué vas a comprar?	What are you going to buy?
Voy a traer...	I'm going to bring...
quesadillas	quesadillas (toasted cheese tortillas)
limonada	lemonade
Voy a comprar...	I am going to buy...
una lechuga	a lettuce
un pimiento verde	a green pepper
un pimiento rojo	a red pepper
un aguacate	an avocado
un kilo de tomates	a kilo of tomatoes
medio kilo de queso	half a kilo of cheese
200 gramos de pollo	200 grammes of chicken
una botella de limonada	a bottle of lemonade



¿Y tú? ¿Qué opinas?	And you? What do you think?
Pues...	Well...
Depende...	It depends...
No sé...	I don't know...
Eh...	Er...
A ver...	Let's see...
Bueno, Vale...	OK...

Palabras muy frecuentes	High-frequency words
a las...	at ... o'clock
bastante	quite
día	day
favorito, favorita	favourite
hora	time
lugar	place
para	for
por ejemplo	for example
pasado, pasada	last
que viene	next

Lo siento, no puedo	I'm sorry, I can't
¿Quieres salir?	Do you want to go out?
Tengo que...	I have to...
cuidar a mi hermano	look after my brother
hacer los deberes	do my homework
lavarme el pelo	wash my hair
ordenar mi dormitorio	tidy my room
pasear al perro	walk the dog
salir con mis padres	go out with my parents
No quiero.	I don't want to.
No tengo dinero.	I don't have any money.
No puede salir.	He/She can't go out.

¿A qué hora?	At what time?
a las...	at...
seis	six o'clock
seis y cuarto	quarter past six
seis y media	half past six
siete menos cuarto	quarter to seven
siete menos diez	ten to seven

¿Qué vas a llevar?	What are you going to wear?
llevo...	
una camisa	a shirt
una camiseta	a T-shirt
un jersey	a jumper
una sudadera	a sweatshirt
una falda	a skirt
un vestido	a dress
una gorra	a cap
unos pantalones	some trousers
unos vaqueros	some jeans
unas botas	some boots
unos zapatos	some shoes
unas deportivas	some trainers
Voy a ir al/a la...	I'm going to the...
Voy a llevar...	I'm going to wear...

Near future tense

The near future is used to talk about what you are going to do. Use the present tense of the verb it followed by a plus the infinitive.

voy a salir con mis amigos	I am going to go out with my friends
vas a comer paella	you are going to eat paella
va a ir a una fiesta	he/she is going to go to a party
vamos a jugar al fútbol	we are going to play football
vais a chatear	you are going to chat online
van a hacer los deberes	they are going to do their homework

Past tense

The preterite tense is used to talk about **completed** actions that have happened in the **past**.

Ayer hablé con mis abuelos Yesterday I spoke with my grandparents

El año pasado visité Barcelona Last year I visited Barcelona

How to form the Preterite Tense

We form the preterite in the same way do the present tense. It just requires a different set of endings.

- first start with the infinitive form of the verb (the form used in the dictionary. E.g. hablar = to speak).
- look at the last two letters of the infinitive and decide whether it's an -ar, -er or -ir verb.
- then remove the -ar, -er or -ir to find the stem.
- then add the following endings:

	Hablar	Comer	Vivir
I	Habl <u>é</u>	Com <u>í</u>	Viv <u>í</u>
You Singular	Habl <u>aste</u>	Com <u>iste</u>	Viv <u>iste</u>
He/She/It	Habl <u>ó</u>	Com <u>ió</u>	Viv <u>ió</u>
We	Habl <u>amos</u>	Com <u>imos</u>	Viv <u>imos</u>
You Plural	Habl <u>asteis</u>	Com <u>isteis</u>	Viv <u>isteis</u>
They	Habl <u>aron</u>	Com <u>ieron</u>	Viv <u>ieron</u>

* Notice that the Er and Ir endings are the same

The conditional

Me/Te gustaría is the conditional form of **me/te gusta**. You use it to say what you would like to do. It is often followed by the infinitive.

¿Te **gustaría** ir a la **cafetería**? Would you like to go to the café?
Me gustaría ir al **cine**. I would like to go to the cinema.

Reflexive verbs

Reflexive verbs include a reflexive pronoun. They often describe an action you do to yourself – for example, **lavarse** (to wash oneself/ to get washed).

me lavo	I wash myself/get washed
te lavas	you (sg) wash yourself
se lava	he/she washes him/herself
nos lavamos	we wash ourselves
os laváis	you (pl) wash yourselves
se lavan	they wash themselves

Adjective endings

Colour words are adjectives and generally follow the normal adjective patterns.

ending in...	singular		plural	
	masculine	feminine	masculine	feminine
-o	rojo	roja	rojos	rojas
-e	verde	verde	verdes	verdes
-a	rosa	rosa	rosas	rosas
consonant	marrón	marrón	marrones	marrones

Using 3 tenses

Look carefully at verb forms to see which tense someone is using:

present	preterite	near future
bailo	bailé	voy a bailar
como	comí	voy a comer
veo	vi	voy a ver
salgo	salí	voy a salir
voy	fui	voy a ir
es	fue	va a ser

Look at time-markers for clues:

normalmente	el fin de semana pasado	el fin de semana que viene
generalmente	el año pasado	el año que viene
los viernes	el viernes pasado	el próximo viernes

Using 3 tenses

Different types of verbs work like this in the 'I' form in the present, preterite and near future. Train yourself to spot verbs in different tenses:

	infinitive	present	preterite	near future
regular verbs	llevar comer vivir	llevo como vivo	llevé comí viví	voy a llevar voy a comer voy a vivir
stem-changing verbs	jugar	juego	jugué	voy a jugar
irregular verbs	hacer ir ver ser	hago voy veo soy (es → it is)	hice fui vi fui (fue → it was)	voy a hacer voy a ir voy a ver voy a ser (va a ser → it is going to be)

Year 8 PSHE – P4C – Philosophy 4 Children

Key Words

Philosophy
Influence
Understanding
Opinion
Debate
Controversy
Open
Question
Listen
Rules

What is P4C and how does it work?

Philosophy for Children, or P4C, is an approach to learning and teaching which enhances your thinking and communication skills, boosts your self-esteem, and improves your ability to question things on a deeper level.

In P4C, a stimulus, such as a story, video clip or image, is shared with a you. You are encouraged by your teacher to come up with the kind of big, engaging philosophical questions about the stimulus which are at the heart of P4C.

Philosophical questions are those that are open to examination, further questioning and enquiry. They are contestable – that is, there is

more than one valid point of view, the question is important, and it is a shared issue or concern.

Through a vote, you then choose the question they would most like to discuss.

Examples of Open Questions

- Is it ever OK to lie?
- What makes you you?
- Do we have to respect everyone?
- Can good people do bad things?
- Do we all have the same rights?

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>

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=7MIE4G8ntss>
<https://www.nhs.uk/live-well/eat-well/the-eatwell-guide/>
<https://www.youtube.com/watch?v=8aWqZd9RScQ>

Carbohydrates are macronutrients.

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>

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



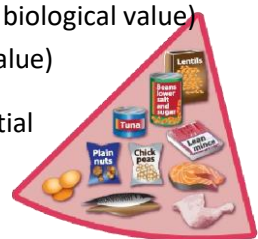
<https://www.youtube.com/watch?v=fiFi-d0RwKo>

Proteins are macronutrients.

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=61Lelea02ao>
<https://www.youtube.com/watch?v=KSKPgaSGSYA>

vitamins

and minerals are *micronutrients*.

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>

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 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.**



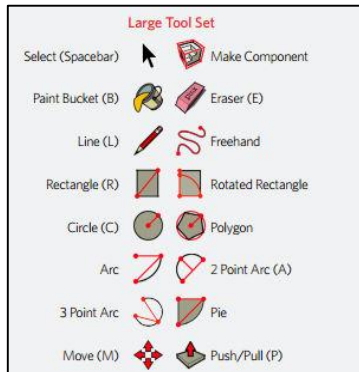
CAD - Computer aided design.

2D Design, 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.

Capacitors store charge in circuits and release charge when the circuit is off.

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.

Solder



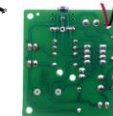
Soldering iron



Side cutters



Tenon saw

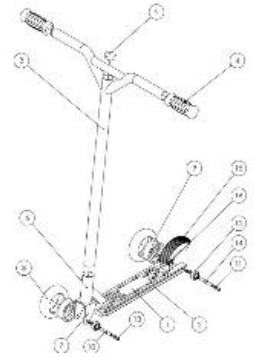


Printed circuit board. Electronically connect components using copper tracks.

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.



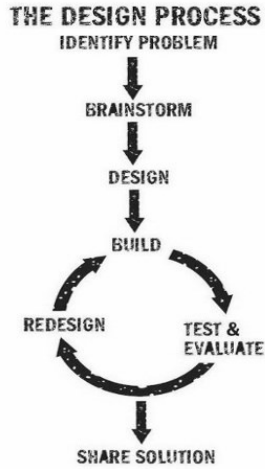
Soldering is a permanent addition method for electronic components.

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 an example.

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

The Design Process



"The design process involves continually evaluating and redesigning to develop 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	

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

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.

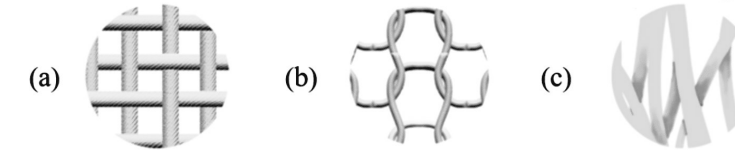
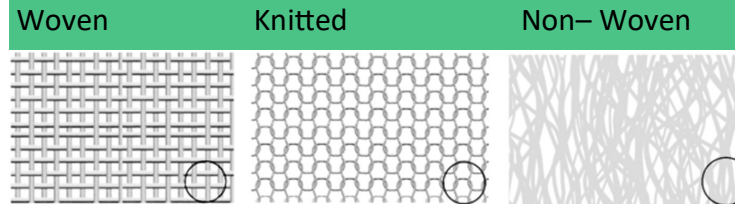
User centred design.

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

Year 8 - Textiles Design and Technology

Fabric Construction



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



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

Monochrome means varying tones of ONE colour.

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.

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.



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.



Media	Best practice
Coloured Pencils	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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
Papier Mache	<ul style="list-style-type: none"> Rip OR cut (not both) Use 2cm strips to cover whole surface of boomerang Overlap to avoid leaving gaps Use a thin layer of PVA
Tonal Pencils	<ul style="list-style-type: none"> Know your pencils- B are soft and dark (the higher the number the softer and darker they are) H are hard pencils and so create a thinner and lighter line (the higher the number the harder and lighter they are) Rest your hand on a paper towel to avoid smudging Make sure your work transitions smoothly from light to dark Use a soft circular motion
Oil Pastels/Wax Crayons	<ul style="list-style-type: none"> Start with the lightest colours Press on heavily to apply a strong coverage Blend colours together by slightly overlapping Be gestural with the marks you apply
Pen / Biro	<ul style="list-style-type: none"> 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

Symbols are used to tell the stories of the Dreamtime.

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.

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