Glenmoor & Winton Academies
High Achievement – High Standards
Part of United Learning

Knowledge Organiser

Year 9 - 2025/26

Student Name: _

Need to ask your teacher about any of these topics? Make a note here!

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Art - Book Illustration

Key Term	Definition
Composition	Composition is how an artist arranges visual elements within their images.
Illustration	Illustration is creating an image to communicate a message or an idea.
Collage	Collage describes the technique of composing an artwork by gluing a wide range of materials - including pieces of paper, fabric, newspaper clippings, and sometimes ready made objects - to a surface.
Watercolour	**Wash** A watercolour wash refers to a layer of colour that is fairly transparent because it is applied with a diluted paint mixture. Typically, washes are applied to help create backgrounds or build layers of colour. **Wet on Wet** Wet paint applied to a wet surface, such as pre-moistened paper or a still-wet layer of paint. **Stipple** A painting technique that involves applying small dots or specks of paint onto the paper using a brush or other painting tool.
Fantasy	Fantasy is a genre of speculative fiction involving magical elements, typically set in a fictional universe and usually inspired by mythology and folklore.
Goblin	The meaning of **GOBLIN** is an **ugly or grotesque sprite** that is usually **mischievous** and sometimes evil and malicious.
Narrative	A spoken or written account of connected events; a story.
Perspective	**Foreground** The part of a view that is nearest to the observer, especially in a picture or photograph. **Middle** The middle distance of a painting or photograph. **Background** The things that can be seen behind the main subject of an image.

Ui De Rico

Images © Ui De Rico

- A contemporary illustrator.
- Highly detailed fantasy oil paintings.
- He is most famous for illustrating The Rainbow Goblins (1978).

Stacy Rozick

Images © Stacy Rozick

- A contemporary painter.
- Her watercolour and gouache paintings reflect her interest in cultural narratives, textile patterns and folklore details.

Romantic Landscape Painters

- Gainsborough
- Constable
- Turner

Turner and Constable were romantic painters in so far as they looked for truth, spiritualism and beauty in nature; they shared Gainsborough's infectious love of the countryside and dedicated their lives to painting it, which is why they are considered Britain's most recognisable landscape artists.

Gainsborough's forest (1748) The Cornfield (1826) The junction of the Severn an Wye (1845)

Fauve

Henri Matisse

Andre Derain

- An early twentieth century art movement.
- The name Fauves is French for 'Wild Beasts'.

Called this because they used intense and vibrant colours in a violent uncontrolled way.

Jardin du Luxembourg, Paris 1902

Charing Cross Bridge, London, 1906

Art - Protest

Key Term	Definition
Protest	Protest is a statement or action expressing disapproval of or objection to something. An example of this might be an anti-war demonstration.
Types of Protest	• Marches • Demonstrations • Boycotts • Silent vigils • Petitions • Peaceful street protest • Picketing
Emotive self portrait	A visual representation of your face which shows strong emotion captured through facial expression.

Artistic Techniques & Media	
Monoprint	The monoprint is a form of printmaking where the image can only be made once, unlike most printmaking which allows for multiple originals.
Mixed Media	Mixed media is a term used to describe artworks composed from a combination of different media or materials.
Mark-making	Mark making is a term used for the creation of different patterns, lines, textures and shapes. This may be on a piece of paper, on the floor, outside in the garden or on an object or surface.
Oil Pastels	An oil pastel is a painting and drawing medium formed into a stick, containing pigment mixed with a binder of oil and wax. Oil pastels are bold and bright. They can be blended easily but they can break easily too.
Stencil Printing	A thin sheet of card, plastic, or metal with a pattern or letters cut out of it, used to produce the cut design on the surface below by the application of ink or paint through the holes.

Artists		
Guy Denning	Guy Denning is an English contemporary artist. He is part of the Bristol urban art scene and often draws and paints on found grounds such as newspaper or cardboard. War has been a great influence and he works from observation and photographic references.	 *Image© Guy Denning*
Jenny Saville	Jenny Saville is a contemporary British figurative painter concerned with body image and representation. Her paintings are often large in scale and made with overlapping lines and expressive brush marks. She uses pencil, oil and chalk pastel and oil paint. Areas of interest are the female nude, body image, motherhood, plastic surgery and injury. As a result, her works are very emotive.	 *Image© Jenny Saville*

Art - Day of The Dead

Key Term	Definition
Day of the Dead	***Los Dias de los Muertos*** - The Day of the Dead, is a traditional Mexican holiday honoring the dead. Los Dias de Los Muertos is not a sad time, but instead a time of remembering and rejoicing.
Beliefs and Traditions	Holiday celebrating the times they shared with deceased family members. Believe the souls of dead people visit at this time and the traditions of the festival guides them home. Celebration full of excitement, music, colour, food, love and fun. No crying - Elders say *"the path back to the living world must not be made slippery by tears"*
Altars and Traditions	In the homes families arrange *offrenda's* (offerings) on "altars" with flowers, bread, fruit and candy. Pictures of the deceased family members are added. In the late afternoon special all night burning candles are lit - it is time to remember the departed – their family, loved ones and friends.
Food and traditions	***Pan de Los Muertos*** Special sweet loaves of bread are baked, called pan de Muertos, and decorated with skulls or bones.
Flowers and traditions	During *Los Dias de Los Muertos* the yellow marigold symbolizes the short duration of life.
Skulls and traditions	Skeletons and skulls are found everywhere. Chocolate skulls, marzipan coffins, and white chocolate skeletons decorated with bright colours.

Key Term	Definition
Papel picado	It is a decorative craft made out of paper cut into elaborate designs. It is considered a Mexican folk art.
Relief Sculpture	A sculpture in which the three-dimensional elements are raised from a flat base.
Design	A process of planning a creation.
Drawing for observation	Observational drawing - is drawing what you see, focusing on accurately representing the subject's shapes, forms, details, texture and tones. 

Catering - Practical Knowledge

Chopping Board Colours

RED	Raw meat
BLUE	Raw Fish
YELLOW	Cooked Meat
GREEN	Salad and Fruit
BROWN	Vegetables
WHITE	Dairy

Eatwell guide

Kitchen Appliances

Oven

Induction Hob

Handwash basin

Washing Up

- Wash up in warm, soapy water
- Use dishcloth/brush/scourer to wash
- Wipe down work surface with a dishcloth
- Dry with tea towel
- Lay clean equipment on work surface to be inspected before putting them away

Kitchen Drawer Layout

Knife Skills

Bridge Hold

Claw Grip

Preparing to Cook - Personal Hygiene

- Tie up hair before you enter the kitchen
- Remove watch and jewellery
- Put on an apron
- Wash your hands

Citizenship - Health and Wellbeing

1. Drugs and Addiction

Addiction	A compulsive need for a substance, behaviour, or activity having harmful effects.
Recreational Drugs	A drug used without medical justification for its psychoactive effects.

Consequences of Addiction:

Physical: Kidney damage, liver failure, heart disease, lung damage, strokes

Psychological: Hallucinations, anxiety, paranoia, aggressiveness

Vape	A device used for inhaling vapour containing nicotine and flavouring.

Risks of Vaping:

- Nicotine is highly addictive
- Nicotine can harm adolescent brain development
- Vapes contain other harmful substances that can increase risk of cancer and lung disease

2. Alcohol

Dependency	A state in which a person relies upon a substance to feel or function as normal.
Depressant	A type of drug that slows body systems, lowers cognitive abilities and slows reactions.

Consequences of Alcohol misuse:

Short term: Vomiting, blurred vision, risky behaviour: doing and saying things one wouldn't normally do.

Long term: High blood pressure, cancer, liver disease, depression

Connected Careers

- Counselling/therapy
- Psychologist
- Medicine: Nurse/Doctor/Health Care assistant
- Dietitian
- Personal Trainer
- Dental care

3. How to Prevent Poor Health

Personal Hygiene	How you care for your body.
Self-Screening	Examining yourself to check for signs of disease or illness.

Factors that contribute to a healthy lifestyle:
A healthy, varied diet: A balanced diet can support a strong immune system and keep energy up.
Regular exercise: Exercise gives greater flexibility and strength, prevents boredom and helps sleep.
Sleeping well: Sleeping gives bodies and minds the time to rest, recover and process all the things which have happened during the day.

Key Concepts

Resilience	Being able to recover quickly from difficulties.
Risk Factors	Things that could result in a period of poor mental health. Such as: • Social isolation/loneliness • Traumatic life event • Severe or long-term stress • Poor physical health
Protective Factors	Things that support mental health. Such as: • Strong support network • Healthy habits; diet, sleep, exercise • Mindfulness • High self-esteem
Harm	• To damage, injure or hurt.

Helpful Resources

- **FRANK:** Information, help and advice about drugs. **Website**: talktofrank.com **Helpline**: 03001236600
- **We Are With You:** Free, confidential support with alcohol, drugs or mental health. **Website**: wearewithyou.org.uk
- **Mind UK:** Mental health charity. **Website**: mind.org.uk **Helpline**: 0300 123 3393
- **Childline:** Children's charity. Call their helpline for a free, private and confidential service where you can talk about anything. **Helpline**: 0800 1111 **Website**: childline.org.uk

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NHS

Citizenship - Relationships

1. Choices in Relationships

Consent	'A person consents if he/she agrees **by choice**, and has the **freedom** and **capacity** to make that choice.'
Contraception	Methods used to prevent pregnancy from occurring.

Types of Contraception:

- Condoms
- The pill
- Contraceptive implants
- Intrauterine device (coil)

2. Safe Relationships

Harassment	Aggressive pressure or intimidation.
Pornography	Pornography is not a healthy and real representation of healthy relationships.
Boundaries	'Rules' in a relationship that guide how people interact.

Examples of healthy boundaries for a safe relationship:

- Not excessively texting one another
- Maintaining individuality, personal space, and personal hobbies
- Having other healthy relationships that are allowed to flourish
- Being able to say 'No' and being clear on what makes you uncomfortable

3. Relationship Abuse

Coercion	Using force or threats to get your own way.
Honour-based violence (HBV)	Practices used to control the behaviour of (mostly) women and girls.

Types of Honour-based violence:

- Physical abuse e.g. beating and kicking
- Psychological pressure e.g. threats and humiliation
- Forced marriage
- Abandonment
- Killing

Connected Careers

- Relationships counselling and therapy
- Safeguarding: police, social work, pastoral leader in schools
- Charity work

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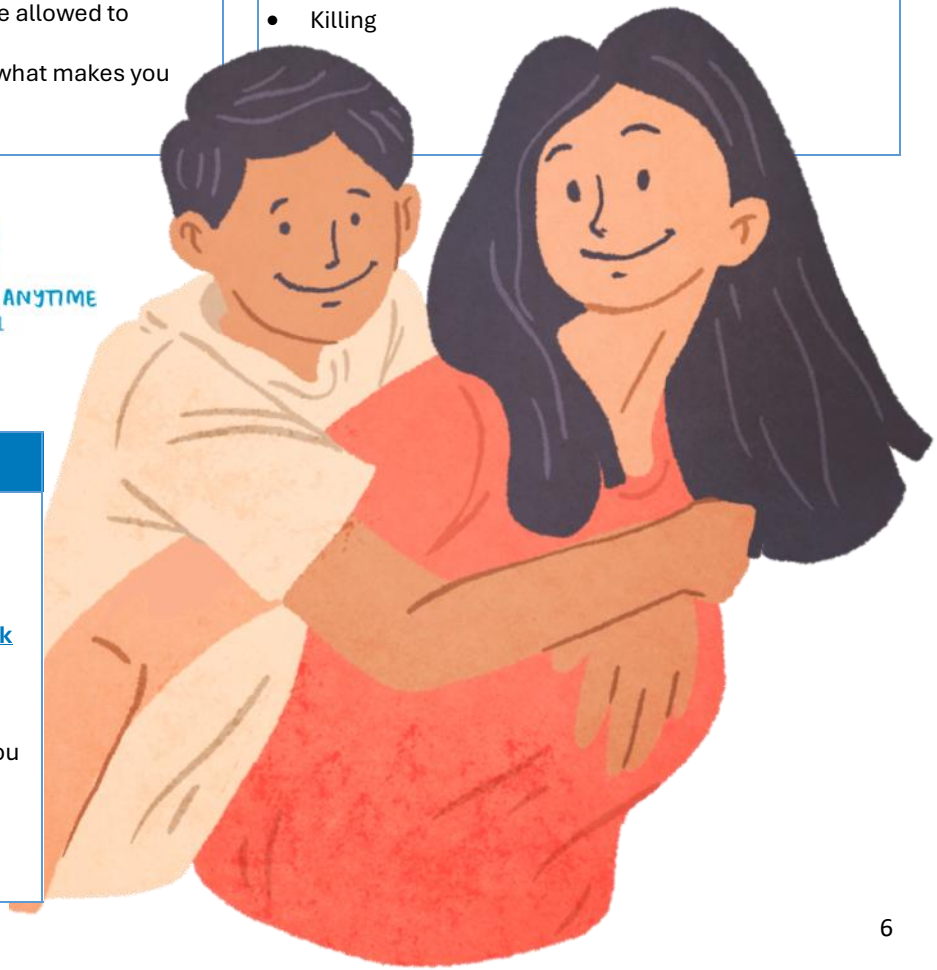


Helpful Resources

- **National domestic abuse hotline:** 0808 2000 247
- **Women's Aid:** This charity supports young girls and women who face domestic abuse www.womensaid.org.uk
- **Mankind:** Service supporting young boys and men who face domestic abuse www.mankind.org.uk
- **Galop:** Support for LGBT+ people experiencing abuse.
  Website: http://www.galop.org.uk **Helpline:** 0800 999 5428
- **Childline:** Children's charity. Call their helpline for a free, private and confidential service where you can talk about anything. **Helpline:** 0800 1111 **Website:** childline.org.uk
- **Respect:** Support those exhibiting controlling behaviours **Helpline:** 0808 802 4040

Citizenship - Democracy and Government

1. UK Political Parties

General Election	Voting for the political party that will govern the country.
Political Party	A group of people with similar ideas and beliefs who have come together to work to achieve their aims. E.g. The Conservative Party, The Labour Party and the Liberal Democrat Party.
The Conservative Party	Current leader: Kemi Badenoch Promises: • Potentially leaving the ECHR • Tougher immigration control. • No income tax rises.
The Labour Party	Current leader: Sir Keir Starmer Promises: • More funding for the NHS. • Build 1.5million homes • Smash the gangs (immigration).
The Liberal Democrat Party	Current Leader: Ed Davey **Promises:** • Stop Brexit. • Funding for education. • Raising income tax for invest in services such as mental health.

Helpful Resources

Parliament Website: **www.parliament.uk**

See voting history of your MP: **www.theyworkforyou.com**

Contact your local MP or councillor: **www.writetothem.com**

UK Youth Parliament: **https://www.byc.org.uk/uk/uk-youth-parliament**

2. Should Politicians be Model Citizens?

Politician	A person who is professionally involved in politics, especially as a holder of an elected office, such as an MP.
Member of Parliament (MP):	The candidate with the most votes for their area (constituency). Their role is to represent their constituents in Parliament.

Demographics of MPs (2024)

Gender: Currently there are 263 female MPs: 41% of all MPs.

Age: 49% of MPs elected in 2024 were aged over 50.

Ethnicity: In 2024 14% of total MPs were from non-white backgrounds, a record number.

Connected Careers

- Member of the civil service in departments such as the Diplomatic Service, the Treasury or security and intelligence services
- Researcher for governments
- Politician
- Communications
- Working for local authority
- Charity
- See and read more on **Unifrog.org**

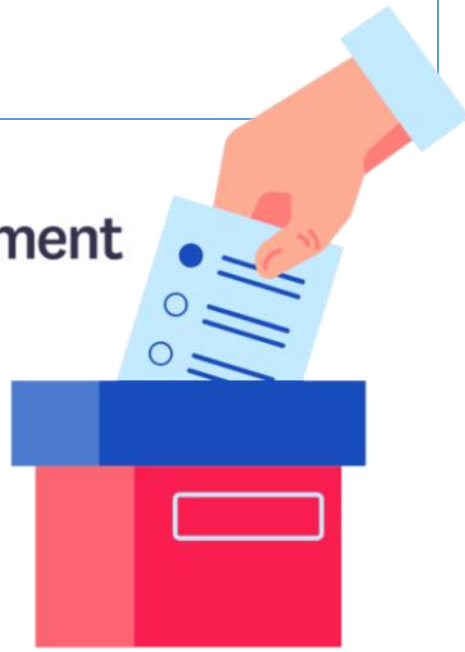
3. Our Role in Democracy

Democracy	'Rule by the people'. A form of government where the people rule, either directly or through elected representatives, e.g. UK.
Local Government	Local government is responsible for issues which are relevant on a local level. For example, they are responsible for aspects of local education, transport, social care, libraries, waste management and housing.

How can our voices be heard?

- Voting
- Contact Local Councillors
- Contact your MP
- Participate in the UK Youth Parliament

UK Parliament



Citizenship - Managing Money

1. Managing Money

Income	Money received, especially on a regular basis.
Income Tax	Tax taken straight from a person's earnings.
Deductions	The money taken from your salary before it is paid to you. Includes: income tax, National Insurance, Pension, Student Loan Repayments.
Take home pay (net pay)	The amount of money you are paid of your salary after deductions. (Gross pay – Deductions = net pay).

3. Money Today

Buy now pay later	A way to purchase a product without paying for it immediately: the money is loaned to you and you pay back, with interest later.
Gambling	Gambling involves playing a game, placing a bet or taking a risk in the hope of winning money or something else desirable.
Cryptocurrency	A digital currency in which transactions are verified and records maintained by a decentralized system using cryptography, rather than by a centralized authority.

2. Money Decisions

Budget	A financial plan for a set period of time, including planned savings and expenses.
Expenses	Money spent, such as for bills, food and any other purchases.
Mortgage	A loan used to borrow money for the purchase of a house.
Deposit	The amount of money you pay upfront towards the cost of a property (the mortgage covers the rest).
Interest	Either: money you receive from a bank when you save, OR: money you have to pay when you borrow money on top of the actual amount you borrowed.

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Connected Careers

- Retail and investment banking
- Finance managers for businesses, schools etc.
- Accountant
- Insurance advisor
- Cyber security
- See and read more on **unifrog.org**

Resources

- Natwest Resources and games to teach about finances https://natwest.mymoneysense.com/home/
- Money makes sense resources https://www.moneymakesense.co.uk/
- **Childline:** Free counselling service for young people to talk about any issues that is causing distress or concern. **Helpline:** 0800 1111 **Website:** www.childline.org.uk
- **GamCare:** Information and support for the prevention and treatment of problem gambling. **Helpline:** 0808 8020 133 **Website:** www.gamcare.org.uk
- **Cifas:** Fraud prevention service with lots of information on preventing financial crime. **Website:** www.cifas.org.uk

Citizenship - Law and the Justice System

1. Why do we need laws on equality?

Equality	Equality is about ensuring that every individual has an equal opportunity to make the most of their lives and talents.
Discrimination	Treating people differently based on prejudice. Examples of discrimination include: sexism, racism, transphobia and xenophobia.
Prejudice	Prejudging people without good reason. Often based on characteristics such as race/religion/disability.
The Equality Act (2010)	A law in the UK which brought together multiple acts regarding equality and discrimination made to advance equality for all.

Protected Characteristics:
The protected characteristics according to the Equality Act 2010 are:

Age Disability Gender Reassignment Race Religion or Belief	Sex Sexual Orientation Pregnancy and maternity Marriage and Civil Partnership

Connected Careers

- Law enforcement
- Careers related to law: Bailiff, Barrister, Court legal adviser, Court assistants, Prosecutor, Judge
- Forensic science and psychology
- Prison and probation officer
- See and read more on **unifrog.org**

2. How far have we made progress on equality in the UK?

Inequality	The unfair situation in society when some people have more opportunities or other privileges than other people.
Disability	You are disabled if you have a physical or mental impairment that has a 'substantial' and 'long-term' negative effect on your ability to do normal daily activities. (Equality Act 2010).
Types of Disability	Physical disability, Visual Impairment, Hearing Impairment, Progressive conditions such as cancer, Learning difficulties, Mental Health conditions.
The Equality Act (2010) for disability	This act made it illegal to discriminate against disabled people across multiple circumstances. Service providers must make reasonable adjustments to enable disabled people to access services.
Reasonable Adjustment Examples	• Flexible working hours. • Modifying work performance targets • Special equipment. • Providing information in an accessible format i.e. Braille or Large Print. • Ramps for wheelchair access. • Adapted toilets.

3. Does the law in the UK need updating?

The Justice System	The collection of agencies involved in the detection, prevention and prosecution of crimes. The Three components of the Justice system are: • Law Enforcement (Police) • Courts System • Corrections System
Bill	The idea that is brought to the house of commons and house of laws in hopes of forming a new law.
Royal Assent	The King must agree to a bill and sign it in order for it to become an official law.

Resources

- See Bills that are currently being debated in Parliament here: **https://bills.parliament.uk/**
- **Childline:** Children's charity. Call their helpline for a free, private and confidential service where you can talk about anything. **Helpline:** 0800 1111 Website: **childline.org.uk**
- Read more about your rights and the law regarding equality from the Equality and Human Rights commission at: **www.equalityhumanrights.com**
- Further resources about crime and an anonymous crime reporting online form at **https://www.fearless.org/en**

Citizenship - Media Literacy

1. Cybercrime

Cybercrime	Criminal activities carried out by means of computers or the internet.
Grooming	When someone builds a relationship with another person to gain their trust for the purposes of harm or abuse.
Breck Foundation	A charity set up to tackle online grooming following the murder of 14 year old Breck Bednar.
The Breck Principles	• Be aware and believe • Report it • Educate and Empower • Communicate • Know the signs and keep safe

Connected Careers

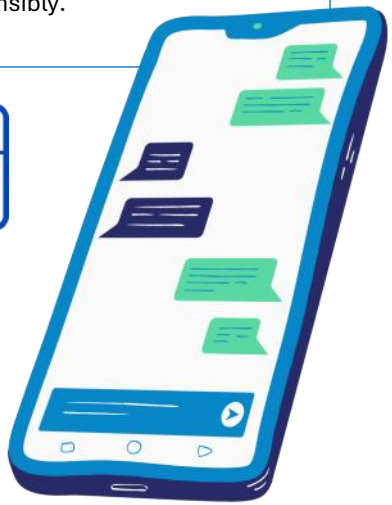
- Journalism
- Social media manager
- Advertising
- Software development
- Web designer
- Intelligence officer, cyber security officer
- IT support technician
- See and read more on **unifrog.org**

2. Information Sharing

Phishing	When someone pretends to be someone else online in order to try and get your personal information.
CEOP	The Child Exploitation and Online Protection Centre.
Indecent image	A sexual image of a child that may include nudity, partial nudity or children sexually posing, including self-generated images.
Victim blaming	Someone saying, implying or treating a person who has experienced harmful or abusive behaviour like it was a result of something they did or said.
The Law on Nude Sharing	It is an offence for a person to take, distribute, possess or publish indecent photographs of a child under 18.

3. Digital Citizenship

Citizenship	The ability to safely and responsibly access digital technologies, as well as being an active and respectful member of society, both online and offline.
Evaluate	Judging and weighing the strengths and weaknesses of something.
Digital Footprint	Data that is left behind when users have been online.
Media Literacy	The ability to critically analyse and evaluate the messages conveyed through media and use digital media responsibly.



Resources

Childline: Children's charity. Call their helpline for a free, private and confidential service where you can talk about anything. **Helpline: 0800 1111 Website:** childline.org.uk

Breck Foundation: https://www.breckfoundation.org

Child Exploitation and Online Protection (CEOP): Report online abuse and access support at https://www.ceop.police.uk/Safety-Centre/

Safer Internet Centre- https://www.saferinternet.org.uk

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Physical Skills		
Term	**Definition**	**Words used to describe its use**
Posture	The way the body is held or the shape of the back to communicate meaning	Hunched, upright, stiff, straight, curved, arched, twisted
Gestures	The use of the hands, head or shoulders to communicate meaning	**Hands/arms** – wave, point, crossed, fists, hands on hips, covering face **Head** – Nod, shake, tilt to the side, lowered, raised **Shoulders** – shrug, one lifted, rolling
Facial Expressions	The use of the face to communicate meaning.	**Eyebrows** – Furrowed, frowning, raised, lifted, arched **Eyes** – Squinted, wide, narrowed, heavy-lidded **Mouth** – smiling, smirking, down-turned,
Eye Contact	The use of the eyes focus to communicate meaning	Direct, avoid, lowered, lifted, darting, staring, scanning
Gait	The way a character walk to communicate meaning	Large, small, fast, slow, wide, narrow, run, limp, skip, stumble
Stance	The way a character stands including the placement of the feet and body weight to communicate meaning	Wide base, narrow base, parallel feet, feet turned out, feet turned in, knees bent, knees straight, weight on one leg, hip out to the side, weight forward, weight backwards

Vocal Skills		
Term	**Definition**	**Words used to describe its use**
Pitch	How high or low the voice is to communicate meaning	High, low
Pace	How fast or slow the voice is to communicate meaning	Fast, slow, halting, rapid, hurried, rushed, steady, even, brisk
Pause	A moment of silence to build tension, add emphasis or communicate other meaning	Where in the sentence will you put the pause and how long will it be? What will you do in the pause with your physical skills?
Volume	How loud or quiet the voice is to communicate meaning	Loud, quiet
Accent	The way a character pronounces words according to their regional location or social class	American, Scottish, Welsh, Irish etc
Tone	The way the character speaks to show emotion	Warm, friendly, cheerful, calm, harsh, gruff, sarcastic, aggressive, formal, smooth, soft
Emphasis	Adding stress to a word or phrase to enhance importance and communicate meaning	Which word will you emphasise in the sentence? How will you emphasise it (make it louder, slower, higher, lower, whisper)?
Articulation	How clearly the words are pronounced to communicate meaning	Crisp, clear, sharp, mumbled, muttered, slurred, garbled

Use of Space		
Term	**Definition**	**Words used to describe its use**
Levels	How high an actor is stood or sat to communicate meaning	Move towards, move away, lean towards, lean away, turn towards, turn away (quickly, slowly, sharply, softly)
Proxemics	The distance between actors to communicate meaning	Stand up, sit down, on a block, on a chair, on the floor (quickly, slowly, sharply, softly)
Blocking	The process of staging the movement of a scene	

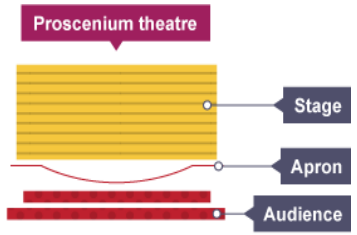
Creating Theatre	
Term	**Definition**
Devising	Creating an original piece of theatre.
Stimulus	An item that is used to generate and inspire ideas.
Artistic Vision	What the actor/director wants the audience to experience.
Character	A person in a novel, play, or film
Narrative	A series of events that make up a story
Improvisation	Making a performance on the spot with no rehearsal
Freeze Frame	A still image created by the actors to communicate meaning
Marking the moment	Highlighting or emphasising the important moments of a story

Performance Quality	
Term	**Definition**
Audience Awareness	Being aware of what the audience will see, hear and experience when rehearsing or performing a scene
Clarity	Speaking clearly so the audience can hear you
Projection	The vocal and physical energy used to engage and connect with the audience

Movement	
Term	**Definition**
Unison	A group of people moving as one
Canon	Performing the same phrase of movement one after the other
Dynamics	The quality of the movement relating to speed, flow or weight
Choreography	A sequence of stylised movement created to communicate meaning
Transitions	The method of moving between scenes

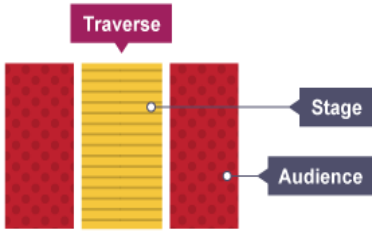
Stage Types

There are 4 different types of stage that you can use to perform for an audience.



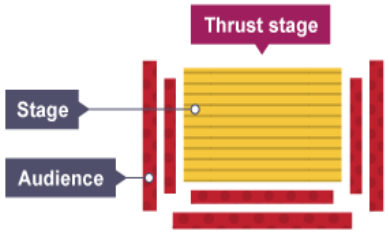
The traditional stage is called a **proscenium arch** stage and has the audience on one side of the performance space.

Any performance space with the audience on one side is also called **End On**

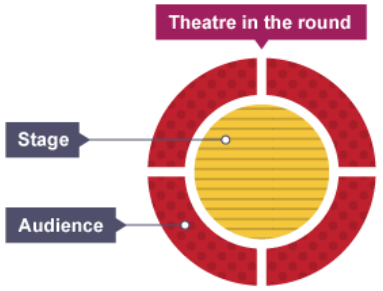


This is a **Traverse** Stage.

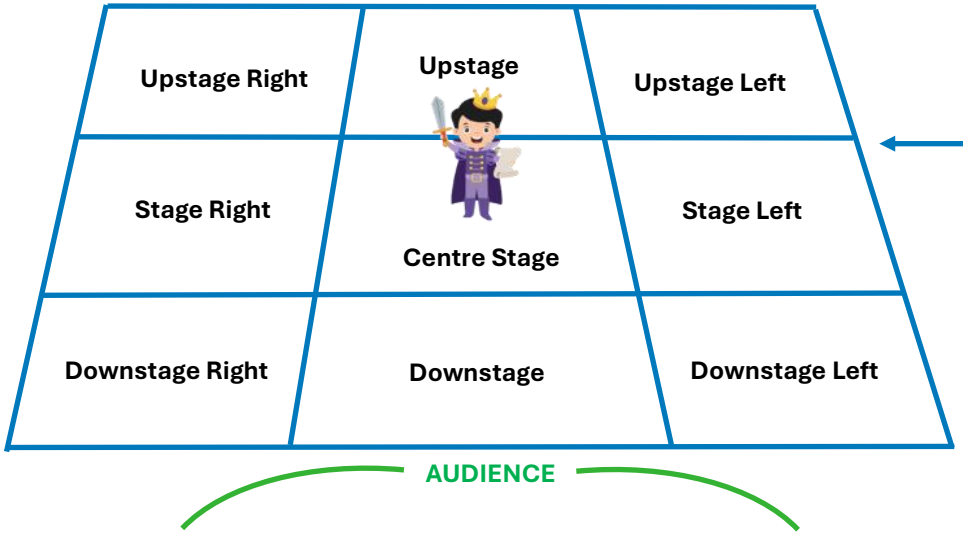
The audience are sat on 2 opposite sides of the stage and there are only 2 entrances – one at each end of the stage.



This is called a **thrust** stage**.** The audience are sat on 3 opposite sides of the stage and there are only 2 entrances – they are at one end of the stage on the left and right.



This is called an **in-the-round** stage**.** The audience are sat all around the sides of the stage. There can be any number of entrances/ exits but they are through the audience.



Stage Positions

This is the language we use when we want an actor to move to a different place or face a different direction on stage.

To work them out you have to stand on the stage and face the audience. Then it is the actors left or right.

Features of a Script

Scene Title - The name and number of the scene – helps to identify where in the play it appears

Character Names Tells the actor which character is speaking – not read out loud

Stage Directions Instructions in the text which tell the actors and director what to do or add context – not heard by the audience – usually in *italics* or *(brackets)*

Dialogue - What the characters are saying in the scene

Scene Eight

Top floor landing of The Crow's Nest. Late Tuesday night. David and Gary stand outside the closed bathroom door.

David I hope this is gonna to be worth it.
Fliss appears from Room 11.
Gary At last. You said to be here for ten to.
Fliss Something was happening outside. I heard fe[et] dragging on the gravel.
David Probably a werewolf.
Fliss I knew it was a mistake to let you [t]wo in on it. What's happened to Lisa?
Sound of toilet flushing. D[a]vid points to the door.
Lisa *(opening bathroom door)* You can come in now. Hiya, Fliss.
They go into the bathroom.
Lisa Anything happened then?

English - Grammar

	Sentence Construction	
1	**Capital letters**	Used at the beginning of sentences and for proper nouns.
2	**Main clause**	A clause that does make sense on its own.
3	**Subordinate clause**	A clause that doesn't make sense on its own.
4	**Embedded clause**	A subordinate clause used within a main clause.
5	**Subordinating conjunction**	Introduces a subordinate clause e.g. despite, since, as, if
6	**Coordinating conjunction (FANBOYS)**	A word that connects main clauses or phrases. e.g. for, and, nor, but, or, yet, so
7	**Declarative sentence**	Makes a statement.
8	**Imperative sentence**	A command or instruction.
9	**Interrogative sentence**	Asks a question.
10	**Exclamatory sentence**	Expresses strong emotion and ends with an exclamation mark.
11	**Fragment sentence**	A sentence that does not contain a verb and/or subject.
12	**Simple sentence**	A sentence consisting of only one main clause.
13	**Compound sentence**	A sentence which includes two main clauses joined by a semi colon or coordinating conjunction.
14	**Complex sentence**	A sentence which includes a main clause and one or more subordinate clauses.
15	**Compound-complex sentence**	A sentence that contains two main clauses and one or more subordinate clauses.

	Punctuation	
16	**Full stops**	Used to mark the end of a sentence.
17	**Commas**	• To separate main and subordinate clauses. • To separate items in a list. • After introductory clauses, phrases, discourse markers.
18	**Apostrophes**	Used to show possession and omission.
19	**Semi colon**	• Used between two main clauses that are closely related • Used in-between ideas of a list that are already complex due to the inclusion of commas and conjunctions
20	**Colon**	• Introduce a list, information, idea and explanation. • Introduce quoted information.
21	**Dash**	• To add extra information. • To signal a change in thought or shift in tone.
22	**Hyphen**	• Used to combine words into a compound word. e.g. washing-up
23	**Brackets**	• Separates extra information in an informal style (round). • Gives alternatives (round). • Around the ellipsis that shows words have been omitted from a quote (square).

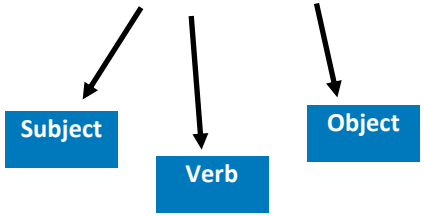
	Word Types	
24	**Abstract noun**	An idea or concept.
25	**Noun**	A name, place or thing.
26	**Proper noun**	Names of people and places which require a capital letter. e.g. London, Anna
27	**Adjective**	A word that describes the noun.
28	**Verb**	Action or state (be, have).
29	**Modal verb**	A verb that shows necessity or possibility. e.g. will, should, could
30	**Adverb**	A word that describes a verb.
31	**Preposition**	Providing information on time, place, and position.
32	**Personal Pronoun**	Words used in place of names of people or things. e.g. she, I, you
33	**Collective Pronoun**	Words that are used to show a group of people.

English - Grammar

Simple Sentence

A sentence consisting of only 1 main clause. EXAMPLE:

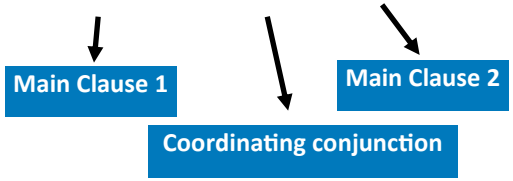
The **cat** **sat** on the **mat**.



Compound sentence

A sentence consisting of two main clauses joined by a coordinating conjunction or semi colon. Example:

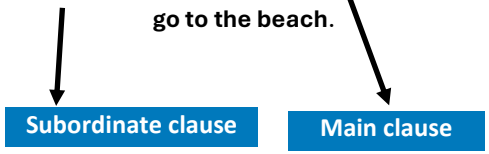
The cat sat on the mat and it fell asleep.



Complex sentence

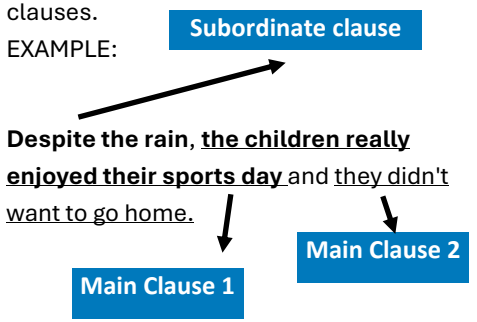
A sentence which includes a main clause and one or more subordinate clauses. EXAMPLE:

Although it was raining, **the family decided to go to the beach**.



Compound complex sentence

A sentence that contains two main clauses and one or more subordinate clauses.
EXAMPLE:



Commas	Apostrophes
1. To separate main and subordinate clauses. EXAMPLE: As I wandered through the street, I noticed the tired looking shops.	1. Used to show omission Omission is when we show that we have taken a letter out of a word and replaced it with an apostrophe. EXAMPLE 1: I do not think we should do this. = I don't think we should do this. EXAMPLE 2: It is clear that you are right. = It's clear that you are right.
2. To separate items in a list. EXAMPLE 1: I went to the shops to buy milk, eggs, bread and cheese. EXAMPLE 2: The door was old, worn, battered and overwhelmingly large.	2. Used to show possession Possession is when we show that we have used an apostrophe to show that something belongs to someone. EXAMPLE 1: Miss Smith must mark all the students' papers. EXAMPLE 2: James' bike was broken. EXAMPLE 3: The writer's use of the noun "table" suggests...
3. After introductory clauses, phrases, discourse markers EXAMPLE: Firstly, I believe that we should not keep animals for testing. EXAMPLE 2: Additionally, I strongly view healthy eating as important.	

English - Blood Brothers

Key context		
1	**The British class system**	A hierarchical system that separates class according to wealth, occupation and social status: lower, middle and upper. Typically, the class system favours the wealthy whilst limiting the poor.
2	**Conservative**	The Conservative party is rooted in capitalism and focuses on individual responsibility and the creation of wealth.
3	**Labour**	The Labour party is rooted in socialism and prioritises workers' rights and the welfare system.
4	**The welfare state**	A British post-war initiative to protect the health and well-being of its citizens by introducing free health care, benefits for those in need and a state pension for all.
5	**Margaret Thatcher**	First female British Prime Minister for the Conservative party from 1979-1990. Her policies (Thatcherism) promoted a small state, which meant that individuals were encouraged to take responsibility to help themselves and not look to government.
6	**Recession**	A period of temporary economic decline leading to rising unemployment and higher cost of living.

Key dramatic terminology		
	Term	**Definition**
7	**Stage directions**	Instructions in the text of the play for actors, staging, lighting etc.
8	**Narrator (play)**	A character who speaks directly to the audience and 'narrates' the play.
9	**Playwright**	The author of the play.
10	**Prologue**	Introductory scene in verse which establishes themes, plot or characters of the play.
11	**Tragedy**	Drama based on human suffering – typically involving death.
12	**Dramatic irony**	Where the audience knows more than the characters in the play.
13	**Pathos**	Evokes pity or sadness.
14	**Dramatic foil**	A character who deliberately contrasts with another to emphasise their differences.
15	**Symbolism**	Using objects or characters to represent an important idea or concept.
16	**Motif**	A repeated image or idea.

Key vocabulary		
	Term	**Definition**
17	**Socialism**	A belief that all people are equal and should have an equal share in the country's money.
18	**Capitalism**	An economic system in which business and industry are privately owned in order to create the biggest profits possible for individual people.
19	**Social inequality**	When resources are given unevenly across the social classes (the wealthy prosper whilst the poor suffer).
20	**Superstition**	Genuine - and often irrational - belief in supernatural influences leading to good or bad luck.
21	**Dialect**	A form of language belonging to a specific region.
22	**Sociolect**	The dialect of a specific social class.
23	**Classism**	The negative treatment of someone based on social class.
24	**Nature vs. nurture**	The debate between whether inherited traits or your environment establish who you are as a person.

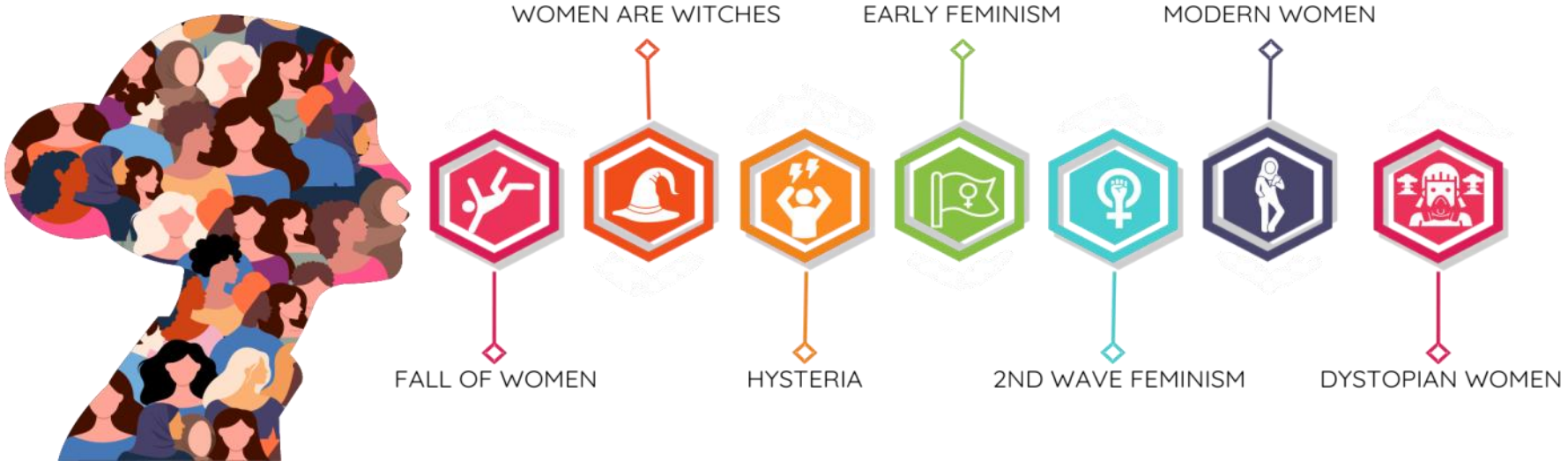
English - Women in Literature

	Term	Definition
1	**Stanza**	A group of lines in a poem; a verse.
2	**Enjambment**	No punctuation at the end of a line of poetry.
3	**Rhyme**	When the ends of lines of poetry have the same sound.
4	**Rhyme scheme**	Fixed pattern of organising rhyme. e.g. abab, aabb, abba.
5	**Rhythm**	Patterns of stresses and unstressed syllables in poetry.
6	**Quatrain**	A stanza of four lines.
7	**Rhyming couplet**	When the words at the end of two consecutive lines of poetry rhyme.
8	**Refrain**	A repeated line or lines in a poem.
9	**Tone**	The speaker's feelings or attitude in the poem.
10	**Speaker**	The person speaking in a poem.
11	**Alliteration**	When the same letter or sound starts two or more words in a line.
12	**Repetition**	Where the same line, word or phrase is written more than once.

	Term	Definition
13	**Original sin**	All humans are born with sin **because Adam and Eve ate the fruit from the tree of knowledge.**
14	**Dystopian**	An imagined state or society where there is great suffering or injustice.

	Term	Definition
15	**Subservient**	Prepared to obey others unquestioningly.
16	**Hysteria**	A term often used to describe emotionally charged behaviour that seems excessive and out of control.
17	**Oppression**	Prolonged cruel or unjust treatment or control.
18	**Marginalise**	Treat a person, group, or concept as insignificant.
19	**Suffragette**	A suffragette was a member of an activist women's organisation in the early 20th century who fought for the right to vote in public elections.
20	**Stereotypes**	A widely held but fixed and oversimplified image or idea of a particular type of person or thing.
21	**Feminism**	A movement that fights for the equality of the sexes.
22	**Empowerment**	Authority or power given to someone to do something.
23	**Prejudice**	An opinion that is not based on reason or actual experience.
24	**Subvert**	To go against or change.

Learning Timeline



English - Rhetoric

	Term	Definition
1	**Ethos**	The writer or speaker's experience and qualifications.
2	**Logos**	The main argument in a piece of persuasive writing. Is normally full of facts and statistics.
3	**Pathos**	Appeals to the emotions of the audience and elicits feelings that already reside in them.

Types of Tone		
4	**Accusatory**	Suggesting someone has done something wrong, complaining.
5	**Cautionary**	Gives warning or raises awareness.
6	**Humorous**	Amusing, entertaining or playful.
7	**Imploring**	Begging or pleading.
8	**Nostalgic**	Thinking about the past.

	Forms of Writing	
9	**Speech**	An address delivered to a group of people.
10	**Article**	A piece of writing included with others in a newspaper, magazine or online.
11	**Letter**	A form of written communication sent to a particular person.

	Key Terms	
12	**Anecdote**	A short story.
13	**Fact**	A true statement.
14	**Opinion**	Someone's beliefs or thoughts.
15	**Rhetorical question**	A question asked by the writer or speaker which does not expect an answer.
16	**Emotive language**	Language used to get an emotional response from the audience/reader.
17	**Statistics**	A fact or piece of data obtained from a study of a large quantity of numerical data.
18	**Triple**	Three words used in a list to describe something.
19	**Collective pronouns**	Words that are used to show a group of people. e.g. our, us, we
20	**Direct address**	Using 'you' to talk directly to the reader/audience.
21	**Analogy**	A comparison between one thing and another.
22	**Anadiplosis**	Repetition of the same word at the end of one clause and the start of the next clause.
23	**Hypophora**	Asking a question and then providing an answer.
24	**Expert voice**	Using a knowledgeable figure or person who can express an opinion which supports your point.
25	**Anaphora**	Repetition of the same word/phrase at the beginning of successive clauses.
26	**Tone**	The choice of writing style the writer employs to convey specific feelings, emotions or attitudes.

English - Identity Poetry

	Poetic Forms	
1	**Form**	The physical structure of a poem.
2	**Verse**	Has a regular rhythm and a fixed rhyme scheme.
3	**Free Verse**	No rhyme scheme or regular metre.
4	**Elegy**	A poem that is supposed to show mourning or loss.
5	**Slam Poetry**	A form of performance poetry that combines the elements of performance and audience participation.
	Poetic Structure	
6	**End-stopped**	Line ending in a punctuation mark.
7	**Enjambment**	No punctuation at the end of a line of poetry.
8	**Caesura**	Pause in a line indicated by a punctuation mark
9	**Volta**	Turning point in a poem; shift in tone.
10	**Stanza**	A group of lines in a poem; a verse
11	**Couplet**	A stanza of two lines.
12	**Quatrain**	A stanza of four lines.

13	**Rhyme Scheme**	Fixed pattern of organising rhyme. e.g. abab, aabb, abba
14	**Refrain**	A repeated line or line in a poem.
15	**Internal Rhyme**	Where there are two words which rhyme in the same line as each other.

	Poetic Methods	
16	**Simile**	When one thing is compared to another using like or as.
17	**Metaphor**	When one thing is directly compared to another. e.g. 'the tank is a monster'
18	**Personification**	Giving human qualities to an object e.g. the bullets screamed.
19	**Speaker**	The person speaking in the poem.
20	**Imagery**	Where the writer uses words or phrases that create a certain image in the reader's mind.
21	**Tone**	The speaker's feelings or attitude in the poem.
22	**Oxymoron**	Two opposing words/idea placed directly next to each other
23	**Symbolism**	Using objects or characters to represent an important idea or concept.
24	**Juxtaposition**	The placement of two contrasting elements close together to emphasize their differences.
25	**Direct Address**	Using 'you' to talk directly to the reader/audience.
26	**Extended Metaphor**	A metaphor that continues throughout a text or piece of writing.
27	**Repetition**	Where the same line, word or phrase is written more than once.
28	**Rhetorical Question**	A question that does not require an answer.
29	**Semantic field**	Where a group of words all link together to form a similar idea or concept.
	Key Concepts	
30	**Identity**	Who you are and the way you think about yourself.
31	**Nation**	Population united by language, history and culture in one country.
32	**Culture**	Ideas, skills, traditions, beliefs and morals shared by a large group of people.
33	**Ethnicity**	Belonging to a large group of people with the same national, racial or cultural origins.
34	**Stereotype**	A widely held but fixed and oversimplified image or idea of a particular type of person or thing.

Ethics - Religion and Morality

1. Abrahamic Religions: Judaism, Christianity and	
Monotheism	The believe in one God. Judaism, Christianity and Islam are all monotheistic.
Abraham	A prophet who made a covenant with God to worship only one God.
Isaac	Abraham's son with Sarah and an ancestor of Jesus.
Ishmael	Abraham's son with Hagar and an ancestor of Prophet Muhammad.
Jesus	A Jewish man, born in Bethlehem. Jews believe he was a wise man, Muslims believe he was a prophet, Christians believe he was the Messiah.

2. Catholic and Church of England	
Denomination	A recognised branch of Christianity
Catholic Church	• Traditional in regards to medical ethics and the value of life • Progressive attitude towards creation accounts
Leadership and authority	• Pope is global leader (Jesus appointed Peter as first Pope) • Magisterium= official teachings of the Catholic Church
Church of England (Protestant)	• State religion of England • Formed by Henry VIII in 1534 during the Reformation.
Leadership and authority	• Believes the Bible is important, paired with reason. • Led by the Archbishop of Canterbury and monarch.

3. Quaker and Evangelical	
Quaker 'Society of Friends'.	• Founded by George Fox in 1600's. • Progressive view of the Bible e.g. accept homosexuality. • Agape in action e.g. abolitionists (slavery)
Worship	• Silent, so Quakers can connect to conscience ***"small still voice of God".*** • Seek to develop a personal relationship with God.
Evangelical	• Traditional approach to morality • Literal interpretation of the Bible ***"God-breathed"***
Worship	• Lively and energetic, inspired by the Holy Spirit to "***speak in tongues".***

4. Natural Law	
Absolute Morality	The idea that some actions are always right or wrong, no matter the situation.
Natural Law	The idea we can use our God-given reason to determine what is 'good' and 'bad'.
St Thomas Aquinas	A Catholic theologian who had a substantial impact on Catholic teachings.
Five Primary Precepts [POWER]	Precepts humans know **innately** (by nature) to help us be good. They are: **P**rotect life, live in an **o**rdered society, **w**orship God, **e**ducate children and **r**eproduce.
Secondary Precepts	Rules based off the primary precepts e.g. not using contraception as humans should reproduce.

5. Situation Ethics	
Relative Morality	The idea that the rightness of wrongness of an action depends on the situation.
Situation Ethics	The idea that each situation should be considered when deciding right or wrong, rather than following absolute rules.
Joseph Fletcher	An American Philosopher who developed Situation Ethics as a moral theory. He was a Christian but became a Humanist in the late 1960s.
Agape Love	Agape love in this context is love that promotes the wellbeing of others. Love and justice should be treated as the same.
Pragmatic	The correct action must be practical.
Personal	Situation Ethics puts people before rules e.g. Gracie and Rosie (conjoined twins)

Revelation	Night of Power	Torah	Qur'an	Bible	Genesis	Morality	Ethics
How God reveals His nature through prophets and angels	When Angel Jibril first revealed the Qur'an to Prophet Muhammad	The Hebrew Bible, studied by Jews	The holy book of Islam, said to be Allah's exact words	The holy book of Christianity, consisting of the Old Testament and New Testament	The story of creation important for Jews, Christians and Muslims	Standards that determine right from wrong	Moral principles that govern a person's behaviour

Ethics - Issues of Life & Death

Creation

Origin of the universe

Christian	Humanist
• The universe was designed by God Genesis 1: • Universe created ex nihilo in 6 days	• Universe is here by chance Big Bang: Developed by Stephen Hawking • Universe is expanding from a **singularity** (13.7 billion years ago).

Origin of humans

Christian	Humanist
Genesis 2: • Adam= dust, Eve=rib • Adam receives "breath of life" (soul)	Evolution: Charles Darwin • natural selection— Useful, random mutations are passed down and species gradually change. • Survival of the fittest e.g. finches • Richard Dawkins (atheist) supports Darwin's theory of evolution

Christian Interpretations of Genesis

Fundamentalist: Creationist *Evangelical*	• Genesis is a factual, historical account. • World is 10,000 years old
Progressive *Catholic*	• Allegory- Genesis is not a historical account, but has hidden meanings • Theistic guided evolution- God guided evolution over 7 'yom' (period of time) • Big Bang- God is the first cause of the Big Bang (proposed by George LeMaitre)

Environment

Christianity

Stewardship	A God-given special responsibility to care for creation	*"Care and cultivate" Garden of Eden.*	• Christian Climate Action- Work with Extinction Rebellion e.g. blocking London roads.
Dominion	God-given power to rule over nature on God's behalf.	*"Rule over the fish of the sea and birds of the sky"*	• e.g. fossil fuels, meat industry, deforestation is necessary for resources and space for humans

Humanism

Humanist Climate Action	Humanists who campaign for policies that protect the environment.	• Write to MPs, 'Plant a humanist forest'- A 2022 project.
Utilitarianism	• *'greatest good for greatest number'* • Humans have a duty to leave a legacy for future generations of a healthy planet (global citizenship)	• Climate change causes negative impact for humans e.g. climate refugees. Working to reduce this promotes the greater good.

Sanctity of life vs. Speciesism

Religious view– Christianity and Islam

Sanctity of life	• All life is sacred and belongs to God.

Humanist view

Equality of all life forms	• All **sentient** beings (ability to experience pain/pleasure) are important. • Against animal testing
Speciesism (Peter Singer)	• Religious attitudes are speciesist as they encourage humans to discriminate against other species. • Humans evolved from animals so are not special

Abortion

Catholic- Always wrong (absolute)	• Against primary precept 'preserve life'- Natural Law. • "Before I formed you in the womb I knew you"- Bible
Islam - Can be acceptable (halal)	• Acceptable before the foetus receives a 'ruh' (soul) at 120 days. • Not allowed for financial reasons (zakat can be used): "Do not kill your children for fear of poverty" Qur'an
Humanist- Individual's choice.	• We have autonomy (control) over our bodies, not God. • Utilitarianism- "*Greatest good…*" Reduces backstreet abortions

Quality of life	Sanctity of life	Afterlife	Evolution	Global Citizenship	Euthanasia	Abortion	Environmental Sustainability	Soul
The standard of health or happiness experienced by an individual	All life is sacred and given by God	The belief that life continues after death	The process where physical characteristics of living creatures change over time	The idea that we should work as a community to look after the world.	Assisted suicide- ending a patient's life to relieve suffering	The deliberate termination of a foetus up to 24 weeks	To use natural resources responsibly to preserve them for future generations.	Non-physical, immortal part of a human

Ethics - Issues of Life & Death

Euthanasia	
Catholic- Always wrong. (absolute)	• *"It is a false act of compassion"*- Pope Francis • "Thou shall not kill" • Hospice used instead
Islam- Rarely acceptable	• Active euthanasia wrong. Passive euthanasia may be allowed • *"The term of every life is fixed by Allah"*- Qur'an
Humanist- Individual's choice	• Allow if quality of life is poor • We should have autonomy over our bodies (e.g **Paul Lamb**). • Dignity in Dying= campaign to legalise euthanasia in the UK

Funerals	
Christian Practice	**Link to afterlife**
Prayers and Hymns	Communicating with God in the hope the deceased with achieve a place in heaven.
Candles	Physical representation of hope and light– Jesus leading us to salvation.
Islamic Practice	**Link to afterlife**
Shahadah	Said as a reminder of a Muslims lifelong faith. *"There is no God but Allah and Muhammad is his messenger"*
Buried in a white shroud, facing Mecca.	This garment represents equality in death "*equal as the teeth of a comb*"
Humanist Practice	**Link to afterlife**
Celebrant	Celebrant supports family in remembering loved one
Music / eulogy	Focus on the legacy and memories of the loved one, no afterlife

The Soul	
Dualism	The belief that we are made up of a spiritual soul & physical body
Christianity	
God-given	*"breath of life"*
Immortal	Our soul will live forever.
Islam	
Ruh	The Arabic word for soul, breathed into Adam's nostrils
Fitrah	Our souls have inner knowledge of Allah & good/evil.
Humanism	
Materialism	The belief that only the physical/ empirical world is all there is.
Bertrand Russell	A Humanist philosopher- *"When I die, my body shall rot. No part of shall survive."*

Judgement		
Christianity		
Bodily resurrection	On Judgement Day we will be raised with new, immortal bodies. (as Jesus did at the ascension)	*"The body is sown perishable and raised imperishable"*
Parable of the sheep & Goats	Jesus will judge everybody and those who have helped others will go to Heaven.	*"When I was hungry, you fed me"- Jesus*
Islam		
Barzakh	A cold sleep our 'ruh' waits in until judgement. Asked three questions to determine barzakh.	
Day of Judgement	Allah is 'most-just' and will judge us on our book of good and bad deeds presented by Raqib and Atid.	

Afterlife		
Fundamentalist View: Physical place	**Progressive view: Spiritual**	
Heaven: • God created the *"Heavens and the Earth"* • God's dwelling, angels, a new "*tree of life.*"	**Heaven:** • A feeling of closeness to God and comfort • "*Heaven is within you*"	
Hell: • An eternal place of torture- darkness and fire. • *"Weeping and gnashing of teeth"*	**Hell:** • No physical hell • "Sinners *will not reach eternal life"*	
Islam		
Azrail	Angel of death takes our soul	
As-Sirat	Bridge to Jannah which is *"thin as a hair and sharp as a sword"*	
Jannah	Paradise with *"rivers of milk & honey"* 7 stages- the prophets are already in Jannah.	
Jahannam	A place of torture, "*garments of fire"* 7 stages- the 7th stage is for hypocrites.	
Humanism		
No afterlife	There is no immortal part to us- only our legacy. No expectation of reward.	Bertrand Russell- *"the things we care for will continue"*

Ethics - Equality & Human Rights

1. Personal Conviction

Oscar Romero	• El Salvador/Archbishop • Stood up against corrupt government. • Broadcasted truth on the radio, shot dead by army. • ***"Release the oppressed"*** Jesus
Malala Yousafzai	• Lived under the Taliban in Pakistan. • Blogged about female education. • Shot (survived) in 2012 for going to school. • Inspired by Khadija– Businesswoman • ***"Equal as the teeth of a comb"***

2. Prejudice and Racism

Christianity	
Martin Luther King Jr	Stood up for Civil Rights in 1960s USA through peaceful marches. 'I have a dream' speech included ***"We are one in Christ".***
Ku Klux Klan	White supremacist group who used the Bible to justify racism e.g. Abraham had slaves.
Islam	
Malcolm X	Previously supported 'African racial superiority' Changed views after Hajj- saw all races as equal.
Qur'an	***"Allah made Adam from soil of many colours".***

3. & 4. Prejudice and Gender / LGBTQ+

Gender roles in worship	
Catholic	• Women have a role in worship, but not priesthood. • ***"Christ is head of man, man is head of woman"*** • Jesus has male disciples.
C of E	• Allow female leaders in the church: all humans were made '*Imago Dei*' • Libby Lane was the first C of E bishop (2015)
Islam	• Women should be respected, but are mostly not permitted to become an imam. • Muhammad: ***"Do not prevent women from praying in the mosque; but their houses are best for them"*** Hadith. • Mariam Mosque (Denmark)- fights Islamophobia & patriarchy.
LGBTQ+	
Quaker	• Campaigned for same-sex marriage since 2009. • ***"An act of affection is not sinful"***.
Catholic	• No same-sex marriage due to Primary Precept to 'Reproduce'. • Permitted Civil Unions as we are all 'children of God'.
Islam	• Commonly not accepted in Islam. • ***"As for two men guilty of lewdness, punish both"*** (Qur'an) • IMAAN– First Muslim LGBTQ+ charity.

5. Prejudice and Disability

Disability	A physical/mental condition that limits movement, senses, or activities.
Social model of disability	People are disabled by barriers in society, not by their bodies.
Christianity	Some Christians have believed: • Disability is linked with sin • Disability is how we suffer to get to heaven • People with disabilities need charity e.g. Jesus' healing miracles.
Islam	• Disability viewed as a challenge from Allah. • Disability is a part of Allah's divine plan (Al Qadr).

6. Religious Expression

	Christianity	Islam
Action	Protesting against abortion (pro-life)	Five pillars, e.g. Salah (prayer)
Clothes	Wearing the cross to represent Jesus' sacrifice.	Wearing hijab: ***"guard your modesty".***
Words	Evangelism: ***"go and preach the gospel".***	Stating the shahadah.

7. Extremism

Anti–Abortion	George Tiller (a doctor) murdered by anti-abortion militant.
KKK	Extreme white-supremacist group. Claim to be Christian.
ISIS	• Use violence to create an Islamic state. • Criticised as ISIS do not represent Muslims- *#notinmyname*.

8. Censorship

Christianity	
FOR	• Harmful material should be censored. • ***"Bad company corrupts good character".***
AGAINST	• Preaching should not be censored. • ***"Go and preach the gospel".***
Islam	
FOR	Images of Allah should be censored (shirk).
AGAINST	Religious clothing should not be censored e.g. France.

9. Wealth & Charity

Christianity	
Attitude	***"Love of money is the root of all evil"*** Bible
Acquisition	Christians should choose a job that benefits others.
Use	Charity (tithe=10% voluntary).
Example	**Christian Aid:** *Christian Aid week*: collect donations Aim to end poverty; respond to natural disasters.
Islam	
Attitude	All wealth is Allah's and part of His plan (Al Qadr).
Acquisition	**Riba** (earning interest) is forbidden.
Use	Charity (Zakat: Compulsory (2.5%) Sadaqah: Voluntary)
Example	**Islamic Relief:** 'Empower her' (livelihood programme for women). Palestine emergency appeal (aid in Gaza).

Dignity	Censorship	Discrimination	Extremism	Human Rights	Personal Conviction	Prejudice	Social Justice
Every person is of worth and value and should be treated equally	Stopping something being said or worn as it may be offensive.	Treating people differently based on prejudice.	Believing in ideas that are very different from what most believe e.g. ISIS.	Rights that all humans have e.g. Right to Free Speech.	Something a person believes strongly e.g. Malala believed in education rights.	Prejudging people without good reason.	Ensuring everybody has equal rights e.g. MLK.

French - Les rapports familiaux et les passetemps

1. Parle-moi de ta famille	Tell me about your family
Dans ma famille il y a	In my family there is
Mes parents et moi	My parents and me
Mon frère	My brother
Ma sœur	My sister
Mon père	My father
Ma mère	My mother
Ma tante	My aunt
Mon oncle	My uncle
Mon grand-père	My grandad
Ma grand-mère	My grandma
Mon cousin	My cousin (male)
Ma cousine	My cousin (female)
Ma demi-sœur	My half sister
Mon demi-frère	My half brother
Ma jumelle/ mon jumeau	My twin

4. Avec qui tu t'entends bien ?	Who do you get on with?
Je m'entends bien avec	I get on well with
Je me dispute avec	I argue with
Je m'amuse avec	I have fun with
Je me confie à	I confide in

5. Voudrais-tu te marier ?	Would you like to marry?
Je voudrais me marier	I would like to marry
Je voudrais tomber amoureux /euse de quelqu'un	I would like to fall in love with someone

2. Tu peux décrire ton frère ou ta sœur ?	Can you describe your brother or sister?
Il / elle est	He / she is
Grand (e)	Tall
Petit (e)	Small
De taille moyenne	Average height
Mince	Slim
Beau/belle	Beautiful
Gros / se	Fat
Il / elle a	He / she has
Les cheveux courts	Short hair
Les cheveux longs	Long hair
Les cheveux raides	Straight hair
Les cheveux bouclés	Curly hair
Les cheveux blonds	Blond hair
Les cheveux châtains	Brown hair
Les yeux bleus	Blue eyes

Reasons	
Parce que	Because
Car	Because
Puisque	Because
Étant donné que	Given that

Ce serait	It would be
Car ce serait romantique	Because it would be romantic
Car ce serait incroyable	Because it would be incredible
Ce serait trop cher	I would be too expensive

3. Il / elle est comment?	What is he / she like?
Il / elle est	He / she is
Il / elle peut être	He / she can be
Il n'est jamais	He is never
Elle n'est pas	She is not

Extra detail	Intensifer
Très	Very
Assez	Quite
Un peu	A bit

Intelligent (e)	Clever
Drôle	Funny
Sportif / ive	Sporty
Généreux / euse	Generous
Fiable	Trustworthy
Timide	Shy
Debrouillard (e)	Resourceful
Branché (e) / de tendance	Trendy
Gentil /le	Kind
Sympa / agréable	Nice

Têtu (e)	Stubborn
Egoïste	Selfish
Agaçant(e), énervant(e)	Annoying
Paresseux / euse	Lazy
Méchant(e)	Nasty / mean
Pénible	A pain

Il / elle m'aide	He / she helps me
Il / elle me soutient	He / she supports me
Il / elle me fait rire	He / she makes me laugh

French - Les rapports familiaux et les passetemps

PRESENT - I form

6. Que fais-tu le weekend ?	What do you do at the weekend?
Je danse / je fais de la danse	I dance
Je fais de la natation	I swim
Je fais des arts martiaux	I do martial arts
Je joue de la guitarre / du piano	I play guitar / piano
Je joue au golf / tennis / foot / rugby / netball	I play golf / tennis / football / rugby / netball
Je traine avec mes amis	I hang out with my friends
Je regarde des films	I watch films
Je lis	I read
Je vais à la gym	I go to the gym

7. Que fais tu sur ton portable / ton ordi?	What do you do on your phone / computer?
Je partage des photos	I share photos
Je vais sur des réseaux-sociaux	I go on social media sites
Je commente des photos	I comment on photos
Je regarde des clips sur youtube	I watch clips on youtube
Je fais des quiz	I do quizzes
Je joue à des jeux	I play games
Je télécharge de la musique	I download music
Je fais mes devoirs	I do my homework

If you use an opinion verb like 'j'aime the next verb needs to be an INFINITIVE. It will end in **-er**, **-re** or **-ir**

Eg J'aime FAIRE du vélo

If you don't use an opinion verb, it ends in E

Irregulars are *Je vais = I go, Je fais = I do, Je lis = I read

PRESENT - Opinion + Infinitive

8. Qu'est-ce que tu aimes faire ?	What do you like to do?
Time expressions	
D'habitude / Normalement	Normally
Quand il fait beau	When it is nice
De temps en temps	From time to time

Opinions	
J'aime	I like
J'adore	I love
Je préfère	I prefer
Je n'aime pas	I don't like
Je déteste	I hate

Faire des magasins	To do (go) shopping
Aller à la plage	**To go to the beach**
Faire du sport	**To do sport**
Sortir avec mes amis	**To go out with my friends**
Aller au cinéma	**To go to the cinema**
Faire du vélo	To do cycling

What to include in your writing (colour key)	
C	Connectives
O	Opinions
R	Reasons
N	Negatives
E	Extra detail
T	Time expressions
T	Tenses
I	Interesting adjectives
	Masculine
	Feminine
	Plural

PAST - Imperfect

Time expression	
Quand j'étais petit (e)	When I was little

9. Que faisais tu quand tu étais petit/e ?	What did you do when you were younger?
J'aimais	I used to like
Je n'aimais pas	I didn't like
J'aimais lire	I used to like to read
J'aimais écouter des histoires	I used to like to listen to stories
J'aimais dessiner	I used to like drawing
J'aimais chanter	I used to like singing
Je n'aimais pas étudier	I didn't like studying
C'était	It was

FUTURE

Time expression	
Ce weekend	This weekend

10. Que vas-tu faire ?	What are you going to do?
Je vais + infinitive	**I am going to...**
Ce weekend je vais sortir	This weekend I am going to go out
Je vais rencontrer des amis en ville	I am going to meet friends in town
Je vais manger au restaurant	I am going to eat at a restaurant
Ce sera divertissant	It will be fun

French - Les fêtes et les traditions

What to include in your writing	
C	Connectives
O	Opinions
R	Reasons
N	Negatives
E	Extra detail
T	Time expressions
T	Tenses
I	Interesting adjectives
	Masculine
	Feminine
	Plural

1. Qu'est-ce qu'on mange en France ?	What do they eat in France?
Au dîner	At dinner
Au déjeuner	At lunch
Au petit-déjeuner	At breakfast
On mange	One eats
On prends	One eats
De la viande	Meat
Du poisson	Fish
Du pain	Bread
Du fromage	Cheese
Des céréales avec du lait	Cereal with milk
Des légumes	Vegetables

3. Quel est ton festival préféré ?	What is your favourite festival?
Mon festival français préféré est..	My favourite French festival is
Pâques	Easter
La fête du citron	Mentón Lemon festival
Le quatorze juillet	Bastille Day
la fête de la musique	The festival of music
la Saint -Sylvestre	New Years Eve
La fête des lumières	The festival of light

4. Quel est ton opinion des festivals?	What is your opinion of festivals?
À mon avis les festivals sont	In my opinion festivals are
Un aspect important du patrimoine	An important part of the heritage
Traditionnels et intéressants	Traditional and interesting
Importants	Important
Trop commercialisés	Too commercialised
Trop bondés	Too packed
Trop chers	Too expensive

Opinions	
2. Qu'est-ce que tu aimes manger ?	**What do you like to eat?**
J'aime manger	I like to eat
Je préfère manger	I prefer to eat
Je déteste manger	I hate to eat

Du chocolat	Chocolate
Du fromage	Cheese
Des œufs	Eggs
Des tartes	Tarts
Des gâteaux	Cakes
Des produits laitiers	Dairy products

Reasons	
Parce que	Because
Car	Because
Puisque	Because
C'est délicieux	It's delicious
C'est degoûtant	It's digusting
C'est trop sucré	It's too sweet
C'est sain	It's healthy

5. Comment est le Noël en France ?	What is Christmas like in France?
On chante	One / We sings
On danse	One / We dances
On porte le déguisement	One / We wear fancy dress
On mange	One / We eat
On boit	One / We drink
On fête	One / We celebrate
On se reunit avec sa famille	We reunite with family
On joue des instruments	One / We play instruments
On offre des cadeaux	One / We give gifts

PAST - Passé Composé

6. Tu es allé à quel festival ?	Which festival did you go to?
L'année dernière je suis allé (e) au festival de..	Last year I went to the….festival
J'y suis allé (e) avec ma famille	I went there with my family
Nous sommes restés dans un hôtel / un appartement	We stayed in a hotel / flat
On a dansé et chanté	We danced and sang
On a bu et mangé	We drank and ate
On a vu des feux d'artifices	We saw fireworks

French - Les fêtes et les traditions / Ta ville

7. Où habites-tu?	Where do you live?
J'habite à + city	I live in + city
Dans le sud de l'Angleterre	It is in the South of England
Elle se trouve	It is located
Sur la côte	On the coast
À la campagne	In the countryside
C'est	It is
Une grande ville	city
Une petite ville	A small town
Un village	a village
Un quartier	A zone / area
Il y a	There is
Une région	A region
Une montagne	A mountain
Une rivière	A river
Un lac	A lake

8. Qu'est-ce qu'il y a ?	What is there?
Il y a	There is / are
Il n'y a pas de (no article)	There is not
Un centre de loisirs	A leisure centre
Un parc	A park
Un centre commercial	A shopping centre
Un cinéma	A cinema
Un magasin	A shop
Un marché	A market
Un restaurant	A restaurant
Une cathédrale	A cathedral / church
Une piscine	Swimming pool
Une plage	A beach
Des magasins	Some shops
Des restaurants	Some restaurants
Une banque	A bank

9. C'est comment?	What is it like?
C'est	Is it
Rural(e)	Rural
Calme	Quiet /peaceful
Sûr (e)	Safe
Dangereux/euse	Dangerous
Propre	Clean
Sale	Dirty
Joli(e)	Pretty
Beau / belle	Pretty
Moche	Ugly
Touristique	Touristy
Industriel/le	Industrial

PAST - Imperfect

Time Expressions	
Avant	Before
Dans le passé	In the past

C'était It was

Plus	More
Moins	Less

Sale	Dirty
Propre	Clean
Bruyant	Noisy
Pollué	Polluted
Animé	Lively
Cher	Expensive

Que **Than**

Maintenant **Now**

Future

12.	Où voudrais-tu visiter?	Where would you like to visit?
	je veux visiter	I want to visit
	j'aimerais visiter	I would like to visit
	Je voudrais visiter	I would like to visit
	Je ne voudrais pas visiter	I wouldn't like to visit
	Ce serait	It would be
	Incroyable	Incredible

Present

10. Quel temps fait-il ?	What is the weather like ?
S'il fait beau	If it's nice
S'il fait chaud	If it's hot
S'il pleut	If it rains
Quand il fait froid	When it's cold
Quand il y a du soleil	When it's sunny

11. Qu'est-ce qu'on peut faire?	What can you do ?
On peut	One can
On peut aller à la plage	You can go to the beach
On peut faire des sports nautiques	You can do watersports
On peut aller au cinéma	You can go to the cinema
On peut faire des magasins	You can go shopping
On peut faire du vélo	You can go cycling

French - L'environnement

1.	Quels sont les problèmes de l'environnement dans ta région?	What are the environmental problems in your local area?
	Malheureusement	Unfortunately
	Il y a	There is / there are
	Trop de	Too much
	Beaucoup de	Too many
	Voitures	Cars
	Déchets	Rubbish
	Plastique	Plastic
	Monde	People
	Circulation	Traffic
	Il n'y a pas assez de	There aren't enough
	Poubelles	Bins
	Espaces verts	Green spaces
	Transports en commun	Public transport
	Quel dommage!	What a shame

Dans le passé il y avait moins de circulation que maintenant. Maintenant, il y a plus des gens et il n'y a pas assez des transports en commun.

2. Qu'est-ce qu'on peut faire ?	What can we do?
On peut	We can
On pourrait	We could
On doit	We must
On devrait	We should …
Utiliser	Use
Recycler	Recycle
Réutiliser	Reuse
Réduire la consommation de	Reduce the consumption of
Sauver **économiser**	Save (animals, the planet) Save up (not spend)
Eteindre les lumières	Turn the light off
Débrancher les appareils électriques	Unplug electrical devices
Utiliser les transports en commun	Use public transport
Consommer moins d'energie	Consume less energy
Utiliser moins d'eau	Use less water
Refuser le plastique	Refuse plastic

What to include in your writing	
C	Connectives
O	Opinions
R	Reasons
N	Negatives
E	Extra detail
T	Time expressions
T	Tenses
I	Interesting adjectives
	Masculine
	Feminine
	Plural

3. Quels problèmes y avait-il avant ?	What problems were there before?
Avant	Before
Dans la passé	In the past
Il y avait	There was
C'était	It was

Plus	More
Moins	Less

de circulation	Traffic
de pollution	pollution
de bâtiments	Buildings
de gens	People

Sale	Dirty
Propre	Clean
Bruyant	Noisy
Tranquille	Quiet

Que	Than
Maintenant	Now

Time expressions	
Quand ?	**When?**
Après le collège	After school
Normalement	Normally
Jamais	Never
Toujours	Always
Parfois / quelquefois	Sometimes
Le lundi	On Monday
Le mardi	On Tuesday
Le mercredi	On Wednesday
Le jeudi	On Thursday
Le vendredi	On Friday
Le samedi	On Saturday
Le dimanche	On Sunday

French - L'environnement

4.	Quels droits ont les enfants?	What rights do children have?
	Les enfants ont le droit	To have the right to
	De jouer	To play
	De vivre en paix	To live in peace
	À l'éducation	To education
	À la liberté d'expression	To freedom of speech
	À l'amour	To love
	À la nourriture	To food
	Je pense que c'est normal	I think it's normal
	Je crois que c'est juste	I think it's fair

Opinions		
	Il me semble que	**It seems to me that**
	C'est juste	**It's fair**
	C'est injuste	**It is not fair**
	C'est inacceptable	**It is unacceptable**
	C'est important	**It is important**

6.	Comment peut-on aider les autres ?	How can we help others?
	On peut	We can…
	Acheter des produits issus du commerce équitable	Buy fair trade products
	Collecter des fonds	Fundraise
	Donner de l'argent / des vêtements	Donate money /clothes
	Travailler comme bénévolat	Work as volunteer
	Visiter les boutiques de charité	Visit charity shops
	Utiliser les magasins d'occasion	Use second hand shops
	Aider les ONG	Help NGOs (non governmental organisation = charity)
	Une association caritative	Charity

5. Qu'est-ce qu'ils doivent faire?	What do they have to do?
Les enfants doivent	**Children must / have to**
Aider à la maison	**Help at home**
Gagner de l'argent	**Earn money**
Chercher de l'eau	**Look for water**

What to include in your writing	
C	Connectives
O	Opinions
R	Reasons
N	Negatives
E	Extra detail
T	Time expressions
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	Masculine
	Feminine
	Plural

Geography - Life in a newly emerging economy (NEE)

1. What are newly emerging economies?

Term	Definition
NEE	Newly emerging economy. A country that has experienced rapid economic growth.
BRICS	The fastest growing economies named in 2001. Brazil, Russia, India, China and South Africa
MINTs	The four more recently growing NEEs named in 2014. Mexico, Indonesia, Nigeria, Turkey.
Industrialisation	The process of a country moving from mostly agriculture (farming) to manufacturing goods (factories).
Brandt line	The line that divided the Rich North from the Poor South.

2. What are the characteristics of NEEs?

Large land masses....	...means countries have space for industries to develop.
Large, young populations....	...means countries have a lots of people to work and pay tax.
Rich in natural resources....	...means countries can sell (export) them to other countries.
Key role in world trade. Home to TNCs....	...this means there are more jobs available.
Large secondary sector....	...because of the growth of industries.

4. Rural to urban migration in Nigeria

Term	Definition
Rural – urban migration	The movement of people from countryside to cities.
Push factors	Things that make people want to leave an area. E.g. mechanisation meant few jobs in the countryside. Political unrest. Boko Haram kidnapped girls in northern Nigeria
Pull factors	Things that attract people to live in an area. E.g. Wages are four times higher in Lagos. E.g. 68% get a secondary school education in Lagos.
Urbanisation	The increasing percentage of people living in town and cities.
Mechanisation	When machines do the jobs people used to do e.g. using tractors on farms.

3. Changing employment structure

Term	Definition
Employment structure	How the workforce is divided up between primary, secondary, tertiary and quaternary jobs.
NEE employment structure	Secondary is increasing and primary is decreasing.
Informal employment Jobs which are not recognised by the government.	Jobs which are not taxed, workers don't have contracts or rights. Causes: • There are not enough formal jobs. • Jobs not created quick enough. • Migrants are not skilled enough.

5. What are the impacts of a TNC locating in a NEE?

Term	Definition
Transnational Corporation (TNC)	Companies that operate in more than one country. There are 40 TNCs in Nigeria including Shell.
Positive multiplier effect	The cycle where investment in one area leads to further improvement. Locals receive a job, so they can pay more tax and government improve infrastructure, which attracts more TNCs.
Source country	The country where a TNC has its headquarters usually in HICs.

6. Shell in Nigeria. A TNC in an NEE

	Point	Double	Develop
Positives of Shell (Benefits)	65,000 direct jobs.	So people can earn a higher wage.	Means increase in disposable income so they can buy goods and services.
	91% of contracts given to Nigerian companies.	Therefore the government receives more tax.	Which can be invested in infrastructure or services like health care.
Negatives of Shell (Costs)	Bodo oil spill 08/09 spilled 11 mill gallons over 20km$^{2.}$	Which polluted water and farmland.	Therefore, local farmers lose their income and source of food (fish).
	Gas flares affect people's health.	Causing breathing problems.	Unable to work reducing their quality of life.

Geography - Life in a newly emerging economy (NEE)

6. Introduction to Nigeria

Located just north of the Equator, in west Africa.

Employment structure	Secondary sector is increasing. Primary sector is decreasing.
Importance of Nigeria	
Global importance	NEE in 2014 and World's 21st largest economy. 5th largest contributor to UN peacekeeping.
Local importance	Fastest growing economy in Africa. 2014- highest GDP in Africa.
Nigeria's context	
Political	Boko Haram have killed 17,000 people since 2002.
Environmental	Rainforest in south and savanna in north.
Social	500 ethnic groups. Life expectancy 55 yrs
Cultural	Nollywood (World's 2nd largest film industry).

7. Aid in Nigeria

Term	Definition
Top down aid	Large scale, expensive projects, where TNCs and government make the decisions.
Bottom up aid	Small scale, local projects where charities and local people make the decisions.
Aid in Nigeria	Over 60% live on less than US$1 a day. Nigeria receives 4% of aid given to Africa. UK gives £3 billion a year to Nigeria.
Nets for Life	$2 mosquito net reduces bites which cause malaria. 85,000 nets given out in Abuja (Nigeria's capital city).

8.What are the impacts of economic development?

Quality of life	Happiness and health.
Tax	Money paid to the government.
Disposable income	Money people have after paying for essentials.
Life expectancy	The average age a person is expected to live to in a country. In Nigeria, it has increased from 46 to 55 years.
Air pollution	Particles in the air that can cause damage to health.

9. Squatter settlements

Squatter settlements	An area of poor-quality housing (often illegal) lacking basic services e.g. sanitation.
Sanitation	Access to clean water and a toilet.
Makoko	Squatter settlement in Lagos by the lagoon.
Inequality	Differences in wealth and well-being between different people.

10. Opportunities of living in Lagos

Social opportunities	68% have a secondary education (40% don't attend primary school in the rural north).
	Thriving film and music industry in 'Nollywood'.
Economic Opportunities	Many jobs available especially in construction of developments like Eko Atlantic.
	Wages are four times higher than in rural areas.

11. Challenges of living in Lagos

Social challenges	66% live in squatter settlements like Makoko. Communal water point 3km away. High crime as the large area is difficult to police. Gangs like 'Area boys'.
	Traffic congestion. 2 hour commute called the 'Go Slow'.
Environmental challenges	10,000 illegal industries so waste disposal and emissions aren't controlled.
Economic challenges	60% work in the informal economy as there is not enough formal jobs. People earn low wages shining shoes.

12. Managing challenges

Waste disposal	LAWMA started to collect rubbish overnight and placed recycling banks to each estate.
Air and water pollution	Lagos has banned the import of mini generators so communities are encouraged to share a larger generator. Invested in $2.5 million water treatment plant.
Traffic congestion	Creating Bus Rapid Transit network that is built to cope with 200,000 daily.

12. Urban planning: Makoko Floating school

	How does it improve QoL?	Was it successful?
Built in 2013. Educated 100 of the poorest children in Makoko	Collects rainwater. Improved job prospects for locals.	Increased quality of life. Collapsed after a storm in 2016.

Geography - Climate Change

1. How have global temperatures changed over time?

Key term	Definition
Climate change	A change in the global climate from the expected average.
Global warming	A gradual increase in temperature attributed to the enhanced greenhouse effect.
Quaternary period	A period in geological time which stretches from 2.6 million years ago to now.

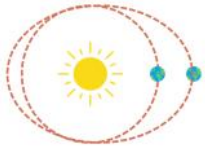
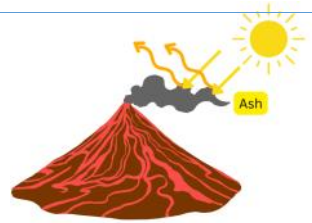
2. Evidence for climate change

Evidence	Explanation
Photographs (Short term)	Comparing photos from 1850s with today show how glaciers have shrunk.
Ice cores (Long term)	Ice cores are drilled out by scientists who analyse the ancient air. More GHGs means higher temperatures. This can go back 450,000 years.
Temperature (short term)	Records using thermometers show us temperature variations. Only since 1850s.
Tree rings (long term)	Good growing conditions (warm and wet) means rings are wide. Extreme weather (droughts/frost) means rings are thin. Trees can go back 10,000 years.

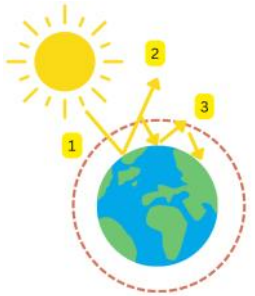
5a. Why are LICs more vulnerable?

Lots of farmers	Lost food and income due to drought.
Lack of money for defences	More damage to buildings from sea level rise and flooding.

3. What are the natural causes of climate change?

Solar output e.g. sunspots	The amount of radiation the sun releases can vary in an 11-year cycle. It is a dark patch on the sun which increases sun spot activity results in higher temperatures.	
Changes in Earth's orbit or axis	• The Earth's orbit moves from circular to oval every 100,000 years. Circular rotation so the Earth is closer to the sun which means a warmer climate. • Oval so Earth is further from sun resulting in glacial periods (ice ages).	
Volcanic activity	Large volcanic eruptions emit ash and gas into the atmosphere that block the sun and cool the earth's climate. Example: 1816 Year without a summer.	

4. What are the human causes of climate change?

Greenhouse gases (GHGs)	Three main greenhouse gasses are - carbon dioxide (CO_2) methane (CH_4) and nitrous oxide (N_20).	
Human causes	• Burning fossil fuels to power cars, make electricity and power factories emits CO_2. • Deforestation means trees can no longer absorb CO_2. **and** burning trees releases CO_2. • Agribusiness (large scale intensive farming practices) leads to an increase CH_4 from livestock and increase N_20 from fertilisers.	
Enhanced greenhouse effect	The human intensification of climate change by creating a thicker greenhouse layer. 1. Sun's energy enters the atmosphere and heats up the Earth. 2. Heat is absorbed is trapped or escapes back to space. 3. Humans emit GHGs from burning fossil fuels which means more heat is trapped. 4. The Earth's temperatures increases, speeding up global warming.	

Geography - Climate Change

5b. What are the effects of climate change?	
Social impacts	• Less rain so more droughts resulting in famine (more extreme malnourishment) • Temperatures increase so ice caps melt which means sea levels rise resulting in floods so people migrate e.g. Fairbourne, Wales • More extreme weather events e.g. tropical storms means more homes and businesses destroyed.
Environmental impacts	• Temperature increases so ice sheets melt resulting in polar habitat impacted e.g. 30% worlds polar bears could be lost by 2050. • Temperature increases this means ice sheets melt, so sea levels rise resulting in flooding of coastal habitats e.g Fairbourne, Wales • Sea temperatures increase leading to coral reef bleaching e.g. 25% of worlds reefs have severe bleaching.

6. Managing climate change: Mitigation				
Mitigation	**Reducing the causes of climate change (less greenhouse gasses)**			
Strategy	**Description (P)**	**Explanation (D)**	**Explanation (DD)**	**Assessment**
International agreements e.g. COP 26, Glasgow 2022	Agreements between countries which set limits on much CO_2 emissions.	This means countries look for alternative sources of energy e.g. solar energy.	This means less CO_2 in the atmosphere, so global warming slows down.	COP26 agreed to reduce coal use, not ban it.
Alternative energy sources e.g. Thanet windfarm, UK (2010)	Energy sources such as wind energy.	These don't release GHGs.		MPs voted against Navitas Bay wind farm of Dorset coast to protect tourism.
Carbon capture and storage e.g. Shell in the UK	CO_2 produced from factories (e.g. Shell in the UK, Acorn Project) is collected and stored underground.	Less CO_2 is released into atmosphere.		Expensive. It costs $1bn to convert a power station to capture carbon.
Planting trees e.g. Great Green Wall, Sahel, Africa.	Encouraging **afforestation** means that there will be more trees.	Trees absorb CO_2 during photosynthesis.		Takes time for trees to grow.

7. Managing climate change: Adaptation				
Adaptation	**Action taken to adjust to climate change. (Minimise the impacts)**			
Strategy	**Description (P)**	**Explanation (D)**	**Explanation (DD)**	**Assessment**
Drought resistant crops e.g. Millet, Kenya.	Adapting farming practices.	Allows people to continue farming when there is less rainfall.	People don't have to migrate and become environmental refugees.	Most in need cannot afford them.
Managing water supplies e.g. Sand dams in Kenya	Building a dam to trap sand and water so it cannot be evaporated.	More water is available for people who previously faced water deficit.	People don't have to migrate.	Cheap to build and uses local materials.
Reducing risk of rising sea levels e.g. Thames Barrier, UK.	Flood barriers (Thames Barrier) as sea level rising 82cm by 2100.	Barriers would hold back the rising sea preventing flooding.	Protecting people and buildings.	Barriers are expensive, not affordable in LICs.

Geography - Resources

1. What are resources?

Term	Definition
Resource	A stock or supply of something that has a value or a purpose (food, energy, water).
Resource management	Control and monitoring of resources so they don't become depleted or exhausted.

Significance for well being

Resources are key to human wellbeing. Their social and economic benefits increase standard of living.

Food	More than 1 billion are malnourished (this > chance of diseases). Calories provide energy which are vital for people (work, school).
Water	Needed for drinking, cooking, and washing. Walking long distances to collect water can stop people working /going to school. Dirty water kills (diseases like cholera).
Energy	Allows industry to develop, creating jobs and making countries richer. Vital for transport. Without it, people burn wood/kerosene to heat homes (causes breathing problems damages environment)

Resources inequality

Distribution Uneven	Some countries don't have energy reserves or have unsuitable climates to grow food.
Dependent on wealth	Countries without must import them or find technological solutions. (expensive)
Consumption	Greatest in **HIC**s (> money, expect higher living standard). Rapidly increasing in **NEE**s. Low in **LICs**. Can't afford to exploit resources or import them.

2. Food in the UK

Demand	Increasing... rising population, demand for greater choice, more disposable income.
Importing 40% food	Expensive in the UK due to poor harvests. Greater demand for exotic foods. Unsuitable climate for growing some food. Demand for seasonal foods all year round.

Problems with importing food...

Carbon footprint	A measure of the greenhouse gases produced. If we transport goods from abroad the carbon footprint is larger.
Food miles	The distance food travels. The smaller the better.

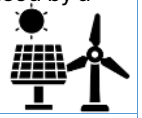
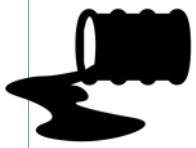
Current food trends in the UK...

Agribusiness	Large scale, industrial farming aimed to maximise the amount of food produced.
Organic produce	Food grown without the use of chemicals. Higher labours costs can make it expensive.
Eat local	Buy from local farms means lower food miles.

4. Water in the UK

Demand	Demand is increasing (70% since 1985). Higher population > more houses > more water intensive appliances e.g. dishwashers
Water quality	Water quality improving. But pollution present from fertilisers, oil spills, vehicle pollutants.
Managing pollution	Stricter regulations on fertilisers, filtering water for sediment, purifying water (chlorine).

3. Energy in the UK

Demand	We consume LESS energy even though there are more people because of industry decline and energy efficient products like light bulbs.
Energy mix	The different energy resources used by a country. Renewable + non-renewable. 
How is it changing?	Renewables are increasing. 1970 – 91% came from coal and oil. 2014 – 19% came from renewable. 50% came from coal and oil.
Reduced domestic supplies coal, gas, oil	North Sea oil + gas reserves running out. We still have coal reserves, but all coal fired power stations will close by 2025.
Issues with energy exploitation 	Economic Extraction is expensive. Money needed to research alternatives UK must pay to import energy. Environmental Fracking can cause mini earthquakes. Burning fossil fuels release CO^{2-} Oil spills can leak toxic chemicals.
Areas of deficit	**South and east UK** High population = high demand but low rainfall.
Areas of surplus	**North and west UK** High rainfall but low population.
Water transfer	From areas of surplus to areas of deficit. e.g. Mid Wales (surplus) to Birmingham. BUT expensive, affects wildlife, social conflict.

Geography - Resources - Water

1. Water overview

Water insecurity **Affected by:**	Not having enough clean water. • Rainfall available. • Access to water. • Size of population. • Amount used. 
Water surplus	More than enough water. (supply > demand)
Water security	Having enough clean water to meet everyone's needs.
Water deficit	Not enough water. (demand > supply)
Water stress	When demand exceeds water supply *for a certain period.*
Aquifer	Underground layer of water stored in permeable rocks.
Permeable rock	Rock with pores (air spaces) in that can store water.

2. Factors affecting water demand

Population	More water for drinking, washing and cooking.
Irrigation	70% of water used in agriculture. More people so we need to grow more food.
Industrialisation	More water in manufacturing.
Energy production	50 billion m^3 of freshwater used each year to generate electricity.
Living standards	More water used for toilets, showers.

3. Factors affecting supply

Physical factors	• **Climate** – rainfall and temperature. • **Geology** – e.g. Impermeable rock = easy access.
Economic factors and social factors	• **Over-abstraction** – taking water faster than it can be replaced. • **Pollution** – industry and agricultural waste. • **Infrastructure** – having enough pumps, pipes and sewers to access to water. • **Poverty** – people and governments can't afford to get clean water into their homes.

4. Impacts of water insecurity

Diseases	Drinking contaminated water.
Conflict	Countries going to war over a water source.
Reduced industrial output	Less goods produced so people lose jobs.
Reduced food production	Cannot irrigate crops which leads to famine.

5. Water supplies can be increased

Dams/reservoirs	A storage dam across a river traps water creating a reservoir.
Water diversion	Redirects water (but doesn't store it).
Water transfer	Moving water from dams to drier areas by canals.
Desalination	Removing salt from sea water.

6. Sustainable water supply

Sustainable water supply	Having enough clean water to meet everyone's needs today, without preventing future generations from meeting their own needs.
Water conservation	Using less water e.g. Fixing leaks and dual flush toilets (saves 3.5L per flush).
Groundwater	Water stored in rock, managed by laws and fines.
Recycling	Using treated water again. E.g. for irrigation and industry.
Grey water	Recycled water that is not treated E.g. wash cars

7. Water transfer example – STNWTP

Example	South to North Water Transfer Project, China
Water insecurity in North of China	• **High population** and **rising living standards** increase demand for water in the north. • **Development** increases demand from industry and agriculture. • Less rainfall than south.
STNWTP	**$62bn project**, transfers 44.9bn m^3 of water from south to north through canals + tunnels.
Advantages	• **20 cities have clean water** including Beijing and Tianjin (**100m people benefited)**. • **Development** leads to positive multiplier effect.
Disadvantages	• **Large areas flooded** destroying habitats. • 345 000 people moved (received little compensation). • **Water in Beijing is expensive**, due to costs of transporting and building infrastructure.

8. Sustainable water supply example – sand dams, Kenya

Example	1m high concrete dams built across rivers to store water in Kenya, East Africa.
Water insecurity	• Hot and dry most of the year. Most rivers only flow in wet season. • In dry season people travel 6-9 hours for water.
Who?	UDO - Utooni Development Organisation to reduce water insecurity.
Sand Dams	• Water trapped in sand behind 1m wall. • Sand stops evaporation. • Water extracted by digging a well in the sand or installing a pipe into the sand.
Advantages	Cheap + local materials, Kya Kimew Dam, Machakos reduced distance by 9km to get water.
Disadvantages	Small scale benefits.

History - The First World War

How did alliances and militarism lead to war?

Militarism	The building-up of armies and navies, fuelling capacity for war
Alliances	• Pacts made by countries to support each other if war broke out • Designed to deter a war from starting
Triple Alliance	• Germany, Austria Hungary & Italy • They were encircled by the Triple Entente
Triple Entente	Great Britain, France & Russia
Arms Race	European countries prioritising military spending to build up their armies
Naval Race	• Britain had a large navy to protect its empire • Kaiser Wilhelm wanted to create a strong German navy • British launched the Dreadnought (new battleship) in 1906
Brinkmanship	• To pursue a dangerous policy to the limits of safety especially in politics
Schlieffen Plan	• Germany felt threatened by France & Russia • They created a plan in 1905 to attack and defeat France before turning to deal with Russia

How did Imperialism cause war?

Imperialism	Desire to build an empire
European Empires	• Britain: largest empire in the world • France: Second largest empire • Russia: No overseas empire but wanted to expand into the Balkans • Austria-Hungary: Large empire in central Europe • Germany: Had third largest overseas empire. The Kaiser was keen to expand it.
Why did they want Empires?	• Access raw materials • Build power and wealth
Kaiser Wilhelm II	King of Germany during the First World War and before.
Moroccan Crises	• 1905 – Germany challenged France's power over Morocco. Resolved through the **Algeciras Conference** (1906) • 1911 – Germany sent a war ship, The Panther, to Morocco in response to more French troops there. Germany eventually backed down
Algeciras Conference	• Ended the First Moroccan Crisis; strengthen the bond between GB and France; left Germany feeling humiliated.
Scramble for Africa	The invasion and colonisation of Africa by European countries

How did Nationalism cause war?

Nationalism	Belief in the superiority of your country
Balkans	Region in south eastern Europe.
Ottoman Empire	Old empire based in Turkey losing control of the Balkans
Self-determination	A desire to have economic and political independence
Serbs	• A regional identity for people from Serbia and around the Balkans. Serbia wanted to create a bigger country uniting all Serbs • The **Black Hand** were a terrorist group fighting for Serbian independence
Austria -Hungary declares war on Serbia	• Austria-Hungary took control of Bosnia in the Balkans • Archduke Franz Ferdinand heir to Austro-Hungarian empire was murdered by Gavrilo Princip: Member of the Black Hand • Austria-Hungary gave Serbia an ultimatum
How did the alliances get involved?	• Germany gave a Austria a 'Blank Cheque' (offer of support) • Russia wanted to protect Serbia • France and Britain dragged into war through alliances

Serving in WW1

War of Attrition	A long conflict where each side seeks to gradually wear down the other
Conscription	Compulsory military service
Pals Battalions	Men from the same village, sports team etc. encouraged to join the army together
'Often forgotten armies'	Term used to describe soldiers from around the world who fought in WW1 but have not always been remembered in the same way as others

Interpretations of Field Marshall Haig

Douglas Haig	Field Marshall who planned and led the Battle of the Somme Often called the 'Butcher of the Somme'
Battle of the Somme	British planned to destroy German trenches through a week-long bombardment to help relieve pressure on French troops in Verdun

The Battle was a success	The Battle was a failure
• British troops did relieve the pressure on French troops • German troops were pushed back Britain used tanks for the first time	Haig's plan did not work; his tactics were seen as outdated even at the time • 57,000 British troops injured on the first day of the battle – including 19,000 killed • Close to 400,000 British troops killed over the 141 days of battle

1882 Triple Alliance formed	1907 Triple Entente formed	28 Jun 1914 Franz Ferdinand assassinated	Jul 1914 Serbia reject ultimatum	4 August 1914 Britain declares war	1916 Battle of the Somme	1917 Russia leaves the war & USA join	11 Nov Armistice is signed

History - Female suffrage in Britain and Europe after WW1

Suffragist movement	
Suffrage	The right to vote
Suffragist	• A campaigner who believed in equality for women • They believed in constitutional (legal) methods of campaigning
Methods used by Suffragists	• Marches—protest marches/gatherings • Petitions—people showing support for cause by signing
NUWSS	• National Union of Women's Suffrage • Led by Millicent Fawcett
Nancy Astor	Became the first female MP in 1919

Suffragette movement	
Suffragette	Campaigner for female equality who believed in using militant methods
Suffragette tactics	Arson: Setting fire to property Violent protest—criminal damage Hunger strikes whilst in prison—they would then be force fed
Cat & Mouse Act	Law passed by the government to allow the release and re-arrest of hunger strikers
WSPU	Women's Social and Political Union Suffragette group led by the Pankhurst family
Notable members of the WSPU	• Emmeline Pankhurst: Leader of WSPU, served time in prison and was force fed • Emily Wilding Davison: Was killed whilst campaigning at Epsom race course

Women in WW1	
Home Front	The people back in Britain
War effort	• Contributing to WW1 at home • Working in essential jobs like agriculture and munitions
Munition factories	• Weapon factories • Many women worked in them who became known as the 'Canary Girls' due to TNT turning their skin yellow
Representation of the People Act 1918	• Law passed giving men over 21 and women over 30 the right to vote

Impact of the Treaty of Versailles on Germany	
Armistice	Ceasefire signifying end of WW1
Treaty of Versailles	Peace Treaty that Germany was forced to sign in 1919
Terms of Versailles	• Blame: Germany had to accept all blame for WW1– known as the War Guilt Clause • Reparations: Germany had to pay compensation (£6.6 billion) • Armed Forces: Army limited to 100,000, 6 battleships, no air force • Territory: All colonies lost. Alsace Lorraine given to France
German reaction to TOV	• **Dolchstoss:** Stab in the Back – Critics of the Treaty in Germany said they had been betrayed by their government • **Diktat:** Word used to describe German feelings towards TOV – Germans believed terms were imposed not agreed

Twentieth Century dictatorships	
Dictator	A single strong leader can do what they want - has complete power
Communism	An economic and political system in which all property is state owned (Left Wing)
Democracy	A political system that allows people to vote
Fascism	A political system that focuses on the strength of the nation (Right Wing)
Propaganda	Communications (for example posters and films) designed to mislead people by giving a very biased view
Stalin	Communist dictator of the Soviet Union between 1924-53
Hitler	Fascist dictator of Germany—also known as the Fuhrer between 1933-45
Mussolini	Fascist dictator of Italy
Totalitarian	A form of rule where the government has unlimited power over all parts of society
NSDAP	Nationalist Socialist German Workers party (Nazi party)
Purge	To remove a group or people often violently
Bolsheviks	Radical left wing group that seized control of Russia in 1917

1897 NUWSS formed	1903 WSPU formed	1905 WSPU militant campaign begins	1908 mass rally in London where windows were smashed	1909 Force feeding begins for suffragettes	1913 Emily Wilding Davison is killed	1914 both leaders of NUWSS & WSPU support the war effort	1918 Representation of the People Act passed	1919 Nancy Astor becomes an MP	1928 Equal voting rights achieved

History - Turning points of WW2

How did WW2 start?

Nazi beliefs that helped lead to war	• Wanted to unite all German speakers • Wanted the cancellation of the Treaty of Versailles • Wanted Lebensraum or 'living space'
Appeasement	British & French policy of giving into demands to avoid conflict
Examples of Appeasement	• Germany allowed to re-militarise • No challenge when Germany militarised the Rhineland • The Anschluss: Germany allowed to unite with Austria • Occupation of the Sudetenland (part of Czechoslovakia)
Why did war breakout?	• Nazi invasion of Poland resulted in the French & British declaring war
Axis Powers	• Alliance of Fascist countries (Germany, Italy & Japan)
Allied Powers	• British Empire, Russia (USSR) & USA

Dunkirk

Blitzkrieg	• 'Lightning War' German term for fast moving warfare • Allowed the Nazis to defeat the French & British
Dunkirk	• Coastal town where British & French armies were forced to evacuate by the Nazis
Reasons Dunkirk can be seen as an allied defeat	• Victory for the Germans allowing them to occupy France • The British and French left behind important equipment and lost huge numbers in wounded and prisoners
Reasons Dunkirk can be seen as an allied victory	• Over 300,000 allied troops rescued • British media reported the heroic spirit of the rescue • Birth of the idea 'Dunkirk Spirit'. A country coming together in a time of adversity

Battle of Britain

Battle of Britain	• Fought in the skies over southern England between the RAF (Royal Air Force) & Luftwaffe (German air force)
Operation Sea Lion	• Nazi plan to invade Britain • First stage of the plan was to defeat the RAF
Consequences of the Battle of Britain	• British victory • Prevented a German invasion of Britain • Nazis changed tactics and started the bombing of cities (The Blitz)

Nazi invasion of the USSR

Operation Barbarossa	• The Nazi invasion of the Soviet Union (Russia) • Nazis invaded to gain land & resources
Stalingrad	• Russian city that suffered a brutal siege by the Germans • Huge casualties on both sides but eventually Germans defeated
Scorched Earth Policy	The Russians retreated and burnt all supplies to starve the German army
Reasons the invasion of USSR was important	• Nazis had to fight on two fronts • German army lost huge numbers in fighting the Russians • Churchill said it 'tore the heart out' of the Germans • Gave the USA & Britain time to prepare Operation Overlord

Pearl Harbor

US policies before 1941	• Isolationism — US policy of avoiding involvement in world affairs • Lend Lease — US policy of supplying Britain & USSR before 1941
Pearl Harbor	US military base on island of Hawaii in the Pacific Ocean
Reasons for the attack Pearl Harbor	• The Japanese Wanted to secure their empire in the far east • The USA had was enforcing an oil embargo against Japan • Japanese thought a surprise attack would remove the US threat
Consequences of Pearl Harbor	• Brought the powerful US into the war on the allies side • Main US involvement was the D-Day invasions leading to the defeat of Nazi Germany

Dropping of the Atomic Bomb

End of WW2 in Europe	• D-Day invasion led to the German surrender in May 1945 • 8 May VE (Victory in Europe) Day
Continued war with Japan	• Japanese refused to surrender in May 1945 • US forces had captured the islands of Iwo Jima and Okinawa with heavy casualties on both sides
Manhattan Project	• Code name for the US development of the Atomic Bomb • Atom Bomb was used against the Japanese at Hiroshima and Nagasaki to force Japanese surrender
USA & USSR relations 1945	• USA followed a political system of capitalism • USSR followed a rival political system of communism • USA & USSR were the two superpowers at the end of WW2 • The dropping of the atom bomb could have been the US demonstrating their military strength

1933 Hitler begins to rearm Germany	**Sep 1938** Munich Agreement—Hitler was allowed to occupy Sudetenland	**March 1939** Hitler invades Czechoslovakia	**Sep 1939** Britain & France declare war on Germany	**May 1940** Dunkirk	**Jul-Oct 1940** Battle of Britain	**Jun 1941** Operation Barbarossa	**Dec 1941** Pearl Harbor	**Jun 1944** D-Day	**May 1945** German surrender	**Aug 1945** Atom Bomb

History - The Persecution of the Jews and the Holocaust

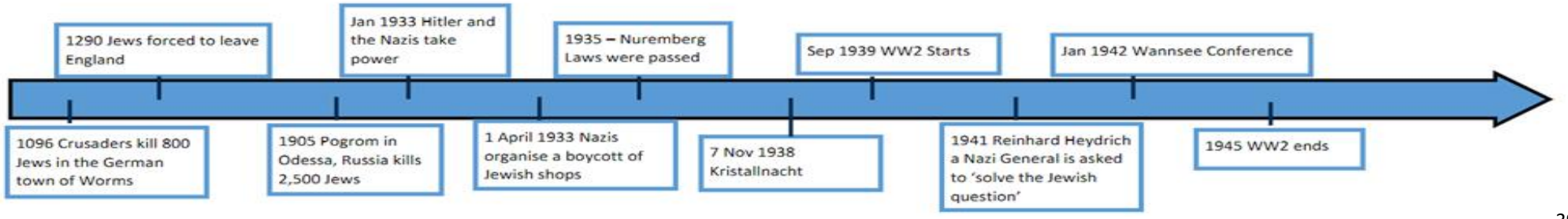
Why were Jews persecuted?	
Antisemitism	Hostile actions and prejudice towards Jewish people
Pogrom	Organised violence against Jewish communities
Stereotype	A widely held belief that is very simplified and often completely untrue
Reasons for historical persecution of Jews	• Christianity was the dominant religion in Europe • Jews were blamed for the death of Jesus • Many money lenders were Jewish so people in debt often disliked them • Jews were seen as an 'inferior' race

Persecution begins under Nazis 1933-8	
Aryan Race	The Nazi belief that white Europeans os 'Aryans' were superior to other ethnic groups
Boycott	People avoiding using certain businesses to make a point. In 1933 the Nazis encouraged Germans to boycott Jewish businesses
Nuremberg Laws	A series of laws passed in 1935 by the Nazis, said that Jews were not German citizens and banned Jews from having relationships with 'Aryans'
Reasons the Nazis disliked the Jews	• Blamed them for losing WW1 • Blamed them for causing economic problems in Germany • Stereotyped them as being anti-German

Violence against Jews and Ghettos 1938-42	
Kristallnacht 9th Nov 1938	• Means the 'Night of broken glass' • Nazi thugs destroyed thousands of Jewish businesses, burned 250 synagogues and arrested 30,000 Jews
Ghetto	• A walled off part of a city where Jews would be forced to live often in terrible living conditions with lots of disease and starvation
Warsaw Ghetto	• Ghetto in Warsaw, Poland with over 400,000 occupants • In 1943 there was an armed uprising led by a Jewish resistance group in response to people being moved to extermination camps
WW2-1939	• When the war started millions more Jews came under Nazi control in Poland and Soviet Union
Einsatzgruppen	Nazi killing squads whose job it was to murder Jews in the Soviet Union (Russia)

The Final Solution	
Final Solution	The name given to the Nazi idea of dealing with the 'Jewish problem' - 6,000,000 Jews would be murdered
Wannsee Conference	Meeting held in 1942 where leading Nazis decided to exterminate the Jews under their control
Extermination camps	• Camps designed with the specific purpose of killing, often using Zyklon B gas • The largest of these camps was Auschwitz-Birkenau

Interpretations about the Holocaust	
Intentionalist	A historian who believes that events like the Holocaust were carefully planned
Functionalist	A historian who believes that events like the Holocaust happen as situations present themselves



History - US and British Civil Rights

Life for Black Americans after Emancipation

Emancipation Proclamation	• Issued by US President Abraham Lincoln on 1st January 1863 • Declared that all slaves in the USA would be freed
Segregation	The forced separation of people based on their race
Jim Crow Laws	Laws in the southern states of the US that enforced segregation Impacted education, housing, transport etc
Lynching	• The execution of a person without a trial • Frequently carried out against Black Americans in the 19th and early 20th centuries
Emmett Till	• Black teenager lynched in the US state of Mississippi in 1955 • His white murderers were found not guilty

US Civil Rights

Civil Rights Movement	In the 1950s & 60s, groups of Black Americans tried different ways to persuade the government to give them equal rights
Little Rock Nine	A group of Black American students who enrolled at Little Rock High School after desegregation in 1957; first black students to attend a previously segregated school
Rosa Parks	A Black American woman; refused to move seats on a public bus; started the Montgomery Bus Boycott
Martin Luther King	Christian pastor from Alabama Encouraged non-violent protests such as boycotts and marches
Civil Rights Act	1964 law which prevented discrimination due to race, colour, sex, religion or national origin

Life for Black Britons after WW2

The 1948 Nationality Act	Gave all British subjects in the Commonwealth and British colonies the rights to citizenship and to migrate to Britain
HMT Empire Windrush	One of the first ships to bring Caribbean migrants to Britain in 1948 Gave rise to the term 'The Windrush Generation'
Notting Hill Race Riots, 1958	A series of racially motivated riots against members of the Black community in Notting Hill, London

Black British campaigns in the 1960s

The Colour Bar	Black people were banned from working in customer serving roles in some parts of Britain
Paul Stephenson	• A Black youth worker who led the Bristol Bus Boycott in 1963 • Campaigned for Black and Asian people to be allowed to be employed as bus workers
Jocelyn Barrow	Led a campaign against the Colour Bar General Secretary of The Campaign Against Race Discrimination (CARD)
Bernard Coard	• Grenadian academic who wrote a book entitled 'How the West Indian Child is Made Educationally Sub-Normal in the British School System.' • Highlighted the bias of education against Black students in Britain
Grassroots activism	Community-led, local, movements that aim to create progress for their causes

British women and Black Power

Black Power	A political term that encapsulates the aim of self determination for Black people
Stokely Carmichael	A member of an American Black Power group who gave a speech in London in 1967 encouraging the Black Power movement in Britain
Olive Morris	Led campaigns against racism after being mistreated by police in 1969 Founded the Brixton Black Women's Group (BBWG)
Claudia Jones	• Helped found the Notting Hill Carnival • Set up the West Indian Gazette the first major newspaper in Britain for the Black community
Altheia Jones LeCointe	• A member of the British Black Panthers (Black Power group) • Was arrested for inciting a riot outside the Mangrove restaurant in 1970 • Successfully defended herself in the Mangrove 9 trial

Legacy of the British Civil Rights movement

Stephen Lawrence	• A Black teenager murdered in 1993 • The case was dropped by the police and no trial took place • In 2012 two men were found guilty of his murder
Macpherson Report	• A government enquiry in 1997 introduced because of the Stephen Lawrence case • Found that the police was institutionally racist

1863 The Emancipation Act	1948 Windrush lands in Britain	1955 Murder of Emmett Till	1955 Montgomery Bus Boycott	1957 Little Rock 9	1964 Civil Rights Act in the USA	1958 Notting Hill Race Riots	1963 Bristol Bus Boycott	1970 Mangrove 9	1993 Murder of Stephen Lawrence	1997 Macpherson Report

History - Medicine Through Time - Medieval c.1250-1500

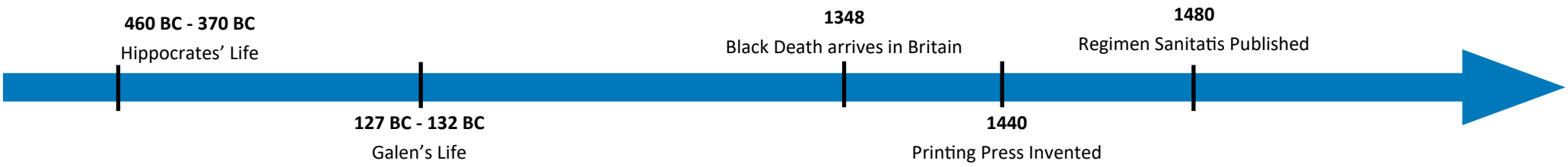
Believed causes of illness in medieval period	
Religion	The catholic church taught that illness was a punishment from God or a test of faith
Miasma	A belief that disease was caused by foul smelling or 'bad' air
Four humours	An ancient Greek doctor, Hippocrates, created a theory that the body contained four fluids; blood, phlegm, yellow bile and black bile, all 4 must be in balance to be healthy Galen (Roman) developed the Theory of Opposites
Astrology	A belief that the alignment of the planets and stars could cause illness

Treatments in the Medieval Period	
Religious treatments	• Praying, pilgrimages, fasting, self-flagellation (people whipping themselves)
Miasma treatments	• Herbs burnt and fires lit to ward-off bad smells • Keeping clean (regimen sanitates)
Humoral treatments	• Bloodletting-leeches, cupping & cutting the veins • Purging– make the patient vomit or use a laxative to make them go to the toilet • Remedies and bathing-herbal remedies, steam baths
Astrological treatments	• Star charts consulted before treating. Treatments depended on alignment of the planets • Herbs, bleeding, purging, cutting hair and nails at right time

Prevention and diagnosis of illness	
Hospitals	• 30% of hospitals were owned by the church, run by monks and nuns. • Other hospitals funded by charitable donations (endowments) • Mainly places to rest and recover. No treatment other than prayers • Most care was provided by woman and home
Physicians	• Diagnosed illness, recommended treatment. Diagnosis based on the work of Galen and Hippocrates • Studied at university for 7 years. Did not treat
Apothecaries	• Mixed herbal remedies • Had no formal training, mainly apprenticeships
Barber surgeon	• Barbers who carried out simple operations. Teeth pulling and amputations. Had no formal training

Case study: The Black Death, 1348	
The Plague	• Bubonic Plague caused buboes (swellings) and fever leading to death
Believed Causes	• God deserting mankind, punishment for sin, unusual positioning of planets, miasma
Treatments and Prevention	• Praying, pilgrimages, self flagellation, bleeding, purging , herbal remedies, lancing buboes • Some cities did close gates and people tried to run away

Reasons for continuity	
Influence of the church	• Priests wrote most books and therefore controlled information • Dissection was illegal. Church thought Galen was correct
Lack of alternatives	• No other theories were taught. Science was very limited due to lack of technology



Mathematics - Number

Key Term	Definition
Ascending	Increasing in size (or numerical value)
Compare	To look at two or more numbers and say what is similar or different.
Composite Numbers	A positive integer with more than two factors.
Consecutive	Describing things which follow each other in a particular order.
Cube Numbers	The result of multiplying a number by itself twice. 1, 8, 27, 64, 125, 216, 343, 512, 729, 1000
Decimal Places	The number of digits to the right of a decimal point in a decimal number.
Degree of Accuracy	Describing how precise or accurate a value is, in terms of number of decimal places or significant figures.
Denominator	The bottom number of a fraction. Must be an integer.
Descending	Decreasing in size (or numerical value)
Difference	The result of a subtraction.
Divisible	One number is divisible by another if it is capable of being divided exactly, without a remainder.
Equivalent	Of equal value.
Estimate	To find an approximate answer to a calculation by rounding the numbers involved, commonly to 1 significant figure.
Evaluate	To find the numerical value of.
Factor	An integer that divides another integer exactly, without a remainder.
Factor Pair	A set of two factors that have a particular product.
Fraction	A number which represents part (or parts of) a whole.
Highest Common Factor	The largest number that divides exactly into two or more numbers.

Key Equivalents		
FDP Conversion	$1 = \frac{1}{1} = 100\%$ $0.5 = \frac{1}{2} = 50\%$ $0.1 = \frac{1}{10} = 10\%$ $0.25 = \frac{1}{4} = 25\%$	$0.75 = \frac{3}{4} = 75\%$ $0.2 = \frac{1}{5} = 20\%$ $0.\dot{3} = \frac{1}{3} = 33.\dot{3}\%$

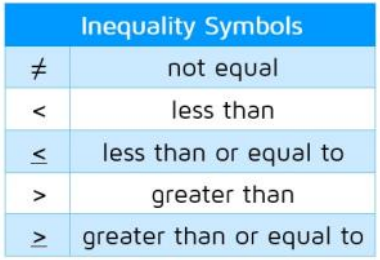
Key Term	Definition
Improper Fraction	A fraction where the numerator is larger than the denominator.
Indices	The power of a number which shows how many times the number is multiplied by itself.
Inequality	The relationship between two numbers that are not equal to each other, shown using the symbols <, > , ≤, ≥ or ≠.
Integer	A whole number including positive and negative numbers and zero.
Lowest Common Multiple	The smallest number which appears in the list of multiples for two or more numbers.
Mixed Number	A number formed of both an integer (whole number) and a fraction.
Multiple	The result of multiplying a number by an integer, i.e. the times tables of a number.
Numerator	The top number of a fraction. Must be an integer.
Order of Operations	BIDMAS—Brackets, Indices, Division & Multiplication and Addition & Subtraction.
Power of 10	The product of multiplying 10 by itself, a number of times.
Prime Number	A positive integer with only two factors, 1 and itself. 2, 3, 5, 7, 11, 13, 17, 19, 23, 29
Product	The result of a multiplication.
Proper Fraction	A fraction in which the numerator is less than the denominator.
Remainder	In division, the amount leftover when a number does not divide exactly.
Square Numbers	The result of multiplying a number by itself. 1, 4, 9, 16, 25, 36, 49, 64, 81, 100, 121, 144, 169, 196, 225
Square Root	The particular factor of a number which can be multiplied by itself to produce that number.
Sum	The result of an addition.
Unit Fraction	A proper fraction with a numerator of 1.
Significant figures	The significant figures of a number are the digits which **carry meaning** (i.e. are significant) to the size of the number. The **first significant figure** of a number **cannot be zero**.

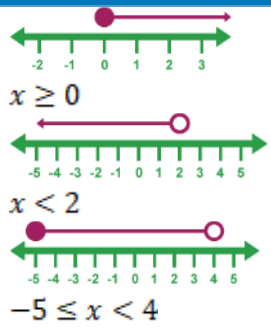
Key Definition	Definition
Equivalent Fractions	Fractions which have different numerators and denominators but represent the same value.
Percentage Increase/Decrease	Calculating a percentage of an amount and either adding this onto (increasing) or subtracting this from (decreasing) the original amount.
Percentage Change	To calculate the percentage change, use the following: $\frac{difference}{original} \times 100$
Percentage Multiplier	The number you multiply a quantity by to increase or decrease it by a percentage. E.g. to increase by 10% the multiplier is 1.1.
Write number in standard form	A way of writing large or small numbers.
Product of prime factors / Prime factorisation	Finding which prime numbers multiply together to make the original number. Should be written as primes multiplied together e.g. 20 = 5x2x2 or as index form :20 = $5x2^2$
Simple Interest	Interest calculated as a percentage of the original amount.
Compound Interest	Interest calculated as a percentage of the current value.
Cube Root	The particular factor of a number which can be multiplied by itself twice to produce that number.

Key units of measurement		
	Time 1 hour = 60 minutes 1 minute = 60 seconds 1 hour = 3600 seconds	**Length** 1 cm = 10mm 1m = 100cm 1km = 1000m
	Mass 1kg = 1000g 1 tonne = 1000kg	**Area** $1cm^2 = 100mm^2$ $1m^2 = 10000cm^2$

Mathematics - Algebra

Key Term	Definition
Algebra	A branch of mathematics in which letters are used to represent numbers.
Coefficient	A constant value which multiplies a variable. Always written before the variable.
Constant	A fixed number on its own.
Equation	A mathematical statement in which two expressions with equal values are connected by an equals sign.
Expand	To remove the brackets from an expression by multiplying terms and simplifying as necessary.
Expression	An algebraic expression is made up of two or more terms combined by operators.
Factorise	To rewrite an expression in brackets. Completed by finding the highest common factor, placing this outside the bracket and dividing by this to get an expression for inside the bracket.
Formula	An equation that shows the relationship between two or more variables.
Identity	An equation that is true for all values.
Linear	Contain only variables with a power of one, such as x
Simplify	To write an expression or fraction in a more concise form using the rules of algebra.
Solution	The value or values that can be substituted for the unknown in an equation to make it true.
Solve	To find the solution(s) to an equation by isolating the unknown.
Subject	The dependant variable in a formula or equation, identifiable by being on its own on one side of the equals sign.
Substitution	The process by which symbols are replaced by numbers in order to evaluate an expression or formula.
Term	A constant, variable or coefficient and one or more variables.
Unknown	A value that is not known in an equation.
Variable	A symbol, often a letter, whose value can vary.

Key Term	Definition
Inverse operation	The opposite operation that is being performed on a variable.
Term	A constant, variable, or coefficient, and one or more variables.
Inequality	

Key Term	Definition	Examples
Inequalities on a Number Line	Inequalities can be shown on a number line. Open circles are used for numbers that are less than or greater than $(< or >)$ Closed circles are used for numbers that are less than or equal or greater than or equal $(\leq or \geq)$	

Key Term	Definition
Direct Proportion	If two quantities are in direct proportion, as one increases, the other increases by the same percentage.
Inverse Proportion	If two quantities are inversely proportional, as one increases, the other decreases by the same percentage.
Scale Factor	A factor by which a shape is enlarged
Ratio	Comparing the size of one part to another. The ratio of a to b is written as a:b.
Equivalent ratio	Equivalent ratios are found by multiplying/dividing all parts of the ratio by the same value.

Key Term	Definition
Quadratic	A quadratic expression is of the form $ax^2 + bx + c$ where a, b and c are numbers, $a \neq 0$

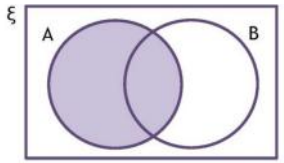
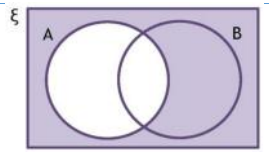
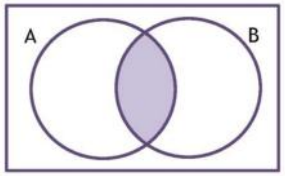
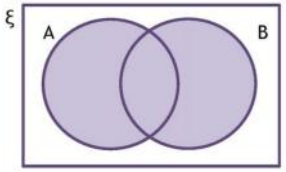
Key Term	Definition
Function machine	Shows the relationship between two variables, the input and the output.

Key term	Definition
Multiplication Index Law	When **multiplying** with the same base (number or letter), **add the powers**. $a^m \times a^n = a^{m+n}$
Division Index Law	When **dividing** with the same base (number or letter), **subtract the powers**. $a^m \div a^n = a^{m-n}$
Brackets Index Laws	When raising a power to another power, multiply the powers together. $(a^m)^n = a^{mn}$
Notable Powers	$p^0 = 1$ $\quad$ $p^1 = p$

Key Term	Definition
Linear Sequence	A number pattern with a common difference.
Term	Each value in a sequence is called a term.
Term-to-term rule	A rule which allows you to find the next term in a sequence if you know the previous term.
nth term	A rule which allows you to calculate the term that is in the nth position of the sequence. Also known as the 'position-to-term' rule. n refers to the position of a term in a sequence.

Mathematics - Statistics & Probability

Key Term	Definition
Basics	Probabilities add to 1.
Probability Scale	Impossible will definitely happen 0 Unlikely Likely 1
Relative Frequency	$frequency \div total\ trials$
Independent Events	Independent events: one event doesn't impact the other.
Expected Outcome	Expected outcome = probability x number of trials

Key Term	Definition
A	Everything in the set A 
A'	Complement. Everything **not in** set A 
A ∩ B	Intersection of set A and set B. i.e. In A **and** in B 
A ∪ B	Union of set A and set B. i.e. In A **or** in B 

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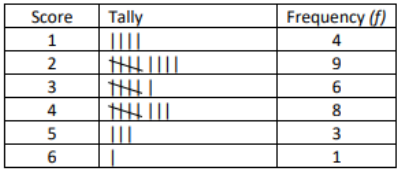
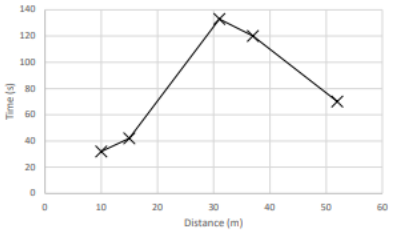
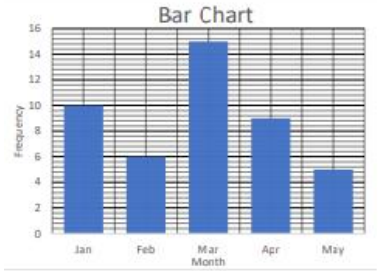
Mathematics - Statistics

Key term	Definition
Average	A single number or value that is used to represent a set of data. There are three main averages we focus on: mode, median and mean.
Data	Information in the form of facts and numbers.
Data point	A single item from a data set.
Data Set	A collection of data which all refers to the same category or topic.
Intersection	The numbers of elements that belong to both/all sets. In a Venn Diagram, this is where the circles overlap.
Mean	The sum of all the values in a data set, divided by the number of values in the data set.
Median	The middle value in an ordered list.
Mode	The most common value. It is possible to have more than one mode
Qualitative Data	A type of data that can be grouped under named categories, often described as data that can be described.
Quantitative Data	Types of data that can be represented numerically, often described as data that can be counted.
Range	The difference between the smallest and largest value.
Two-way Table	A diagram in which frequencies for two categories may be organised; one variable in rows and the other in columns.
Venn Diagram	A diagram in which circles are used to illustrate the relationships between different sets. Must have a box drawn around it.

Key term	Definition	Examples
Frequency Table	A table showing how often something occurs. Can include tally charts.	
Line Graph	Uses lines to join points on a graph to represent a data set.	
Bar Chart	A way of displaying data using horizontal or vertical bars which are the same width and have gaps between them.	
Pie Chart	A method of displaying proportional information by dividing a circle up into different -sized sectors.	

Statistics	Definition
Frequency	How many times something occurs.
Continuous data	Data that can take any value. E.g. height, weight, length.
Discrete data	Data that can only take certain values. E.g. shoe size.

Mathematics - Geometry and Measure

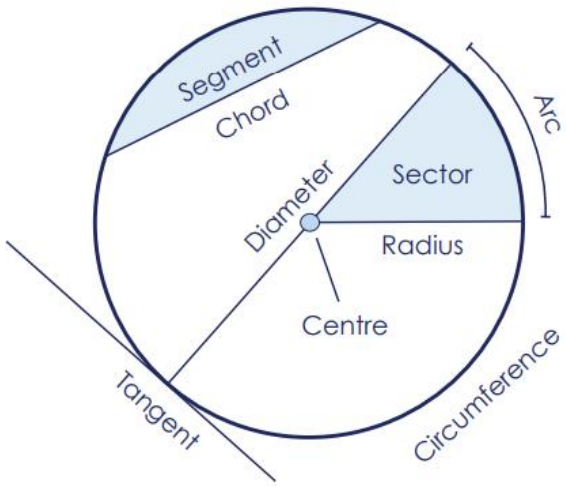
Key Term	Definition
Acute Angle	An angle less than 90°.
Adjacent	Next to, or near.
Area	A measure of the space inside a closed two-dimensional shape.
Axes	The straight lines on a graph used to define the position of a point. The x-axis goes across (horizontal). The y-axis goes up (vertical).
Centimetre (cm)	A metric unit of length equal to one hundredth of a metre. 100cm = 1m
Compound Shape	A shape made up of two or more geometric shapes.
Coordinate	An ordered pair of points that show an exact position on a set of axes. Written (x, y).
Exterior Angle	An angle between one side of a shape and a line extending from an adjacent side.
Irregular Polygon	A polygon with unequal length sides and angles.
Kilometre (km)	A metric unit of length equal to one thousand metres. 1km = 1000m
Line of Symmetry	A line that can divide a shape into identical halves, which are mirror images of each other.
Metre (m)	The base unit of length in the international system of units.
Midpoint	The point exactly halfway between two points.
Millimetre (mm)	A metric unit of length equal to one thousandth of a metre. 10mm = 1cm
Obtuse Angle	An angle measuring between 90° and 180°.
Order of Rotation	The number of times that a shape appears identical during a turn of 360°.
Origin	The point with coordinate (0, 0).
Parallel	Two lines that will never cross and that will remain the same distance apart.
Perpendicular	Two lines that meet at an angle of 90°.

Key term	Definition
Perpendicular	Two lines that meet at an angle of 90°.
Perimeter	The total distance around the outside of a closed two-dimensional shape.
Polygon	A closed two-dimensional shape made up of all straight edges.
Protractor	An instrument used to measure angles.
Quadrilateral	A two-dimensional shape with four sides.
Reflex Angle	An angle measuring between 180° and 360°.
Regular Polygon	A polygon with sides of equal length and angles of equal size.
Right-angle	A 90° angle.
Rotational Symmetry	A symmetry in which a shape may be rotated about a central point and appears identical after a turn of less than 360°.
Square Units	Units used to measure area.
Triangle	A two-dimensional shape with three sides.
Vertex	A point on a polygon at which two lines meet to form an angle.

Key Term	Definition
Angles around a point	Angles around a point sum to 360°.
Angles on a straight line	Angles on a point on a straight line sum to 180°.
Angles in a triangle	Angles in a triangle sum to 180°.
Angles in a quadrilateral	Angles in a quadrilateral sum to 360°.

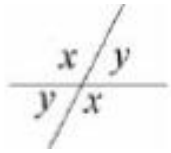
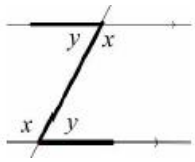
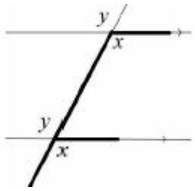
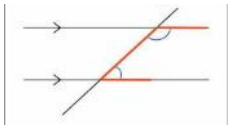
Key Term	Definition
Area of a rectangle or square	Length x width
Area of a parallelogram	Length x perpendicular height
Area of a triangle	$\frac{\text{Base x perpendicular height}}{2}$
Area of a trapezium	$\frac{a + b}{2} \times h$, where a and b are parallel sides.

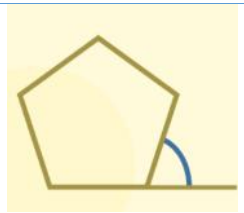
Mathematics - Geometry & Measure

Key Term	Definition
Parts of a circle	
Arc	A section of the circumference.
Sector	The area bounded by two radii and an arc.
Chord	A straight line joining any two parts of the circumference.
Circumference	The distance around the outside of the circle.
Diameter	A straight line going from one end of the circle to another passing through the centre.
Segment	The area bound by the circumference and a chord
Tangent	A straight line that touches the circumference at a single point.
Pi (π)	The ratio of a circle's circumference to its diameter.

Key Term	Definition
Circumference	The perimeter of the circle. C = πd
Radius	$diameter \div 2$
Diameter	$2 \times radius$
Perimeter of semi-circle	$p = \frac{\pi d}{2} + d$
Perimeter of quarter circle	$p = \frac{\pi d}{4} 2r$
Perimeter of three-quarter circle	$p = \frac{3}{4}\pi d + 2r$
Area of a circle	$A = \pi r^2$
Area of a semi-circle	$A = \frac{\pi r^2}{2}$
Area of a quarter-circle	$A = \frac{\pi r^2}{4}$
Area of three-quarter circle	$A = \frac{3\pi r^2}{4}$
Sector	**Sectors** are sections of a circle that are created by two radii and an arc
Arc	A portion of the circumference
Area of sector	$Area\ of\ a\ sector = \frac{\theta}{360}\pi r^2$
Length of arc	$length\ of\ arc = \frac{\theta}{360}\pi d$

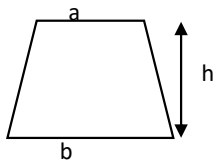
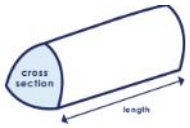
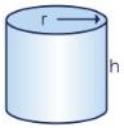
Mathematics - Geometry & Measure

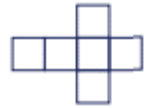
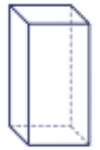
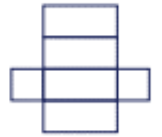
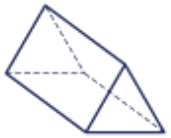
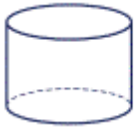
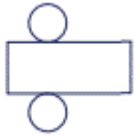
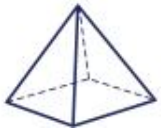
Key Term	Definition
Vertically Opposite Angles	Vertically opposite angles are equal. 
Alternate Angles	Alternate angles are equal. 
Corresponding Angles	Corresponding angles are equal. 
Co-Interior Angles	Co-Interior angles add up to 180°. 

Key Term	Definition
Sum of all angles in Polygons	n is the number of sides. $(n-2) \times 180$
Internal angle in regular polygon	$\frac{(n-2) \times 180}{n}$
External angle	The angle between a side of a polygon and an extended adjacent side.
Exterior angle regular polygon	 $\frac{360}{n}$

Key term	Definition
Translation	Translate means to move a shape. The shape does not change size or orientation.
Column Vector	In a column vector, the top number moves left (-) or right (+) and the bottom number moves up (+) or down (-)
Rotation	The size does not change, but the shape is turned around a point.
Reflection	The size does not change, but the shape is 'flipped' like in a mirror. Line $x = ?$ is a vertical mirror line. Line $y = ?$ is a horizontal mirror line. Line $y = x$ is a diagonal mirror line.
Enlargement	The shape will get bigger or smaller in relation to a centre of enlargement. Multiply each side by the scale factor.
Scale factor	The multiplier for the length of each side of a shape when carrying out an enlargement.
Centre	Used in rotations and enlargements as the centre for the transformation.

Mathematics - Geometry & Measure

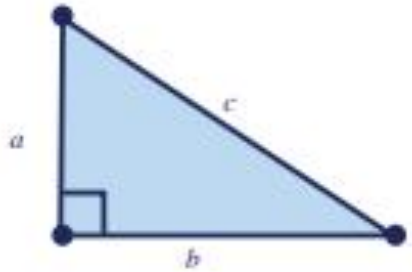
Key Term	Definition	
Area of a trapezium	$\frac{a+b}{2} \times h$	
Face	A face is a single flat surface.	
Edge	An edge is a line segment between two faces.	
Volume	The amount of 'space' a solid object occupies. Units: ***mm³, cm³, m³***, etc. The volume of a prism ***V = Area of Cross Section x Length***  The volume of a *cylinder* ***= π r ² h*** 	
Volume of a cube / cuboid	Length x width x height	
Prism	A 3D shape with a constant cross-section.	
Cross-section	The 2D shape that is consistent throughout the prism	
Volume conversions	1 L = 1000 cm^3 0.5 L = 500 cm^3	

Key Term	Definition	Shape	Net
Cube	6 square faces 12 edges 8 vertices		
Cuboid	6 rectangular faces 12 edges 8 vertices		
Triangular Prism	5 faces 9 edges 6 vertices		
Cylinder	3 faces 2 edges 0 vertices		
Square-based Pyramid	5 faces 8 edges 5 vertices		
Triangular-based Pyramid	4 faces 6 edges 4 vertices		
Cone	2 faces 1 edge 1 vertex		
Sphere	1 face 0 edges 0 vertices Half a sphere is known as a hemisphere.		

Mathematics - Geometry & Measure

Key Term	Definition
Properties of Solids	Faces = flat surfaces Edges = sides/lengths where faces meet Vertices = corners where edges meet
Plans and Elevations **Plan View** **Side Elevation:** **Front Elevation**	This takes 3D drawings and produces 2D drawings. from **above** from the **side** from the **front**

Key Term	Definition
Surface Area	The total area of all the faces of a 3D shape.
Surface area of a cylinder	$A = 2\pi rh + 2\pi r^2$
Volume of a Prism	$V = \textit{Area of Cross Section} \times \textit{Length}$

Key Term	Definition
Right-angled triangle	A triangle that contains a 90^0 angle
Hypotenuse	The longest side – opposite the right angle
Pythagoras' theorem	For any right-angled triangle, the area of the square of the longer length (the hypotenuse) is equal to the area of the squares of the shorter lengths added together. $c^2 = a^2 + b^2$ $a^2 = c^2 - b^2$ $b^2 = c^2 - a^2$ 

Music - Elements of Music

Elements of Music	
Dynamics	The volume of the music.
Harmony	The accompaniment to the melody - chords or bassline.
Melody	The tune
Pitch	How high or low a sound is
Rhythm	The pattern of beats
Structure	The sections in a piece of music
Texture	The layers in a piece of music
Tonality	Major or minor music
Sonority	The colour, character or quality of sound an instrument or voice produces

Texture	
Monophonic	One single melody or rhythm played with no accompaniment
Homophonic	Melody and accompaniment
Polyphonic	Multiple melodies or rhythms played at the same time and each of equal importance
Octave	Playing the same note exactly 8 notes higher or lower
Unison	Playing exactly the same notes as your partner at the same time

Rhythmic Devices	
Call and response	When one person calls a rhythm and the group respond in a similar or matching phrase
Ostinato	A repeating pattern which can be rhythmic or melodic
Polyrhythm	Many rhythms played at the same time of equal importance
Syncopation	An off-beat rhythm

Tempo: Italian terms	
Tempo	The speed of the music
Largo	Very slowly
Adagio	Slowly
Andante	At a walking pace
Moderato	Moderately
Allegro	Fast
Vivace	Quick and lively
Presto	Very fast
Accelerando	Gradually speeding up
Rallentando	Gradually slowing down

Dynamics	
Italian term	**English definition**
Pianissimo	Very quiet
Piano	Quiet
Mezzo piano	Moderately quiet
Mezzo forte	Moderately loud
Forte	Loud
Fortissimo	Very loud
Crescendo	Gradually getting louder
Diminuendo	Gradually getting quieter

Key Words: Tonality	
Major	Happy sounding music
Minor	Sad sounding music

Music - Genres of Music

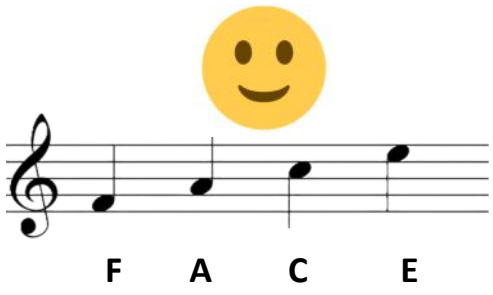
Popular Music	
Intro	Found at the start of the song. It often contains little or no singing
Verse	• The lyrics tell a story. • There are multiple verses in a song, which all use different lyrics
Pre-chorus	A short section of a song found in between the verse and chorus which builds the tension
Chorus	• The catchy part of the song. It often contains the hook. • There are multiple choruses in a song, which all use the same lyrics
Bridge	A contrasting section of the song. It can be instrumental
Outro	A short section of the song which ends the song. It can end in a fade out
Hook	A short catchy line from a song. It is sung
Riff	• A short, catchy, repeated melodic or rhythmic phrase. • It is played by an instrument

Film Music	
Diegetic	• Music that is part of the action. • The characters can hear the music.
Non-diegetic	Music that is not part of the action. The characters in the film cannot hear it. It is just for the audience.
Underscore	Where the music is played at the same time as the action/dialogue.
Mickey-mousing	When the music fits precisely with a specific part of the action in a film
Pedal	A repeated note
Drone	A continuous note
Ostinato	A repeating pattern which can be rhythmic or melodic

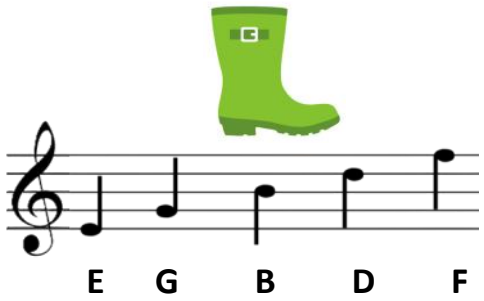
Music Technology		
	**Region**	Contains the music you have composed. Each instrument will have its own regions.
	**Extend the Region**	You can extend a region to fit in more music notes, or input a long music note.
	**Loop**	Looping repeats your music notes immediately. It is a quicker version of copy and paste.
	**Inputting Notes**	Select Piano Roll, then click to add music notes. Arrow—Click and drag notes to change their pitch or position. Pencil—Click to add new music notes. V—Velocity. The notes will hit with more force. Bin—Click to delete music notes.
	**Automation**	Found below the instruments name. Allows you to change the volume and panning.

Music - Reading Notation

Treble Clef Notes on the stave

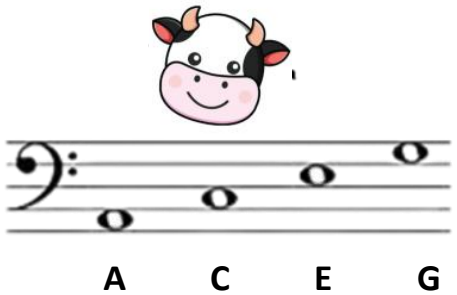


FACE in the space

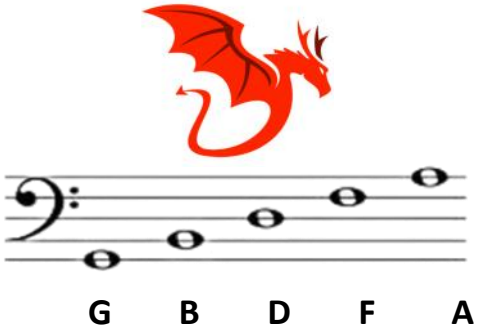


Eddie's Green Boots Don't Fit

Bass Clef Notes on the stave

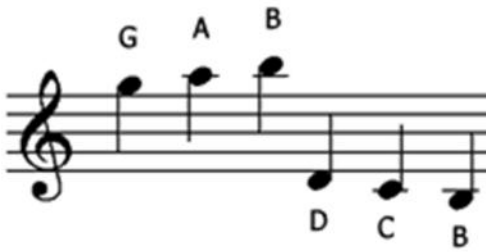


All Cows Eat Grass

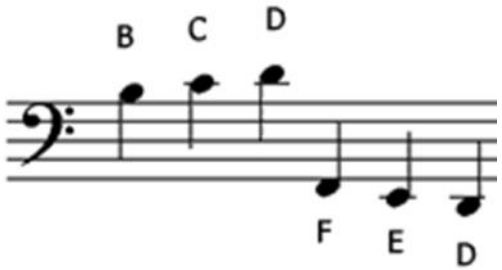


Great Big Dragons Fly Away

Treble Clef Ledger Lines



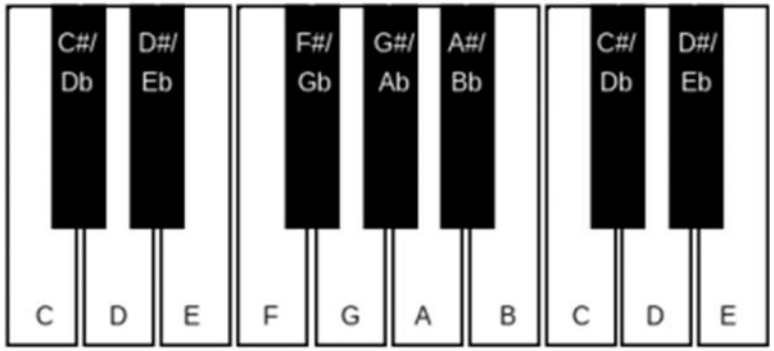
Bass Clef Ledger Lines



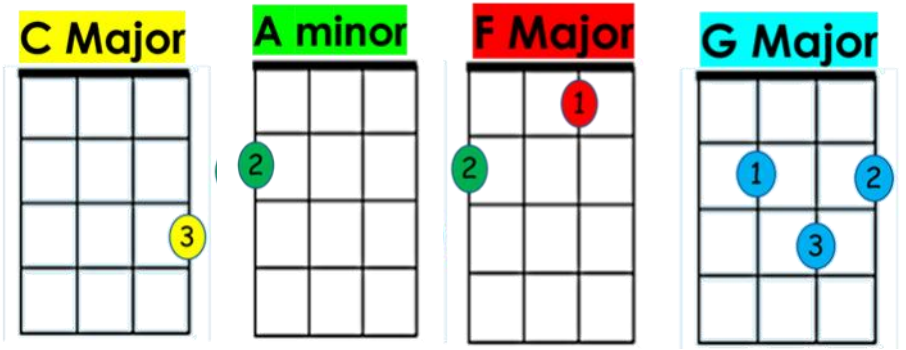
Notes and Rests			
Symbol	Term	Rest	Duration
	**Semiquaver**		1/4 beat
	**Quaver**		1/2 beat
	**Crotchet**		1 beat
	**Minim**		2 beats
	**Semibreve**		4 beats

Music - Instruments

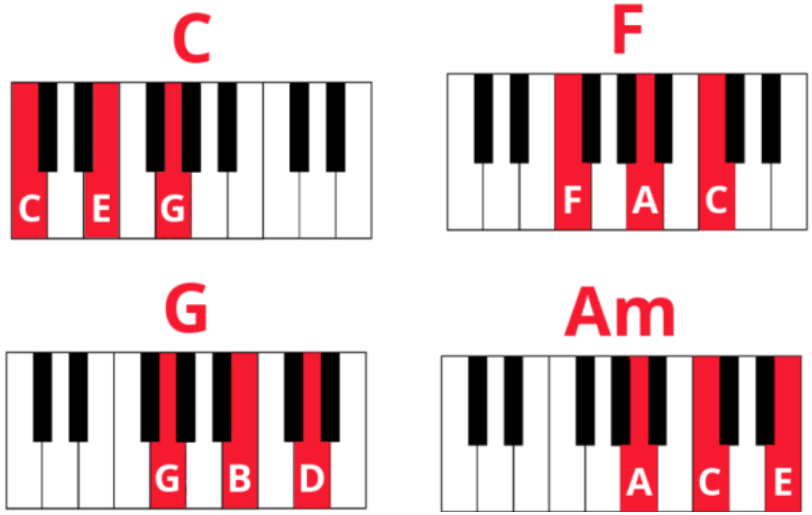
The notes on the keyboard



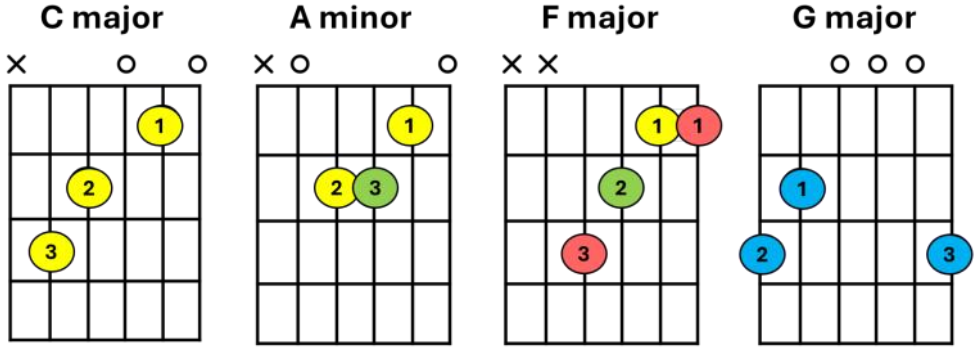
Ukulele Chords



Piano Chords



Guitar Chords



Physical Education - Health Related Fitness

Phases of Warm up	What it is	Specific Examples	Benefits of warmup
Pulse Raiser	Slowly increasing HR	Jogging around the field/hall	• Warming up muscles • Preparing the body physically and mentally for competition • Increase body temperature - Improve flexibility of muscles and joints. • Reduce chance of injury.
Mobility	Taking joints to their full range of movement	Circling shoulders – opening closing the gate	
Stretching	Static – stationary - Dynamic - moving stretches	Hamstring stretch or Lunges	
Dynamic movements	Show a change in speed and direction	Sprint shuttles, fast feet and bounding	
Skill rehearsal	Practising movement patterns and skills that will be used in the activity	Passing in football	

Key terms	
Aerobic	With oxygen
Anaerobic	Without oxygen
Maximum HR	Maximum heart rate = 220 - AGE
RHR	Resting Heart Rate
Aerobic threshold	60-80% of Maximum heart rate (HR)
Anaerobic threshold	80-90% of maximum heart rate (HR)

Principles of Training		
Basic Principles of Training	**Frequency**	How often you train
	Intensity	How hard you train
	Time	How long you train for
	Type	What type of training you do

Method of Training		
Method of Training	**Description**	**Example**
Circuit	• Exercises performed at stations • Usually, 6-8 stations • Works all components of fitness	• Station 1: Press ups • Station 2: Burpees • Station 3: Sit ups • Station 4: Mountain Climbers • Station 5: Tricep Dips
Interval	High intensity with rests	Sprint Shuttles
Continuous	Moderate intensity for a minimum of 20 minutes	Cross country run around the school field
Fartlek	This is where the intensity of the training is varied with speeds or different terrains. Known as speed play.	Lines of different cones. Sprint to one colour, jog to another, walk to another then repeat.
Flexibility	This is using a range of stretching movements to increase the range of motion around a joint to improve flexibility.	Stretching after exercise

Physical Education - Handball

Phases of a Warmup	What it is	Specific Examples	Benefits of warmup
Pulse Raiser	Slowly increasing HR	Jogging up and down the handball court	Warming up muscles
Mobility	Taking joints to their full range of movement	Shoulder rotations	Preparing the body physically and mentally for competition
Stretching	Static- stationary- dynamic- moving stretches	Triceps/deltoid/hamstring stretches	Increase body temperature- Improve flexibility of muscles and joints
Dynamic movements	Show a change in speed and direction	Shuttles and changing direction at speed	
Skill Rehearsal	Practising movement patterns and skills that will be used in activity	Passes to a partner/shots at goalkeeper	Reduce chance of injury

Tactics	Definition
Passing	• Using the correct passes at the correct time. • Entice players towards you and offload before you are tackled to create space for your teammates.
Receiving	• When receiving the pass in attack, be on the move. • This makes you a more difficult player to mark and defend. • Creates spaces and opportunities to beat defenders and shooting chances.
Shooting	• Look to beat defenders using a feint and dodge. • Use the jump shot to get a better angle of shot and to get closer to the goal. • Use your three steps to beat defenders and get shots away from inside the area (using your jump).
Defending	• Standing together and make yourself as tall- create a barrier • Decision making- when to step off the 6m line to engage in contact. • Always tackle from the front, use your feet to stay in front of attackers
Attacking	• Use set plays, swap over positions to confuse defenders and utilise the space. • Use feints or fake passes to confuse defenders and take them on.
Decision Making	• Which pass to use and when. Your positioning on the court, can you swap positions whilst in play? When to tackle and when to let attacker shoot. When to pass and who to pass to.

Set Plays	Definition
Possession Play	• Making a lot of passes • Keeping the ball away from the opposition. • Be patient with passes
Fast Break	• Looking to use the quick players who can get up the court quicker than the defenders can get back to defend. • Fast break every time the goalkeeper has the ball. • Look to release the ball as quickly as you can and catch opponents out.
Free Throws	• All players behind the 9meter line • You can shoot directly from a free throw • Move the ball quickly to a wide position • Take all shooting opportunities.
Penalties	• Penalties are awarded for dangerous play when shooting. You must take the shot from the 7 meter mark and you foot must remain behind the line and cannot move when taking the shot.
Defending	• Staying as tall as possible, meet attackers before they get to the line. Look to force attacking team as wide as possible to make shooting angle as small as possible.
Centre Passes	• Once the ball is back to the centre, all attacking players must start in their own half. You do not have to wait for the defending team to be back, this can lead to fast breaks.

Physical Education - Netball

Phases of Warm up	What it is	Specific Examples	Benefits of warmup
Pulse Raiser	Slowly increasing HR	Jogging around the netball court	Warming up muscles Preparing the body physically and mentally for competition Increase body temperature - Improve flexibility of muscles and joints. Reduce chance of injury.
Mobility	Taking joints to their full range of movement	Arm circles or opening closing the gate	
Stretching	Static – stationary - Dynamic - moving stretches	Hamstring stretch or Lunges	
Dynamic movements	Show a change in speed and direction	Sprint shuttles, fast feet and bounding	
Skill rehearsal	Practising movement patterns and skills that will be used in the activity	Pass and moving – bow tie	

Key Skills

	Key Skills	What is it?	Why is it used?
Passing	**Centre Passes**	• Centre steps into the circle • On whistle all key players drive forward to receive the pass	• To start the game • WA, WD, GA and GD drive to • give options to C player.
Shooting	**Semi-Circle tactics**	• Movement in and around the semi-circle to get the best opportunity to shoot.	• Set patterns of play involving GS, GA, WA, C, in order to maximise shooting opportunities.
Defend	**Rebounds**	• Be able to have quick reactions	• Jump higher than others to retrieve the ball.
	Interceptions	• Be able to turn over ball and keep control when landing to	• Turnover ball and start the attack to your end
	Marking	• apply 1M rule and get your distance before hands.	• Perform this everywhere on court to turn over ball
Attack	**Dodging**	• Use either sprint or feint to create space anywhere on court	• Used effectively during a centre pass, back or side-line passes.

Key Rules

Rule	Definition	Sanction
Free Pass	When a rule is broken that does not directly affect another player. This is when a penalty pass is awarded. **No players are out of play.**	
Penalty Pass	When a rule is broken that directly affects another player. The player who committed the foul must stand next to the player and is out of play until the pass has been made.	
Obstruction	A player must always be at least 3 feet (0.9M) away from an opponent with the ball when defending.	Penalty Pass
Replayed Ball	The player cannot catch the ball with both hands, drop it and pick it up again.	Free Pass
Footwork	A player is **not allowed to move, drag, or hop** on the **landing foot** until they have thrown the ball. If they land on 2 feet, they can choose which foot to move first.	Free pass to the other team.
Contact	Players cannot make physical contact with each other on court.	Penalty Pass
Held ball	Holding the ball for more than 3 seconds	Free Pass
Over a Third	The ball cannot be thrown over a complete third of the court without being touched or caught by a player	Free Pass
Repossession (shooting)	After releasing the ball, the GS or GA may not replay the ball until it has been touched by another player or it rebounds from the goalpost.	Free pass

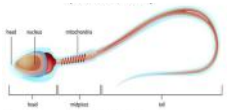
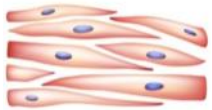
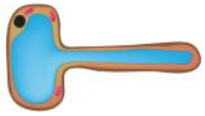
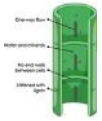
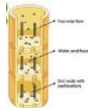
Physical Education - Gymnastics

Phases of Warm up	What it is	Specific Examples	Benefits of warmup
Pulse Raiser	Slowly increasing heart rate and body temperature	Jogging around the hall	• Warming up muscles • Preparing the body physically and mentally for competition • Increase body temperature - Improve flexibility of muscles and joints • Reduce chance of injury
Mobility	Taking joints to their full range of movement	Circling shoulders – opening closing the gate	
Stretching	Static and Dynamic	Hamstring stretch or opening/closing gate	
Dynamic movements	Show a change in speed and direction	Sprint shuttles, fast feet and bounding	
Skill rehearsal	Practising movement patterns and skills that will be used in the activity	Practicing rolls, cartwheels or jumps	

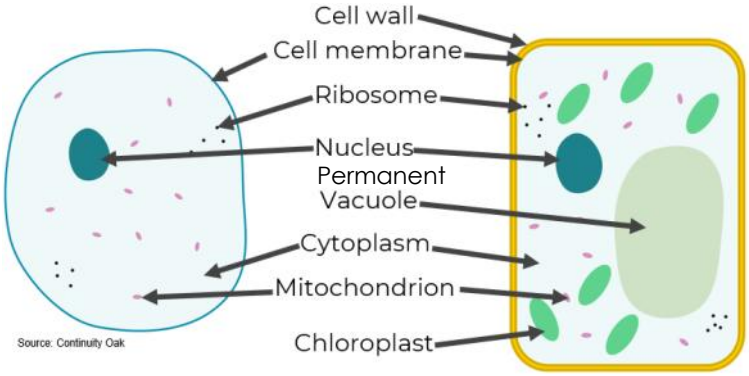
Key Skills		
Key Skill	**What is it?**	**Why is it used?**
Vaulting	Being able to spring, using hands & feet over an apparatus to land safely	To be able to negotiate apparatus in order to move over it, on top of it and around it
Mount & Dismount	Getting onto, and off, a piece of apparatus – usually a vault or block	To travel over, on and off a high piece of apparatus, allows you to fluently move through skills using apparatus
Taking weight on hands	Using the hands to take the weight of your body e.g. handstand, through vault, cartwheel, handspring	To show strength in gymnastics. The ability to create shapes & movements where the weight is on your upper body
Decision Making	Working out how a basic skill can be performed or adapted to add different apparatus	To show your ability to adapt skills for apparatus. To work out how a skill can be performed differently (entry/exit etc) when using apparatus
Flight	The action of flying through the air. In gymnastics this is with the aid of a vault, springboard etc	Flight in gymnastics allows you to create different shapes and rotations in the air before landing safely EG: straddle jump; handspring; somersault
Take Off	The preparation for a jump	Two feet together, swing arms behind and upwards to push the feet off the floor
Landing	The placement of the feet on the floor/apparatus at the end of a jump/flight	Bend the knees on contact with the floor/apparatus, arms out in front of the body to control the landing
Aesthetics	How a skill or routine looks to the audience	
Fluency	Moving from one skill to another easily and smoothly	
Body tension	Tensing & stretching the muscles in order to keep the body in line & held in a shape during a skill	

Science - B1 - Cell Biology

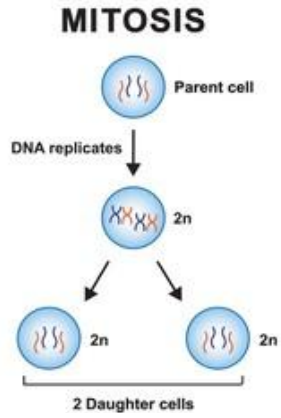
Key words	
DNA	The molecule that holds the genetic information in a cell
Plasmid	A small loop of DNA, only found in prokaryotic cells (bacteria)
Eukaryotic cell	DNA contained within nucleus (plant and animal)
Prokaryotic cell	DNA not contained in nucleus (bacteria)
Cell differentiation	Cells become specialised by developing different sub-cellular structures to help them function
Chromosomes	Found in nucleus of a cell, made of DNA. Usually found in pairs. Humans have 46 chromosomes (23 pairs) in a body cell

Specialised cells		
Specialised cell	**Image**	**How the structure relates to the function**
Nerve cell		Elongated axon to transmit electrical impulses over a distance; large dendrites; fatty sheath covering the axon for insulation, to speed up transmission
Sperm cell		Has a long tail to allow it to swim; contains many mitochondria to release lots of energy; streamlined head containing enzymes
Muscle cell		Lots of mitochondria to release energy for muscle contraction; elastic fibres to allow the muscle to contract and relax
Root hair cell		Has a large surface area and thin cell wall for water and mineral absorption
Xylem cell		Strengthened walls by lignin for the transport of water and dissolved ions
Phloem cell		Sieve plates to allow the transport of dissolved sugars

Sub-cellular structures	Function
Nucleus	Controls the cell's activities and contains genetic material
Cell membrane	Controls the movement of substances into and out of the cell
Cytoplasm	Jelly-like substance where chemical reactions take place
Mitochondria	The site of aerobic respiration
Ribosome	Site of protein synthesis (proteins are made)
Cell wall	Strengthens the cell, made of cellulose
Chloroplast	Site of photosynthesis (contains chlorophyll, a green pigment which absorbs light)
Permanent Vacuole	Filled with cell sap to help keep the cell turgid (stiff) to provide support



Mitosis – cell division	
Stage	**Description**
1	Cell grows, number of sub-cellular structures (e.g. ribosomes and mitochondria) increases and DNA replicates to form two copies of each chromosome
2	Nucleus divides and one set of chromosomes is pulled to each end of the cell
3	Cytoplasm and cell membranes divide to form two identical cells



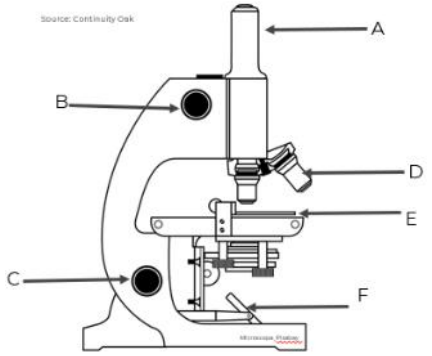
Science - B1 - Cell Biology

Microscopy

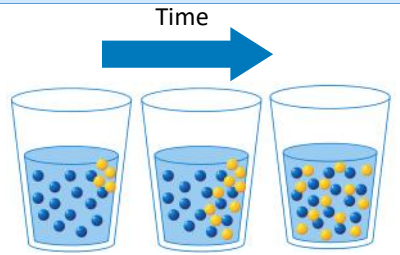
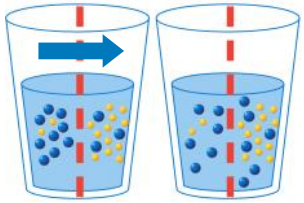
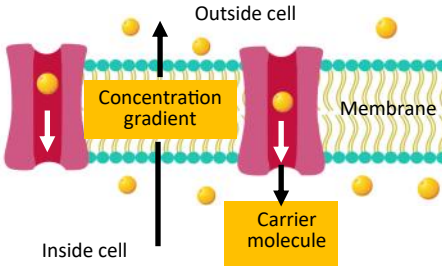
Term	Definition
Magnification	Magnification = size of image ÷ size of actual object
Focus	Start with lowest magnification to focus image
Resolution	This is the measure of the level of detail you can see in the image using a microscope
Light microscope	Device that uses visible light and a series of lenses to produce an enlarged image of an object, maximum magnification of 1500x and low resolution
Electron microscope	Microscope with a much higher magnification and resolution than a light microscope so can be used to study cells in much finer detail and see sub-cellular structures

Microscopes

A	**Eyepiece lens**	Where the viewer looks through to see the specimen
	Clips	Keep the specimen secure on the stage
B	**Coarse focus**	Moves the stage up and down
C	**Fine focus**	Used to make the image clearer
D	**Objective lens**	Changes the magnification of the image
E	**Stage**	Where the specimen is placed
F	**Light**	Produces light to see the specimen



Transport across membranes

Process	Definition	Image	Uses
Diffusion	The net movement of particles from an area of higher concentration to an area of lower concentration. Occurs in solutions and gases.		Movement of oxygen and carbon dioxide in gas exchange (lungs - alveoli; leaves – spongy mesophyll and stomata), and of the waste product urea from cells into the blood plasma for excretion in the kidney.
Osmosis	The diffusion of water from a dilute to concentrated solution, across a partially permeable membrane (shown in red).		Movement of water across cell membranes into and out of cells.
Active Transport	The movement of particles from a low concentration to a high concentration, using energy from respiration.		Absorption of mineral ions into plant root hairs from very dilute solutions in the soil. Absorption of sugar molecules from lower concentrations in the gut into the blood which has a higher sugar concentration.

Stem cells

A stem cell is an undifferentiated cell of an organism which is capable of giving rise to many more cells of the same type, and from which certain other cells can arise from differentiation. Stem cells may be able to help conditions such as diabetes and paralysis.

Embryo	Adult	Meristem
Can be cloned and made to differentiate into most different types of human cells	Adult bone marrow can form many types of cells including blood cells	Can differentiate into any type of plant cell, throughout the life of the plant
In therapeutic cloning an embryo is produced with the same genes as the patient		

Science - B1 - Infection and response

Key terms	
Communicable	A disease spread from person to person caused by a pathogen
Pathogen	Micro-organism that causes disease. The four types of pathogen are bacteria, virus, fungus and protist
Bacteria	Causes disease by reproducing rapidly inside the body, and releasing toxins which damage tissues and make us feel ill
Virus	Causes disease by living and reproducing inside cells, causing cell damage
Vector	An organism which carries something e.g. a disease but isn't affected by it such as a mosquito

Diseases

Disease	Pathogen	Symptoms	Transmission	Method of reducing transmission
Measles	Virus	Fever, red skin rash	Inhalation of infected droplets from sneezes and coughs	Vaccination
HIV	Virus	Flu-like symptoms. Develops into AIDS over time which damages the body's immune system.	Sexual contact, exchange of bodily fluids, sharing needles	Condoms, do not share needles
Tobacco mosaic virus (TMV) - plant only	Virus	Distinctive mosaic pattern of discolouration on leaves, affects growth of plant by reducing photosynthesis	Spread through the use of infected tools on healthy plants (direct contact)	Removing infected areas of the plant, sterilising gardening tools
Salmonella	Bacteria	Fever, abdominal cramps, vomiting, diarrhoea	Bacteria ingested in food prepared in unhygienic conditions, undercooked food	Vaccination of poultry, ensure food cooked thoroughly, especially poultry
Gonorrhoea	Bacteria	Thick yellow or green discharge from the penis or vagina, pain when urinating	Sexual contact	Treatment with antibiotics, use of a barrier method of contraception e.g. condom
Rose black spot—plant only	Fungus	Purple or black spots on leaves. Effects growth of plant due to reduction of photosynthesis	Air, water or direct contact	Use of fungicides and/or removing and destroying the affected leaves
Malaria	Protist	Recurrent episodes of fever	Mosquito (vector)	Preventing mosquitoes breeding: mosquito nets and insect repellent

Treatment	
Antibiotic	Drug which cures bacterial disease by killing pathogenic bacteria
Painkiller	Drug which reduces pain, does not cure a disease but relieves symptoms

Non-specific defence systems	
Skin	Acts as a barrier
Nose	Hairs and mucus trap pathogens before entering lungs
Trachea and bronchi	Cilia cells (small projections from cells) and mucus (produced by goblet cells) trap pathogens
Stomach	Contains hydrochloric acid to kill pathogens that have been eaten

Vaccination key terms	
Vaccines	Dead or weakened form of a pathogen injected into the body
Antigen	Protein on the surface of a pathogen which the body recognises as a foreign body
Antibody	Protein produced by white blood cells which binds to the antigens on pathogen and helps them be destroyed
Herd immunity	The protection given to a population against an outbreak of a specific disease when a very high percentage of the population have been vaccinated against it

Stages of vaccination

Stage	Effect
1	Dead or weakened pathogen injected into the body
2	Antigens in the vaccine stimulate white blood cells to make antibodies
3	Memory cells (type of white blood cell) can be used to make the correct antibody for that pathogen
4	If the pathogen re-enters the body the while blood cells will respond quickly to produce the correct antibodies, preventing infection. The person is immune

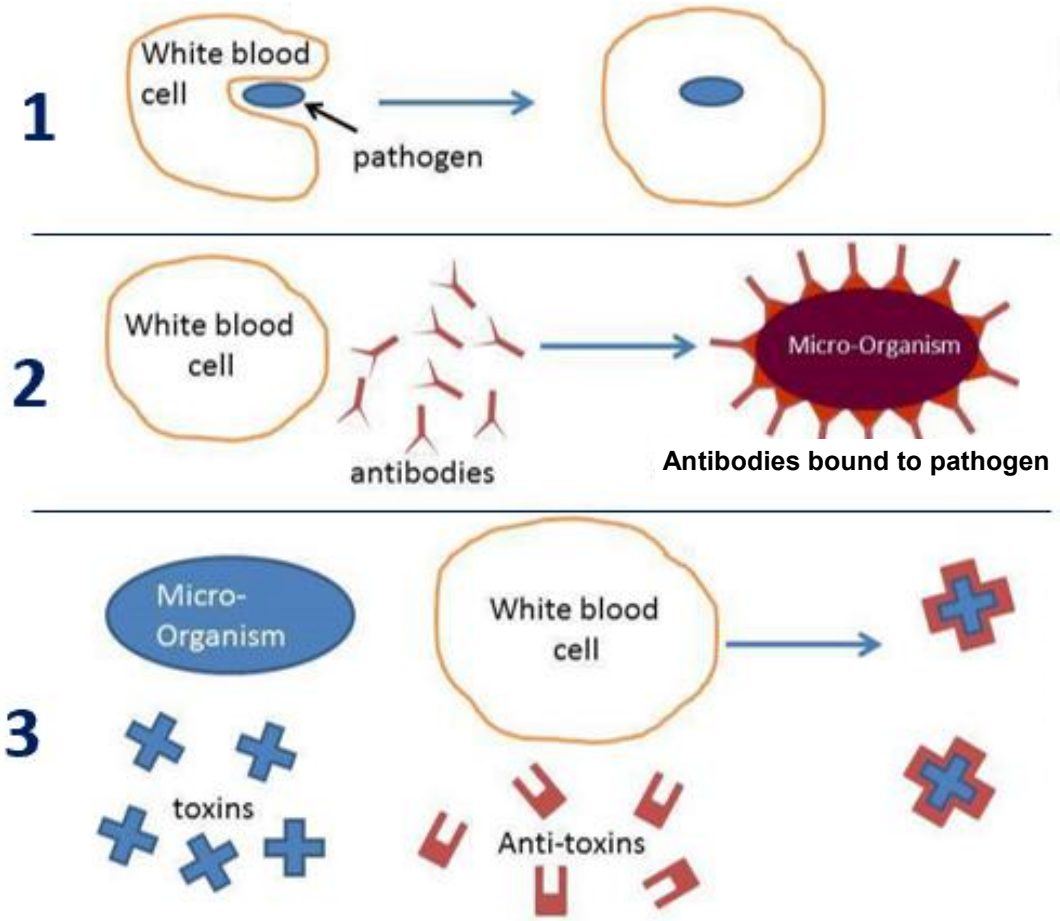
Science - B1 - Infection and response

Drugs	
Drug	**Origin**
Digitalis	Heart drug from foxgloves originally
Aspirin	Painkiller from willow trees
Penicillin	Antibiotic originally from fungus. Discovered by Alexander Fleming

Drug trials key terms	
Key term	**Definition**
Efficacy	Whether the drug works
Dose	How much of the drug to use
Toxicity	If the drug has harmful side effects
Placebo	A fake drug
Double blind trial	Neither the doctor nor the patient know if they have the placebo or the real drug, to avoid bias

Stages in drug trials	
Pre-clinical trials	1. Tested on cells and tissues for toxicity and side effects 2. Tested on animals for toxicity and side effects
Clinical trials	3. Low dose tested on healthy volunteers to check for side effects and toxicity 4. Test on small group of patients with the illness to find optimum dose (best dose with fewest side effects). Patients will go through double blind trails, to avoid bias 5. Large scale testing 6. Peer review, to avoid bias

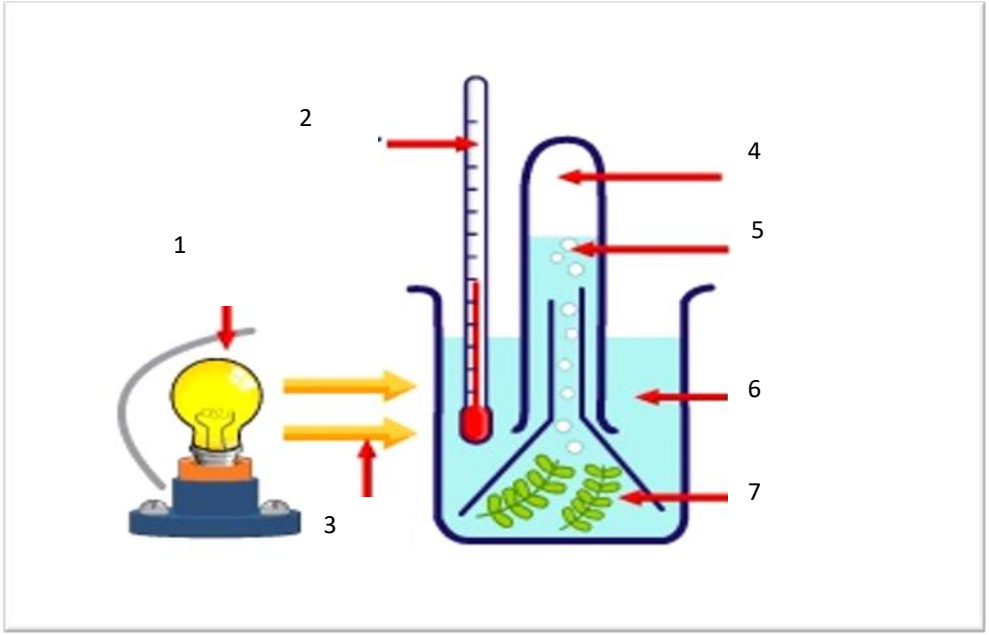
White blood cells		
1	**Phagocytosis**	engulfing and breaking down the pathogen
2	**Produces antibodies**	specific to the antigen
3	**Produces antitoxins**	to neutralise toxins



Science - B1 - Bioenergetics (Photosynthesis)

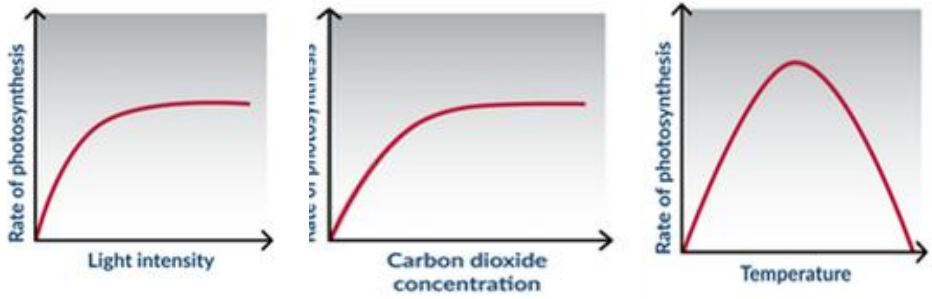
Photosynthesis
Endothermic chemical reaction that takes place in chloroplasts in leaves that produces glucose and oxygen from carbon dioxide and water
Carbon dioxide + water —> glucose + oxygen
$6CO_2 + 6H_2O \rightarrow C_6H_{12}O_6 + 6O_2$

Required practical	
Number	**Label**
1	Lamp (LED to control temperature)
2	Thermometer
3	Distance from light
4	Collected oxygen
5	Bubbles of oxygen (count number of bubbles produced per minute)
6	Water with sodium hydrogencarbonate
7	Pond weed



Uses of glucose from photosynthesis
Converted into starch for storage
Used to produce fats and oils for storage
Used to produce cellulose, which strengthens the cell wall
Used to produce amino acids for protein synthesis (to produce proteins, plants also use nitrate ions that are absorbed from the soil)
Used for respiration

Limiting factors:	
1	Concentration of carbon dioxide
2	Light intensity
3	Amount of chlorophyll
4	Temperature



Light intensity (HT only)	
Inverse square law	As distance from the light source increases, the light intensity decreases in a non-linear relationship.

Science - B1 - Bioenergetics (Respiration)

Respiration	
Term	**Definition**
Respiration	A chemical process in all cells that releases energy from glucose.
Aerobic respiration	Respiration that uses oxygen to release large amounts of energy from glucose, occurs in the mitochondria.
Anaerobic respiration	Respiration that does not use oxygen and releases less energy from glucose, occurs in the cytoplasm.
Oxygen debt (HT only)	The amount of extra oxygen the body needs after exercise to react with accumulated lactic acid and remove it from the cells.

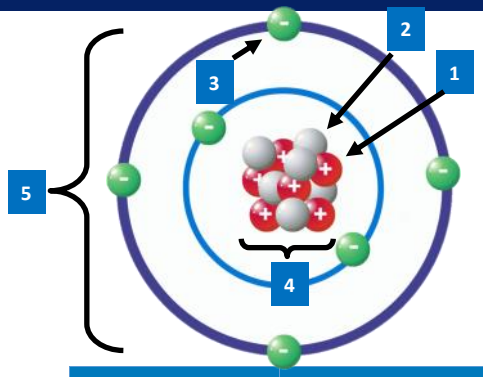
Respiration equations	
Aerobic respiration	Glucose + oxygen —> carbon dioxide + water $C_6H_{12}O_6 + 6O_2 \rightarrow 6CO_2 + 6H_2O$
Anaerobic respiration (muscles – animals)	Glucose —> lactic acid
Anaerobic respiration (plants and yeast)	Glucose —> Carbon dioxide + ethanol

Uses of anaerobic respiration	
Fermentation	Ethanol produced from anaerobic respiration in plants and yeast is used to make alcoholic drinks such as beer, wine, cider and spirits.
Baking	Carbon dioxide produced from anaerobic respiration in yeast is used to make bread rise.

Effect of exercise	
Effect	**Reason**
Increased heart rate	To deliver more oxygen and glucose to muscle cells and remove waste carbon dioxide.
Increased breathing rate	To get more oxygen into the blood quickly
Increased breath volume	Get more oxygen into blood per breath and remove waste carbon dioxide
Heart beats harder	More blood is pumped with every beat

Metabolism is the sum of all the reactions in a cell or body. Including:	
1	Conversion of glucose to starch, glycogen and cellulose
2	Formation of lipids from fatty acids and glycerol.
3	The use of glucose and nitrate ions to form amino acids which are turned into proteins
4	Respiration
5	Breakdown of excess proteins to form urea for excretion

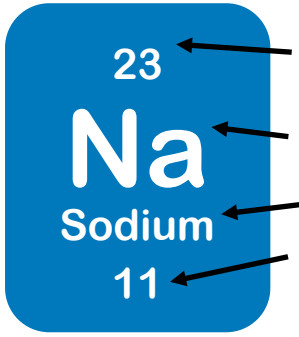
Science - C1 - Atomic structure and the Periodic table



	Name	Relative Mass	Relative Charge
1	Proton	1	+1
2	Neutron	1	0
3	Electron	very small	-1
4	Nucleus	A	+ Z
5	Atom	A	0

Term	Definition
Atom	A neutral particle consisting of protons, neutrons and electrons. Number of protons = number of electrons
Mass number, A	Total of number of protons and neutrons in the nucleus of an atom
Atomic number, Z	Number of protons in the nucleus of an atom; determines the identity of the element
Atomic radius	Distance from the centre of an atom's nucleus to the electrons (approx. 10^{-10}m or 0.1nm)
Isotopes	Atoms of the same element (i.e. same number of protons) with different number of neutrons
Nanometre	1x10^{-9}m = 0.001µm = 0.000 001mm = 0.000 000 001m
Nucleus	The positively charged centre of an atom made of protons and neutrons. Approximately 10 000 times smaller than the atom (approx.10^{-14}m)
Subatomic	Smaller than the size of an atom

$^{23}_{11}Na$



		Definition
a	**Relative atomic mass**	Average mass of the element's atoms, calculated from the mass and abundance of its isotopes
b	**Element symbol**	One or two-letter abbreviation for the element
c	**Element name**	The official name of a chemical element
d	**Atomic number**	Number of protons in an atom's nucleus

Term	Definition
Element	Substance that contains only one type of atom
Mixture	Two or more elements and/or compounds not chemically combined together
Compound	Contains two or more different elements chemically combined
Group	Columns on the periodic table, informs us of the number of electrons in the outer shell of the atom. Contain 'families' of elements with similar properties
Period	Rows on the periodic table, informs us of the number of electron shells in an atom
Reactants	The substances that take part in a chemical reaction
Products	The substances that are made in a chemical reaction
Electronic structure	Pattern of electrons in shells. Shells fill from the inside; 1st shell max 2, 2nd shell max 8, 3rd shell max 8, 4th shell max 2
Ion	An atom with an overall positive or negative charge due to the loss or gain of electrons

Method	For separating mixtures of...	Requirements	Example
Filtration	insoluble solids from liquids/solutions	Filter funnel, filter paper	Sand from water
Crystallisation	soluble solids from solvents	Heat energy for evaporation	Copper sulphate crystals from solution
Simple distillation	two liquids of different boiling points	Heat energy, condenser	Ethanol (alcohol) from water
Fractional distillation	many liquids of differing boiling points	Heat energy, condenser or fractionating column	Crude oil fractions
Chromatography	different coloured compounds	Solvent, chromatography paper	Pigments in ink/ dye

Scientist	Contribution
Rutherford	Disproved 'plum pudding' model. Replaced with 'Nuclear model' Atom mostly empty space, nucleus positive where almost all the mass is concentrated
Bohr	Modified the 'Nuclear' model: central nucleus with orbiting electrons at specific distances.
Chadwick	After the proton was discovered, provided experimental evidence for existence of neutrons.

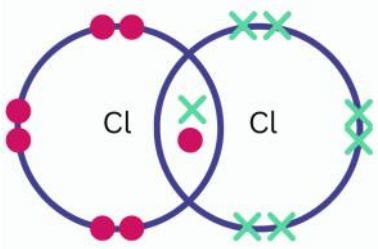
Science - C1 - Bonding, Structures and Properties of Matter

Key Terms	
Term	**Definition**
Ionic bond	Between a metal and non-metal. Involves the transfer of electrons.
Covalent bond	Between non-metals only. Involves the sharing of electrons.
Ion	charged particles formed through the loss or gain of electrons. Metals and hydrogen form positive ions. Non-metals form negative ions.
Metallic bond	Between metal ions. Neat rows of positive metal ions surrounded by a sea of delocalised electrons.
Alloy	Harder than a pure metal. Different sized atoms distort the layers meaning they cannot slide.
Simple covalent structures	Small molecules with low melting and boiling points as they have weak intermolecular forces, so it doesn't take much energy to overcome these forces.
Molten	Melted (in the liquid state).
Aqueous	Dissolved in water (aq).

State symbols	
Symbol	**Meaning**
(s)	Solid
(l)	liquid
(g)	Gas
(aq)	Aqueous (dissolved in water)

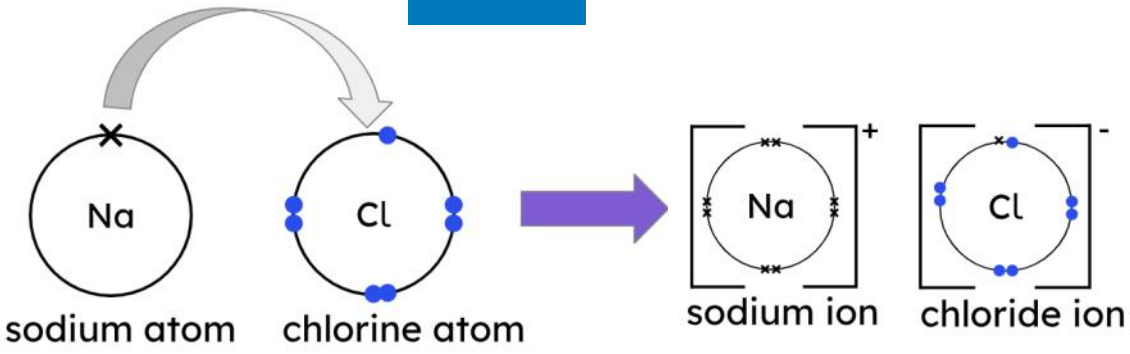
Giant structures	
Key term	**Facts**
Giant covalent structures	High melting and boiling point as has strong covalent bonds between many atoms which take a lot of energy to break e.g. Diamond, graphite and silicon dioxide
Diamond	Four covalent bonds from each carbon atom to neighbouring carbon atoms. Does not conduct electricity as no free electrons. Hard and high melting and boiling point
Graphite	3 bonds between each carbon atom Conducts electricity as has free electrons (delocalised electrons) Soft as layers can slide
Giant ionic lattice	High melting and boiling point as has strong electrostatic forces between many ions, so takes a lot of energy to overcome forces. Does not conduct when solid Conducts electricity when molten or aqueous as ions are free to move
Polymer	Made of many repeating units. Large molecules with strong covalent bonds linking monomers. Strong intermolecular forces so solid at room temperature
Graphene	Single layer of graphite. Useful in electronics and composites
Fullerenes	Molecules of carbon atoms with hollow shapes
Buckminsterfullerene	First fullerene to be discovered. Made of 60 carbons (C_{60}). Spherical shape
Carbon nanotubes	Hollow carbon tubes. very high strength to weight ratio

Covalent bond



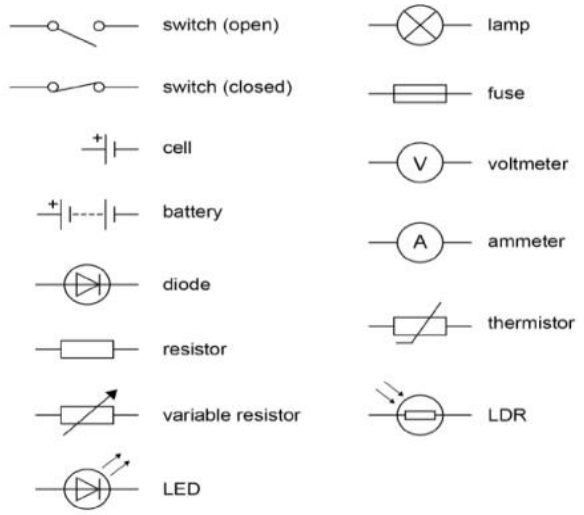
Diamond

Ionic bond

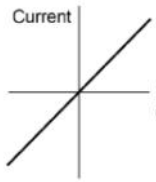


Science - P1 - Electricity

Circuit diagram symbols

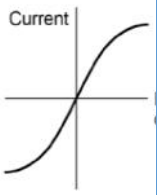


Resistors



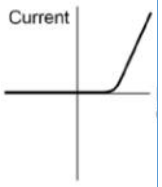
Fixed Resistor (Ohmic Conductor)

Current and potential difference are **directly proportional**. **Resistance is constant**.



Filament Lamp

Resistance of a filament lamp is **not constant**. As temperature increases, resistance increases.



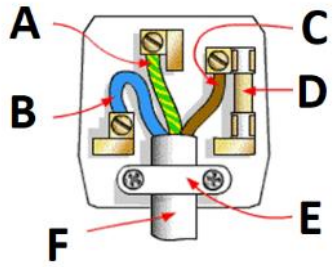
Diode/ LED

The **current** through a diode flows in **one direction only**. The diode has a **very high resistance in the reverse direction**.

V, I and R in Series and Parallel

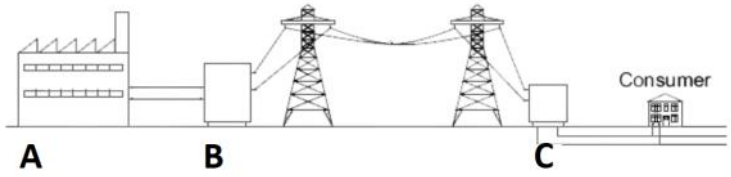
	Current	Potential Difference	Resistance
Series	The current is the same through each component	The total potential difference of the power supply is shared between the components	The **more resistors, the greater the resistance**. The total resistance of two components is the sum of the resistance of each component. $R_{total} = R_1 + R_2$
Parallel	Current through the whole circuit is the sum of the currents through the separate branches	The potential difference across each branch is the same	The **total resistance** of two resistors is **less than the resistance of the smallest individual resistor**

3 core cable



A	**Earth**	Yellow and green colour. Potential difference of 0V. Carries charge to Earth if live wire touches the metal casing of an appliance (faulty).
B	**Neutral**	Blue colour. Completes the circuit. Potential difference should be 0V.
C	**Live**	Brown colour. Current flows to the appliance. Potential difference between this and other wires should be 230V.
D	**Fuse**	A safety device consisting of a strip of wire that melts and breaks an electric circuit if the current exceeds a safe level.
E	**Cable grip**	F **Cable**

National grid



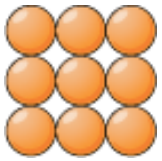
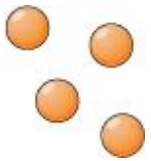
Definition:

A series of **cables** and **transformers** linking power stations to consumers

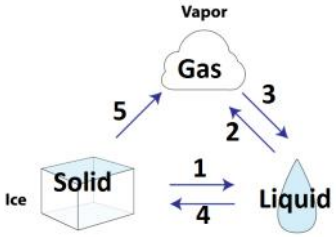
A	**Power station**	Non-renewable power stations burn fossil fuels to boil water, which turns a turbine and generator, transferring chemical energy to electrical.
B	**Step up transformer**	Increases the potential difference for transmission across power cables. This reduces the current and therefore less heat is lost from the cables. This makes the National Grid efficient.
C	**Step down transformer**	Reduces the potential difference from the cables to 230V for use by consumers.

Science - P1 - Particle Model

Particle model

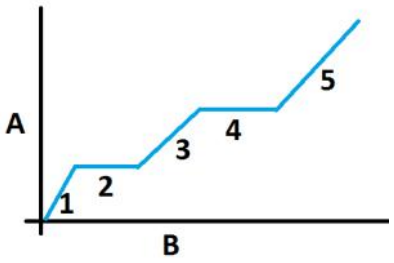
			
Organisation (Pattern)	Regular pattern	No pattern, random arrangement	No pattern, random arrangement
Spacing (Touching?)	All touching, close together	Close together but may still be touching	Wide spaces between, far apart
Motion (Movement of molecules)	Vibrate in a fixed position	Move and slide around each other	Move quickly in all directions

1. Melt
2. Boil
3. Condense
4. Freeze
5. Sublimate



1. Solid
2. Melting
3. Liquid
4.Boiling
5. Gas

A. Temp.
B. Heat absorbed

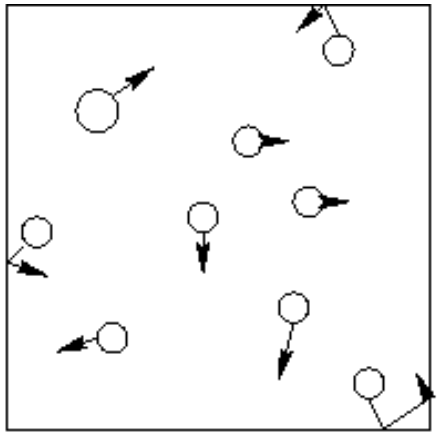


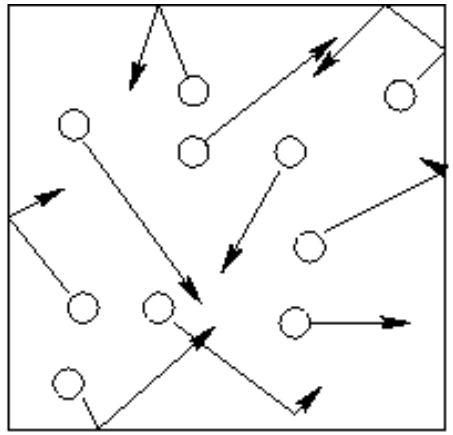
Key Terms

Term	Definition
Internal energy	The total kinetic energy and potential energy of all the particles (atoms and molecules) that make up a system
Changes of state	Physical changes, the material recovers its original properties if the change is reversed
specific heat capacity	The amount of energy required to raise the temperature of one kilogram of the substance by one degree Celsius
specific latent heat	The amount of energy required to change the state of one kilogram of the substance with no change in temperature
Specific latent heat of fusion	Change of state between solid and liquid
Specific latent heat of vaporisation	Change of state between liquid and gas / vapour
Pressure	Pressure is caused by the force exerted by particles in a gas when they collide with the walls of a container
Density	The mass per unit volume
Mass	The amount of matter

Pressure in gases

Particles in a gas are constantly moving – so they store **kinetic energy**. They collide with the walls of their container, and exert a force when they do. The total force exerted on a certain area of the wall is the **gas pressure**.

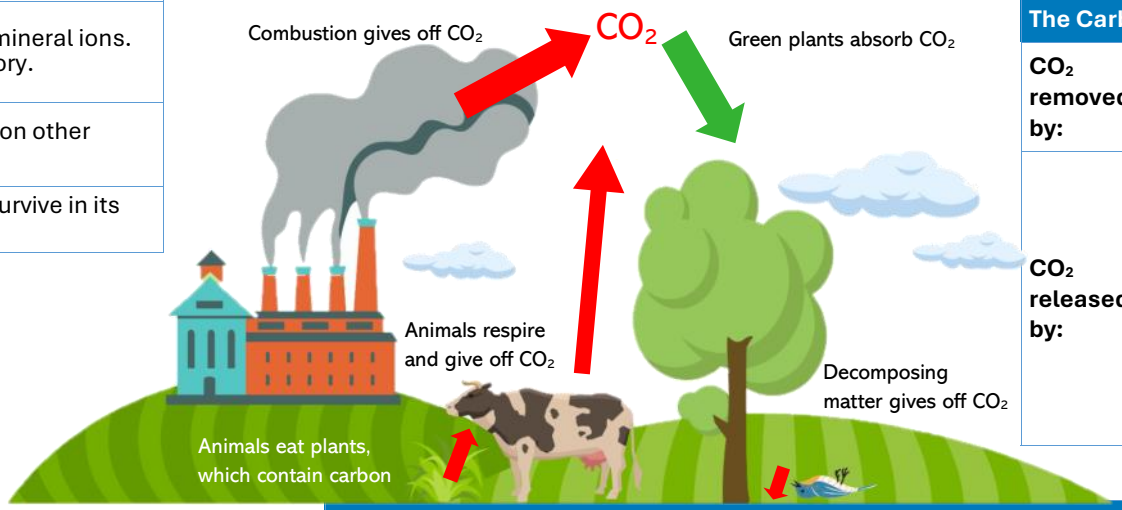




Science - B2 - Ecology

Ecosystems	
Term	**Definition**
Habitat	The area in which an organism lives.
Individual	Single organism
Population	Collection of organisms of the same species in a habitat
Community	Collection of populations in a habitat
Ecosystem	The interaction of a community of living organisms (biotic) with the non-living (abiotic) parts of the environment.
Competition	Plants compete for light, space, water and mineral ions. Animals compete for food, mates and territory.
Interdependence	Within a community each species depends on other species for food, shelter, pollination etc.
Adaptations	A feature an organism has that allows it to survive in its ecosystem.

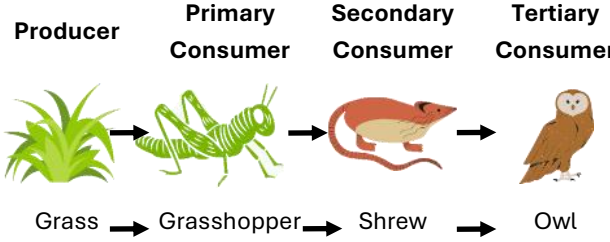
Biodiversity	
Biodiversity	The variety of all the different species of organisms in an ecosystem.
Factors that reduce biodiversity	Destruction of peat bogs, destroying habitats, releasing carbon dioxide into atmosphere (global warming), pollution, deforestation
Maintaining biodiversity	Breeding programmes, protection and regeneration of habitats, keeping hedgerows in farmers' fields, reduction of deforestation and carbon dioxide emissions, recycling rather than using landfill



The Carbon Cycle	
CO_2 removed by:	Photosynthesis (plants)
CO_2 released by:	Respiration (plants and animals), combustion (of fossil fuels), Decay and decomposition, destruction of peat bogs

Biotic and Abiotic Factors	
Biotic factors	Availability of food, new predators, new pathogens, other species outcompeting each other.
Abiotic factors	Light intensity, temperature, moisture levels, oxygen levels, wind intensity, carbon dioxide levels, soil pH.

Food chain



Pollution	
Water	From sewage, fertiliser or toxic chemicals
Air	From smoke and acidic rain
Land	Landfill and from toxic chemicals

Sampling techniques

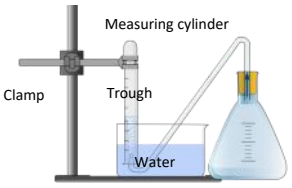
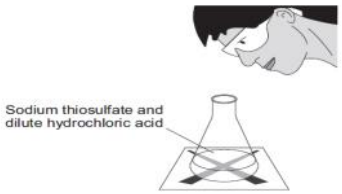
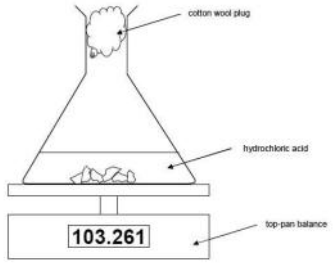
	Random sampling	Transect line
Use	• Used to count total number of organisms in an area	• Used to see pattern of organisms e.g. through a forest/across a river
Method	• Randomly place quadrat (to avoid bias) and count number of organisms. • Repeat 10 times and calculate a mean. • Work out area of field and area of quadrat. • Calculate total organisms by multiplying mean by number of	• Place a transect line using a 30m tape measure • Place the quadrat at 0m and count organisms. Record distance and organism number in table • Move quadrat to 5m and repeat, moving 5m each time • Plot a graph to see pattern of results

Science - C2 - Rate of Reaction

Key concepts

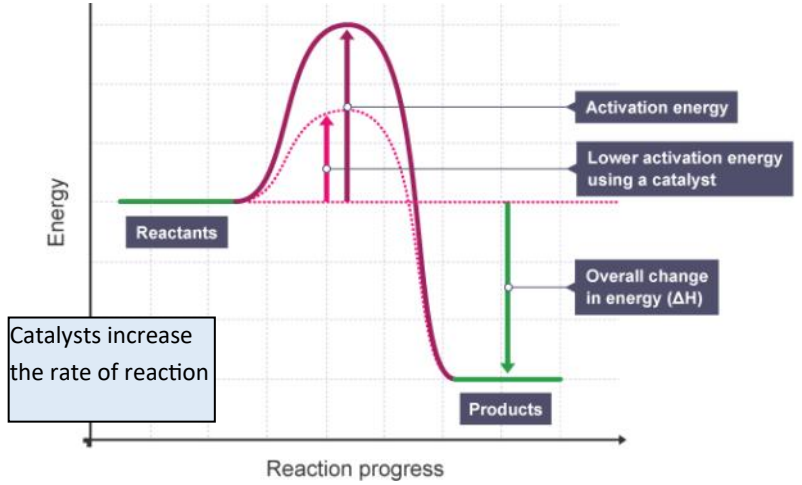
Key term	Definition
Rate of reaction	mass/volume of product formed or used up per unit time
The rate of reaction depends on (collision theory)	1. frequency of collisions between reacting particles 2. energy transferred during successful collisions 3. activation energy – the minimum energy that particles must have to successfully collide and form bonds
Mean rate of reaction	$\frac{\text{quantity of reactant used}}{\text{time taken}}$ OR $\frac{\text{quantity of product formed}}{\text{time taken}}$
Factors affecting rate of reaction	1) concentrations of reactants in solution 2) pressure of reacting gases 3) surface area of solid reactants 4) temperature of the reactants 5) presence of catalysts

Methods

Measure the volume of gas produced. e.g. magnesium metal & dilute hydrochloric acid produces hydrogen gas	**Timing the formation of product**, e.g. sodium thiosulfate & hydrochloric acid makes a cloudy yellow precipitate, which is turbid (opaque).	**Measure the change in mass** e.g. calcium carbonate in dilute acid will release CO_2 into air
		

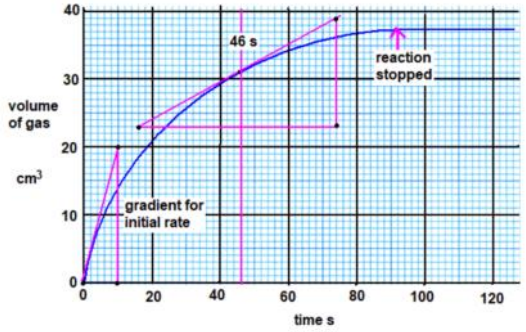
The effect of changing conditions on equilibrium—Le Chatelier's principle (HT only)

CONCENTRATION	TEMPERATURE	PRESSURE
If the concentration of a reactant is increased, more products will be formed until equilibrium is reached again.	If the temperature is increased the relative amount of products at equilibrium increases for an endothermic reaction and decreases for an exothermic reaction.	An increase in pressure causes the equilibrium position to shift towards the side of the equation with fewer molecules.



Reversible reactions
(products of the reaction can react to produce the original reactants)

$A + B \rightleftharpoons C + D$	Equilibrium is reached when the forward and reverse reactions occur at exactly the same rate in a closed system
If it is exothermic in one direction, it will be endothermic in the other direction	The direction of reversible reactions can be changed by changing the concentration

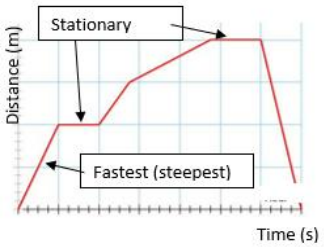


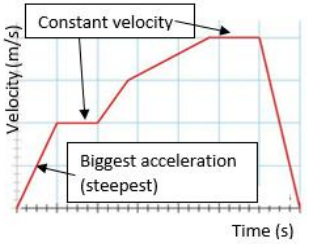
Calculate the rate of a reaction by dividing the change in quantity of reactant (or product) by time taken.
steeper gradient means faster rate of reaction.

Science - P2 - Forces and motion

Forces and motion	
Key term	**Definition**
Scalar	A scalar quantity has a magnitude (size) only
Vector	A vector quantity has both a magnitude (size) and a direction
Contact force	A force caused by objects physically touching each other
Non-contact force	Forces where the objects are separated, they do not need to be physically touching.
Resultant force	Result of forces interacting (sum or difference)
Weight	The force acting on an object due to gravity (caused by Earth's gravitational field)
Centre of mass	Point at which an object's weight is considered to act
Newton-metre	Device to measure weight in Newtons (N)
Free fall	Acceleration when free falling = 9.8 $ms/^2$
Terminal velocity	When air resistance and weight are equal, no resultant force acts so object reaches a constant velocity

Momentum	
Conservation of momentum	Momentum before and after a collision/ explosion is the same





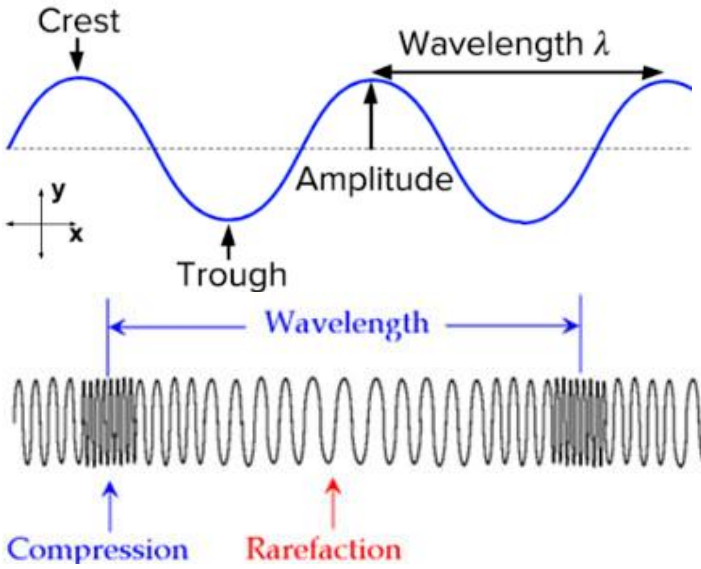
Newton's Laws of Motion	
First Law	If no resultant force is acting on an object, it will continue to move at same speed in same direction
HT ONLY – Inertia	The tendency of objects to continue in their state of rest or of uniform motion
Second law	Force = mass x acceleration
HT ONLY – Inertial mass	A measure of how difficult it is to change the velocity of an object ($interial\ mass = \frac{Force}{acceleration}$)
Third law	For a pair of interacting objects, the forces they exert on each other are equal but opposite
~	Approximately equal symbol

Speed	
Walking	1.5 m/s
Running	3 m/s
Cycling	6 m/s
Speed of sound	330 m/s
Speed of light	300,000,000 m/s (300 million)
Factors affecting speed	Age, terrain, fitness and distance travelled

Stopping distance	
Stopping distance	The sum of the distance travelled during the reaction time plus the distance travelled under the braking force (Thinking distance + braking distance)
Reaction time	Typically 0.2 to 0.9s
Factors that affect thinking distance	Speed, tiredness, drugs and alcohol. Distractions may also affect a driver's ability to react
Factors that affect braking distance	Speed, adverse road and weather conditions (wet/ icy) and poor condition of the vehicle (worn brakes/tyres)
Dangers	Rapid deceleration can lead to overheating of brakes and/or loss of vehicle control

Science - P2 - Waves

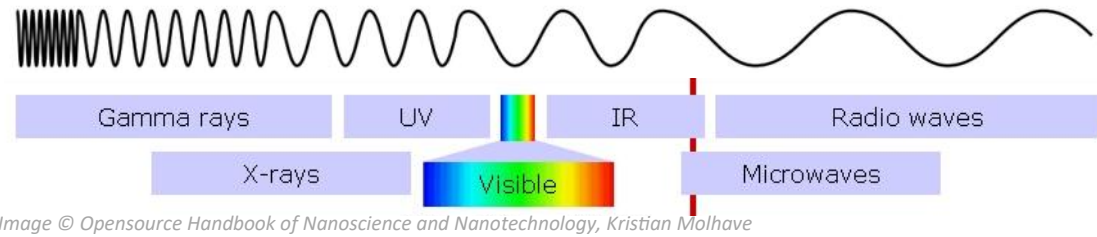
Describing waves	
Term	**Definition**
Amplitude	distance from rest position to maximum displacement
Wavelength	The distance from a point to the same point on the next wave
Frequency	The number of waves passing a point per second. Unit: Hz
Period	The time for one wave to pass a given point
Oscillation	Movement back and forth
Wave	Transfer of energy with no transfer of matter
Transverse wave	Oscillations perpendicular to direction of energy transfer (e.g. EM wave, ripples on water)
Longitudinal wave	Oscillations are parallel to direction of energy transfer (e.g. sound). Show areas of compression and rarefaction (spread out)



Transverse

Longitudinal

Electromagnetic (EM) spectrum



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Short wavelength
High frequency
High energy

Long wavelength
Low frequency
Low energy

Properties of EM Waves and Sound Waves		
Property	**EM Wave**	**Sound Wave**
Speed	300,000,000 m/s	330 m/s in air
Medium it can travel through	Can travel through anything, even a vacuum (space)	Solids, liquids, gases
Type of wave	Transverse	Longitudinal
Risk	UV, x-rays and gamma rays are ionising (damage cells)	Hearing damage

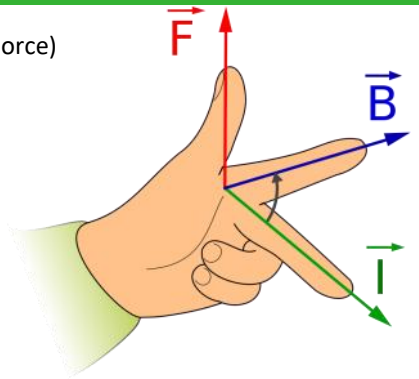
Uses and Risks of EM Radiation		
EM Wave	**Use**	**Why it's suitable (HT ONLY)**
Radio Waves	Television and radio	Reflected by ionosphere so can broadcast over long distances
Microwaves	Satellite communications, cooking food	Able to pass through the atmosphere to satellites. Has a heating effect
Infrared	Electrical heaters, cooking food, infrared cameras	Has a heating effect. Emitted by objects so can be detected
Visible Light	Fibre optic communications	Able to pass along a cable by total internal reflection
Ultraviolet	Energy efficient lamps, sun tanning	Increases amount of melanin (brown pigment) in skin
X-Rays	Medical imaging and treatments	Absorbed by bone but transmitted through soft tissue
Gamma Rays	Medical imaging and treatments	Able to pass out of body and be detected by gamma cameras. Can kill cancerous cells

Science - P2 - Magnets and Electromagnets

Magnets	
Term	**Definition**
Magnetic field	Where magnetic force is experienced. Always goes N to S
Poles	The ends of a magnet, where magnetic force is strongest
Repulsion	Force between two like poles (N to N or S to S)
Attraction	Force between two unlike poles (N to S)
Permanent magnet	Produces its own magnetic field
Induced magnet	A material that becomes magnetic when placed in a magnetic field. Temporary magnet. Cannot be repelled
Magnetic materials	Iron (steel), cobalt and nickel

Electromagnets	
Term	**Definition**
Electromagnet	Created by a flow of charge through a wire (current flows + to -)
Solenoid	Coil of wire. Magnetic field similar to bar magnet
Increasing strength	3 C's: Coil the wire, or add more coils Increase the current Add an iron core

HT ONLY - Fleming's Left Hand Rule



Motion (Force)

(Thu**M**b)

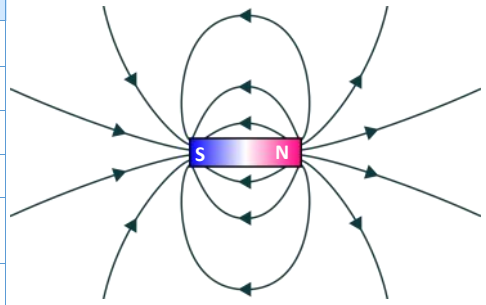
Magnetic **F**ield

(**F**irst finger)

Current

(se**C**ond finger)

Field around bar magnet



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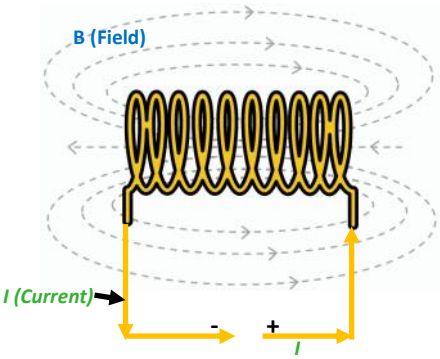
Field around solenoid



HT ONLY - Motors	
Term	**Definition**
Motor effect	When a wire carrying a current is placed in a magnetic field, the field interact causing a force to be exerted
Electric motor	A coil of wire carrying a current in a magnetic field rotating
Fleming's left hand rule	Used to determine direction of rotation of motor

Im-

Spanish - Relaciones familiales y tiempo libre

	1 ¿Quién hay en tu familia?	Who is in your family?
	Hay	There is / there are
	En mi familia hay	In my family there is
	Mi hermana	My sister
	Mi tia	My aunt
	Mi madre	My mum
	Mi abuela	My grandma
	Mi prima	My cousin (fem)
	Mi hermano	My brother
	Mi padre	My dad
	Mi tio	My uncle
	Mi abuelo	My grandad
	Mi primo	My cousin (m)
	Mi gemelo/a	My twin
	Mis padres	My parents

2 ¿Con quién te llevas bien?	Who do you get on with?
Me llevo bien con	I get on with
Discuto con	I argue with
Me divierto con	I have fun with
Confio en	I trust

	3 ¿Te gustaría casarte?	Would you like to marry?
	(No) Me gustaría	I would (not) like
	Me gustaría casarme	I would like to marry
	Enamorarme	To fall in love with some-one

Reasons	
Porque	Because
Ya que	Because
Dado que	Because
Puesto que	Because

Sería	It would be
Sería increíble	It would be incredible
Sería romántico	It would be romantic
Sería demasiado caro	It would be too expensive

	4 ¿Puedes describir a tu hermano / a?	Can you describe your brother or sister?
	Es	He / she is
	Alto /a	Tall
	Bajo /a	Small
	Medio /a	Average height
	Delgado /a	Slim
	Gordito/a	Chubby
	Tiene	He / she has
	El pelo corto	Short hair
	El pelo largo	Long hair
	El pelo liso	Straight hair
	El pelo rizado	Curly hair
	El pelo rubio	Blond hair
	El pelo marrón	Brown hair
	Los ojos azules	Blue eyes

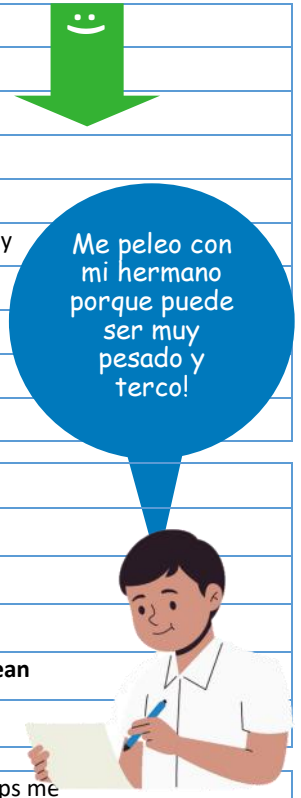
What to include in your writing	
C	Connectives
O	Opinions
R	Reasons
N	Negatives
E	Extra detail
T	Time expressions
T	Tenses
I	Interesting adjectives
	Masculine
	Feminine
	Plural

5 ¿Cómo es?	What is he / she like?
Es	He / she is
Puede ser	He / she can be
Nunca es	He / she is never
No es	He / she is not

	Extra detail	Intensifer
	Muy	Very
	Bastante	Quite
	Un poco	A bit

	Inteligente	Clever
	Gracioso /a	Funny
	Deportista	Sporty
	Generoso /a	Generous
	Bonito	Beautiful
	De confianza	Trustworthy
	Tímido /a	Shy
	Listo /a	Smart
	Amable	Kind
	Simpático /a	Nice

	Terco /a	Stubborn
	Egoísta	**Selfish**
	Pesado /a	**Annoying**
	Perezoso /a	**Lazy**
	Cruel	**Nasty / mean**
	Molesto/a	Annoying



	Me ayuda	He / she helps me
	Me apoya	**He / she supports me**
	Me hace reír	He / she makes me laugh

Spanish - Relaciones familiales y tiempo libre

PRESENT - I form - ends o

6 ¿Qué haces el fin de semana?	What do you do at the weekend?
Bailo	I dance
Hago natación / nado	I swim
Hago artes marciales	I do martial arts
Toco la guitarra	I play guitar
Toco el piano	I play piano
Juego al golf / tenis / futbol	I play golf / tennis / football
Paso el rato con mis amigos	I hang out with my friends
Veo las películas	I watch films
Leo	I read
Voy*al gimnasio	I go to the gym

7 ¿Qué haces en tu móvil?	What do you do on your phone / computer?
Comparto las fotos	I share photos
Voy en las redes sociales	I go on social media sites
Leo los blogs	I read blogs
Comento en las fotos	I comment on photos
Pongo al día mis gustos	I update my likes
Veo los clips en Youtube	I watch clips on youtube
Hago los quiz	I do quizzes
Juego a los videojuegos	I play games
Descargo música	I download music
Hago mis deberes	I do my homework

PRESENT - Opinion + Infinitive

	8 ¿Qué te gusta hacer?	What do you like to do?
	Time expression	
	Normalmente	Normally
	Cuando hace buen tiempo	When it is nice
	De vez en cuando	From time to time

Opinions	
Me gusta	**I like**
Me encanta	**I love**
Prefiero	**I prefer**
No me gusta	**I don't like**
Odio	**I hate**

Ir de compras	**To go shopping**
Ir a la playa	**To go to the beach**
Hacer deporte	**To do sport**
Salir con mis amigos	**To go out with my friends**
Ir al cine	**To go to the cinema**
Hacer ciclismo	**To do cycling**

Very important!

If you use an opinion verb like 'me gusta' the next verb needs to be an **INFINITIVE**. It will end in **–ar –er –ir.** Eg me gusta jugar

If you don't use an opinion verb, you need to remove the **–ar –er –ir** and replace with **o**

Irregulars are *voy = I go, hago = I do, juego = I play

PAST - Imperfect

Time expression	
Cuando era pequeño /a	When I was little

9 ¿Qué solias hacer cuando eras pequeño?	What did you do when you were younger?
Solía	I used to
No solía	I didn't use to
Me gustaba	I used to like
Solía leer	I used to read
Solía escuchar historias	I used to listen to stories
Solía cantar	I used to sing
Solía estudiar	I used to study
Era	It was

FUTURE

Time expression	
Este fin de semana	This weekend

10 ¿Qué vas a hacer?	What are you going to do?
Voy a	I'm going to
Este fin de semana voy a salir	This weekend I am going to go out
Voy a quedar con mis amigos	I am going to meet friends in town
Voy a comer al restaurante	I am going to eat at a restaurant
Será divertido	It will be fun

Spanish - Fiestas y tradiciones

1 ¿Qué se come en España?	What do they eat in Spain?
Para la cena	For dinner
Para el almuerzo	For lunch
Para el desayuon	For breakfast
Se come	One eats
(El) pescado	Fish
(El) pan	Bread
(El) queso	cheese
(La) carne	Meat
(Los) cereales con leche	Cereal with milk
(Las) verduras	Vegetables
(El) pan tostado	Toasted bread

Grammar note

After se come you **DON'T** need an article (el / la / los / las) Eg Para desayunar se come tostadas

2 ¿Cuál es tu fiesta favorita?	What is your favourite festival?
Mi fiesta española favorita es	My favourite Spanish festival is
Carnaval	Carnival
La Tomatina	The Tomatina—Tomato throwing in Buñol
La Fallas de Valencia	The Fallas of Valencia—burning big structures
El Día de los Muertos	The Day of the Dead—In South America
La Noche Vieja	New Years Eve—Eating grapes at midnight

Opinions	
3 ¿Qué te gusta comer?	What do you like to eat?
Me gusta comer	I like to eat
Prefiero comer	I prefer to eat
Odio comer	I hate to eat

Chocolate	Chocolate
Paella	Spanish rice dish
Tapas	Spanish small dishes
Tortilla española	Spanish omlette
Jámon	Ham
Chorizo	Chorizo (spicy sausage)
Queso	Chesse
Bocadillos	Sandwiches
Helado	Ice cream

Reasons	
Porque	Because
Ya que	Because
Es rico	It is delicious
Es agrio	It is sour
Es asqueroso	It is disgusting

4 ¿Cómo es la Navidad en España?	What is Christmas like in Spain
La gente canta	People sing
La gente baila	People dance
La gente come una gran comida especial	People eat a big special meal
La gente bebe	People drink
La gente regala regalos	People give gifts
La familia se junta	The family gets together

PAST - Preterite

5 ¿Fuiste a cuál fiesta ?	Which festival did you go to?
El año pasado fui a la fiesta de…	Last year I went to the….festival
Fui con mi familia	I went there with my family
Nos quedamos en un hotel / un apartamento	We stayed in a hotel / flat
Vimos los desfiles	We saw parades
Bailamos y cantamos	We danced and sang
Bebimos y comimos	We drank and ate

6 ¿Cuál es tu opinión de las fiestas?	What is your opinion of festivals?
En mi opinion las fiestas son	In my opinion festivals are
Un aspecto importante de la historia	An important part of the history
Tradicionales y interesantes	Traditional and interesting
Importantes	Important
Concurridas	Packed
Demasiado caras	Too expensive

Spanish - Fiestas y tradiciones

7 ¿Dónde vives?	Where do you live?
Vivo en	I live in
Está	It is located
Está en el sur de Inglaterra	It is in the South of England
Está en la costa	It is on the coast
Un pueblo	A town
Un pueblo	A village
Un barrio	Neighbourhood
Un rio	A river
Un lago	A lake
Una capital	A capital
Una ciudad	A city
Una región	A region
Una montaña	A mountain

9 ¿Qué hay en tu ciudad ?	What is there?
Hay	There is / there are
No hay (no article)	There is not
Un polideportivo	A leisure centre
Un parque	A park
Un centro commercial	A shopping centre
Un cine	A cinema
Un mercado	A market
Un restaurante	A restaurant
Un puerto	A port
Una piscina	A swimming pool
Una playa	A beach
Una tienda	A shop
Una catedral	A cathedral

11 ¿Cómo es?	What is it like?
Es	It is
Rural	Rural (in the countryside)
Tranquilo /a	Quiet /peaceful
Seguro /a	Safe
Peligroso /a	Dangerous
Hermoso /a	Pretty
Bonito /a	Pretty
Feo /a	Ugly
Turístico /a	Touristy
Industrial	Industrial
Está	It is (with clean and dirty)
Limpio /a	Clean
Sucio /a	Dirty

PAST - Imperfect

Antes	Before
En el pasado	In the past

Estaba	It was
Era	It was

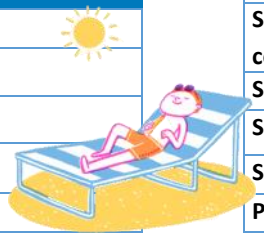
Más	More
Menos	less

Sucio	Dirty
Limpio	Clean
Animado	Lively
Peligroso	Dangerous

Que	Than
Ahora	Now

Present

8 ¿Qué tiempo hace?	What is the weather like ?
Si hace buen tiempo	If it's nice
Si hace calor	If it's hot
Si llueve	If it rains
Cuando hace frío	When it's cold
Cuando hace sol	When it's sunny



10 ¿Qué se puede hacer?	What can you do ?
Se puede	You can
Se puede ir a la playa	You can go to the beach
Se puede hacer deportes acúaticos	You can do watersports
Se puede ir al cine	You can go to the cinema
Se puede ir de compras	You can go shopping
Se puede montar en bici	You can go cycling
Puedes hacer senderismo	You can go hiking

Future

12 ¿Dónde te gustaría	Where would you like to visit?
Quiero visitar	I want to visit
Me gustaría visitar	I would like to visit
Me encantaría visitar	I would love to visit
No me gustaría visitar	I wouldn't like to visit
Sería	It would be
Increíble	Incredible

Spanish - El medioambiente

1 ¿Qué problemas medioambientales hay?	What environmental problems are there?
(No) hay	There is/are (no)
Mucha/o/s	A lot of
Demasiada/o/s	Too much
Mucho tráfico	A lot of traffic
Demasiado plástico	Too much plastic
Mucho ruido	Lots of noise
Demasiado embalaje	Too much packaging
Muchos contenedores	Lots of bins
Muchos espacios verdes	Lots of green spaces
Demasiada polución	Too much pollution
Mucha basura	Lots of rubbish
Es un desastre	It is a disaster
¡Qué pena!	What a shame
Desafortunadamente	Unfortunately

2 ¿Qué problemas había antes ?	What problems were there before?
Antes	Before
En el pasado	In the past
Había	There was
Estaba	It was
Era	It was

Más	More
Menos	Less

Tráfico	Traffic
Contamina-ción	Pollution
Edificios	Buildings
Gente	People

Sucio	Dirty
Limpio	Clean

Animado	Lively
Peligroso	Dangerous

Que	Than
Ahora	Now

3 ¿Qué se puede hacer?	What can we do/be done?
Se puede	We can
Se podría	We could
Se debería	We shoud
Se debe / hay que	We must
Usar el transporte público	Use public transport
Reciclar la basura	Recycle rubbish
Reusar las bolsas	Reuse bags
Reducir el consumo de agua	Reduce the consumption of water
Ahorrar	Save (as in save up, not to rescue or salvage)
Apagar la luz	Turn the light off

What to include in your writing	
C	Connectives
O	Opinions
R	Reasons
N	Negatives
E	Extra detail
T	Time expressions
T	Tenses
I	Interesting adjectives
	Masculine
	Feminine
	Plural

4 ¿Cuándo?	When?
Después del insti	After school
Normalmente	Normally
Nunca	Never
Siempre	Always
A veces	Sometimes
Los lunes	On Mondays
Los martes	On Tuesdays
Los miércoles	On Wednesdays
Los jueves	On Thursdays
Los viernes	On Fridays
Los sábados	On Saturdays
Los domingos	On Sundays

Spanish - El medioambiente

5 ¿Qué derechos tienen los niños?	What rights do children have?
Tienen	They have
Tienen derecho a	They have the right to
Jugar	Play
La libertad (de expresión)	Freedom (of speech)
La educación	Education
La securidad	To security
Vivir en paz	To live in peace
Ser feliz	To be happy
Lo que es	Which is
Lo que es justo	Which is fair
Lo que es normal	Which is normal

6 ¿Cómo podemos ayudar a otros?	How can we help others?
Se puede	We can…
Comprar productos de comecio justo	Buy fair trade products
Recaudar fondos	Fundraise
Donar dinero y ropa	Donate money /clothes
Trabajar de voluntaria/o	Work as volunteer
Visitar las tiendas benéficas	Visit charity shops
Ir a las tiendas de segunda mano	To go to second hand shops
Asociación de ayuda (al refugiado, a los animales, a la infancia…)	Charity helping (refugees, animals, children…)
Porque vale la pena	Because it's worth it

	7 ¿Que tienen que hacer en ciertos paises?	What do they have to do in some countries?
	Hay que + infinitive	You have to
	Tienen que	They have to
	Trabajar	Work
	Ayudar en casa	Help at home
	Ganar dinero	Earn money
	Estudiar	Study
	Llevar	Wear
	Me parece que	I think that
	Es injusto / no es justo	It's unjust / it is not fair
	Es inaceptable	It is inacceptable

Opinions		
	En mi opinión	In my opinion
	Desde mi punto de vista	From my point of view
	Es muy fácil	It's very easy
	Es muy importante	It's very important
	No es complicado	It's not complicated

What to include in your writing	
C	Connectives
O	Opinions
R	Reasons
N	Negatives
E	Extra detail
T	Time expressions
T	Tenses
I	Interesting adjectives
	Masculine
	Feminine
	Plural

Notes

Prefix	General meaning	Examples
Agri	Land	Agriculture
Audi	To hear	Audible, auditorium
Bi	Two	Bicycle, bilateral
Bio	Life	Biology, biodiversity
Broncho	Relating to breathing	Bronchitis
Cent	Hundred	Century, centipede
Chrono	Time	Chronology, chronicle
Co/con/com/col	With, together	Congregation, communication
Contra/contro, counter	Against/opposite	Controversial, contradiction, counterbalance
Demo	People/nation	Democracy
Di	Two	Diverge
Eco	Home	Ecosystem, ecology
Em, en, endo	In	Empower, encourage, endothermic
Homo	Same	Homophone, homogenous, homosexual
Hydro	Water	Hydroelectricity, hydrotherapy
Cardio	Heart	Cardiology, cardiac, cardiovascular
Chroma	Colour	Chromatography, chromosome
Dec	Ten	December, decade, decimal
Demi, hemi, semi	Half	Demigod, hemisphere, semicircle
Omni	All/every	Omnipresent, Omnipotent, Omniscient
Phone/phono	Sound	Phonological, Homophone
Photo	Light	Photograph, Photosynthesis
Sept/hept	Seven	Heptagon, September
Hex	Six	Hexagon, Hexapod
Dict	Talk	Dictation, contradiction
Nate	Birth	National, native
Spir	To breathe	Respiration, transpiration
Terra	Earth	Terrestrial, Mediterranean
Therm	Heat	Thermometer, geothermal

Command words	Word types	Connectives
Describe	Verb	Firstly
Analyse	Adverb	Secondly
Explain	Noun	Finally
Identify	Proper noun	Similarly
Evaluate	Adjective	However
Discuss		Whereas
Justify		On the other hand
Define		But
To what extent		For
Infer		So
Calculate		No
Suggest		Yet
State		Also