



Glenmoor & Winton Academies

High Achievement – High Standards

Part of United Learning

Knowledge Organiser

Year 8 - 2024/25

Student Name: _____



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

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Art - Expressionism - Portraits

Key Word	Definition
Portrait	A piece of artwork depicting only the face, head and shoulders.
Proportion	The relationship between height and width to create a harmonious or balanced image.
Observational Drawing	Drawing what you see in front of you. Looking and drawing as accurately as possible.
Distortion	Distortion art is a term that refers to any change made by an artist to the size, shape, position, or visual character of a form in order to express a feeling, or enhance visual impact.
Mark Making	The different lines, dots, patterns and textures we create in artwork.
Cross-Hatching	A drawing technique to create tone or shading by using parallel lines. The lines closer together will appear darker, and lines with bigger spaces will appear lighter.

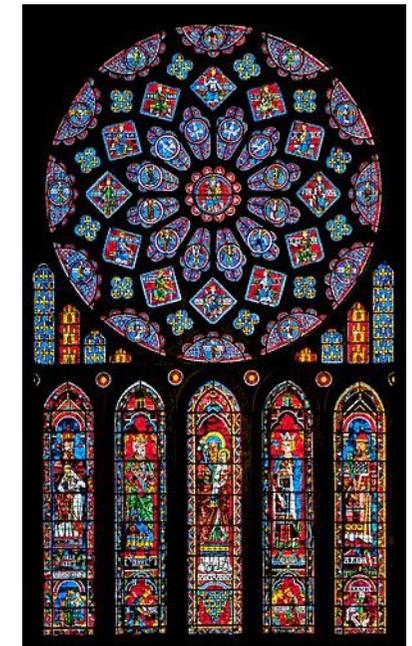
Printing	
Print	A process involving the transfer of text or designs to paper.
Relief Printmaking	A form of printmaking which the printed image is raised from the surface. Creating a surface like a stamp also known as "block printing".
Poly Block	A thin Polystyrene sheet, used as a printing block.
Brayer/Printing Roller	A small rolling tool used to rollout ink and apply pressure to the printing block.
Proof Print	A test print. Used to check if the print plate is ready to print multiples.

Artist/Movement	Definition	
Expressionism	When making portraits, Expressionist artists sought to communicate meaning or emotional experience more than to create a faithful likeness of themselves or their sitters. Primarily working in Germany and Austria during the 1910s and 1920s, and still reeling from the carnage of World War I, they were interested in capturing their subjects' psychological states. They used formal methods such as distortion, non-naturalistic colours, and unusual settings to help to achieve this.	
Käthe Kollwitz (1867—1945)	German artist who worked with painting, printmaking and sculpture. Her portraits captures the effects of poverty, hunger and war on the working class.	
Erich Heckel (1883-1970)	German painter and printmaker, and a founding member of the group Die Brücke ("The Bridge") which existed 1905-1913.	
Ernst Ludwig Kirchner	German expressionist painter and printmaker and one of the founders of the artists group Die Brücke or "The Bridge", a key group leading to the foundation of Expressionism in 20th-century art.	

Art - Gothic Architecture - Gargoyles

Key Word	Definition
Gothic	A decorative style of design found in Europe. Characterized by pointed arches, large windows and gargoyles.
Architecture	The art and technique of designing buildings and structures.
Gargoyle	In architecture, a gargoyle is a carved grotesque beast with a spout designed to remove water from the roof of a building.
Cathedral	A church ran by a Bishop—they usually have gothic architecture.
Stained Glass	Usually found in windows, colourful glass is used to decorate grand spaces with lots of light.
Character Design	The creation of a new character considering their visual appearance, personality and living environment.
Collage	A piece of artwork made by sticking various materials onto a background.
Mixed Media	Using more than one material in a piece of artwork.
Chalk	A soft, white material made from crushed and compressed shells.
Charcoal	A compressed stick made from lightweight black carbon residue.
Clay	A soft, loose and earthy material usually found where water once was. It is malleable when wet and hard and strong when dry.
Sculpture	A 3D artistic form that has been created with materials. It is designed to be seen 'in the round' from all angles.
Stipple	The process of dotting or tapping a medium to create a softer appearance.
Process	How something is made or the series of steps to create something.
Mood / Atmosphere	The sensation, emotion or feeling that is created as a result of visual choices.

Artist	Artwork	Summary
Ian Murphy (1963—present)		Ian Murphy is a contemporary British Fine Artist. He found success when he was welcomed into the British Young Contemporary artists in 1985. His style includes powerful, tonal drawings and atmospheric, mixed media oil paintings of architectural places.
Tim Burton (1958—present)		Tim Burton is an American director, producer, writer, animator, and illustrator who is known for using gothic aesthetics in his work.



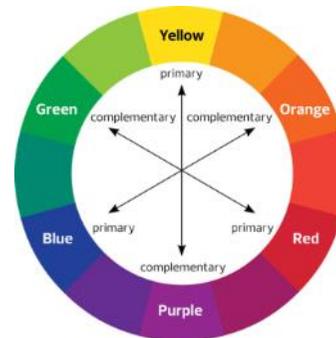
Art - Abstract Art

Key Word	Definition
Abstract Art	Art that does not represent things in the real world. It may have non-conventional colours, shapes or ideas to represent an object or idea.
Shape	A space enclosed by a line.
Geometric Shapes	Shapes that are man-made and regular. E.g. Square, circle, rectangle
Organic Shapes	Shapes that are inspired by nature. They may be curved or associate with things from the natural world. E.g. Leaves, flowers and animals
Composition	The arrangement and placement of visual elements in artwork.
3-Dimensional Art	Artwork that is not flat. It has more than one side, and you can see all the way around.
2-Dimensional Art	Artwork that is flat. It might be completed on a flat surface.
Sculpture	A 3D form of art that is usually free-standing. It can be viewed from different angles.
Relief Sculpture	A sculpture that protrudes from a flat (2D) surface using 3D elements.
Pattern	A pattern is a design in which lines, shapes, forms or colours are repeated. The part that is repeated is called a motif. Patterns can be regular or irregular.

Artist	Definition
Frank Stella (1936 - 2024) <i>Images © Frank Stella</i>	A contemporary American artist from Massachusetts, painter, sculptor and print maker known for his bright, vibrant artwork. He moved to New York City and was influenced by the work of Jackson Pollock and Jasper Johns. His mother was a landscape artist. In the 1960s, he created 2D colourful abstract prints. In the 1980s he used 3D shapes and sculptural forms combining traditional materials (paint) with industrial materials (metal/ fibreglass).
Zio Ziegler (1988—present)	An American artist who paints from his subconscious a personal interpretation of the world around him. His work is characterised by use of cultural patterns and distorted forms.



Painting	
Key Word	Definition
Blending	A seamless transition of one colour to another.
Scumbling	Applying a thin, translucent layer of paint over an existing layer to create a subtle, hazy effect.



Colour	
Key Word	Definition
Complementary Colours	Complementary colours are pairs of colours which, when placed next to each other, they create the strongest contrast for those two colours.

Citizenship - Health & Wellbeing

1. How to Deal with Stress	
Stress	Mental or emotional strain or tension resulting from difficult circumstances. A risk factor for good mental wellbeing.
Fight or flight response	The instinctive response to a threatening situation, to resist forcibly or to run away.
Ways to reduce stress:	
Organising time: This can make people feel more control of tasks they are facing and more able to handle pressure.	
Relaxation Techniques: Taking purposeful breaks and find out what helps with relaxation.	
Limiting caffeine intake: Caffeine may make stress worse in some people because it can raise levels of cortisol, a hormone related to stress.	
Protective strategies: Practise protective strategies.	

2. Relaxation as a protective strategy	
'Rest and digest'	The nervous system response when the body enters a state of rest and repair.
Screen time	The time spent each day in front of a screen, such as TV, working at a computer, using a mobile phone or playing video games.
Flow state	The state that occurs when someone is completely immersed in a task.
Ways to promote rest:	
<ul style="list-style-type: none"> • Do an activity that promotes 'flow' and occupies the mind. • Do some physical activity. • Write your worries down and throw the piece of paper away. • Create a calm environment. 	

3. Mental and Physical Health	
Physical Health	A person who has good physical health is likely to have bodily functions and processes working at their peak.
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 people greater flexibility and strength, prevents boredom and helps sleep.	
Sleeping well: When people sleep, their bodies and minds have the time to rest, recover and process all the things which have happened to them 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: <ul style="list-style-type: none"> • Social isolation/loneliness • Traumatic life event • Severe or long-term stress • Poor physical health
Protective Factors	Things that support mental health. Such as: <ul style="list-style-type: none"> • Strong support network • Healthy habits; diet, sleep, exercise • Mindfulness • High self-esteem



Puberty and Emotional Wellbeing	
Change	Impact
Hormonal Changes: Puberty causes changes in hormone levels such as estrogen and testosterone.	Irritability, moodiness, increased risk of depression/anxiety, decreased concentration.
Physical Changes: such as changes in body shape, body hair, facial acne.	Physical changes can reduce self-esteem and cause worry or anxiety.

Helpful Resources
<ul style="list-style-type: none"> • Mind UK: Mental health charity. Website: mind.org.uk Helpline: 0300 123 3393 • YoungMinds: Youth Mental Health Charity. Website: youngminds.org.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

Connected Careers
<ul style="list-style-type: none"> • Counselling/therapy • Psychologist • Medicine: Nurse/Doctor/Health Care assistant • Dietician • Personal Trainer • Dental care

Citizenship - Relationships

1 Relationships and Sexuality	
Sexuality	A person's identity in relation to the gender or genders to which they are typically attracted; sexual orientation.
Gender Identity	The way you yourself describe your gender.
LGBTQ+ Identities:	
Lesbian: A woman who has romantic and/or sexual attraction towards women.	
Gay: A man who has romantic and/or sexual attraction towards men.	
Bisexual: Someone who has romantic and/or sexual attraction to more than one gender.	
Transgender: Someone whose gender is not the same as or does not sit comfortably with the sex they were assigned at birth.	
Queer: A term used by people who want to reject specific labels of romantic/sexual orientation and/or gender identity.	

Connected Careers
<ul style="list-style-type: none"> Relationships counselling and therapy Safeguarding: police, social work, pastoral leader in schools Charity work

2 Boundaries	
Boundaries	'Rules' in a relationship that guide how people interact.
<p>Examples of healthy boundaries for a safe relationship:</p> <ul style="list-style-type: none"> 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 Stereotypes	
Stereotypes	A widely held but fixed and oversimplified image or idea of a particular type of person or thing. E.g. the woman as the carer.
Prejudice	Pre-judgement: Negative feelings and attitudes about a person or group.
Discrimination	Treating people differently based on prejudice. For example sexism, racism, transphobia, xenophobia.
Stereotype Threat	The fear or anxiety of confirming a negative stereotype about one's social group.
Cultural Appropriation	Using things from a different culture without showing respect for it.

Helpful Resources
<p>Mind UK: Mental health charity. Website: mind.org.uk Helpline: 0300 123 3393</p> <p>National domestic abuse hotline: 0808 2000 247</p> <p>Women's Aid: This charity supports young girls and women who face domestic abuse www.womensaid.org.uk</p> <p>Mankind: Service supporting young boys and men who face domestic abuse www.mankind.org.uk</p> <p>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</p> <p>Respect: support those exhibiting controlling behaviours 0808 802 4040</p> <p>Galop: Support for LGBT+ people experiencing abuse. Website: http://www.galop.org.uk Helpline: 0800 999 5428</p>

Citizenship - Democracy & Government

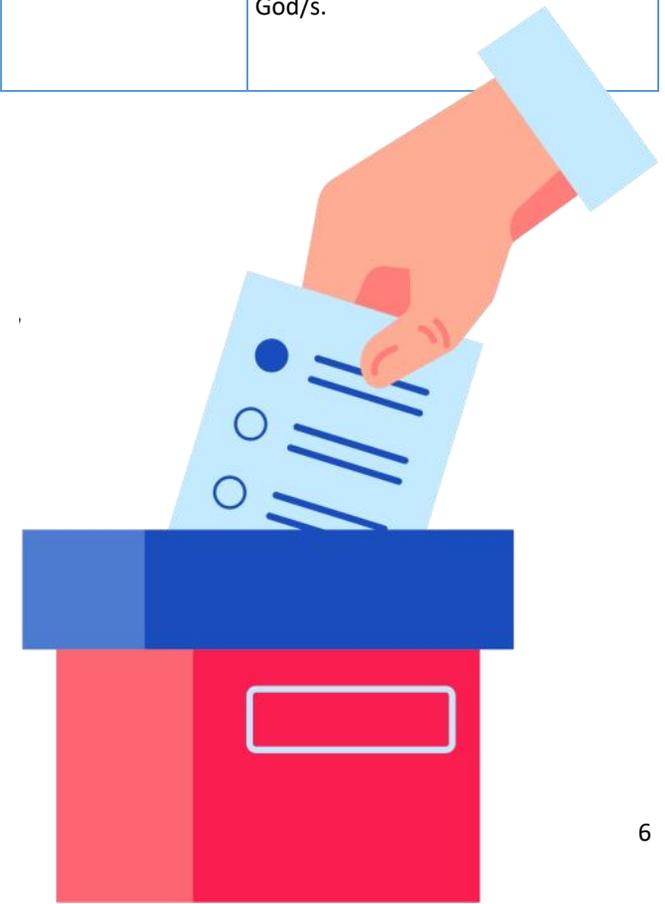
1. How does Democracy Work?	
Democracy	'Rule by the people'. A form of government where the people rule, either directly or through elected representatives, e.g. UK.
Direct Democracy	Citizens directly vote on specific matters such as deciding whether to go to war or not.
Representative Democracy	Citizens vote for representatives who create and enact laws on behalf of the people.
Democracy in the UK	Citizens vote for their Member of Parliament to represent them in Parliament. Laws must be passed by both the House of Commons and the House of Lords.
Why Vote?	<ul style="list-style-type: none"> Decide who makes the decisions on issues you care about. Get politicians working for young adults. Many movements have campaigned to give you the right to vote.

Helpful Resources
<ul style="list-style-type: none"> Parliament Website: www.parliament.uk See voting history of your MP: www.theyworkforyou.com

2. Democracy in the US	
Electoral College	A body of people representing the states of the US, who formally cast votes for the election of the president.
First past the post	The candidate who gets the most votes wins.
The Democrat Party	Left-leaning, more liberal political party in the US. They typically support higher taxes for higher incomes, support more government social support are more liberal on issues such as same-sex marriage and abortion.
The Republican Party	Right-leaning, more conservative political party in the US. They typically support reducing/equal income tax, private health and social care and are more conservative on issues such as same-sex marriage and abortion.

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

3. Other Forms of Government	
Constitutional Monarchy E.g. UK	Has a democratic government that limits the control of the Monarch (King or Queen).
Dictatorship E.g. North Korea/ Nazi Germany	A country ruled by a single leader who has full power over the country. This leader is not elected.
Theocracy E.g. Vatican/ Iran	A God (or Gods) is recognised as the supreme authority and any human leader governs in the name of this God/s.



Citizenship - Managing Money

1. Money Decisions		2. Money and Mental Health		3. Financial Risk	
Financial Security	Having enough money to fund your lifestyle, as well as work toward your financial goals.	Mental Health	The working order and wellness of your mind.	Risk	A situation involving exposure to danger.
Financial Freedom	Having enough income to pay one's living expenses for the rest of one's life without having to be employed or dependent on others.	Unmanageable debt	Debt that you are not able to pay back within the given period.	Insurance	A method of protection against financial loss: money is paid regularly to a company who then provides money back to you if the insured item is damaged/stolen.
Helpful Money Habits	<ul style="list-style-type: none"> • Plan and budget. • Live below your means. • Reduce your expenses. • Save as much as you can. • Be consistent. 	Money Mule Schemes	Someone agrees to allow their bank account to be used by someone else in return for money. The bank account is usually used in criminal activities, and money may be later stolen.	'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.	Financial Fraud	Money or other assets being taken through deception or criminal activity.
				Tips to prevent financial fraud online: <ul style="list-style-type: none"> • Use two factor authentication. • Don't use the same password everywhere. • Update software. • Be careful with information posted online. • Be careful with sharing personal information. 	

Connected Careers	Resources
<ul style="list-style-type: none"> • Retail and investment banking • Finance managers for businesses, schools etc. • Accountant • Insurance advisor • Cyber security • See and read more on unifrog.org 	<ul style="list-style-type: none"> • 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 - The Law and Justice System

1. Principles of the Law	
Justice	Fair treatment or behaviour.
Law	A system of rules that a country have agreed to follow.
Criminal Law	The part of the law that is concerned with the punishment of offenders.
Civil Law	The part of the Law that deals with issues of fairness and the private relations between members of a community.

2. The Justice System in Action	
Stephen Lawrence	A black British teenager who was murdered in an unprovoked racially motivated attack in 1993, aged 18 years old.
The Macpherson Report	An inquiry into the death of Stephen Lawrence which began in 1997. It was led by Sir William Macpherson.
Crown Prosecution Service (CPS)	The agency responsible for the conducting criminal prosecutions in England and Wales.
Institutional Racism	Also known as systemic racism. It is racism which is embedded within systems and structures of an organisation, such as the Justice System.
The Double Jeopardy Rule	A rule that meant that nobody could be charged for the same crime twice. This was abolished following the Macpherson report.

3. Evaluating the Justice System	
The Justice System	The collection of agencies involved in the detection, prevention and prosecution of crimes. The Three components of the Justice system are: <ul style="list-style-type: none"> • Law Enforcement (Police) • Courts System • Corrections System
Evaluate	Judging and weighing the strengths and weaknesses of something. I.e. asking how fair or effective is this?
Reoffending Rates	What percentage of people after prison/other consequence commit a crime again.
Fair	Treating people equally without favouritism or discrimination.

Connected Careers
<ul style="list-style-type: none"> • 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

Resources
<ul style="list-style-type: none"> • See Bills that are currently being debated in Parliament here: https://bills.parliament.uk/ • See more about Stephen Lawrence at https://stephenlawrenceday.org/stephens-story/ • 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 • Further resources about crime and an anonymous crime reporting online form at https://www.fearless.org/en

Citizenship - Media Literacy

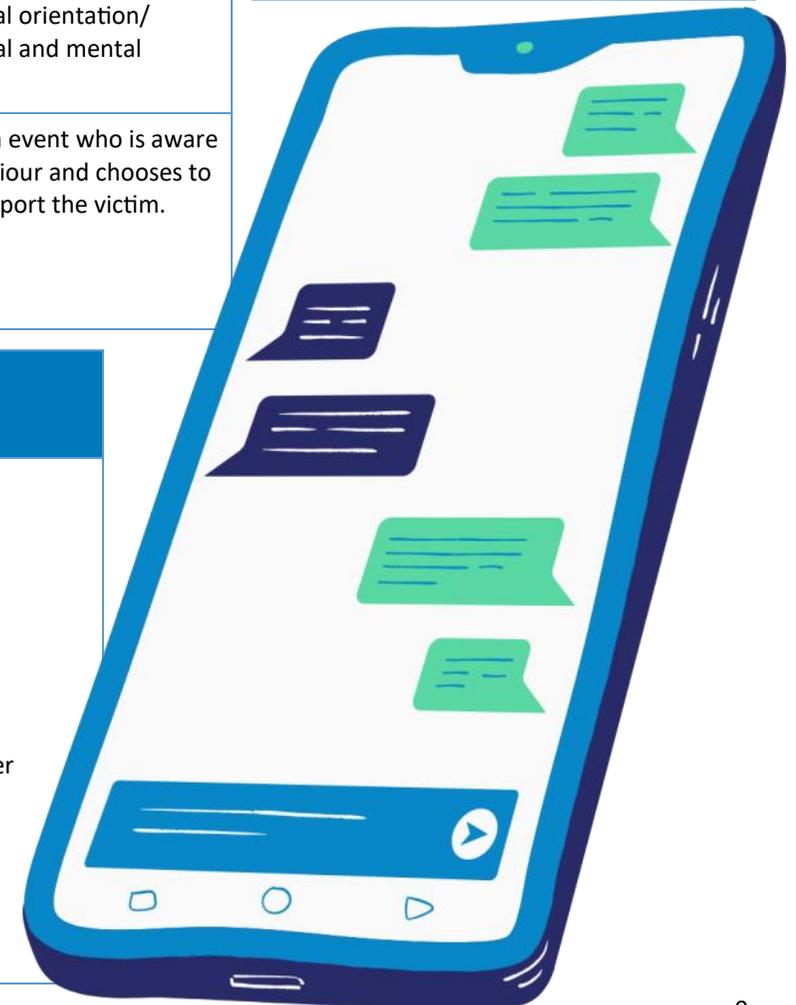
1. Media Bias	
Media Literacy	The ability to critically analyse and evaluate the messages conveyed through media and use digital media responsibly.
Disinformation	False information that is created and spread to deliberately deceive people or give them an inaccurate understanding of an issue.
Biased Writing	The author shows favouritism or prejudice towards a particular opinion instead of being fair and balanced.
Filter Bubbles	Users are suggested content based on previous internet habits and interactions, which can isolate them from other viewpoints or interests.
Echo Chambers	Social spaces in which ideas, opinions and beliefs are reinforced within a closed group.

2. Being an Internet Citizen	
Cyberbullying	The use of electronic device to bully or threaten someone.
Free Speech	The right to hold opinions, and to receive and share information and ideas freely.
Hate Speech	Speech that attacks a person or group based on protected characteristics i.e. race/religion/sex/sexual orientation/gender identity/physical and mental abilities.
Active Bystander	Someone present at an event who is aware of inappropriate behaviour and chooses to challenge it and/or support the victim.

3. Risks Online	
Cybercrime	Criminal activities carried out by means of computers or the internet.
Phishing	When someone pretends to be someone else online in order to try and get your personal information.

Resources
<ul style="list-style-type: none"> • 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 • Safer Internet Centre: https://www.saferinternet.org.uk • Thinkuknow: www.thinkuknow.co.uk • Fact checking website: www.fullfact.org

Connected Careers
<ul style="list-style-type: none"> • Journalism • Social media manager • Advertising • Software development • Web designer • Intelligence officer, cyber security officer • IT support technician • See and read more on unifrog.org



Catering - Nutritional Needs & Healthy Diets

The Eat Well Guide



The Eatwell Guide shows how much of what we eat overall should come from each food group to achieve a healthy, balanced diet. You do not need to achieve this balance with every meal, but try to get the balance right over a day or even a week.

- Eat at least 5 portions of a variety of fruit and vegetables a day.
- They should make up over a third of the food we eat each day.
- Base meals on potatoes, bread, rice, pasta or other starchy carbohydrates.
- Starchy foods are a good source of energy and the main source of a range of nutrients in our diet.
- Unsaturated fats are healthier fats and include vegetable, rapeseed, olive and sunflower oils.
- Remember all types of fat are high in energy and should be eaten sparingly.
- Milk, cheese, yoghurt and fromage frais are good sources of protein and some vitamins, and they're also an important source of calcium, which helps keep our bones strong.
- Protein, vitamins and minerals. Pulses, such as beans, peas and lentils, are good alternatives to meat because they're lower in fat and higher in fibre and protein, too.

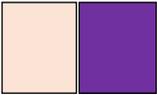
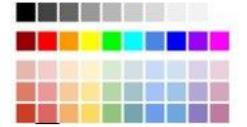
Nutritional Needs—Teenagers (Adolescents)

Changes in the body	Vitamins needed to support
Fast body growth and development from child to adult	<ul style="list-style-type: none"> • Protein, vitamins A, B, group, C, D, E carbohydrate (starch and fibre) • Fats—especially fatty acids
Skeleton reaches peak bone mass	<ul style="list-style-type: none"> • All minerals • Calcium and Vitamin D
Girls start to have periods	<ul style="list-style-type: none"> • Iron • Vitamin C
Lack of energy, poor concentration and tiredness	<ul style="list-style-type: none"> • Vitamin B group

Deficiency

This is when you do **not have enough of a particular nutrient in your diet.**

Iron	<ul style="list-style-type: none"> • Anaemic • Tired, look pale, may feel faint
Calcium or Vitamin D	<ul style="list-style-type: none"> • Rickets
Vitamin C	<ul style="list-style-type: none"> • Dry, chapped or scabbed lips
Protein	<ul style="list-style-type: none"> • Stunted growth • Brittle hair, poor skin

ICT- Impact of Technology	
Passwords	<ul style="list-style-type: none"> • Passwords provide the first line of defence against unauthorised access to your computer and personal information. • The stronger the password, the more protected your computer will be from hackers, cyber criminals and malicious software.
Emails	<ul style="list-style-type: none"> • Don't overcommunicate by email. • Make good use of subject lines. • Keep messages clear and brief. • Be polite. • Check your tone. • Proofread. <p>Signing off emails:</p> <ul style="list-style-type: none"> • Regards • Sincerely • Best wishes • Best • Many thanks • I appreciate your [help, input, feedback, etc.]
Communicating online	<ul style="list-style-type: none"> • Keep it friendly. • Be specific. • Try and stick to the facts. <p>Remember that your tone can sound different to the reader.</p> <ul style="list-style-type: none"> • Avoid sarcasm as it is difficult to interpret online. • Try to use the 'sandwich technique'. This means to say something positive, then something critical, and end with something positive. • Ask a question to start a discussion.
Presenting with PowerPoint	<div style="display: flex; justify-content: space-around; align-items: flex-start;"> <div style="border: 1px solid black; padding: 5px; width: 20%;"> <p style="text-align: center; background-color: #4a5568; color: white; padding: 2px;">Sans serif fonts</p> <div style="text-align: center; padding: 10px;"> <p>A serif font</p> <p>A sans serif font</p> </div> </div> <div style="border: 1px solid black; padding: 5px; width: 20%;"> <p style="text-align: center; background-color: #4a5568; color: white; padding: 2px;">Contrasting background and font colours</p> <div style="text-align: center; padding: 10px;">  </div> </div> <div style="border: 1px solid black; padding: 5px; width: 20%;"> <p style="text-align: center; background-color: #4a5568; color: white; padding: 2px;">Pastel shades for backgrounds</p> <div style="text-align: center; padding: 10px;">  </div> </div> </div> <p>Features to include:</p> <ul style="list-style-type: none"> • Text • Animations • Design • Images (cut, copy and paste) • Audio • Video
Antivirus	Software that aims to stop malicious software from attacking a device.
Backup	An up-to-date copy of your data that is stored on another computer or on the internet.
Cookie	A small web browser file that tracks your internet use, used for targeted advertising.
Firewall	Software that aims to stop a user on another computer from controlling a device.
Identity Theft	Stealing someone's online identify and personal information, to control their accounts, steal from their bank account etc.
Login	Entering a username and set of characters that prove your identity, so you can use an app or site.
Malware	Malicious (harmful) software that tries to control, lock, steal or damage your device or data.
Peer-to-Peer (P2P)	Also called 'torrenting'. A way to share media, like films, music and TV files, without paying for them. Shared files are often used to spread malicious software.
Permissions	App settings that control how an app can access elements of a smart device like the camera, microphone, photos, location, web tracking data etc.
Phishing / Pharming	Using emails, messages or fake sites to trick you into sharing your personal information.
Privacy	The settings that control what information other app or site users can see about you, and what data you allow to be stored.
Profile	Your internet identity. Never include information that could personally identify you.
Security Update	A software update that makes an app, software or device more secure from cyber-attacks.
Strong Password	A set of characters that proves your identity that is hard to guess and which includes upper and lower case, numbers and symbols.



Design Technology - Product Design

Lesson 1	
Specification	A number of straightforward statements, made clearly outlining the nature of the project to be designed and manufactured.
Manufacturing specification	Created after the design is finalised and should contain enough information to enable a third party to manufacture the design. Details of all the characteristics (shape, size, texture, colour, flavour etc) required in the final product.
Isometric drawing	Isometric drawing is a form of 3D drawing, which is set out using 30-degree angles.

Lesson 4	
Design specification	A design specification is a list of criteria a product needs to address. Using the brief as a starting point for research, a specification can be written when more facts are known. Information needs to be found through research to help produce early design solutions and improvements.
Free hand sketching	The quickest methods by which the shape of an object can be communicated to others without using any drawing instrument except a pen or a pencil.
Philippe Starck	Designs can be regarded as post modern, although they include elements of the Memphis design movement, pop art and surrealism, with a hint of humour, environmental awareness and invention.

Pillar Drill	Belt sander	Disc Sander
		
Used to drill holes into pieces of materials	Used to sand surfaces smooth and flat	Used to sand surfaces smooth and flat

Lesson 5 & 6	
Modelling foam	Made from extruded polystyrene, Model Foam is a versatile material with many applications and is popular in product design and prototype work by product designers and architects.
Prototype	An early sample, model, or release of a product built to test a concept or process. Used to evaluate a new design.
Product Analysis	Learning from and evaluating other designs to identify features that could be improved, eg changing materials, can help make a new design more successful or appealing to its target audience.

English - Grammar

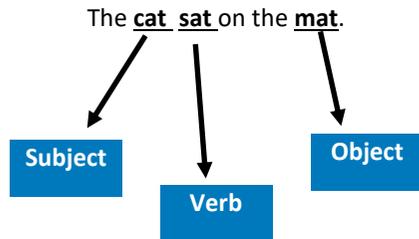
Sentence Construction		
1	Capital letters	Used at the beginning of sentences and for proper nouns.
2	Clause	A group of words containing a subject and a verb.
3	Main clause	A clause that does make sense on its own.
4	Subordinate clause	A clause that doesn't make sense on its own.
5	Embedded clause	A subordinate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

Punctuation		
17	Full stops	Used to mark the end of a sentence.
18	Commas	<ul style="list-style-type: none"> To separate main and subordinate clauses. To separate items in a list. After introductory clauses, phrases, discourse markers.
19	Apostrophes	Used to show possession and omission.
20	Semi colon	<ul style="list-style-type: none"> 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
21	Colon	<ul style="list-style-type: none"> Introduce a list, information, idea and explanation. Introduce quoted information.
22	Dash	<ul style="list-style-type: none"> To add extra information. To signal a change in thought or shift in tone.
23	Hyphen	<ul style="list-style-type: none"> Used to combine words into compound word. e.g. washing-up
24	Brackets	<ul style="list-style-type: none"> 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		
25	Abstract noun	An idea or concept. e.g. bravery, courage, love
26	Noun	A name, place or thing.
27	Proper noun	Names of people and places which require a capital letter. e.g. London, Anna
28	Noun appositive	A noun phrase that renames the noun right beside it. e.g. Winston Churchill, the Prime Minister during WWII, was...
29	Adjective	A word that describes the noun.
30	Superlative adjective	Used to show something is of the greatest degree. e.g. Smallest, tallest, quickest
31	Verb	Action or state (be, have).
32	Modal verb	A verb that shows necessity or possibility. e.g. will, should, could
33	Adverb	A word that describes a verb.
34	Indefinite Article	Words used with nouns that classify them (a/an).
35	Definite Article	Words used with nouns that classify them as already known (the).
36	Preposition	Providing information on time, place, and position.
37	Quantifier	A pronoun indicative of a quantity. e.g. few, many, some
38	Personal Pronoun	Words used in place of names of people or things. e.g. she, I, you
39	Collective Pronoun	Words that are used to show a group of people. e.g. our, us, we

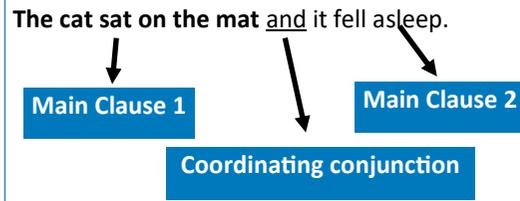
Simple Sentence

A sentence consisting of only 1 main clause. EXAMPLE:



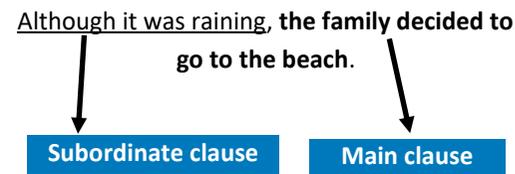
Compound sentence

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



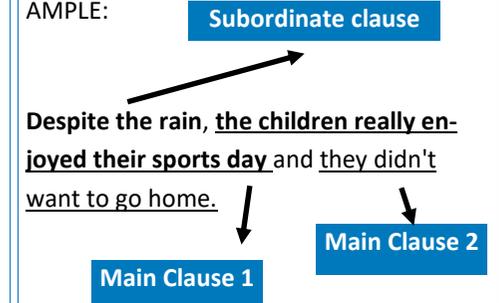
Complex sentence

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



Compound complex sentence

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



Commas

- To separate main and subordinate clauses.

EXAMPLE: As I wandered through the street, I noticed the tired looking shops.

- 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.

- 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.

Apostrophes

- 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.

- 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.

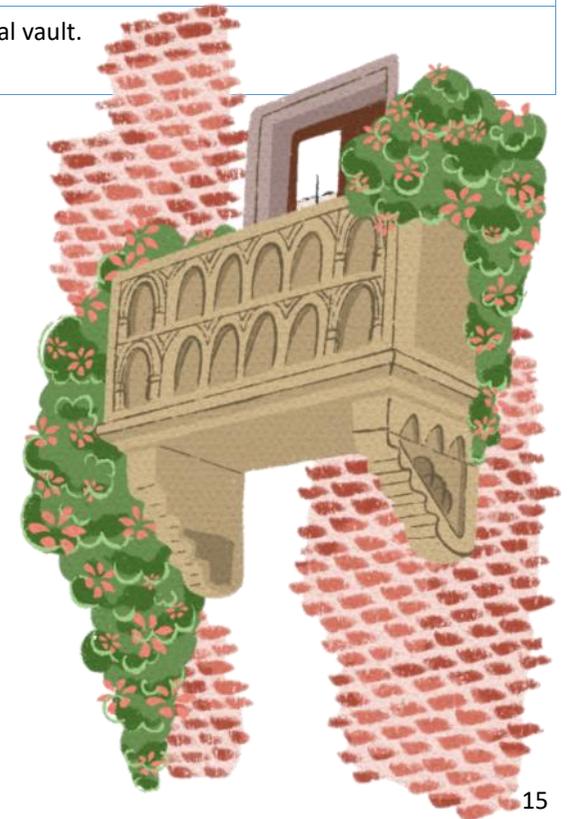
EXAMPLE 3: The writer's use of the noun "table" suggests...

English - Romeo & Juliet

Key Terminology		
	Key Term	Definition
1	The Prologue	Introductory scene in verse which establishes themes, plot or characters of the play.
2	The Chorus	Actor or group who recites the Prologue in Greek and Elizabethan drama and may comment on the action.
23	Tragedy	Drama based on human suffering – typically involving death.
5	Foreshadowing	Warning or hint of a future event.
6	Verse	Has a regular rhythm and a fixed rhyme scheme.
12	Blank Verse	Has a regular rhythm but no rhyme scheme.
10	Prose	Writing in continuous form without rhythm or rhyme.
11	Pun	Joke or wordplay relying on the similar sound but different meaning of words.
15	Hamartia	A character's flaw which leads to their downfall.
17	Soliloquy	A solo speech where a character reveals their thoughts aloud.
18	Dramatic Irony	Where the audience knows more than the characters in the play.

16 th Century Perspectives		
3	Marriage	In the 16 th Century, boys could marry at 14 and girls at 12. Wealthy fathers selected their child's partner as a business deal.
4	Religion	As Christians, Elizabethans believed in the sanctity (holiness) of marriage and the sinfulness of suicide.
14	Women	16 th century society was patriarchal. This is a society that is run by and for the benefit of men.
24	Fate	Elizabethans strongly believed that their lives were controlled by destiny and that God had already planned out their course.

Key Vocabulary		
	Key Term	Definition
6	Grudge	Strong feeling of resentment against someone.
7	Feud	Long-standing dispute maintained by two parties.
8	Honour	Personal honesty, fairness and integrity.
9	Innuendo	Hint or hidden reference to something rude, often sexual.
13	Rapier	Double-edged sword used for slashing and thrusting.
16	Confidante	Person with whom secrets are shared.
19	Conspire	Secretly plot together, usually illegally.
20	Defy	Openly resist or challenge authority.
21	Banish	Officially expel someone from or to a place.
22	Sepulchre	Tomb or burial vault.



English - In the Sea there are Crocodiles

Key Terminology		
1	Narrative	A written account of connect events; a story.
2	Episodic narrative	A genre of narrative that is divided into a fixed set of episodes.
3	Framed narrative	A story within a story.
4	Narrative interruption	An interruption of the chronological sequence of an event or earlier occurrence.
5	Biography	A written account of one person's life.
6	Fiction	Writing that is imagined.
7	Non-fiction	Writing that is factual.
8	Interview	A structured conversation where one asks questions and the other provides answers.
9	Analepsis	A flashback which shows past events.
10	Prolepsis	A flash-forward which shows future events.
11	Foreshadowing	A warning or hint at future events.
12	In media res	Where a piece of writing starts in the middle of the action without an exposition.
13	Setting	The time and place in which a story takes place.
14	Pace	The speed in which events unfold in the text.
15	Anaphora	The repetition of a word or phrase at the start of consecutive clauses.
16	Cyclical structure	When a text begins and ends in the same place or with the same idea.
17	Pivotal moment	An important moment that signifies a shift or change.
18	Motif	Repeated image or idea.
19	Tension	The feeling of suspense and anticipation.
20	Tone	The choice of writing style the writer employs to convey specific feelings, emotions or attitudes.
21	Imagery	Where the writer uses certain words to create a certain image in the reader's mind.
22	Perspective	A point of view or attitude towards something.

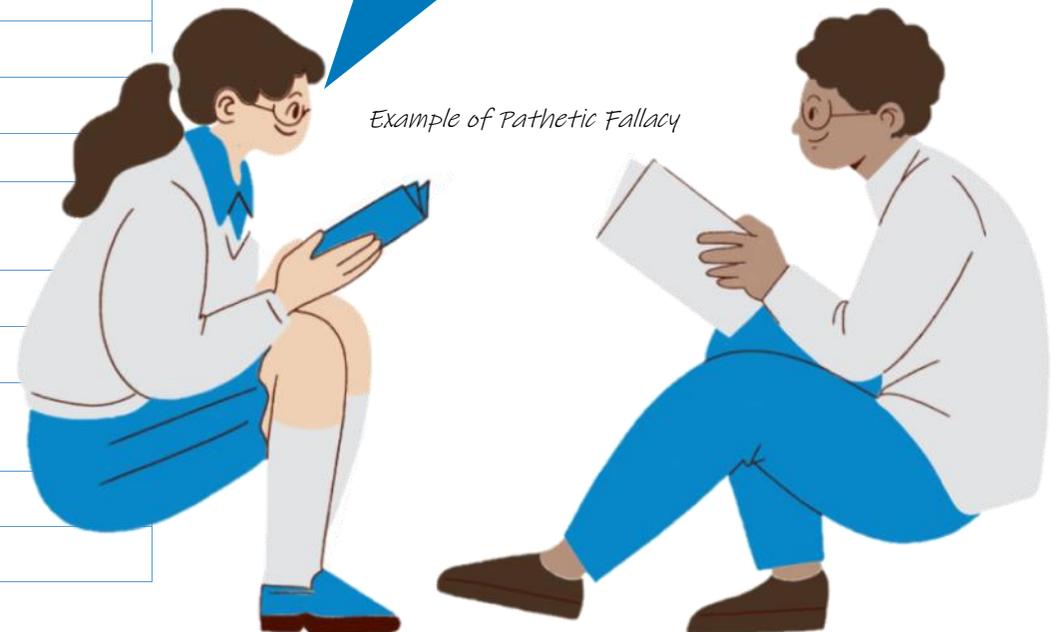
Key Vocabulary		
23	Conflict	A struggle between opposing forces.
24	Rite of passage	The transition from childhood to adulthood.
25	Emigrate	To leave one country and permanently settle in another.
26	Refugee	A person forced to leave their country in order to escape war or persecution.
27	Political refugee	A refugee from an oppressive government.
28	Asylum seeker	A person who leaves their country in order to find protection from persecution in another country.
29	Persecution	The cruel treatment of someone based on their race, religious, or political beliefs.
30	Propaganda	Misleading information used to promote a political view.
31	Militants	A person engaged in warfare or combat.
32	Fundamentalist	A person who holds very firm and extreme beliefs.
33	Extremism	The holding of very extreme political or religious views.
34	Taliban	A fundamentalist, Islamic group in Afghanistan.

English - Shape of Stories

Structure terminology		
	Key Term	Definition
1	In medias res	When a piece of writing starts in the middle of the action without an exposition.
2	Characterisation	The creation and construction of a fictional character.
3	Narrator	The person or thing telling the story.
4	Omniscient narrator	A narrator who writes in the third person and has access to the thoughts and feelings of the characters/the plot.
5	Setting	The time and place in which the story takes place in.
6	Pathetic fallacy	When the weather or nature reflects the feelings of the character and/or mood of the text.
7	Pacing and delaying	Purposefully speeding up or slowing down of the plot for effect.
8	Perspective	A point of view or attitude towards something.
9	Dual narrative	When a story is told from two viewpoints.
10	Chronological	When events are shown in time order.
11	Non-linear	When events are not shown in time order.
12	Motif	A repeated image or concept.
13	Symbolism	Using objects or characters to represent an important idea or concept.
14	Analepsis	A flashback which shows past events.
15	Prolepsis	A flash-forward which shows future events.
16	Cyclical structure	When a text begins and ends in the same place or with the same idea.
17	Tension	The feeling of suspense and anticipation.
18	Foreshadowing	A warning or hint at a future event.

“The day is hot, the Capels are abroad, And if we meet we shall not scape a brawl, for now, these hot days, is the mad blood stirring.”
-Romeo & Juliet, Act 3 Scene 1

Example of Pathetic Fallacy



English - Inspirational Figures

Key Terms		
1	Direct Address	Using 'you' to talk directly to the reader/audience.
2	Imperative	Command, order or instruction; getting someone to do something.
3	Collective Pronouns	Words that are used to show a group of people. e.g. our, us, we
4	Triple	Listing three things in a row.
5	Emotive Language	Language used to get an emotional response from the audience/reader.
6	Extended Metaphor	A metaphor that continues throughout a text or piece of writing.
7	Anaphora	Repetition of the same word/phrase at the beginning of successive clauses.
8	Hypophora	Asking a question and then providing an answer.
9	Anadiplosis	Repetition of the same word at the end of one clause and the start of the next clause.
10	Perspective	A point of view.

Forms of Writing		
11	Narrative	A written account of connect events; a story.
12	Biography	A written account of one person's life written by someone else.
13	Autobiography	A written account of one person's life in their own words.
14	Speech	An address delivered to a group of people.
15	Article	A piece of writing included with others in a newspaper, magazine or online.
16	Letter	A form of written communication sent to a particular person.

Key vocabulary		
17	Inspirational	A way to describe someone who makes you feel hopeful or encouraged.
18	Admirable	Deserving respect or approval.
19	Role Model	A person who is looked up to by others.
20	Courage	Mental or moral strength to keep going despite fear or difficulty.
21	Adversity	A difficult or unpleasant situation.
22	Advocate	A person who speaks or writes in support or defence of a person/ cause.



Ethics - Buddhism

Buddhism: history and context	
Origins	Started in Nepal, 623 BC. Founder: Siddhartha Gautama (The Buddha).
Nepal in 623 BC	Hindu at the time of Siddhartha.
Concepts of Buddhism	
Atheist	Buddhists do not believe in God.
Meditation	Buddhists develop spiritually by meditating.
No soul (anatta)	Humans do not have a permanent, unchanging spiritual self.
Impermanence (anicca)	All mental and physical states are constantly changing.
Re-birth	<ul style="list-style-type: none"> Life is cyclical. At death, a new birth is 'caused' by the person's karma.

Siddhartha Gautama											
Birth	Born a prince, living in lavish luxury. Predicted that if Siddhartha saw suffering, he would become a holy man, if not a king.										
Early life	Father shielded him from suffering– in palace.										
Four Sights:	<table border="1"> <thead> <tr> <th>Impact then</th> <th>Impact today</th> </tr> </thead> <tbody> <tr> <td>Death, old age, sickness, holy man.</td> <td>Showed Siddhartha reality of existence.</td> </tr> <tr> <td></td> <td>Reminds us of reality of our existence.</td> </tr> <tr> <td></td> <td>Siddhartha became holy man.</td> </tr> <tr> <td></td> <td>We too should search for meaning.</td> </tr> </tbody> </table>	Impact then	Impact today	Death, old age, sickness, holy man.	Showed Siddhartha reality of existence.		Reminds us of reality of our existence.		Siddhartha became holy man.		We too should search for meaning.
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	Reminds us of reality of our existence.										
	Siddhartha became holy man.										
	We too should search for meaning.										
Ascetic	Siddhartha tried to develop spiritually by giving up all bodily comfort.										
Enlightenment	Realised the middle way: enlightenment lies between the two extremes of bodily comfort and extreme hardship (living in moderation).										

Suffering (Dukkha)	
Dukkha	All life is suffering.
Nothing is permanent (anicca)	Being attached causes suffering as it will inevitably change.
Analogy	The analogy of a doctor finding a cure for the world's suffering shows how we overcome suffering.
Sickness	We all suffer (experience dukkha).
Diagnosis	Attachment to things that change causes suffering.
Cure	Stop craving and attachment.
Loving kindness	Buddhists cultivate kindness to all living beings. In wishing others well they forget their own desire.

Life after death	
Rebirth	At the moment of death, a new life is caused by the person's karma.
Wheel of life	<ul style="list-style-type: none"> Shows the cycle of samsara. Demon holding the wheel represents impermanence. Six realms into which a person can be reborn. Moon symbolises that everyone can attain enlightenment.
Nirvana	The goal of Buddhism. Release from Samsara and therefore Dukkha.

Enlightenment and meditation	
Buddha's enlightenment	
Middle way	Realised the path to enlightenment lies in the middle way "if you tighten the string..." Buddha sat under a Bodhi tree and meditated until he attained enlightenment.
Enlightenment today	
Dharma	Follow and live the Buddha's teachings.
Meditation	A Buddhist practice focusing on calming the mind and breathing that helps them attain enlightenment.

Living as a Buddhist	
Precept	A rule that guides how Buddhists should live.
Five precepts	<ul style="list-style-type: none"> Not killing or causing harm to other creatures. Not taking things not given. Avoiding sexual misconduct. Avoiding false speech (lying). Avoiding things that cloud the mind (drink and drugs).

Samsara	Enlightenment	Nirvana	Meditation	Karma	Caste system	Buddha
The cycle of life, death and rebirth.	Realisation or understanding.	Release from Samsara and escape from Dukkha.	Thinking about something deeply, reflecting.	The law of cause and effect. Every action has an equal reaction	A division of society based on differences in wealth, race, and occupation	A title meaning enlightened one, given to Siddhartha Gautama.



Ethics - Islam

History of Islam	
Pre-Islamic Arabia	<ul style="list-style-type: none"> A polytheistic society made up of many tribes (corrupt, divided, nomadic). Worshipped different gods at the Kaaba and charged people to worship.
Hajar	<ul style="list-style-type: none"> Ibrahim's wife and mother of Ismail. Ran between the hills of Safa and Marwa 7 times looking for water (zam zam).
Night of Power	The night Angel Jibril first revealed the Qur'an's message to Muhammad.
Hijrah	Means 'migration' (of Muslims from Mecca to Medina). Muhammed was made to do this as he was being persecuted.
Conquest of Mecca	Muhammad peacefully reclaimed Mecca with an army of 10,000 using torches— uniting the ummah (Muslim community).

The Qur'an and Allah	
Qur'an	<ul style="list-style-type: none"> The Islamic holy book, written in Arabic. Revealed to Muhammad over 23 years. Reveals the nature of Allah and is a guide to living. Means 'to recite'.
99 Names	Ways to describe Allah, rather than using images e.g. Most Merciful, Most Wise
Tawhid	The oneness of Allah.
Shirk	The sin of worshiping something other than Allah. Mosques decorated in geometric patterns and Arabic writing.
Transcendent	Allah is beyond the physical world.
Immanent	God is always close to humans. <i>'Closer than your jugular vein.'</i>

The Afterlife	
Barzakh	Cold sleep entered upon death.
End of the World Signs	<ul style="list-style-type: none"> E.g. appearance of Mahdi, second coming of Isa (Jesus), corruption and chaos.
Day of Judgment	<ul style="list-style-type: none"> Israfil will blow trumpet twice. Angels Raqib and Atid present your book of deeds to Allah to be weighed.
As-Sirat	<ul style="list-style-type: none"> Bridge over Jahannam into Jannah. <i>"thin as a hair and sharp as a sword"</i> Physical test of faith.
Jannah	<ul style="list-style-type: none"> Paradise ('garden') with 7 stages. Contains "rivers of milk and honey".
Jahannam	<ul style="list-style-type: none"> Place of torture ('depths') with 7 stages. People will wear "garments of fire".

Final Sermon	
Mount Arafat	The place outside of Mecca where Muhammad delivered his final sermon.
Key messages	<ul style="list-style-type: none"> Respect all human dignity. <i>'All mankind is from Adam and Eve'</i> Honour the rights of women. Fight poverty. <i>'Beware of Satan for the safety of your religion'</i> Obey the Qur'an fully ("and if you follow this, you will never go astray") Promote equality of races "No Arab has superiority over a non Arab"
Hadith	<ul style="list-style-type: none"> A collection of <i>Prophet Muhammad's sayings (between 4000 and 32,000)</i> <i>The Final Sermon is a collection of various Hadiths</i> <i>Do not have the same authority as the Qur'an as they are not direct revelation from Allah.</i>

Sunni & Shia	
Death of Muhammad	Muhammad died in 632AD causing disagreement over his successor.
Shia	<ul style="list-style-type: none"> Around 10% of global Muslims. Believe Ali, Muhammad's cousin should have been the leader after Muhammad's death. Became the fourth caliph (leader). Believe in Adalat (Allah is always fair and does not plan our lives in advance).
Sunni	<ul style="list-style-type: none"> Around 90% of global Muslims. Believe Abu Bakr was the rightful leader after Muhammad's death. Became the first caliph (leader). Believe in Al-Qadr (Allah has planned everything).

The Caliphates	
Caliphate	A group ruled by a caliph/ 'leader'.
Rashidun 632 - 661	<ul style="list-style-type: none"> The first caliphate after Prophet Muhammad's death. Four 'leaders' (starting with Abu Bakr) known as the 'rightly guided ones'.
Umayyad 661-750	<ul style="list-style-type: none"> Expanded Islam into more of North Africa and Spain. Established Arabic as the official language. 'Dome of the Rock' built under this rule. Battle of Karbala—Husayn and his male family members were killed.
Abbasid	<ul style="list-style-type: none"> 'Golden Age of Islam' experienced under this rule. Major developments in science, culture e.g. astronomy developed to find Mecca.



Five Pillars of Islam		
PILLAR	FACTS	TEACHING
Shahadah	<ul style="list-style-type: none"> Declaration of faith Said at birth, death and reversion, in battle Soldiers say it in battle Emphasises tawhid and prophethood 	<i>"I bear witness there is no God but Allah, and Muhammad is His messenger"</i>
Salah	<ul style="list-style-type: none"> Prayer 5 times a day Wudu-ritual cleansing Face Mecca and use a prayer mat D'ua= personal prayers Friday prayers at mosque (men)= jummah Right niyyah—correct state of mind for prayer 	<i>"Glorify Him in the mornings and evenings"</i>
Zakat	<ul style="list-style-type: none"> 2.5% tax donated to charity (e.g. poor and travellers) National Zakat Foundation= Raised £25m since 2011 Voluntary =sadaqah Supports the ummah 	<i>"Those who help the poor are warriors for God's cause"</i>
Sawm	<ul style="list-style-type: none"> Fasting during Ramadan No eating, drinking during day Evening meal= iftar 27th day of Ramadan= Night of Power Refrain from evil thoughts and bad habits 	<i>"Shaytan is chained & gates of Jahannam are locked during Ramadan"</i>
Hajj	WHAT?	WHY?
	Travel to Mecca.	Birthplace of Prophet Muhammed.
	Wear white robes.	State of purity (ihram).
	Circle Kaaba 7 times (tawaf).	Muhammad circled Kaaba as he smashed false idols.
	Drink water from Zam Zam well.	To remember Angel Jibril leading Hajar to the water.
	Throw stones at pillars of Jamarat.	To remember Ibrahim throwing stones at Shaytan/ resisting temptation.
	Sacrifice an animal (sheep or goat).	To remember Ibrahim being willing to sacrifice his son Ismail.

Jihad		
Greater Jihad	<ul style="list-style-type: none"> The inner struggle to be a good Muslim. Examples: Follow 5 pillars, go to mosque, avoid temptation. Farid Ahmed: Forgave wife's murderer in New Zealand mosque shootings. Emulate Allah's 'most-merciful' nature. 	<i>"Paradise is for those who curb their anger"</i>
Lesser Jihad	<ul style="list-style-type: none"> The physical struggle in self-defence. Can't kill civilians or start war, must stop if enemy surrenders. Only be declared by a holy Muslim leader. Demonstrated by Prophet Muhammad on return to Mecca. 	<i>"Fight for God those who attack you"</i>

Is it difficult being a Muslim in the UK?	
Islamophobia	The fear or hatred of Islam. TELL MAMA — anti-Muslim hate has tripled in UK since Hamas' attacks in October 23.
Performing the Five Pillars	<p>Difficult: Schools and businesses do not close during Ramadan, there may not be set times for prayer, Hajj is expensive (up to £3000).</p> <p>Not difficult: Some schools excuse students from PE during Ramadan, Muslims can combine prayers, Hajj must only be visited once per lifetime.</p>
Islam in the Media	Islam is often portrayed unfairly in the media e.g. accusing Muslims of forcing 'Sharia Law'/ Ordinary Muslims being accused of the actions of ISIS.
Extremism	Believing something that is very different from what most people consider acceptable e.g. ISIS.
#notinmyname	A Muslim campaign to distance themselves from ISIS.



Ethics - Philosophy of Religion

Who is God?	
God of Classical Theism	The idea of God as the ultimate creator with unlimited power and knowledge (Abrahamic God).
Omnipotent	All-powerful; nothing is beyond God's ability (made the world ex-nihilo).
Omnibenevolent	All-loving; God is loving and entirely 'good'. "For God so loved the world.."
Omniscient	All-knowing; God knows the past, present and future. "Even the hairs..."
Omnipresent	God is everywhere at all times.
Transcendent	God exists outside of the laws of space and time.

The Problem of Evil	
Problem of Evil	"If God is omnipotent and omnibenevolent, why do evil and suffering exist?" - EPICURUS (Greek philosopher)
Book of Job Theodicy	<ul style="list-style-type: none"> God's wisdom is beyond us. God permitted Satan to test Job's faith. His wife tells him to "Curse God." God asks Job impossible questions about universe that show Job how little he can understand of God's ultimate plan.
Original Sin Theodicy	<ul style="list-style-type: none"> God created a "good" world for humans and gifted them free will. Moral evil caused by humans not God (free will). Adam and Eve ate from the Tree of Knowledge of Good and Evil which caused sin to enter the world 'The Fall'.
Soul-making Theodicy	<ul style="list-style-type: none"> Evil helps to develop our souls to become worthy of heaven as we are still in the creation process. (Irenaeus) 'Mastered temptation' and make responsible choices (Hick). Suffering improves our character.

The Design Argument	
The Design Argument	Evidence of design in the world suggests that God does exist.
William Paley's Watch Analogy (Theist)	If a person finds a watch with it's finely-tuned components, they conclude it must have a designer—the same applies to our universe.
Responses to the Design Argument	
Brute Fact	J.L. Mackie— The universe does not need explaining— it just 'is'.
Multiverse Theory	There are many possible universes, reducing the unlikelyhood of creating this one.
Imperfect Design	This world is not 'finely-tuned' or 'perfect' e.g. natural disasters.

Religious Experience	
Religious Experience	An experience which has a religious meaning for the person who experienced it.
Bernadette of Lourdes	A young French girl who had visions of Virgin Mary with a yellow rose on each foot— now Lourdes is a pilgrimage site.
William James' PINT	
Passive	The experience is uncontrollable.
Ineffable	The experience is indescribable.
Noetic	The experience brings knowledge.
Transient	The experience is temporary.

The Cosmological Argument	
Cosmological Argument (Theist)	Aquinas' argument for the existence of God as God is the 'first cause' of the universe. <ul style="list-style-type: none"> Everything that exists has a cause. The universe exists. The universe must have a cause.
Responses to the Cosmological Argument	
God of Classical Theism	The Cosmological Argument does not prove an omnibenevolent, omniscient, omnipotent and omnipresent God, but instead a distant, impersonal one.
Occam's Razor	The simplest explanation is that the universe formed ex nihilo without cause.

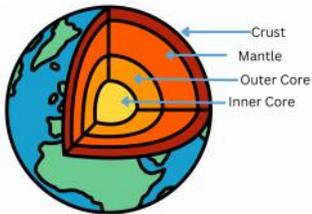
Criticisms of Religious Experience	
Contradictions	People from all religions have religious experiences: can they all be correct?
Scientific Causes	Natural explanations such as hallucinations may be more likely than a supernatural cause.
Religious Responses	
Principle of Credulity	We should believe that things are as they seem to be, until we have evidence that we are mistaken.
Principle of Testimony	It is reasonable to trust other people's reports about their religious experiences.

Key Words	
Atheism	Disbelief or lack of belief in the existence of God.
Agnosticism	The belief that nothing can be known about God's existence.
Empirical Evidence	Evidence for something based on observation or experience.
Fallacy	A mistaken belief, especially one based on unsound arguments.
Analogy	A comparison between things that have similar features to help explain an idea.

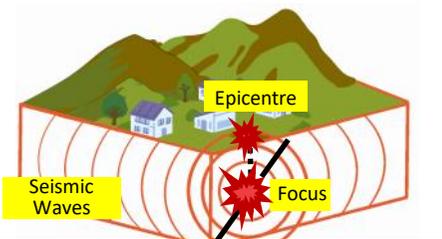
Geography - Tectonics

1. What is planet Earth made of?

Key term	Definition
Crust	Outer layer made of rock. Split into plates. Can be continental (thick, less dense) or oceanic (thin, dense).
Mantle	Thickest layer made from molten rock (magma).
Outer core	Made from liquid nickel and iron.
Inner core	Centre of the Earth made from solid nickel and iron. 5500°C.
Convection currents	Heat currents in the mantle which make tectonic plates move due to friction.



3. How do earthquakes form?



Focus	The point underground where the earthquake occurs.
Epicentre	The point on the Earth's surface directly above the focus.
Seismic waves	The energy released from earthquakes.

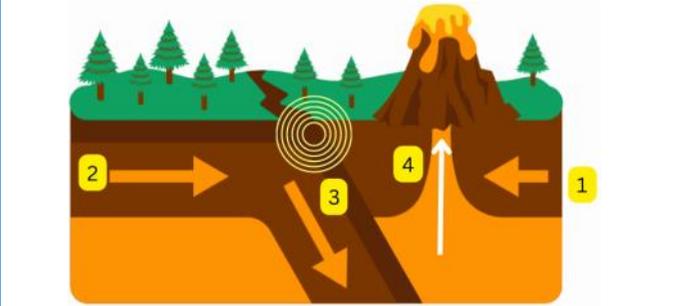
Reducing the impacts of earthquakes

Predict	Difficult to predict earthquakes. Monitoring of past earthquakes and patterns.
Protect	Buildings can be built to be earthquake resistant (e.g. rubber shock absorbers and steel braces, retrofitting). Very effective but expensive, unaffordable for LICs.
Planning	Planning for earthquakes includes rehearsing drills (drop/cover/hold), having emergency bag ready, training emergency services and knowing what countries to ask for help with responding.

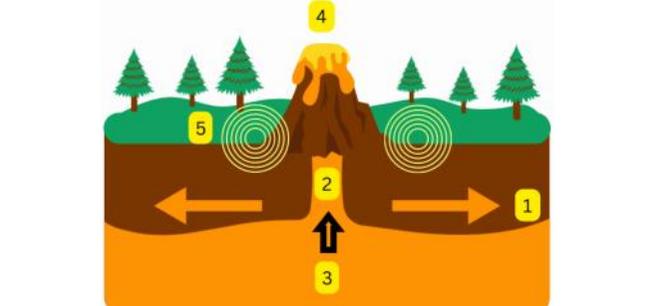
2. What happens at the plate margins?

Tectonic plates	The Earth's crust is made of slabs of rocks (7 major and 8 minor plates) that sit on top of the mantle. The plates fit together like a giant puzzle.
Plate margin / Plate boundary	Where two tectonic plates meet and either collide, move apart or slide past each other.
Global distribution	Tectonic hazards mainly occur along the plate margins. Earthquakes occur at all margins, but volcanoes are found only on destructive and constructive.

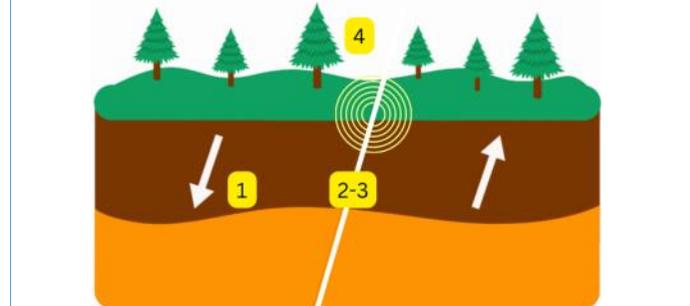
Destructive >< Constructive <> Conservative V V



1. Oceanic and continental plates **move towards each other**
2. Oceanic plate (denser) subducts under continental plate.
3. Tension builds up causing earthquakes.
4. Subducted crust melts and magma rises
5. Lava erupts to form a **composite volcano**.



1. Two tectonic plates are **pulled apart**
2. Gap in crust created.
3. Magma rises from mantle to fill gap
4. Lava erupts from a **shield volcano**.
5. Friction creates low magnitude (energy) earthquakes.



1. Tectonic plates slide past each other.
2. Plates get caught on each other.
3. Friction occurs and tension builds up.
4. Energy is suddenly released as seismic waves... an earthquake! (No volcanoes on conservative margins)

Geography - Tectonics

4. Impacts and responses		
Impacts	Primary impact	The initial impact of a natural event on people and property, caused directly by the natural event.
	Secondary impact	The after-effects that occur as indirect impacts of a natural event.
Responses	Immediate response	The reactions of people as the disaster happens and in the immediate aftermath.
	Long-term response	Later reactions that occur in the weeks, months and years after the event.

5. NEE earthquake - Turkey / Syria 2023			
<p>Syria GNI per capita of \$800 (in 2020). Conservative plate margin. 2 EQs 7.8 and 7.5 magnitude. Epicentres in south Turkey, around 20km of large towns such as Iskenderun.</p> <p>Example of a PDD: A huge fire in the port of Iskenderun broke out, hundreds of shipping containers caught fire. This means that the international port had to be closed. As a result, trade and incoming aid could not carry on, suspending the rescue effort.</p>			
Impacts	Primary	Damage to the sewage and water pipe network in 10 provinces.	164,321 buildings collapsed or are heavily damaged.
	Secondary	A huge fire at one of Turkey's main ports, Iskenderun.	4 million children had an interruption in their education.
Responses	Immediate	Temporary sanitary facilities installed.	Food and water supplies were given to easy access places.
	Long-term	Project of constructing 650,000 new houses.	Damaged valuable artifacts were safely placed in 20 containers for restoration by museums.

9. Why do people live near tectonic hazards?	
Earthquakes	Volcanoes
In LICs, people are too poor to move elsewhere.	In LICs, people are too poor to move elsewhere.
In HICs people feel safe due to EQ resistant buildings and regular drill practice.	The heat from magma below the ground can be used to generate electricity (geothermal energy).
Earthquakes occur very rarely.	Soils near volcanoes are fertile, good for crops.

6. HIC earthquake- New Zealand 2011		
<p>GNI per capita of \$36,260 (in 2011). Conservative plate margin. Magnitude 6.3. Epicentre 10 km from Christchurch, city of 385,000 people.</p> <p>Example of PDD: Christchurch was unable to host the Rugby World Cup. This means that the numbers of tourists decreased. As a result, some jobs were lost.</p>		
Impacts	P- 10,000 homes destroyed and 181 people died.	P- The whole town lost electricity and water and sewage pipes were damaged.
	S- Unable to host Rugby World Cup.	S- 1/5 people migrated out of the city.
Responses	I = Chemical toilets for 30,000 within days.	I- 80% of power was repair within 5 days.
	LT = NS\$898 billion paid out in insurance.	LT- Sewage and water pipes were repaired within 6 months.

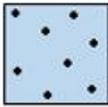
6b. What affect the number of deaths?	
Level of development	Physicality of the earthquake
<ul style="list-style-type: none"> ◇ Poor building materials (no building codes). ◇ Densely populated squatter settlements. 	<ul style="list-style-type: none"> ◇ If the epicentre is close to a densely populated area. ◇ Time of the day (whether if people are at work or during the night).
<ul style="list-style-type: none"> ◇ Emergency services not trained. ◇ Lack of insurance to pay for repair. 	<ul style="list-style-type: none"> ◇ Magnitude. ◇ Depth of focus (shallow focus would be stronger EQ).

7. What are the two types of volcano?	
<p>Composite volcano - Destructive Margin</p> 	<p>Shield volcano - constructive margin</p> 
Tall but narrow base. Steep slopes.	Short but wide base. Gentle slopes.
Thick layers of lava, lots of ash.	Gentle eruptions (more frequent).
Violent eruptions (less frequent).	Thin layers of lava, little ash.
<p>Volcanic hazards include ash cloud (air travel can be affected), pyroclastic flow, lava flow.</p>	

8. Monitoring Volcanoes	
<p>Monitoring volcanoes leads to accurate predictions of eruptions, reducing the risks.</p>	
Warning signs	As magma rises.
Earth vibrations	100s of small earthquakes. Seismometer is used.
Temperature	Ground and water get hotter - Thermal imagery is used (satellites).
Change in gas	Near an eruption, more sulphur in gas samples.
Ground deformation	Changes to the shape of the volcano are measured using laser beams.

Geography - Population

How is our population distributed globally?		
Term	Definition	Example
Population distribution	The spread of people across an area	Even or uneven
Population density	Number of people per km ²	Sparse or dense
Sparsely populated	Very few people per km ²	Himalayas
Densely populated	Lots of people per km ²	Western Europe
Rural / Urban	Rural = Countryside / Urban = Towns and cities	New Forest/ Bournemouth

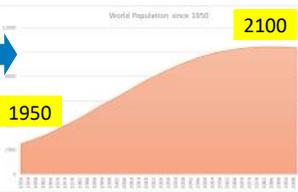


Sparse

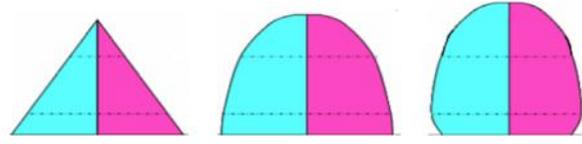


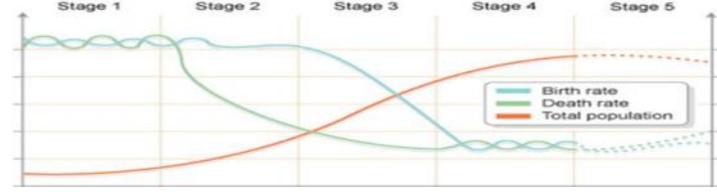
Dense

2. What influences population distribution?		
Category	Factor	Explanation for sparsely populated areas.
Physical factors	Relief	Steep ground is difficult/expensive to build on e.g. Himalayas.
	Climate	Too cold or hot to grow crops, Ideal to grow crop.
	Soil	Crops do not grow if soil is infertile.
Human factors	Jobs	If few jobs, people will migrate to other areas for work.
	Transport	If transportation links are good people be attracted.

3. How will world population change?	
Population explosion	World population has exploded since 1950 and will peak in 2100. Mostly in LICs/NEEs. 
Natural increase	When birth rates > death rates.
Birth rate (BR)	Number of babies born per 1000 / year.
Death rate (DR)	Number of people who die per 1000 / year.
Overpopulation	Too many people for the resources available in an area. No food = starvation. No clean water = disease like cholera.

4. Why do BR and DR vary?		
Country	Explanation of birth rate	Explanation of death rate
HIC BR ↓ DR ↓	<ul style="list-style-type: none"> Women have careers = marry later & have children later Contraception available Children are expensive 	<ul style="list-style-type: none"> Good access to health care Education about well-being Disposable income to buy healthy food
NEE BR ↓ DR ↓	<ul style="list-style-type: none"> As country develop, people are moving to cities, less children are needed to work in fields. Contraception becomes available 	<ul style="list-style-type: none"> Increased access to clean water Better health care
LIC BR ↑ DR ↓	<ul style="list-style-type: none"> Children help on farms Lack of sex education Girls marry young High infant mortality rate 	<ul style="list-style-type: none"> Lack of access to clean water Poor health care access

5. What are population pyramids?	
Population structure	Number of people in each age range, separated into gender.
Economically active	16-65 age group - working age so pay taxes to the government.
Dependants	Do not work <15 & >65.
Population pyramids: Graph showing pop structure	
What does the shape of the pyramid tell us about the population structure?	<ul style="list-style-type: none"> Wide base = ↑ BR Short = ↓ life expectancy. Youthful population
	<ul style="list-style-type: none"> Narrowing base = BR ↓ Widening top = DR ↓
	<ul style="list-style-type: none"> Narrow base = ↓ BR Wide top/tall = ↑ LE Ageing population

6. Demographic Transition Model					
	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5
					
	LIC	NEE	HIC	HIC	
High BR	High BR	Falling BR	Low BR	Low BR	
High DR	Falling DR	Low DR	Low DR	Low DR	
Lack of clean water and healthcare	Farming = ↑BR Medical care improves = ↓DR	Rural / urban migration. Factories not farming = ↓BR	Women have careers, marry later, contraception = ↓BR Very good health care, healthy diets = ↓DR		

Geography - Population

7. What are the impacts of an ageing population in the UK?

A high proportion of elderly people in relation to younger people.	Why? Better health care and better diets and fitness levels = increasing life expectancy
Negatives	Positives
<ul style="list-style-type: none"> £ ↗ money needed for state pensions = ↘ money for other things like schools ↓ 2/3 hospital beds taken by elderly = ↗ waiting times and pressure on NHS 	<ul style="list-style-type: none"> £ Elderly have disposable income = spend ↗ in shops = ↗ jobs + economy £ Elderly look after grandchildren saving parents money

8. What is migration?

Term	Definition
Migration	The movement of people from one place to another.
Immigrant	A person who comes to live IN a foreign country.
Emigrant	A person who moves OUT of a country.
Refugee	A person who has been forced to leave their country to escape war, persecution, or a natural disaster.
Economic migrant	A person who moves for work to improve their life.
Asylum seeker	A refugee who has applied for asylum.

9. Why do people migrate?

Source country—Where the migrants come from.		Host country— Where the migrants go.	
Push factors	Negative factors which make people want to LEAVE a place.	Pull factors	Positive factors which make people move TO a place.
<ul style="list-style-type: none"> ◇ Lack of education ◇ Poorly paid jobs ◇ Wars or conflicts 		<ul style="list-style-type: none"> ◇ Higher wages ◇ Better access to education ◇ Better healthcare 	

10. What are the causes and impacts of migration?

Case study—Nepal to Qatar migration		
	Push / Pull factors	Impacts
Source - Nepal Push factors	Low literacy rate 68%.	Migrants sent remittances home, \$2billion.
	Poor wages, mainly farming jobs (90% of all jobs).	Loss of skilled workers (mainly men).
Host - Qatar Pull Factors	Higher paid jobs in Construction.	Hard working cheap labour (400,000) to complete big projects (7 World Cup stadiums and hotels).
	Low tax and rent living whilst working in Qatar.	<ul style="list-style-type: none"> ◇ 90% of population is made of migrants. ◇ Bad press about working conditions and poor wages.

Geography - Coasts

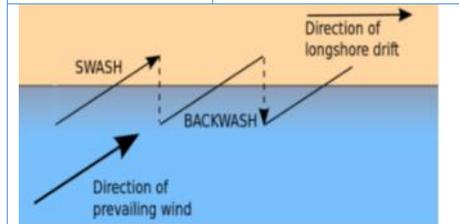
1. Waves	
Key term	Definition
Prevailing wind	The most frequent wind direction.
Swash	Movement of the waves UP the beach in the direction of the prevailing wind.
Backwash	Movement of the waves DOWN the beach at a right angle due to gravity.
Fetch	Distance the wave has travelled.

Constructive waves	Destructive waves
<ul style="list-style-type: none"> Build up the beach Strong swash, weak backwash Low, long waves 	<ul style="list-style-type: none"> Destroy the beach Weak swash, strong backwash Tall, short waves



2. What processes occur along our coast?

Key term	Definition
Erosion (HAAS)	The wearing away of rock
Hydraulic power	The sheer force of the water compressing air into cracks causes bits to break off.
Abrasion	Sediment scraping against the cliff (like sandpaper) removing small bits.
Attrition	'Smashing' of sediment against each other becoming more rounded
Solution	Acids in sea water dissolve certain types of rock, such as limestone or chalk, causing them to gradually erode over time.
Weathering	The break down of rocks where they are (in situ)
Freeze thaw weathering	The breaking up of rock caused by the repeated cycle of freezing and thawing of water in a crack.
Chemical weathering	The breaking down of rock caused by chemicals (e.g. weak acid rain).
Deposition	Dropping of material. Occurs when there is a loss of energy like in sheltered bays.
Transportation	The movement of material.
Longshore drift	The zig zagged movement of sediment along the coastline.

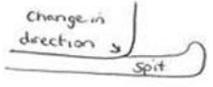
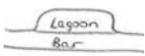


Prevailing wind blows at an...
 Angle to the coastline
 Swash up the beach at an angle. Backwash down at 90° due to gravity.
 Sediment is transported along the coast as...
 Longshore drift

3 and 4. Erosional landforms

Landform	Formation
Headlands and bays	<ul style="list-style-type: none"> Some coast lines have bands of hard and soft rock (discordant). Destructive waves erode the coast by abrasion. Soft rock erodes faster and retreats creating a bay. Hard rock erodes slower, remaining stuck out as headlands.
Wave cut platforms	<ul style="list-style-type: none"> Destructive waves erode the base of cliff between high and low tide. Abrasion creates a wave cut notch which enlarges over time. The cliff above is unsupported, so collapses due to gravity. The cliff retreats, leaving a wave cut platform (original cliff left behind that wasn't eroded).
Cave, Arch, Stack	<ul style="list-style-type: none"> Destructive waves attack the base of a cliff through hydraulic power opening up cracks. Cracks widen creating a cave (hydraulic power). The cave is enlarged by abrasion, eventually cutting through the headland to make an arch. As the arch is unsupported, eventually it will collapse due to gravity. A stack is formed.

Geography - Coasts

5. Depositional landforms	
Landform	Formation
Beaches	<ul style="list-style-type: none"> Beaches form when deposition occurs. There needs to be a source of sediment nearby like soft cliffs. Constructive waves deposit material in sheltered areas (bays).
	<ul style="list-style-type: none"> Longshore drift transports sediment along the coast in the direction of the prevailing wind (swash and backwash). Where the coastline changes direction... Sediment is deposited, in calm weather, out to sea. A spit is formed.
Bar	 <ul style="list-style-type: none"> Formed when a spit joins two headlands. A lagoon forms behind the bar.

6. What are the causes and effects of coastal erosion?		
	Point	Develop
Causes	Differing geology	Soft rock erodes faster than hard rock (headlands & bays).
	No management	If there is no hard engineering, erosion is more likely.
	Communities	<ul style="list-style-type: none"> People can't sell their homes. People have to leave their community, feel isolated.
Effects	Environment	<ul style="list-style-type: none"> Loss of coastal habitats, lowers biodiversity. Beaches are removed (coastline more vulnerable).

7. How do we manage our coastline?						
Type	Definition	Type	Image	Description	Explanation	
Hard engineering	Man-made structures built to control the sea. Reduces flooding and erosion.	Sea walls		A hard wall made from concrete.	Reflects the waves energy back out to sea.	
		Rock armour		Boulders piled up along the coast.	These get eroded rather than the coast.	
		Gabions		Wire cages filled with rocks.	Absorb wave energy.	
		Groynes		Wooden fences going out into the sea.	Reduce longshore drift by trapping sediment so a wider beach.	
Soft	A natural approach to managing the coast.	Beach nourishment		Sand from elsewhere is added to beaches.	Wider beaches reduce erosion and flooding.	
		Dune regeneration		Restoring sand dunes by planting marram grass.	Stabilises the sand to prevent it eroding.	

8. How effective is coastal management in Bournemouth?			
Why does it need management?	<ul style="list-style-type: none"> Without management coastline would erode at 1 m per year. Beach vital for tourism (tourist spend £413 million each year) Cliffs are collapsing (e.g. East Cliff 2016) Protects 3114 homes and 109 businesses 		
	Point	Develop This means that...	Double Develop As a result...
How has the coast been managed?	Hard engineering- 53 groynes to be Replaced.	Reduce longshore drift creating a wide beach.	Waves lose their energy before the cliff.
	Bournemouth Beach Management Scheme 2015-2032 Soft engineering- 3 lots of beach nourishment every 5 years.	Replaces sediment lost through longshore drift.	Wider beach absorbs more wave energy.
How successful was this management?	Groynes less successful- trapped sediment, starving Barton on Sea's beaches.	More coastal erosion occurs at Barton on Sea.	Houses are at risk of cliff collapse.
	Groynes more successful—groynes trap the sediment and create a wider beach.	Creates 9000 jobs for local people.	Have a higher income and pay more tax to the government.
	Beach nourishment more successful- Wide beaches attracting tourists.	£413 million is brought into the area.	Councils receive more income through tax improving the area.
	Beach nourishment less successful— needs to be completed often, 3 times every 5 years.	Can be expensive— costing over £50 million.	Less income can be used to improve infrastructure in Bournemouth such as roads.

History - Henry VIII and the Reformation

Why was there a Reformation?	
Reformation	A movement in the 16 th century which led to a break with the Catholic Church and the beginning of the Protestant Church
Renaissance	A cultural movement that began in Italy in the 1500s Some people began to question the teachings and practices of the Catholic Church in favour of more scientific explanation
Printing press	A revolutionary invention created by Gutenberg in 1455 It took power away from the Church as it allowed new books and translations of the Bible to be published
Martin Luther	A German monk who helped start the Reformation with his 95 Theses and create the Protestant faith
95 Theses	A document outlining Martin Luther's 95 criticisms of the Catholic Church. It accused the Church of: <ul style="list-style-type: none"> • Corruption • Misleading teachings about purgatory and indulgences • Greed

What kind of man was Henry VIII?	
Henry VIII	King of England 1509-1547 Called 'Defender of the [Catholic] Faith' by the Pope in 1521
Renaissance man	To be well-read, cultured, artistic and thoughtful
Machiavellian	To be cunning and scheming, especially in politics

Why did Henry Break with Rome?	
Cardinal Wolsey	Henry VIII's Lord Chancellor from 1515 to 1529, the Pope's representative in England and a very wealthy and powerful man
Thomas Cranmer	Replaced Wolsey as Archbishop of Canterbury; allowed Henry's marriage to Anne Boleyn
Thomas Cromwell	Henry VIII's chief minister from 1532; a lawyer; strong Protestant
Act of Supremacy	1534. Henry VIII officially broke away from the Roman Catholic Church and became Head of the Church of England

How do Catholics and Protestants differ?		
	Catholic Church	Protestant Church
Key beliefs	<ul style="list-style-type: none"> • Transubstantiation - bread and wine taken during Mass turn into the physical body and blood of Christ • The Pope God's representative on Earth. 	<ul style="list-style-type: none"> • Bread and wine do not literally turn into Christ • The Bible was the sole authority on how to worship
Churches	<ul style="list-style-type: none"> • Colourful; shows God's greatness • Statues, stained glass windows; paintings 	<ul style="list-style-type: none"> • Simple; people can focus on God • Plain walls; no art or stained glass; simple wooden altar
Priests	<ul style="list-style-type: none"> • Wear bright and colourful robes • Cannot marry • Needed for people to understand the Bible and talk to God 	<ul style="list-style-type: none"> • Wear plain and simple robes • Can marry • Believe a person can communicate directly with God
Language	Latin	The local language

Love	Money	Power
Annulment - To declare that a marriage never actually existed	Dissolution of the monasteries – Henry VIII's actions to strip monasteries of their wealth & land.	Faction – political groups who fought for power and influence over Henry.
Heir - A person who inherits the throne	Revenue - The annual income of the King to pay for wars and other expenses	Royal Supremacy – the king replaced the Pope's religious power in England.

How far did Henry VIII change the Church?	
Litany	A long prayer, usually led by a priest, involving responses from the worshippers
The Six Articles	Passed in 1539; forbade superstitious practices, such as kneeling before images of saints.
Pilgrimage of Grace	Led by Robert Aske in 1536 Northern nobles were angered by the Dissolution of the Monasteries and rebelled against Henry VIII

1509 Henry VIII becomes king	1517 Martin Luther writes the 95 Theses	1521 Henry writes a pamphlet criticising Luther	1525 Henry meets Anne Boleyn	1529 Wolsey loses power	1533 Henry marries Anne Boleyn	1534 Act of Supremacy passed	1536 The Dissolution of the Monasteries begins	1539 The Six Articles	1547—Edward VI becomes king
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History - Religion in Tudor England

Edward's Changes to the Church					Challenges to Elizabeth's Middle Way				
Edward VI (1547-1553)	Devout Protestant. Henry VIII's third child and only son by Jane Seymour				Papal Bull	<ul style="list-style-type: none"> A formal announcement made by the Pope In 1570 the Pope declared Elizabeth a heretic 			
Edward's changes to the Church	<ul style="list-style-type: none"> Passed a string of reforms to make the Church more Protestant Redecorated Churches to be plain; white walls; no art Church services and Bible to be in English instead of Latin Mass banned 				Puritans	<ul style="list-style-type: none"> A group of extreme Protestants who wore simple clothing Against Catholic styles of worship 			
Book of Common Prayer	A book of prayers written for Church of England services in English				Recusants	Extreme Catholics who refused to attend compulsory Protestant church services			
Mary's Counter-Reformation					Vestments Controversy	Puritans argued against priests wearing vestments (religious robes) set by Elizabeth's religious settlement			
Mary I (1553-1558)	Devout Catholic. Henry VIII's eldest daughter by Catherine of Aragon				Rebellion of the Northern Earls	In 1559, the earls of Northumberland and Westmorland led a rebellion in the north of England. Two aims; 1) restore Catholicism 2) increase their political influence over Elizabeth			
Counter-Reformation	Catholic fight back against spread of Protestantism. Mary married Catholic king (Phillip of Spain) and reversed Henry and Edward's changes				The Catholic Threat: Spanish Armada				
Martyr	A person who is killed for their beliefs				Phillip II of Spain	King of Spain and briefly of England after marrying Mary I in 1554. He was devoutly Catholic and fought against the spread of Protestantism			
Propaganda	A piece of art or information used to promote a particular point of view				Spanish Armada (1588)	Fleet of Spanish warships sent to invade England			
Elizabeth's changes: the Middle Way					Why did Philip send the Armada?	The execution of Mary Queen of Scots Elizabeth had rejected his marriage proposal He wanted to make England Catholic again			
Elizabeth I (1558-1603)	Moderate Protestant. Second daughter of Henry VIII by Anne Boleyn				The Catholic Threat: The Gunpowder Plot				
Act of Supremacy	Made Elizabeth supreme governor of the Church of England				James I (James Stuart)	<ul style="list-style-type: none"> James VI of Scotland became James I of England Elizabeth's successor as she had no children 			
Act of Uniformity	Established the appearance of churches and the form of services held. All Churches had to be appear the same				Why did Catholics dislike James I?	<ul style="list-style-type: none"> He was Protestant and ordered a new English Bible (King James Bible) to be written Continued to fine Catholics Ordered all Catholic priests to leave the county 			
Middle Way	Elizabeth's religious policy: combining elements of Catholicism and Protestantism to try and keep everyone happy				Gunpowder Plot (5th November 1605)	<ul style="list-style-type: none"> Catholic plot led by Robert Catesby to kill James I Plan was to blow up the Houses of Parliament. It failed when Guy Fawkes was caught below Parliament Plotters were hanged, drawn and quartered 			
Royal Injunctions	Set of instructions enforcing the Acts of Supremacy and Uniformity				Monteagle letter	Sent to Lord Monteagle warning him not to attend Parliament. He gave Letter given to king's advisor, Robert Cecil			
The Catholic Threat: Mary Queen of Scots									
Mary Queen of Scots	<ul style="list-style-type: none"> Elizabeth's Catholic cousin. She was queen of Scotland Many Catholic countries such as France and Spain supported her over Elizabeth 								
Plots against Elizabeth	<ul style="list-style-type: none"> The Ridolfi Plot (1571), the Throckmorton Plot (1583) & the Babington Plot (1586) were all plans to murder Elizabeth and replace her with Mary The plots were discovered by Francis Walsingham, Elizabeth's spymaster 								
1547 Edward VI becomes king	1553 Lady Jane Grey is queen for 9 days	1553 Mary becomes queen	1558 Elizabeth I becomes queen	1559 Act of Uniformity & Supremacy passed	1570 Pope declares Elizabeth a heretic	1587 Death of Mary Queen of Scots	1588 The Spanish Armada	1603 James I becomes king	1605 Gunpowder Plot

History - The English Civil War

Long term causes of the English Civil War: Religion	
Charles I	<ul style="list-style-type: none"> King of England from 1625—1649 King who fought the Civil War against parliament
Charles' marriage	<ul style="list-style-type: none"> Charles had married a French Catholic, Henrietta Maria. Many MPs feared this would make Charles make England Catholic again
Arminians	<ul style="list-style-type: none"> A Protestant group who wished to reverse some of the Reformation Archbishop Laud: The Arminian Archbishop of Canterbury Laud wanted to reintroduce stained glass windows and rich robes for priests
Puritans	<ul style="list-style-type: none"> A group of radical Protestants who believed that churches should be plain Puritans hated the changes Charles and Laud made to the Church 3 Puritans who challenged Charles were punished by having their ears cut off
War with Scotland	<ul style="list-style-type: none"> Charles tried to introduce a new prayer book to Scotland in 1637 This started a war so Charles had to recall parliament to ask for money

Long term causes of the English Civil War: Power	
Divine Right of Kings	<ul style="list-style-type: none"> Charles believed he was appointed king by God Charles felt that parliament had no right to question his decisions
11 Year Tyranny	<ul style="list-style-type: none"> Period from 1629-1640 where Charles ruled without parliament
Ship Money	<ul style="list-style-type: none"> A tax that Charles expanded to raise money Parliament did not agree to this tax and felt it was illegal
Court of the Star Chamber	<ul style="list-style-type: none"> Charles used this court as a substitute government whilst he ruled without parliament Many MPs hated the Star Chamber

Short term causes of the English Civil War	
Short Parliament	Called by Charles in 1640 but dismissed by Charles after 3 weeks
Long Parliament	<ul style="list-style-type: none"> Charles recalled parliament and it sat for 20 years MPs abolished Ship Money & Star Chamber MPs ordered the arrest of Archbishop Laud and the Earl of Strafford MPs refused Charles money for Scottish and Irish wars
Grand Remonstrance	<ul style="list-style-type: none"> A list of complaints about the king written by MP John Pym It asked for parliament to have much more control Charles hated it tried to arrest Pym and 4 other MPs This was the final straw and the English Civil War started

Events of the Civil War	
Royalists	Supporters of the king also called 'Cavaliers'
Parliamentarians	Supporters of parliament also called 'Roundheads'
Stalemate	Between 1642-44 no side could gain an advantage The New Model Army was created to help parliament win
New Model Army	Parliament's professional army. Commanded by Oliver Cromwell. Led by trained officers. Soldiers had good pay and discipline
Reasons for Parliament's victory	<ul style="list-style-type: none"> New Model Army far better trained than Royalists Parliament controlled London Charles used many foreign soldiers in his army Major defeat for Charles at the Battle of Naseby in 1645

What happened to the monarchy?	
Charles' execution	<ul style="list-style-type: none"> Parliament could not agree on how to treat Charles after the war Eventually he was put on trial for treason. Cromwell refused to let any MPs who supported Charles into parliament 59 MPs signed his death warrant
Rump Parliament	154 remaining MPs after Parliament was purged
Oliver Cromwell	<ul style="list-style-type: none"> Sent to Ireland by parliament to crush a rebellion Became 'Lord Protector' & ruled supported by the army Ruled without parliament A strict Puritan he banned theatres, pubs and Christmas
Commonwealth	The period when England ceased to be a monarchy, and was at first ruled by Parliament

Restoration	
Problems in England	<ul style="list-style-type: none"> When Oliver Cromwell dies his son, Richard, takes over but was unpopular and forced out of power by the army The army tried to rule England without parliament
General Monck	Believed restoring the monarchy would stabilise England
Charles II	Son of Charles I invited back to England to become king in 1660
Declaration of Breda	<ul style="list-style-type: none"> Promises Charles II made to become king. Written in Breda, Holland Promises included religious freedom, pardons for Parliamentarians, wages for the army and return of land to Royalists

1625 Charles I becomes king	1629 11 Year Tyranny begins	1635 Ship Money expanded	1637 New Prayer Book in Scotland	1640 Parliament recalled	1642 Civil War starts	1649 Charles executed	1653 Cromwell becomes Lord Protector	1658 Cromwell dies	1660 Charles II becomes king
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History - The Slave Trade & Abolition

What was Africa like in the 16 th century?	
The Kingdom of Benin	<ul style="list-style-type: none"> One of the most developed kingdoms in Africa Situated in modern day Nigeria Organised system of government; wealthy; traded with other parts of Africa and later, with Europeans
The Songhai Empire	<ul style="list-style-type: none"> Situated in modern day Mali Established trade routes from the coast to central Africa Had a flourishing culture; centre of learning and Islam

The Slave Trade Triangle	
Trade Triangle	<ul style="list-style-type: none"> European ships transported manufactured goods to Africa e.g. guns, hardware and cloth These goods were traded for Enslaved Africans who were then transported to America and the Caribbean Slaves grew raw materials e.g. sugar, cotton and tobacco on plantations to be sent back to Europe.
Plantation	<ul style="list-style-type: none"> A large farm or estate where one main crop was grown by enslaved Africans Mostly grew sugar, cotton and tobacco
The Middle Passage	The second stage of the trade triangle where Africans were transported to America and the Caribbean.
Countries involved in slavery	<ul style="list-style-type: none"> British, Portuguese, Dutch, Spanish, Danish, & French empires all traded slaves British Empire dominated global trade and the Slave Trade. Liverpool and Bristol were the main cities to benefit from the Slave Trade

Abolition: White campaigners	
Abolition	Banning or getting rid of something
White abolitionists	<ul style="list-style-type: none"> Granville Sharp: A lawyer who set up the Abolition Committee William Wilberforce: MP who brought the Abolition Bill to parliament every year between 1790-1806 Josiah Wedgwood: A potter who created the symbol of the Abolition Committee "Am I not a man and a brother?" Thomas Clarkson: campaigner who told people about the horrors of slavery; asked ordinary workers to sign petitions; gave speeches for abolition
The Abolition Committee	<ul style="list-style-type: none"> A group of influential men in Britain that campaigned to end the slave trade
How this helped abolition	<ul style="list-style-type: none"> They raised awareness amongst the British public of the true nature of slavery. Opinion gradually turned against slavery Parliament was needed to pass the laws

How were enslaved Africans treated?	
During the Middle Passage	<ul style="list-style-type: none"> 10-20% of enslaved Africans died on the voyage Densely packed on the ships, and chained together Poor hygiene on ships led to many illnesses During the voyage of the Zong 133 sick slaves were thrown overboard
On arrival in the Americas	Would be sold by auction to plantation owners
On plantations	<ul style="list-style-type: none"> Field Slaves: Would carry out tough manual labour such as harvesting crops and crushing & boiling sugar Domestic Slaves: Would work in the owner's house Slaves would be harshly punished for trying to run away or for lack of work

The actions of black people	
Resistance	<ul style="list-style-type: none"> Refusing to cooperate e.g. deliberately working slow Cultural Resistance: e.g. by continuing to use their native languages
Slave Rebellion	<ul style="list-style-type: none"> Toussaint L'Ouverture led a rebellion in St. Domingue (modern day Haiti; a French colony) slaves declared Haiti independent Around 10% of slave ships mutinied although few succeeded
Olaudah Equiano	<ul style="list-style-type: none"> Ex-slave who became an abolitionist Wrote a best-selling autobiography in 1789 <i>The Interesting Narrative of the Life of Olaudah Equiano</i>
How this helped abolition	<ul style="list-style-type: none"> Mutinies and revolts raised awareness in Europe European governments became scared of future revolts Equiano's book helped Africans to be seen as people not property Challenged European ideas about what ex-slaves could achieve

Economic reasons	
Boycott	To stop buying goods. Public awareness caused a sugar boycott
Slavery not profitable	Economist Adam Smith argued that a 'Free market' was better. Slavery was bad for business as slaves had no incentive to work. Paid workers would not need food and accommodation like slaves
Petition	A list of requests or demands signed by many people
How this helped abolition	Sugar boycotts and the growing idea of the free market made the slave trade far less profitable.

1607-1732 British colonies created in Americas	1781 Slave Ship Zong	1788 Petitions begin to end slavery	1789 Equiano writes his autobiography	1791 Haitian Revolt	1797 Abolition Committee created	1804 Haiti declares independence	1807 Abolition Bill – slave trade becomes illegal in British Empire	1833 Slave ownership in British Empire banned
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History - The Industrial Revolution

Context of the Industrial Revolution	
Revolution	A change which means nothing will ever be the same again
The Industrial Revolution	The change from agrarian (farming) society to an industrial (manufacturing) one
The British Empire	Supplied many of the raw materials that helped drive the Industrial Revolution. Provided a market to buy manufactured goods

Transport and Technology	
Canals	<ul style="list-style-type: none"> Man-made waterways used to move raw materials such as coal and manufactured goods A slow and expensive method of transport
Locomotive	<ul style="list-style-type: none"> A steam train James Watt designed a steam engine in 1776
George Stephenson	<ul style="list-style-type: none"> Engineer who created the first passenger train in 1825 Known as the 'Father of railways'
Turnpike Trusts	<ul style="list-style-type: none"> Companies given permission from Parliament, to borrow money from banks and use it to build newer and better quality roads. They would then charge a 'toll' (a fee) for everyone that wanted to use it
James Hargreaves	Inventor of the 'Spinning Jenny' which could spin 8 threads at once
Richard Arkwright	Industrialist who created the water frame which could use water power to spin cotton

Factories	
Cottage Industry	Industry such as weaving that was carried out in people's homes
Factory system	The production of manufactured goods using machines in factories
Mass Production	The making of products on a large scale
Luddite	Someone opposed to new technology and ways of working Luddites would destroy factories and equipment

1764 The Spinning Jenny invented	1769 The water frame invented	1771 Arkwright opens Cromford Mill	1776 Watt builds his steam engine	1813 Execution of 14 Luddites	1814 Stephenson invents the locomotive	1830 Opening of the Liverpool Manchester railway	1833 Factory Act passed to protect children at work.	1848 The First Public Health Act passed	1875 The Second Public Health Act passed
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Working Conditions in Factories	
Collieries	A coal mine
Why were children used in factories?	<ul style="list-style-type: none"> Children did not have to be paid as much as adults Children were small enough to crawl under machinery / work in mines
Royal Commission	<ul style="list-style-type: none"> A commission of inquiry appointed by the Crown on the recommendation of the government Investigated working conditions for children in factories and mines
Factory Act 1833	<ul style="list-style-type: none"> Passed to protect children at work Stated that no child under the age of 9 could work in a factory.
Trade Union Congress	Founded in 1864 to support the rights of factory workers

Poverty and Reform	
Slums	<ul style="list-style-type: none"> Low quality housing where the poorest in society live Often located in large industrial cities
Conditions in slums	<ul style="list-style-type: none"> Overcrowding—caused poor health and disease Poor sanitation—lack of sewers and clean water Poverty—lack of basic human needs e.g. food, shelter, education
Reformers (People working for changes in society)	<p>Elizabeth Fry: Involved in prison reform</p> <p>Robert Peel: Founded the Metropolitan Police</p> <p>Seebohm Rowntree: Argued the government needed to help the poorest in society</p>

Public Health Reform	
Reformers (People working for changes in society)	<ul style="list-style-type: none"> John Snow: A doctor who discovered that the cholera germ was spread by dirty water Edward Jenner: Discovered the vaccination to Smallpox in 1796
Laissez—Faire	A government view that they should not involve themselves in ordinary people's lives
Public Health Acts	<p>1848: The first act encouraged clean water supplies, but was not compulsory</p> <p>1875: The second act made it compulsory to provide clean water, sewage and monitor disease outbreaks</p>

History - The British Empire

Context of the British Empire	
Empire	<ul style="list-style-type: none"> A group of countries ruled over by a leader
Colony	<ul style="list-style-type: none"> A country ruled by another
Colonisation	<ul style="list-style-type: none"> The process of establishing control over other countries
Reasons for Britain gaining an Empire	<ul style="list-style-type: none"> Geographical: Britain is an island with skilled sailors Military: GB had invested in gunpowder technology, powerful navy Economic: GB was the first industrialised nation, desire for overseas markets, GB used chartered companies (trade company not under government control) Political: GB had a stable government

India: What was the turning point in Britain's relationship with India?	
British Raj	<ul style="list-style-type: none"> The period of British rule of India
East India Company	<ul style="list-style-type: none"> The main British trading company in India
Key Events	<p>Indian Mutiny: Indian soldiers (sepoys) fought against British control of the army</p> <p>Amritsar Massacre: Up to 1000 Indian civilians killed by the British Army</p> <p>Rowlatt's Act: Gave the British more power to treat the Indian people harshly.</p>

The Americas: How did Canada become part of the British Empire	
Walter Raleigh	Explorer who founded the first British colony in the Americas
13 Colonies	The 13 original British colonies in America
First Nations	Native populations in what becomes known as Canada
Hudson Bay Trading Company	Traded furs in North America from 1670
7 Years War	<ul style="list-style-type: none"> A global war between the British, Spanish and French A large amount of fighting took place in the Americas

Africa: How did the 'scramble' change Africa?	
Royal African Company	An English Trading company one of the founders was Charles II
Transatlantic slave trade	<ul style="list-style-type: none"> The trade in enslaved Africans Britain was the main European country involved in the trade
Scramble for Africa	<ul style="list-style-type: none"> European countries competing for control of African territory Occurred between 1800 - 1900
Cecil Rhodes	<ul style="list-style-type: none"> A businessman and politician who was heavily involved in the colonisation of southern Africa Rhodesia (modern Zimbabwe) was named after him

Australia: How did the Aborigines experience the Empire?	
Aborigines	Indigenous people of Australia
Penal Colony	A colony where prisoners are sent as punishment
Transportation	Sending criminals to a prison colony as a punishment
The Black War	Frontier war between settlers and Tasmanian aborigines
William Cuffey	A black campaigner who was sent to the Tasmanian Penal Colony

What is the legacy of the British Empire?	
Decolonisation	The process of colonies gaining independence
Legacy	The impact of the British Empire on the present day
English Exceptionalism	The belief that England and the English people are superior to all other nations

1584 Walter Raleigh founds the colony of Virginia in America	1757 East India Company takes control of Bengal	1770 The British 'claim' Australia	1783 The US win their independence	1802 Tasmanian genocide begins	1857 The Indian Mutiny	1858 The British government take direct control of India	1899 The British use concentration camps in the Boer War	1919 The Amritsar massacre	1947 India & Pakistan gain independence
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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.
Improper Fraction	A fraction where the numerator is larger than the denominator.

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

Key Term	Definition
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 $<$, $>$, \leq , \geq or \neq .
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 Term	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: $\frac{\textit{difference}}{\textit{original}} \times 100$
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.
Significant figure	The significant figures of a number are the digits which carry meaning (ie. are significant) to the size of the number. The first significant figure of a number cannot be zero .

Key Term	Definition				
Cube Root	The particular factor of a number which can be multiplied by itself twice to produce that number.				
Key units of measurement	<table border="0"> <tr> <td>Time 1 hour = 60 minutes 1 minutes = 60 seconds 1 hour = 3600 seconds</td> <td>Length 1 cm = 10mm 1m = 100cm 1km = 1000m</td> </tr> <tr> <td>Mass 1kg = 1000g 1 tonne = 1000kg</td> <td>Area 1cm² = 100mm² 1m² = 10000cm²</td> </tr> </table>	Time 1 hour = 60 minutes 1 minutes = 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
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Mathematics - Algebra

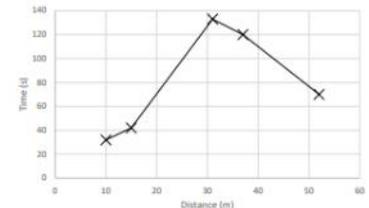
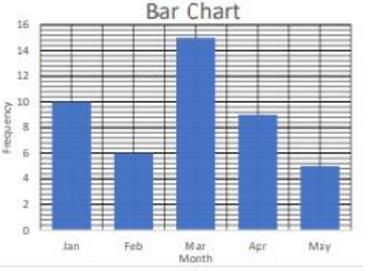
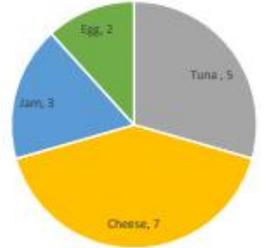
Key Term	Definition
Algebra	A branch of mathematics in which letters are used to represent numbers.
Coefficient	A constant value which multiplies a variable. Always written before the variable.
Constant	A fixed number on its own.
Equation	A mathematical statement in which two expressions with equal values 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	<table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th colspan="2">Inequality Symbols</th> </tr> </thead> <tbody> <tr> <td>\neq</td> <td>not equal</td> </tr> <tr> <td>$<$</td> <td>less than</td> </tr> <tr> <td>\leq</td> <td>less than or equal to</td> </tr> <tr> <td>$>$</td> <td>greater than</td> </tr> <tr> <td>\geq</td> <td>greater than or equal to</td> </tr> </tbody> </table>	Inequality Symbols		\neq	not equal	$<$	less than	\leq	less than or equal to	$>$	greater than	\geq	greater than or equal to
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$>$	greater than												
\geq	greater than or equal to												

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 number 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.

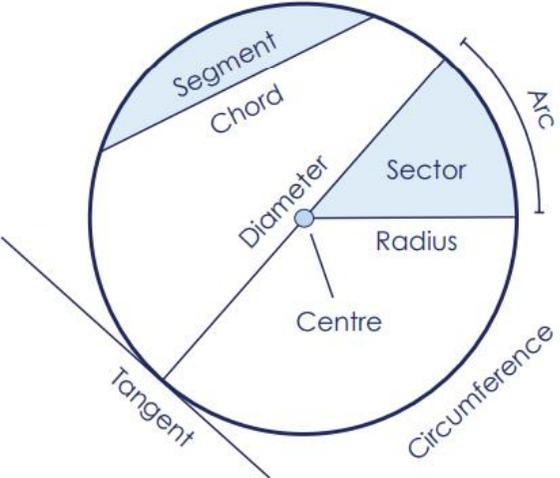
Mathematics - Statistics

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, or no 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.	<table border="1"> <thead> <tr> <th>Score</th> <th>Tally</th> <th>Frequency (<i>f</i>)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td> </td> <td>4</td> </tr> <tr> <td>2</td> <td> </td> <td>9</td> </tr> <tr> <td>3</td> <td> </td> <td>6</td> </tr> <tr> <td>4</td> <td> </td> <td>8</td> </tr> <tr> <td>5</td> <td> </td> <td>3</td> </tr> <tr> <td>6</td> <td> </td> <td>1</td> </tr> </tbody> </table>	Score	Tally	Frequency (<i>f</i>)	1		4	2		9	3		6	4		8	5		3	6		1
Score	Tally	Frequency (<i>f</i>)																					
1		4																					
2		9																					
3		6																					
4		8																					
5		3																					
6		1																					
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.																						

Key Term	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 & Measure

Key Term	Definition
Parts of a circle	 <p>The diagram shows a circle with a central point labeled 'Centre'. A horizontal line passing through the centre is labeled 'Diameter'. A line from the centre to the circumference is labeled 'Radius'. A straight line connecting two points on the circumference is labeled 'Chord'. The area between the chord and the circumference is labeled 'Segment'. A portion of the circumference is labeled 'Arc'. A line touching the circumference at a single point is labeled 'Tangent'. The entire outer boundary of the circle is labeled 'Circumference'.</p>
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. $C = \pi d$
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	$A = \frac{3\pi r^2}{4}$

Mathematics - Geometry & Measure

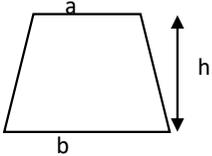
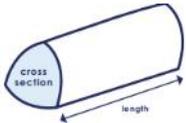
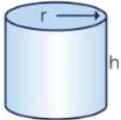
Key Term	Definition
Acute Angle	An angle less than 90° .
Adjacent	Next to, or near.
Area	A measure of the space inside a closed two-dimensional shape.
Axes	The straight lines on a graph used to define the position of a point. The x-axis goes across (horizontal). The y-axis goes up (vertical).
Centimetre (cm)	A metric unit of length equal to one hundredth of a metre. $100\text{cm} = 1\text{m}$
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. $1\text{ km} = 1000\text{m}$
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. $10\text{mm} = 1\text{cm}$
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° .

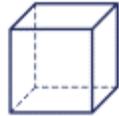
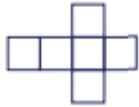
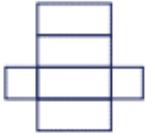
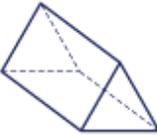
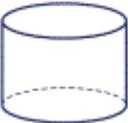
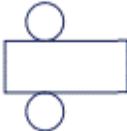
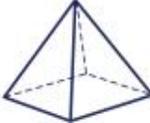
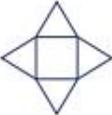
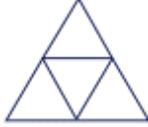
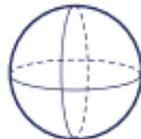
Key term	Definition
Perpendicular	Two lines that meet at an angle of 90° .
Perimeter	The total distance around the outside of a closed two-dimensional shape.
Polygon	A closed two-dimensional shape made up of all straight edges.
Protractor	An instrument used to measure angles.
Quadrilateral	A two-dimensional 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 terms	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° .

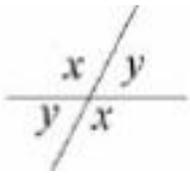
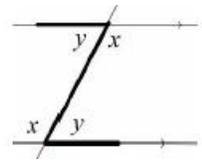
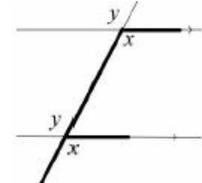
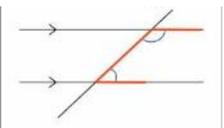
Key terms	Definition
Area of a rectangle or square	Length x width
Area of a parallelogram	Length x perpendicular height
Area of a triangle	$\frac{\text{Base} \times \text{perpendicular height}}{2}$
Area of a trapezium	$\frac{a + b}{2} \times h$, where a and b are parallel sides.

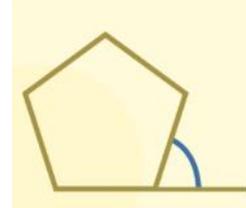
Mathematics - Geometry & Measure

Key Term	Definition
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	<p>The amount of 'space' a solid object occupies. Units: mm^3, cm^3, m^3, etc. The volume of a prism $V = \text{Area of Cross Section} \times \text{Length}$</p>  <p>The volume of a cylinder = $\pi r^2 h$</p> 
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

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
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	$\frac{360}{n}$

French - Les Vacances et le Temps Libre

1. Où vas-tu tes vacances?	Where do you go on holiday?
Je vais	I go
On va	We go
En France	To France
En Espagne	To Spain
En Italie	To Italy
En Allemagne	To Germany
En Grèce	To Greece
Au Portugal	To Portugal
Au Mexique	To Mexico
Aux États-Unis	To the USA

2. Où restes-tu en vacances?	Where do you stay on holiday?
Je reste	I stay
Nous restons / on reste	We stay
À la montagne	In the mountains
À la campagne	In the countryside
À la plage	At the beach
Au bord de la mer	By the seaside
En ville	In town
Dans un camping	On a campsite
Dans un hôtel	In a hotel

3. Comment voyages-tu ?	How do you travel?
Je voyage/ On voyage	I/We travel
En voiture	By car
En bateau	By boat
En train	By train
En avion	By plane
En car	By coach

Opinions	
Qu'est-ce que tu aimes faire pendant les vacances?	What do you like to do during your holidays?
J'aime	I like...
J'adore	I love
Je préfère	I prefer
Je n'aime pas	I don't like
Je déteste	I hate...

Remember: An infinitive means 'to something' and ends in an -er, -ir or -re in French

4. Qu'est-ce que tu as fait l'année dernière ?		What did you do last year?
L'année dernière		Last year
Je suis allé en / au...		I went to + country
J'ai bronzé		I tanned
J'ai joué au tennis/au volley		I played tennis/volleyball
J'ai nagé dans la mer		I swam in the sea
J'ai acheté des souvenirs		I bought souvenirs
J'ai mangé des spécialités locales		I ate local specialities
On a voyagé en		We travelled by
J'ai fait des sports nautiques		I did water sports
J'ai pris des photos		I took photos
J'ai lu		I read
J'ai fait du tourisme		I did sightseeing
Je suis allé (e) aux musées		I went to the museums
Je suis resté (e)		I stayed
C'était		It was

5. Qu'est-ce que tu vas faire?	What are you going to do?
Je vais	I am going...
Je ne vais pas	I am not going ...
On va	We are going ...
Je voudrais	I would like to...
Ce sera	It will be

6. Infinitifs	Infinitives
Me relaxer	To relax
Aller à la plage	To go to the beach
Lire	To read
Visiter les musées	To visit museums
Manger des spécialités locales	To eat local dishes
Nager dans la mer	To swim in the sea
Faire des sports nautiques	To do water sports
Manger aux restaurants	To eat at restaurants
Visiter des monuments	To visit monuments
Faire du tourisme	To go sightseeing
Prendre des photos	To take photos
Acheter des souvenirs	To buy souvenirs

Opinions	
Amusant	Fun
Super	Great
Fantastique	Fantastic
Incroyable	Incredible
Relaxant	Relaxing
Passionnant	Exciting
Nul	Rubbish
Ennuyeux	Boring

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

French - Les Vacances et le Temps Libre

7. Quels sont tes projets pour ce weekend?	What plans do you have for this weekend?
Je vais	I am going...
On va	We are going...

Jouer au basket	To play basketball
Aller à la plage	To go to the beach
Aller au parc	To go to the park
Aller au centre de loisirs	To go to the leisure centre
Regarder un film	To watch a film
Regarder la télé	To watch TV
Faire les magasins	To go shopping
Sortir avec mes amis	To go out with my friends
Faire mes devoirs	To do my homework
Faire de la natation	To go swimming
Faire du sport	To do sport
Faire de la randonnée	To go for a walk / hike

8. Qu'est-ce que tu aimes faire pendant ton temps libre?	What do you like to do in your free time?
J'aime	I like...
J'aime bien	I quite like...
J'adore	I love...
Je préfère	I prefer...
Je n'aime pas	I don't like...
Je déteste	I hate...
J'ai horreur de	I hate...

9. Tu voudrais aller au cinéma?	Do you want to go to the cinema
Tu veux	Do you want..?
Oui, je veux	Yes, I want...
Oui, je voudrais	Yes I would like...
D'accord	Okay
Peut-être	Maybe
Désolé(e)	Sorry
Je ne peux pas	I can't
Je dois faire mes devoirs	I have to do my homework
Je dois aider ma mère	I have to help my mum
Je dois m'occuper de mon frère / ma soeur	I have to look after my brother/sister

Time expressions	
PRESENT TENSE	
Normalement	Normally
Tous les ans	Every year
Puis / ensuite	Then/Next
PAST TENSE	
L'année dernière	Last year
L'été dernier	Last summer
FUTURE TENSE	
L'année prochaine	Next year
L'été prochain	Next summer
Dans le futur	In the future



10. Qu'est-ce que tu fais normalement le weekend ?	What do you normally do at the weekend?
Je joue au foot / au tennis /	I play football / tennis / netball
Je joue à des jeux vidéos	I play video games
Je reste chez moi	I stay at home
J'écoute de la musique	I listen to music
Je regarde la télé	I watch TV
Je vais en ville	I go to town
Je sors avec mes amis	I go out with my friends
Je fais du shopping	I do shopping
Je ne fais rien	I do nothing

Opinions	
Je pense que	I think that
À mon avis	In my opinion
Je trouve que	I find that
C'est	It is...
C'était	It was...
Ce sera	It will be...

Divertissant	Entertaining
Cool	Cool
Important	Important
Génial	Great
Marrant	Funny
Joli	Pretty
Inoubliable	Unforgettable

Ennuyeux	Boring
Dangereux	Dangerous
Stupide	Silly/stupid
Affreux	Awful
Une perte de temps	A waste of time

Spanish - Les Vacaciones Y El Tiempo Libre

1 ¿Adónde vas de vacaciones?	Where do you go on holiday?
Normalmente voy...	Normally I go...
A Francia	To France
A España	To Spain
A Italia	To Italy
A Alemania	To Germany
A Grecia	To Greece
A Escocia	To Scotland
A Gales	To Wales
A los Estados Unidos	To the USA

2 ¿Dónde te alojas/te quedas?	Where do you stay?
Me alojo...	I stay...
Nos alojamos...	We stay...
En las montañas	In the mountains
En el campo	In the countryside
A la playa	At the beach
En la costa	By the seaside
En la ciudad	In town
En un campamento	On a campsite
En un hotel	In a hotel
En una villa	In a villa

3 ¿Cómo viajas?	How do you get there?
Viajo/Viajamos...	I travel/we travel...
En coche	By Car
En barco	By Boat
En tren	By Train
En avión	By Plane
En autobús	By Bus

Opinions	
¿Qué te gusta hacer durante las vacaciones?	What do you like to do during your holidays?
Me gusta...	I like...
Me mola...	I really like...
Me encanta...	I love...
Prefiero..	I prefer...
Odio...	I hate...

4 ¿Adónde fuiste el año pasado?	Where did you go last year?
Fui a...	I went to...
Fuimos a...	We went to...
Nos alojamos en...	We stayed in...
Fui con...	I went with...

5 ¿Qué hiciste el año pasado?	What did you do last year?
Visité los museos	I visited museums
Nadé en el mar	I swam in the sea
Descansé a la playa	I relaxed on the beach
Tomé el sol	I sunbathed
Compré recuerdos	I bought souvenirs
Jugué al tenis / golf	I played tennis/golf
Comí al restaurante	I ate at a restaurant
Leí libros	I read books
Hice turismo	I went sightseeing
Hice deportes acuáticos	I did water sports

Remember: An infinitive means 'to something' and ends in an 'ar', 'er' or 'ir' in Spanish

6 ¿Cuáles son tus planes para las próximas vacaciones?	What are your plans for your next holiday?
Voy a...	I am going...
No voy a..	I am not going ...
Vamos a...	We are going ...
Me gustaría...	I would like to...

Infinitivos	Infinitives
Descansar	To relax
Ir a la playa	To go to the beach
Leer	To read
Visitar los museos	To visit museums
Comer platos típicos	To eat local dishes
Nadar en el mar	To swim in the sea
Hacer deportes acuáticos	To do water sports
Ir a los restaurantes	To go to restaurants
Visitar monumentos	To visit monuments
Hacer turismo	To go sightseeing
Tomar el sol	To sunbathe
Comprar recuerdos	To buy souvenirs

7 ¿Qué te gustaría hacer en el futuro?	What would you like to do in the future?
Me gustaría ir a..	I would like to go to...
Al campo	To the countryside
Al extranjero	Abroad
A la ciudad	To the city
A la costa	To the coast

Spanish - Les Vacaciones Y El Tiempo Libre

8 ¿Qué planes tienes para este fin de semana ?	What plans do you have for this weekend?
Voy a...	I am going...
Vamos a...	We are going...

Ir de compras	To go shopping
Ir a la playa	To go to the beach
Ir al parque	To go to the park
Ir al poldeportivo	To go to the sports centre
Ver una película	To watch a film
Ver la tele	To watch TV
Jugar al baloncesto	To play basketball
Salir/Quedar con mis amigos	To go out with/meet up with my friends
Hacer mis deberes	To do my homework
Hacer natación	To go swimming
Hacer deporte	To do sport
Dar un paseo	To go for a walk

9 ¿Qué te gusta hacer en tu tiempo libre?	What do you like to do in your free time?
Me gusta...	I like...
Me mola...	I really like...
Me encanta...	I love...
Prefiero..	I prefer...
Odio...	I hate...

10 ¿Quieres ir al cine?	Do you want to go to the cinema
¿Quieres....	Do you want..?.
Sí, quiero...	Yes, I want...
Sí me gustaría..	Yes I would like...
Vale	Okay
Tal vez	Maybe
Lo siento, no puedo	Sorry I can't
Tengo que hacer mis deberes	I have to do my homework
Tengo que ayudar a mi madre	I have to help my mum
Tengo que cuidar a mi	I have to look after my

Time expressions	
PRESENT TENSE	
Generalmente	Generally
Normalmente	Normally
Cada año	Every year
Todos los años	Every year
El primer día	The first day
Luego	Then/Next
PAST TENSE	
El año pasado	Last year
El verano pasado	Last summer
FUTURE TENSE	
El año que viene	Next year
El año próximo	Next year
El verano que viene	Next summer
En el futuro	In the future

11 ¿Qué haces en tu tiempo libre?	What do you do in your free time?
Toco la guitarra	I play the guitar
Veo la televisión	I watch TV
Escucho música	I listen to music
Practico deporte	I practise sports
Leo libros	I read books
Navego por internet	I surf the internet
Salgo con mis amigos	I go out with my friends

Opiniones		Opinions
Pienso que		I think that
En mi opinión		In my opinion
Es...		It is...
Fue...		It was...
Será...		It will be...

Divertido	Fun
Emocionante	Exciting
Guay	Cool
Entretenido	Entertaining
Gracioso	Funny
Fenomenal	Amazing
Bonito	Beautiful
Inolvidable	Unforgettable

Aburrido	Boring
Pesado	Boring
Peligroso	Dangerous
Tonto	Silly/stupid
Fatal	Awful
Una pérdida de tiempo	A waste of time

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

French - Le Temps Libre et la Vie Saine

1. Qu'est-ce que tu aimes regarder ?	What do you like to watch?
Les feuilletons	Soaps
Les dessins animés	Cartoons
Les documentaires	Documentaries
Les séries américaines	American series
Les séries policières	Police series
Les émissions de sport	Sports programmes
Les émissions de télé réalité	Reality TV shows
Les infos	News

2. Je préfère	I prefer...
Je préfère regarder	I prefer to watch...
Je regarde	I watch...
J'aime	I like...
J'aime bien	I really like...
J'adore	I love...

3. Quel genre de film aimes-tu ?	What type of film do you like?
Les films d'amour	Love films
Les films d'horreur	Horror films
Les films d'action	Action films
Les films de science-fiction	Science-fiction films
Les films de guerre	War films
Les westerns	Western films
Les dessins animés	Animated films
Les films fantastiques	Fantasy films
Les documentaires	Documentaries
Les comédies	Comedies

Opinions sur la télé et les films	Opinions on TV and films
Parce qu' / Car	Because
Ils / elles sont	They are...
Drôles	Funny
Divertissant(e)s	Entertaining
Effrayant(e)s	Scary
Violent(e)s	Violent
Triste(s)	Sad
Captivant (e)s	Gripping
Informatif (ve)s	Informative

4. Quelle musique écoutes-tu ?	What music do you listen to?
J'aime écouter	I like to listen
J'écoute	I listen
Je n'écoute jamais	I never listen
De la musique pop	Pop
De la musique rap	Rap
De la musique hip-hop	Hip Hop
De la musique électronique	Electronic music
De la musique RnB	RnB
De la musique classique	Classical music
De la musique jazz	Jazz music
De la musique rock	Rock music
Un peu de tout	A bit of everything

Reasons	
Parce que	Because
C'est original	It is original
C'est entraînant	It is catchy
C'est relaxant	It is relaxing
Ça me donne envie de danser / chanter / pleurer	It makes me want to dance / to sing / to cry
Ça me rend heureux / triste	It makes me happy / sad

5. Qu'est-ce que tu manges ?	What do you eat?
Au petit-déjeuner	At breakfast
Au déjeuner	At lunch
Au dîner	At dinner
Je mange	I eat
Je prends	I have (eat)
De la soupe	Some soup
Des pâtes	Some pasta
Du poisson	Some fish
Des frites	Some chips
Des légumes	Some vegetables
De la viande	Some meat
Du riz	Some rice
Des escargots	Some snails
Je bois	I drink
De l'eau	Some water
Du café	Some coffee
Du jus d'orange	Some orange juice

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
	<i>Masculine</i>
	<i>Feminine</i>
	<i>Plural</i>

French - Le Temps Libre et la Vie Saine

6. Que voudrais-tu manger? What do you want to eat?	
Je voudrais manger	I would like to eat
Je voudrais boire	I would like to drink
Une crêpe	A crêpe
Parce que c'est	Because it is
Délicieux	Delicious
Malsain	Unhealthy
Salé	Salty
Sucré	Sweet
Sain	Healthy

7. Qu'est-ce que tu portes ? What do you wear?	
Je porte	I wear
Un pull	A jumper
Un jean	Jeans
Un tee-shirt	A t-shirt
Une robe	A dress
Une veste	A jacket
Une chemise	A blouse
Une jupe	A skirt
Des baskets	Some trainers
Bleu/e (s)	Blue
Noir/ e (s)	Black
Blanc/he (s)	White
Gris/e (s)	Grey
Rouge/s	Red

8. Qu'est-ce que tu vas acheter ? What are you going to buy?	
Demain	Tomorrow
Ce weekend	This weekend
Je vais aller	I am going to go
À la boulangerie	To the bakery
À la boucherie	To the butcher's
À l'épicerie	To the grocer's
À la librairie	To the book shop
À la pharmacie	To the pharmacy
À la pâtisserie	To the pâtisserie
Au magasin de souvenirs	To the souvenir shop
Au magasin de chaussures	To the shoe shop
Je vais acheter	I am going to buy
Un stylo	A pen
Des petits gâteaux	Some small cakes
Des médicaments	Some medication
Un livre	A book
Du pain	Some bread
Ce sera utile	It will be useful
Ce sera cher	It will be expensive
Ce sera bon marché	It will be cheap

Time expressions (Past)	
Hier	Yesterday
Récemment	Recently
La semaine dernière	Last week

9. Qu'est-ce qu'il faut faire pour rester en forme? What must we do to stay in shape?	
Il faut	You must
Il ne faut pas	You must not
Manger des fruits	Eat fruits
Faire de l'exercice	Do exercise
Éviter des sucreries	Avoid sugary foods
Se coucher de bonne heure	Go to bed early
Manger équilibré	Eat a balanced diet
Fumer	Smoke
Boire de l'alcool	Drink alcohol
C'est mauvais pour la santé	It is bad for your health
C'est bon pour la santé	It is good for your health
C'est sain	It's healthy
C'est malsain	It's unhealthy

10. Qu'est-ce que tu as fait hier? What did you do yesterday?	
Je suis allé au gymnase	I went to the gym
J'ai fait de l'exercice	I did some exercise
J'ai fait du sport	I did sport
J'ai mangé cinq fruits et légumes	I ate 5 fruits and vegetables
J'ai mangé équilibré	I ate a balanced diet
J'ai évité de grignoter	I avoided snacking
J'ai dormi 8 heures	I slept 8 hours
J'ai bu de l'eau	I drank water
C'était vraiment sain	It was really healthy

Spanish - El Tiempo Libre y la Vida Sana

1 ¿Qué te gusta ver?	What do you like to watch?
Los concursos	Game shows
Los dibujos animados	Cartoons
Los documentales	Documentaries
Las noticias	News
Las telenovelas	Soaps
Las series policíacas	Detective series

Prefiero...	I prefer...
Prefiero ver...	I prefer to watch...
Veo..	I watch...
Me gustan...	I like...
Me gustan mucho...	I really like...
Me chiflan...	I love...
Me encantan...	I love...

2 ¿Qué tipo de película prefieres?	What type of film do you prefer?
Las películas de terror	Horror films
Las películas de acción	Action films
Las películas de ciencia-ficción	Science fiction films
Las películas de guerra	War films
Las películas de fantasía	Fantasy films
Las películas de amor	Love films
Las comedias	Comedies

Opiniones de tele y películas	Opinions on TV and films
Porque	Because
Son...	They are...
Divertido/as	Fun
Entretenido/as	Entertaining
Tonto/as	Silly/stupid
Informativo/a s	Informative
Educativo/a s	Educational
Escalofriantes	Scary
Emocionantes	Exciting
Cautivantes	Gripping
Infantiles	Childish

3 ¿Qué tipo de música te gusta escuchar ?	What type of music do you like listening to?
Me encanta escuchar...	I love listening to...
Me gusta escuchar...	I like listening to...
Nunca escucho..	I never listen to...
Música pop	Pop music
Rap	Rap
Hip hop	Hip Hop
Música latina	Latin music
Música clásica	Classical music
Música jazz	Jazz music
Música rock	Rock music

Porque	Because
Me da energía	It gives me energy
Me hace feliz	It makes me happy
Me hace bailar	It makes me dance
Me molesta	It annoys me

Opiniones de música	Opinions on music
Es...	It is...
Pegadiza	Catchy
Relajante	Relaxing
Repetitivo/a	Repetitive
Imaginativo/a	Imaginative
Lento/a	Slow
Rápido/a	Fast

4 ¿Qué comes?	What do you eat?
Como...	I eat...
Para el desayuno como...	For breakfast I eat...
Para el almuerzo como...	For lunch I eat...
Para la cena como...	For dinner I eat...
Fruta	Fruit
Verduras	Vegetables
Pollo	Chicken
Cereales	Cereal
Helado	Ice cream
Caramelos	Sweets
Hamburguesas	Burgers
Patatas fritas	Chips
Carne	Meat
Arroz	Rice
Bebo...	I drink...
Agua	Water
Limonada	Lemonade
Té	Tea
Café	Coffee

Spanish - El Tiempo Libre y la Vida Sana

5 ¿Qué quieres comer?	What do you want to eat?
Quiero comer...	I want to eat ...
No quiero comer ...	I don't want to eat ...
Me gustaría probar...	I would like to try...
Me gustaría comer...	I would like to eat...

Opiniones	Opinions
Pienso que	I think that
En mi opinión	In my opinion
Es...	It is...
Sería...	It would be...

Salado/a	Salty	Salados/as	Salty
Delicioso/a	Delicious	Deliciosos/as	Delicious
Sano/a	Healthy	Sanos/as	Healthy
Rico/a	Rich	Ricos/as	Rich
Picante	Spicy	Picantes	Spicy
Dulce	Sweet	Dulces	Sweet

Son...	They are...
Serían...	They would be...

6 ¿Estás en forma?	Are you in shape?
Hago ejercicio	I do exercise
Como bien	I eat well
Nunca bebo agua	I never drink water
(No) Voy al gimnasio	I (don't) go to the gym
Hago deporte	I do sport
Como comida basura	I eat junk food
No como verduras	I don't eat vegetables
Voy al polideportivo	I go to the sports centre

7 ¿Qué se puede hacer para estar en forma?	What can you do to stay in shape?
Para estar en forma...	To stay in shape...
Se puede...	You can...
Se debe...	You must...
Hay que...	You must...
Hacer ejercicio	Do exercise
Comer más fruta	Eat more fruit
Dormir 8 horas al día	Sleep 8 hours a day
Beber mucha agua	Drink lots of water
Desayunar todos los días	Have breakfast every day
Evitar la comida basura	Avoid junk food

8 ¿Qué hiciste recientemente para estar en forma?	What did you do recently to stay in shape?
Fui al gimnasio	I went to the gym
Hice deporte	I did sport
Jugué al fútbol	I played football
Hice ejercicio	I did exercise
Comí mucha comida sana	I ate lots of healthy food
Dormí ocho horas	I slept for 8 hours

Opiniones de vida sana	Opinions on a healthy life
Es saludable	It is healthy
Es sano	It's healthy
Es esencial	It's essential
Es importante	It's important
Es bueno para la salud	It's good for the health
Te da energía	It gives you energy
Te hace feliz	It makes you happy
Te hace sentir bien	It makes you feel good

9 ¿Qué te gusta llevar?	What do you like wearing?
Me gusta llevar	I like to wear...
Llevo...	I wear...

Un vestido	A dress
Un abrigo	A coat
Una chaqueta	A jacket/blazer
Una camisa	A shirt
Una camiseta	A t-shirt
Una falda	A skirt
Unos pantalones	Some trousers
Unos vaqueros	Some jeans

10 ¿Qué vas a comprar?	What are you going to buy?
Voy a comprar...	I am going to buy...

Los colores	The colours
Negro	Black
Gris	Grey
Amarillo	Yellow
Verde	Green
Blanco	White
Morado	Purple
Rojo	Red
Azul	Blue
Naranja	Orange
Rosa	Pink

French - Le collège et le travail

1. Quelles matières étudies-tu?	What subjects do you study?
J'étudie	I study
J'aime étudier	I like to study
Le français	French
L'EPS	P.E
L'anglais	English
L'art / le dessin	Art
Le théâtre	Drama
La géographie	Geography
L'histoire	History
L'éducation religieuse	R.E
La musique	Music
La technologie	Technology (DT)
L'informatique	I.T.
Les maths	Maths
Les sciences	Science

2. Quelle est ta matière préférée ?	What is your favourite subject?
Ma matière préférée c'est	My favourite subject is
Parce que	Because
Car	Because
Puisque	Because
Ça m'intéresse	I'm interested in it
J'ai des bonnes notes	I get good marks
Le prof m'aide	The teacher helps me
Le prof explique bien	The teacher explains well
C'est pertinent	It's relevant
C'est actif / créatif	It's active/creative

3. Qu'est-ce qu'il faut faire ? (Les règles)	What must you do? (Rules)
Il faut	You must
Être poli	Be polite
Écouter en classe	Listen in class
Porter un uniforme	Wear uniform
Arriver à l'heure	Arrive on time
Faire les devoirs	Do homework
Il ne faut pas	You must not
Porter des piercings	Have piercings
Courir dans les couloirs	Run in the corridors
Manger du chewing-gum	Chew gum
Utiliser le portable en classe	Use your phone in class

4. Qu'est-ce qu'il faut porter ?	What must you wear?
Il faut porter	You must wear
Je porte	I wear
Je dois porter	I have to wear
Une cravate	a tie
Une chemise	a shirt
Une veste	a blazer
Une jupe	a skirt
Un pantalon	Trousers
Des chaussettes	Socks
Des chaussures	Shoes

5. Que penses-tu des règles ?	What do you think of the rules?
Je pense que c'est	I think that it is
Je trouve ça	I find it
Juste	Fair
Normal	Normal
Important	Important
Utile	Useful
Nécessaire	Necessary
Injuste	Unfair
Énervant	Annoying
Stupide	Stupid
Inutile	Useless

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

J'aime étudier le français parce que le prof explique bien. Je pense que c'est utile.



French - Le collège et le travail

PRESENT TENSE

6.	Quelles activités fais-tu?	What activities do you do?
	Je joue d'un instrument	I play an instrument
	Je joue dans l'orchestre	I play in the Orchestra
	Je chante dans la chorale	I sing in the choir
	Je suis membre de l'équipe de.....	I am a member of the.....team
	Je parle une langue étrangère	I speak a foreign language
	Je ramasse les déchets	I pick up litter

7.	Qu'est-ce qu'ils font comme travail?	What do they do for a job?
	Il est / Elle est	He is / She is
	Professeur	A teacher
	Infirmier/ière	A nurse
	Cuisiner/ ière	A chef
	Serveur/euse	A waiter
	Coiffeur/euse	A hairdresser
	Vendeur/euse	A sales assistant
	Réceptionniste	A receptionist
	Dentiste	A dentist
	Médecin	A doctor
	Pompier / ière	Fireman / woman
	Chanteur/euse	A singer
	Footballeur/euse	A footballer
	Agent de police	A police officer

8.	Quels clubs y-a-t-il ?	What clubs are there?
	Il y a	There is / There are
	Dans mon collège il y a beaucoup de clubs	In my school there are lots of clubs
	Un club d' échecs	Chess club
	Un club de sport	Sports club
	Un club de langues	Languages club
	Un club éco	An eco-club
	Un orchestre	An orchestra
	Un club de théâtre	A drama club

9.	Qu'est-ce qu' il / elle doit faire ?	What does he / she have to do?
	Il / elle doit	He / she has to
	Aider les enfants	Help children
	S'occuper des patients	Look after patients
	Préparer les repas	Prepare meals
	Servir les clients	Serve customers
	Couper les cheveux	Cut hair
	Travailler à la caisse	Work on the till
	Répondre au téléphone	Answer the phone
	À son avis c'est	In his / her opinion it is
	Répétitif	Repetitive
	Créatif	Creative
	Stressant	Stressful
	Relaxant	Relaxing
	Bien payé	Well paid

Time expressions

Quand fais-tu ça ?	When do you do that?
Après le collège	After school
Pendant la pause déjeuner	During lunch
Tous les mercredis	Every Wednesday
Tous les jours	Every day
Quelquefois	Sometimes

FUTURE TENSE

10.	Quel serait ton boulot idéal ?	What would your ideal job be?
	Je voudrais...	I would like...
	Je veux	I want...
	Je ne voudrais pas	I would not like
	Être	To be
	Travailler	To work
	Faire	To do
	Ce serait	It would be
	Gratifiant	Rewarding
	Un défi	A challenge

11. Les projets d'avenir	Future plans
Je voudrais voyager	I'd like to travel
J'aimerais me marier	I'd like to marry
J'aimerais avoir des enfants	I'd like to have children
Je voudrais gagner beaucoup d'argent	I'd like to earn lots of money
Je voudrais être heureux/euse	I would like to be happy

Spanish - El Colegio Y el Trabajo

1 ¿Qué asignaturas estudias?	What subjects do you study?
Estudio...	I study...
Tengo...	I have...
(El) español	Spanish
(El) francés	French
(El) alemán	German
(El) inglés	English
(El) arte/(el) dibujo	Art
(La) geografía	Geography
(La) historia	History
(La) religión	R.E
(La) música	Music
(La) tecnología	Technology
(La) informática	I.T
(La) educación física	P.E
(Las) ciencias	Science
(Las) matemáticas	Maths

Time expressions	
Los lunes	On Mondays
Los martes	On Tuesdays
Los miércoles	On Wednesdays
Los jueves	On Thursdays
Los viernes	On Fridays
Todos los días	Every day
De vez en cuando	From time to time
A veces	Sometimes

Opinions	
2 ¿Qué asignaturas estudias?	What subjects do you study?
Me encanta	I love it
Me gusta	I like it
Porque...	Because...
Es divertido	It is fun
Es relevante	It is relevant
Es práctico	It is practical
Es mi asignatura favorita	It is my favourite subject
Me interesa	It interests me
No me gusta	I don't like it
Porque...	Because...
Es difícil	It is difficult
Es inútil	It is useless

Me encantan	I love them
Me gustan	I like them
Porque...	Because...
Son divertidas	They are fun
Son relevantes	It is relevant
Son practicas	It is practical
Me interesan	They interest me
Saco buenas notas	I get good grades
El profesor me ayuda	The teacher helps me
El profesor es simpático	The teacher is nice
El profesor explica bien	The teacher explains well
El profesor me da muchos deberes	The teacher gives me lots of homework

3 ¿Qué se debe hacer?	What must you do?
Se debe...	You must...
Hay que...	You must/have to...
Escuchar en clase	Listen in class
Escuchar al profe	Listen to the teacher
Llevar uniforme	Wear uniform
Llegar a tiempo	Arrive on time
Hacer los deberes	Do homework
No se debe...	You must not...
Está prohibido...	It is forbidden to ...
Llegar tarde	Arrive late
Llevar piercings	Wear piercings
Llevar maquillaje	Wear makeup
Comer chicle	Chew gum
Pelearse con otros alumnos	Fight with other students

4 ¿Qué piensas de las reglas ?	What do you think of the rules?
Son...	They are...

Justas	Fair
Prácticas	Practical
Útiles	Useful
Importantes	Important
Necesarias	Necessary

Injustas	Unfair
Estúpidas	Stupid
Inútiles	Useless
Tontas	Silly
Estrictas	Strict



Spanish - El Colegio Y el Trabajo

5 Háblame de las actividades extraescolares	Talk to me about extra curricular activities
En mi colegio	In my school
Hay...	There is...
Un club de teatro	A drama club
Un club de deporte	A sports club
Un club de idiomas	A languages club
Un club de música	A music club
Un club de ajedrez	A chess club
Donde...	Where
Me divierto	I have fun
Practico el fútbol	I practise football
Hablo español	I speak Spanish
Toco un instrumento	I play an instrument
Juego con mis amigos	I play with my friends

6 ¿Qué hacen de trabajo?	What do they do for a job?
Es...	He/she is...
Trabaja como...	He/she works as...
Profesor/a	A teacher
Médico/a	A doctor
Enfermero/a	A nurse
Cocinero/a	A chef
Camarero/a	A waiter
Peluquero/a	A hairdresser
Mecánico/a	A mechanic
Dependiente/a	A sales assistant
Cantante	A singer
Futbolista	A footballer
Dentista	A dentist
Recepcionista	A receptionist

Tiene que...	He/she has to...
Enseñar a los niños	Teach children
Cuidar a la gente	Look after people
Preparar comida	Prepare food
Servir a los clientes	Serve customers
Vender productos	Sell products
Hablar por teléfono	Talk on the phone

7 ¿Cuál sería tu trabajo ideal?	What would your ideal job be?
Mi trabajo ideal sería...	My ideal job would be..
Me gustaría ser...	I would like to be...
Me gustaría trabajar como..	I would like to work as..

Porque	Because
Me gusta...	I like...
Trabajar con niños	To work with children
Trabajar al aire libre	To work outdoors
Trabajar en equipo	To work in a team

¿Cómo es su trabajo ?	What is his/her job like?
En su opinión.	In his / her opinion
Es...	It is...



Fácil	Easy	Repetitivo	Repetitive
Creativo	Creative	Estresante	Stressful
Relajante	Relaxing	Difícil	Difficult
Interesante	Interesting	Monótono	Dull/Boring
Los clientes son simpáticos	The customers are nice		
Los clientes son horrorosos	The customers are horrible		
Mi jefe es severo	My boss is strict		

8 ¿Qué planes tienes para el futuro?	What plans do you have for the future ?
En el futuro	In the future
Me gustaría...	I would like...
Tener una familia	To have a family
Casarme	To get married
Ganar mucho dinero	To earn lots of money
Viajar	To travel
Vivir en otro país	To live in another country
Sería...	It would be...

*Grammar note

Notice that we use 'toco' for instruments but 'juego' for activities .

Time expressions	
Antes del colegio	Before school
Después del colegio	After school
A la hora de comer	At lunch time
Durante el recreo	During break
Los lunes	On Mondays
Todos los días	Every day

Vocal skills	
Term	Definition
Accent	The way a character pronounces words according to their regional location or social class.
Emphasis	Adding stress to a word or phrase to enhance importance and communicate meaning.
Pace	How quickly or slowly a person speaks.
Pause	A moment of silence to build tension, add emphasis or communicate other meaning.
Pitch	How high or deep the voice is.
Volume	How loud or quiet the voice is.
Tone	The way the character speaks to show emotion.

Physical Skills	
Term	Definition
Eye contact	Use of the eyes to communicate meaning.
Gait	The way the character walks.
Gestures	Use of hands, head and shoulders to communicate meaning.
Facial expressions	Use of the face to communicate meaning.
Stance	The way a character stands including the placement of feet and body weight to communicate meaning.
Posture	How the body is held or the shape of the back.

Creating theatre	
Stimulus	The item that inspires the idea.
Artistic vision	What the actor/director wants the audience to experience.
Creative task	A task with a set of rules or restrictions used to create new dramatic or movement material.
Rehearsal	The process of repeatedly practicing and refining a performance to improve the quality.
Improvisation	Making a performance up on the spot with no rehearsal.
Voice off	A voice heard off-stage during a performance.

Use of space	
Blocking	The process of staging the movement of a scene.
Emotion memory	When the actor finds real emotions from their own experience and applies them to their own performance.
Given circumstances	Information about the character found in the script.

Performance quality	
Audience awareness	Being aware of what the audience can see and hear and experience when blocking, rehearsing and performing a scene.
Clarity	Speaking clearly so the audience can hear you.
Corpsing	Coming out of role or losing focus during a performance— should be avoided.
Projection	The energy the actor use to engage and connect with the audience.

Movement	
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 energy, effort, force, or weight.
Choreography	A sequence of stylised movement created to communicate meaning to an audience.
Counterbalance	Sharing body weight between two people.
Pathways	The journey you take around the space.

Elements of music	
Duration	The length of the notes in beats. E.g. crotchet duration is one beat.
Dynamics	How loud or quiet the music is.
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.
Timbre/sonority	The instruments tone colour or sound FX used.
Tonality	Major or minor music.

Melodic devices	
Conjunct	Melody moving in steps.
Disjunct	Melody moving in leaps.
Ascending	A melody moving higher in pitch.
Descending	A melody moving lower in pitch.

Key words connected to tonality	
Major	Happy sounding music.
Minor	Sad sounding music.

Blues music key terms	Definition
12 bar blues chords	A set sequence of chords played over 12 bars.
Riff	A repeating pattern.
Improvisation	Making music up on the spot with no rehearsal.
Lyrics	The words to a song.

Chords	Notes in each chord
C	C,E,G
F	F,A,C
G	G,B,D
Am	A,C,E

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, each of equal importance
Syncopation	An off-beat rhythm

Treble Clef Notes

Treble Clef

C D E F G A B C D E F

Detailed description: A musical staff with a treble clef. The notes are placed on the lines and spaces of the staff. The notes on the lines from bottom to top are C, E, G, B, and D. The notes on the spaces from bottom to top are D, E, F, G, and A. The letters C through F are printed below the staff to identify the notes.

Bass Clef

Bass Clef Notes

G A B C D E F G A

Line Notes:

G B D F A

Space Notes:

A C E G

Detailed description: A musical staff with a bass clef. The notes are placed on the lines and spaces of the staff. The notes on the lines from bottom to top are G, B, D, F, and A. The notes on the spaces from bottom to top are A, C, E, and G. The letters G through A are printed below the staff to identify the notes. Below the main staff, two smaller staves are shown: 'Line Notes' with notes G, B, D, F, A on the lines, and 'Space Notes' with notes A, C, E, G on the spaces.

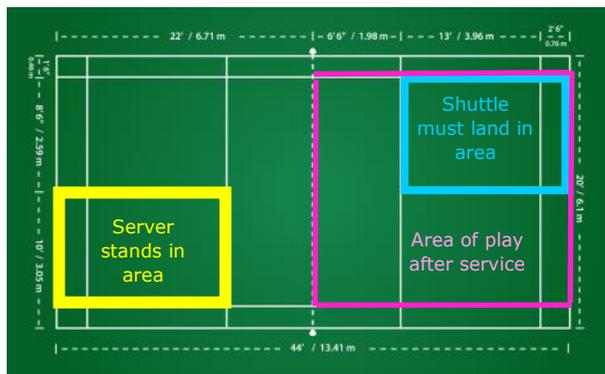
Tempo Italian terms	
Tempo	The speed of the music
Largo	Very slowly
Adagio	Slowly
Andante	At a walking pace
Moderato	Moderately
Allegro	Fast
Vivace	Quick and lively
Presto	Very fast
Accelerando	Gradually speeding up
Rallentando	Gradually slowing down

Texture key terms	
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.

Keyboard key terms	
Block chord	Playing the notes of the chord at exactly the same time.
Triad	A 3 note chord.
Octave	Playing the same note exactly 8 notes higher or lower.
Unison	Playing exactly the same note(s) as your partner.

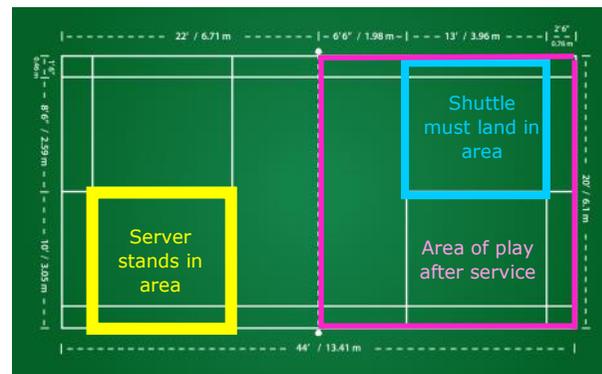
Physical Education - Badminton

Singles Serving and Area of Play

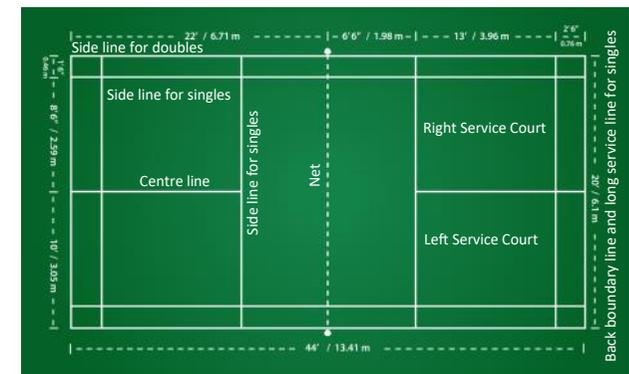


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Doubles Serving and Area of Play



Badminton Court Lines



Key Rules

Rule	Definition
Service Fault	<p>Server puts foot on or over the service line.</p> <p>The shuttle does not cross the service line on opponents' side.</p> <p>Racket contacts shuttle above the wrist.</p>
Net Fault	<p>Player reaches over the net to play the shuttle</p> <p>When a player contacts the net.</p> <p>Player steps over the centre line under the net</p>
	<ul style="list-style-type: none"> Games are played, first to 21. Whoever wins the rally wins the point. You keep serving until you lose the point. After the point is won, the players will move to the opposite serving area. No second serves. You are not allowed to touch the net. No double hits allowed. You must serve from behind the service line and diagonally across the net.

Key Skills

	Key Skills	What is it?	Why is it used?
Serving	Short	Shuttle to be hit towards the front of the court, pass the 'service line'.	To bring the opponent closer to the front of the court, therefore hitting your return shot to the back of the court.
	Long	Shuttle to be hit towards the back of the court.	To move the opponent to the back of the court, therefore your return shot should be hit towards the front of the court.
	Flick	A serve that is disguised to look like at short serve.	To trick your opponent to think you are going to serve short, but you hit it long towards the back of the court.
Forehand Clears	Overhead	Use the overhead clear to move your opponent to the backcourt.	A defensive shot that will create space for you to move up the court and give you time to regain centre position on the court
	Underarm	To clear the shuttle to the back of the court when it is low down.	A defensive shot to put pressure back on your opponent and give you time to regain court position.
Doubles positions	Side to Side	Partners play next to each other and take responsibility for their side of the court.	Both players are positioned by the net, side to side. You are offensive and can cover most of the court. Most effective positioning in doubles
	Front and Back	One player plays at the net whilst their partner covers the back of the court.	Communication must be strong between you and your team-mate as there is a big open target between the front and back player, giving your opponents an opportunity to land the shuttle in that area
Shot	Drop	The forehand overhead drop shot is like the action of throwing a ball.	To disguise your shot to make it look like a back court shot and then play it to the front of the court, putting pressure on your opponent.
	Smash	The smash is a shot hit with power and speed downward to your opponent's court.	The angle and the steepness of the shuttle's trajectory will make it hard for your opponent to retrieve.

Physical Education - Cricket

Positions	Roles
Teams	Cricket is played between 2 teams made up of 11 players each.
Aim of Game	Games compromise of at least 1 innings where each team will take turns in batting and bowling/fielding.
Batting team	The batsmen will try to score as many runs as possible before getting out.
Fielding Team	The fielding team try to get the batsmen out.

KEY SKILLS			
	Key Skills	What is it?	Why is it used?
Batting	Drive shot	Straight batted shot played along the floor, either on the on or off side	Attacking shot designed to score runs in front of square
	Defensive shot	Straight batted shot normally scoring no runs	Defensive shot played to not get out, block the ball from hitting the stumps
	Pull shot	Attacking, cross batted shot played towards square leg	To score runs on the leg side to a ball that has pitched (landed) halfway down the wicket on or around the leg stump
Fielding	Orthodox and unorthodox catching	Orthodox – catching with fingers pointing down Unorthodox – catching with fingers pointing up	Orthodox – designed to catch the ball from approx. your chest or below Unorthodox – designed to catch the ball from approx. chest or above
Bowling	Run up	Running up to bowl from the crease	To bowl quicker and designed to make the batsman play a false shot in the hope of getting him out

Key Rules	
Rule	Definition
4 runs	Scored if the ball goes over the boundary with bouncing at least once.
6 runs	Scored if the ball goes over the boundary without touching the ground.
Wide ball	The bowler bowls a ball deemed to wide to hit by the umpire.
No ball	The bowler balls a ball that bounces twice or more, or bounces dangerously over the batsman's head.
Bye	The batsmen run between the wickets despite the ball not being hit and score runs. The wicketkeeper may have mis fielded.
Leg bye	The batsmen run between the wickets with the ball hitting the batting pads and not the bat. The umpire will give not out for LBW.
Dead ball	The bowler stops his run up and the umpire allows him to try again.

Physical Education - Gymnastics

Key Skills		
Key Skill	What is it?	Why is it used?
Roll	Travelling across the mat using rotation and different parts of the body.	To travel across the mat and link skills together to create a sequence of movement.
Jump	Creating height and shape in the air, before landing safely.	To demonstrate skill level in use of different shape. Link skills together.
Balance	Holding a position/shape for a minimum of 3 seconds without falling or wobbling, with or without another person.	To demonstrate different shapes. To demonstrate body tension. To create partner/group work.
Counter Tension	Balances that involve being in contact with another person and leaning away to create a balance.	To add difficulty to an individual balance/skill. To create different levels. To create new shapes.
Counter Balance	Balances that involve using another person to lean on to, lift, hold or balance on top of.	To create different levels. To add difficulty to an individual balance/skill. To create new shapes.
Linking	Moving from one skill to another without stopping.	Increase difficulty of skills. Create sequences and routines.
Entry	The movement INTO a skill.	Allows you to link a variety of skills together easily.
Exit	The movement OUT of a skill.	Allows you to link a variety of skills together easily.
Sequence	A series of skills linked together.	To demonstrate ability to link skills together.
Change direction	Performing different skills to take you to different parts of the floor area.	To help you to travel around the floor area.

Key Terminology	
Term	Definition
Extension	Straightening/extending the arms and legs to show clarity of shape. EG: point the toes, keeping legs straight.
Balance	The ability to hold a centre of mass over a base of support e.g. an arabesque requires you to be able to balance on one foot.
Control of movement	How the movement is held at the start, during (balance, speed), and at the end – there should be no wobbling or falling over!
Aesthetics	How a skill 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.
Points of contact or support (POC/S)	The different parts of the body you can use to balance on and the number of them you use when creating a balance. E.g. a headstand uses the head and both hands to maintain the balance (3 POC/S).
Strength	Maximum force that can be generated by a group of muscles EG: being able to hold another person's body weight in a pair balance.

Physical Education - Football

Phases of Warm up	What it is	Specific Examples	Benefits of warmup
Pulse Raiser	Slowly increasing HR	Jogging around the football pitch	Warming up muscles.
Stretching	Static – stationary - Dynamic - moving stretches	Hamstring stretch or Lunges	Increase body temperature - Improve flexibility of muscles and joints.
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 – rondo	Reduce chance of injury.

Key Skills		
	Teaching points	Why is it used?
Dribbling	Keep your head up.	Attacking skill to cover as much space as possible towards your attacking goal.
	Use inside and outside of BOTH feet.	
	Change of speed.	
Short Passing	Place dominant foot at a right angle in line with the ball. Non-dominant foot next to the ball.	To retain the ball within your teammates.
	Use inside of the foot to pass the ball.	
	Receive with an open body on back foot.	
	Follow through with your kicking leg to create more power.	
Long passing	Use the top/laces of boots to pass the ball over the longer distance.	To create attacking opportunities for your team or to prevent losing possession in defensive areas.
	Follow through with your kicking leg to create more power.	
	Accuracy is important.	
Shooting	Power and accuracy.	To create a scoring opportunity for your team.
	Non-dominant foot next to the ball.	
	Strike the ball with your dominant foot using the inside.	

Rules	Outcome
How long is a football match?	45-minute halves. 90 minutes overall. Duration of a professional football game.
Centre kick	A centre kick is taken from to start the game and when a goal is scored. Centre kick is taken from the centre spot inside the centre circle.
Handball	The goalkeeper is the only player allowed to handle the ball, apart from throw ins which are taken at the touch line by any player. Free kick (outside 18-yard box) Penalty (inside 18-yard box)
What happens if the ball is kicked out of play?	Corner – if it is kicked out the goal line by a defensive player. Goal kick - if it is kicked out the goal line by an attacking player. Throw in – If it is kicked out the touch line. Corner Goal kick Throw in

FORMATIONS = 4-4-2

Goalkeeper (1) Defenders (2, 5, 6, 3) Centre Midfielders (8, 4) Wingers (7,11) Strikers (10, 9)



Physical Education - Handball

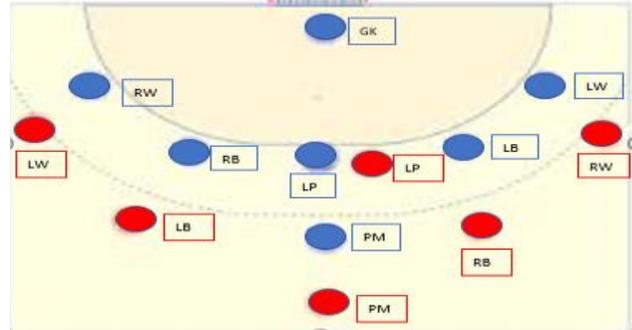
Positions		
LW	Left Wing	Defends and attacks down the left-hand side of the court.
LB	Left Back	Defends and attacks in the centre of the court to the left of the Play Maker.
PM	Play Maker	To play in the centre of the court and control the ball when attacking.
LP	Line Player	To play on the line when attacking and be available for scoring opportunities on the line.
RB	Right Back	Defends and attacks in the centre of the court to the right of the Play Maker.
RW	Right Wing	Defends and attacks down the right-hand side of the court.
GK	Goalkeeper	To play in goal and stop the ball going in.

Defensive

●

Attacking

●



Tactics	
Passing	Using the correct passes at the correct time. Avoid missing players out when passing.
Receiving	When receiving the pass in attack, move away from defender to stop intercept the pass. Do not run straight to the line, stand off the line to receive the pass.
Shooting	Use the jump shot to get a better angle of shot and to get closer to the goal.
Defending	Always stand together and make yourself as tall as possible. Always defend on the 6 meter line and do not leave any space for attackers to move into. Contact is allowed when tackling but must always tackle from in front of the attacker, not the side.
Attacking	Using feints to beat defenders or be fouled. Keep moving, never standing still. Using the 3 steps to get around the defender and shoot. May use a bounce to dribble the ball.
Decision Making	Make the correct choices during game situations: Who to pass to? Which pass to make – bounce, shoulder, side? Do I pass, or do I shoot? When to use the dribble.

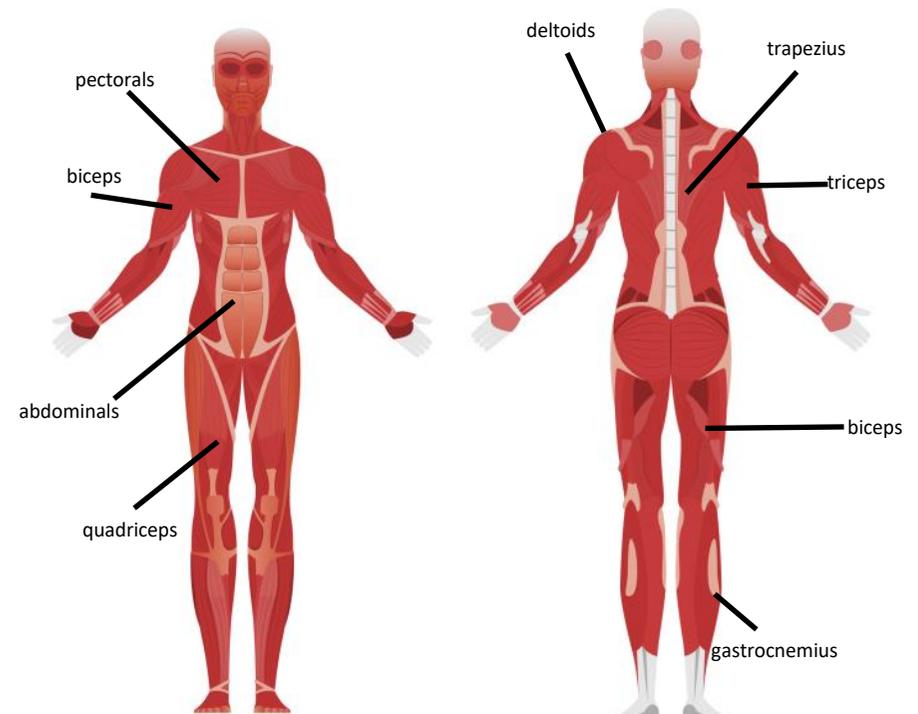
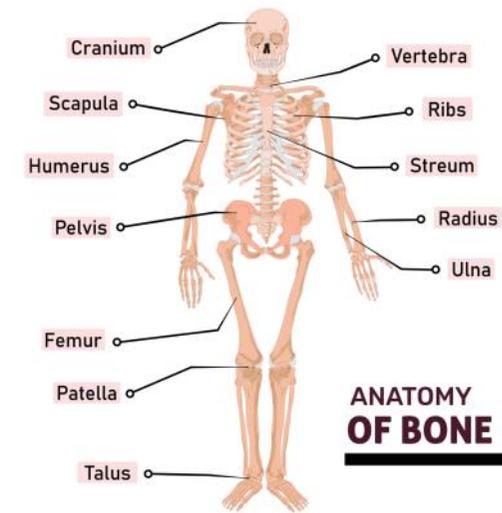
Key Rules	
Remember the 2 S's: 3 Seconds (to pass/shoot) and 3 Steps (you can move 3 steps)	
Rule	Definition
Offside	Going into the lined area around the goal. No player except the GK can enter this area, except when shooting and the ball must be released whilst still in the air.
Centre Passes	Attacking players must start in their own half. You do not have to wait for the defending team to be back .
Held ball	3 seconds to pass/ dribble or shoot with the ball. If no movement from the ball has been made, the ball will be turned over.
Footwork	Can take three steps before either passing, shooting or dribbling the ball. Can take as many steps as they like whilst dribbling. After dribbling, the three steps are reset.
Free Throw	A free throw is awarded to any team breaking the rules, every opposition player must be at least three meters away.

Physical Education - Health Related Fitness

Health Related Components of fitness		
Component	Definition	Fitness test
Cardiovascular Fitness	Work the body for long periods of time without tiring	<ul style="list-style-type: none"> Multi-stage fitness test Cooper Run
Muscular Endurance	Work muscles long periods of time without the timing	1 minute sit up test/press up test
Flexibility	Having an adequate range of motion in all joints of the body; the ability to move a joint fluidly through its complete range of movement.	Sit and reach test
Body Composition	The relative ratio of fat mass to fat-free mass (vital organs, muscle, bone) in the body.	Body Mass Index
Muscular Strength	The maximum force that can be exerted by a muscle	Hand grip dynamometer
Speed	How quickly you cover a distance	20m Sprint Test

Skill Related Components of fitness		
Component	Definition	Fitness test
Agility	The ability to change direction without losing balance quickly.	Illinois agility test
Balance	The ability to maintain centre of mass	Stork balance test
Power	Strength x speed = power	Vertical/board jump
Reaction Time	The time taken to respond to a stimulus	Ruler drop test
Co-ordination	Moving more than 1 body part at once	Wall toss

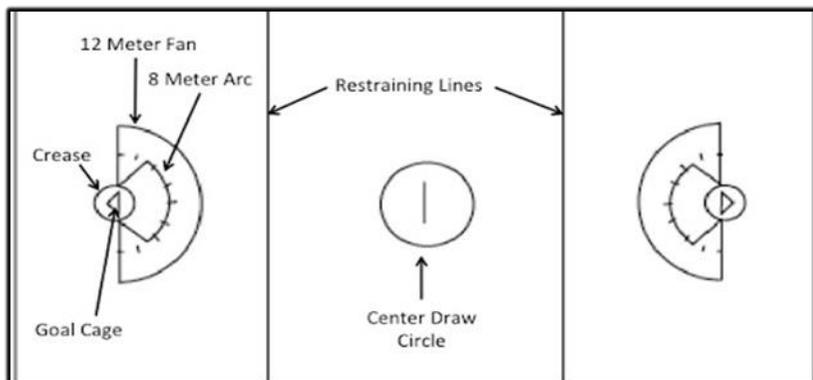
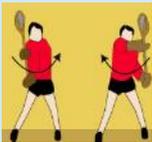
Phases of Warm up	What it is	Benefits of warmup
Pulse Raiser	Slowly increasing HR .	Warming up muscles
Stretching	Static – stationary - Dynamic - moving stretches .	Increase body temperature - Improve flexibility of muscles and joints.
Dynamic movements	Show a change in speed and direction.	Reduce chance of injury.
Skill rehearsal	Practising movement patterns and skills that will be used in the activity.	Physically and mentally prepares you for exercise.



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Physical Education - Lacrosse

Key Skills		
	What is it?	Why is it used?
Stick Protection	To prevent your stick being checked (tackled)	Used to protect the ball
	Allows you to use your body to protect your stick	
	Allows you to retain possession of the ball	
Throwing	To move the ball to your teammates	Used to pass the ball effectively
	Fast and direct passes to move the ball on the court	
	Aim to get it towards the attacking end of the pitch	
Catching	Receiving the ball	Used to receive the ball
	Cushion the ball into the head of your stick	
	Interceptions can be made to gain possession	
Cradling	Moving the ball within your stick	Used to move with the ball
	To avoid being checked (tackled)	
	Swinging the ball in your stick makes it more difficult for opponents to check your stick	
	Move the ball whilst cradling towards the goal	
	Use your body to protect the ball from the opposition	



Basic Rules			
Foul		Minor foul	Hitting another person's stick who does not have the ball Covering the ball Body ball
		Major foul	Stick to body contact Dangerous stick play Shooting with an intent to hit the goalie
Free position	When a team is awarded the ball after a foul, the player can run, pass or shoot it.	Minor Foul	The person who committed the foul stands four meters away in the direction from which they approached before committing the foul.
		Major foul	The person who committed the foul must stand four meters behind the player taking the free position
Start a game		A pass from the centre	
Crease violation		Only one defensive player in the crease at a time including the goalie. If another enters the crease they are sent to the restraining line and can re-join when play resumes	
Out		If the ball goes out of the pitch the team who touched it last restarts play.	
Whistle		When the umpire blows the whistle all players must stop where they are until the second whistle.	

Positions	
Position	What do they do?
Attack Players	Shoot and score goals by putting pressure on the defence
Midfielders	Move the ball towards the attacking end of the pitch
Defensive Players	Help the goalkeeper to stop goals being scored
Goalkeeper	Prevent the ball from entering the goal

Physical Education - Lacrosse

Key Skills			
	Teaching Points	What does it look like?	Why is it used?
Stick Protection	Side on stance	 	Used to protect the ball
	Hands wide apart on the stick		
	Stick held on the outside		
	Pivot/move around to keep stick away from defenders		
Throwing	Top hand at sticks middle	 	Used to pass the ball effectively
	Side on stance		
	High front elbow (helps to aim)		
	Pull stick down with bottom hand		
	Push forward with top hand		
	Swing through to point at target		
Catching	Hands wide apart on the stick	 	Used to receive the ball
	Front/face on stance		
	Point stick head forward		
	Follow flight of the ball		
	Drop top hands elbow to cushion ball		
	Bottom hand is static throughout		
Cradling	Hands wide apart – catching grip	 	Used to move with the ball
	Stick held across the body – carrying position		
	Top hand moves the stick head		
	From shoulder to chin then back to shoulder		



Physical Education - Leadership

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

Key Skills of a leader			
Key Skills		What is it?	Why is it used?
A Skill is something that can be taught and improved through practice. All leaders should display certain skills.			
Skills of a leader	Communication	Verbal and non-verbal	The imparting or exchanging of information by speaking, writing or gestures.
	Teamwork	Working with others	This is needed in everyday life.
	Organisation	Is the idea of putting things together	To make sure you are prepared for work, school, clubs or leading.
	Listening	Giving attention to a sound	Giving attention to others – taking on board what other people are saying.
Problem Solving		The process of finding solutions to difficult or complex issues	It enables us to apply control over our environment.
How to plan for an activity.	Space	What area you will use when for an activity	So, you can plan the correct space – too big or small could cause injuries or de-motivate pupils.
	Time	How long you will spend on an activity	Good pacing - avoids boredom of an activity. Everyone gets a turn.
Use STEP	Equipment	All the resources needed for a session - cones, balls,	Helps with organisation and helps play the activity.
	People	How many people are needed?	How many peers you will have to lead – knowing numbers will help with organisation of equipment.
Leader		A leader is expected to behave as a role model to the other people they lead.	
Behaviours of a leader	Motivated	Determined because you really want to do something	Being very enthusiastic can encourage others to try or give something a go.
	Resilience	The ability to be happy, successful AGAIN after something difficult or bad has happened	To keep going no matter what – trying your best.
	Clear	Instructions are clear – with good tone	Everyone knows what is expected of them and what needs to be done to complete a task.
	Approachable	Friendly and easy to talk to	Peers are not worried about asking questions regarding the task of asking for help.

Physical Education - Netball

Positions	Roles	Court Layout
GS	Goal Shooter - Can move anywhere within their goal third.	
GA	Goal Attack - Can move anywhere within their goal third and the centre third.	
WA	Wing Attack - Can move within their goal third and centre third, but not the D.	
C	Centre - Can move anywhere across the court, apart from either of the D.	
WD	Wing Defence - Can move within the centre third and defensive third but not the D.	
GD	Goal Defence - Can move anywhere within their goal third and the centre third.	
GK	Goalkeeper - Can move anywhere within their goal third but cannot leave it.	

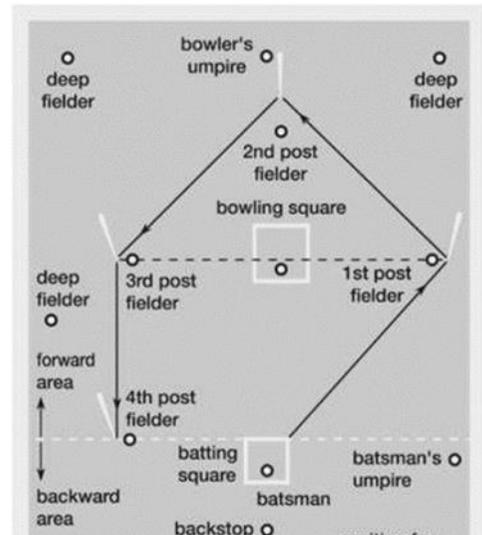
Key Rules		
Rule	Definition	Sanction
Replayed Ball	The player cannot catch the ball with both hands, drop it and pick it up again.	Free Pass
Penalty Pass	When a rule is broken that does not directly affect another player. This is when a penalty pass is awarded. No players are out of play.	
Penalty Pass	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
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

Key Skills			
	Key Skills	What is it?	Why is it used?
Passing	Chest	Fast and powerful short distance pass	Get the ball to your team with accuracy .
	Bounce	Short pass to go under a defender	
	Shoulder	Loop a player for distance	
Shooting	BEEF:	Balance Elbow Eye Flick/Follow Through	Get ball through the net.
Defend	Rebounds	Jumping to regain or retrieve a loose ball	Turn over ball or regain possession.
	Intercepting	When a player regains possession of the ball	
	Marking	Staying on your player	
Attack	Dodging	Quick movement to get in front of opposite. This is to get into space.	To get free to receive a pass. This is used during a centre pass or back line.

Physical Education - Rounders

Info	Roles
Teams	2 teams with 9 players on each
Fielders	3 deep fielders, 4 post fielders, bowler and backstop
Batters	9 batters who go in order – best to worst and must stay in that order
Umpires	2 Umpires – Batting umpire who stands in line with front of batter's box Bowling umpire who stands behind 2 nd base

Key Rules	
Rule	Definition
Scoring	<p>Half Rounder:</p> <ul style="list-style-type: none"> If hitting the ball and making it to 2nd base 2 no balls from bowler If batter misses the ball but makes it all the way round to 4th base If a fielder obstructs a batter out on pitch <p>Full Rounder:</p> <ul style="list-style-type: none"> If you hit the ball and make it round to 4th base If you hit a no ball and make it all the way round.
Obstruction	<ul style="list-style-type: none"> Post/Base Fielder must stand on the inside of their posts. Must not get in the way of a batter running around the pitch. If obstruction occurs, the batting team get ½ a rounder.
Getting a player out	<p>Caught out.</p> <ul style="list-style-type: none"> If 'stumped out' – the post the batter is running towards. The batter runs inside a post. The batter loses contact with a post when the bowler has the ball inside the bowler's square. Batter overtakes another batter when running around posts. The batter's foot is outside the batter's square when the ball is bowled
Bowling	<ul style="list-style-type: none"> Underarm action – step in with opposite foot Ball bowled between head and knee height The bowler's feet are inside the bowler's square when the ball is bowled
Backwards hit	<ul style="list-style-type: none"> If a batter hits the ball behind Batter can only go to 1st base until a fielder throws the ball across the front of batting box
Bowler	When the bowler has the ball (inside the bowlers' box) the batters must stop at the nearest post.

Key Skills		
	Key Skills	Why is it used?
Fielding	Overarm Throw	To get the ball back into bowler or post fielders from deep field to try and stump a batter out
	Underarm Throw	During a bowl or when the ball has not travelled far, and fielders pass to a base.
	Catching	To get a batter out from catching their ball. A fielder throwing the ball into a base for you to catch and stump post.
	Long barriers on the move	More accurate and fielders are less likely to miss the ball - prevents the ball from passing.
Batting	Distance	The further the ball goes the more likely a batter is to get back to 4 th base.
Bowling	Spin	A type of bowl with added backspin to the ball. This means the ball will not go as far.
The Pitch	<p>Fielders: bowler, backstop, deep fielder, and base players.</p> <p>Batters: 9 batters – best first and worst last.</p>	 <p>The diagram illustrates the layout of a rounders pitch. At the top is the bowler's square, with the bowler's umpire positioned above it. The field is divided into a forward area and a backward area. The batting square is at the bottom, containing the batsman and the batsman's umpire. The backstop is located behind the batting square. The field is populated with various fielding positions: 2nd post fielder, 3rd post fielder, 1st post fielder, and 4th post fielder are positioned around the bases. Deep fielders are located further out on the field. Arrows indicate the direction of play from the bowler's square towards the batting square.</p>

Physical Education - Rugby

Key Skills			
	Key Skills	What is it?	Why is it used?
Passing	Drawing the player	The ball carrier must “draw” the defender, by getting into a position where the defender has no choice but to tackle.	To give your teammate more time and space.
	Spin	A longer pass between two players .	
Tackling	Basic Tackle	<p>NHS - Knees, Hips, Shoulder</p> <p>Tower of Power</p> <p>Ring of steel - Arms wrap around the ball carrier’s legs/ midriff in a strong embrace. No need to lock arms or fingers together.</p> <p>Cheek 2 Cheek - head on the correct side of the ball carrier by placing face cheek to their bum cheek.</p>	Be able to successfully tackle the player to ground.
Scrum	Crouch	The Forwards, push against one other to try win the ball back.	Crating a fair way to restart the game following a forwards pass or knock on.
	Bind Set	<p>Crouch- 3 Players per team get into a joined tower of power position.</p> <p>Bind- Opposition Props (side of scrum) players grab each other's upper arms.</p> <p>Set- Players engage and push one another to try and win the ball which is rolled in between them.</p>	
Ball Handling	Switch/Dummy Switch	<p>1. A switch is where two players cross over, and the ball carrier pops the ball to the other.</p> <p>2. A dummy switch is the same, however the ball carrier pretends to give the ball.</p>	To change the point of the attack.
	Loop	The ball carrier passes to the player outside of them and follows their pass ready to receive the ball back from them.	To create more space for the attack.
Rucking	Rucking (Golden Meter)	This means the first player going past the ball (1 meter) , in the ruck, clearing out any opposing team members.	To retain possession after a tackle.
	Counter Rucking (Jackal)	If the attacking team are slow to the ruck, the initial player from the defending team should look to ‘Jackal’ the tackled player.	To steal possession off the attacking team after a tackle.
Attack	Sidestep	The ball carrier looks steps one way and then quickly changes in their line of running in the opposite direction.	To outwit a defender and avoid a tackle.



Physical Education - Rugby

Key Rules		
	What it is	Sanction
Forward pass	In rugby, a pass must go backwards or laterally.	Scrum
Offside	A player is in an offside position if that player is further forward (nearer to the opponents' goal line) than the teammate who is carrying the ball or the teammate who last played the ball.	Penalty
Ruck	<ol style="list-style-type: none"> 1. Players must enter the ruck through the gate and not from the side. If this is not done correctly this is called 'in at the side'. 2. Players must always remain on their feet and not use their hands in the ruck. If this is not done correctly then it is called 'Playing the ball on the floor'. 	Penalty
Tackle	<ol style="list-style-type: none"> 1. The tackler must release the ball carrier once the tackle has been made. If this is not done correctly this is called 'Not releasing the player'. 2. The tackler must then roll away or get back to their feet, before re-joining play. If this is not done correctly or the player is slow to roll away this is called 'Not rolling away'. 3. The ball carrier must also release the ball once they have been tackled to the floor. If not done correctly or quickly this is called 'Not releasing the ball'. 	Penalty
Knock On	If a player drops the ball and it goes forward towards the opposition Try line.	Scrum
Deliberate Knock on	If a defending player slaps/ drops the ball and it travels towards the opposing, try line.	Penalty

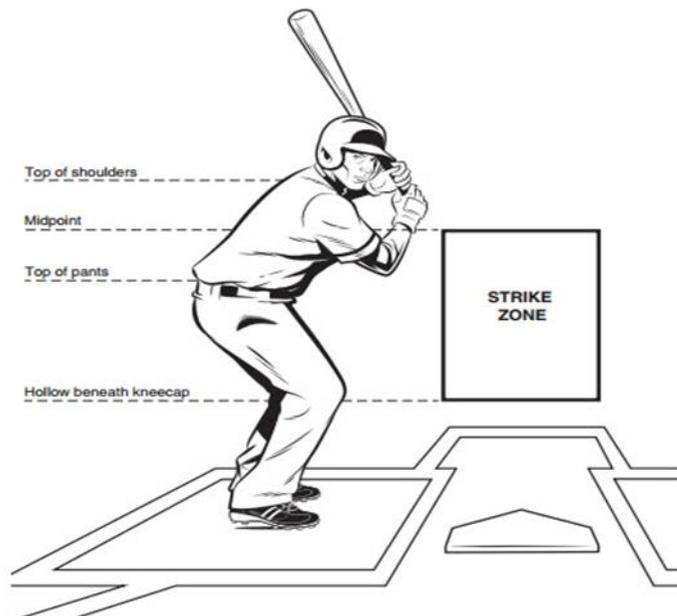
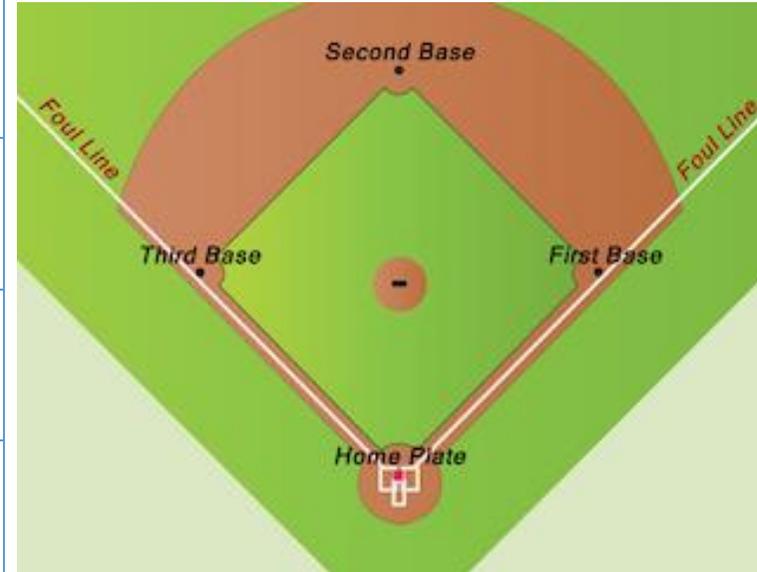
Scrum	Shoulders parallel with touchline. Arm horizontal pointing forwards team to throw in the ball.
Free-kick	Shoulders parallel with touchline. Arm bent square at elbow, upper arm pointing towards non-offending team.
Penalty	Shoulders parallel with touchline. Arm angled up, pointing forwards non-offending team.
Advantage	Arm outstretched, waist high, towards non-offending team, for a period of approximately five seconds.

<https://www.world.rugby/the-game/laws/signals/primary>



Physical Education - Softball

Key Terms	
Double Play	A situation where you can two people out in the same play.
Tag Out	When a runner is either stranded between bases, or not on base and is tagged out by an opposition player with ball in hand.
Tagging Up	When a Fly-Ball is hit, a runner on base cannot leave base until the Fly-Ball is caught, once it is, they have an option to move to the next base.
Bunt	The Hitter contacting bat on ball without swinging the bat.



Key Rules	
Rule	Definition
Strike Out	If you get 3 Strikes, you are out!
Hitting	If you hit between 1 st & 3 rd , you must drop the bat & run.
Foul Ball	A ball that is hit out of play, outside the 1 st or 3 rd base line. It is given as a Strike (You cannot be Struck Out from a Foul Ball).
Caught	You can be caught anywhere on the field (Including in Foul Territory).
Forced	If you are forced to run and the ball is collected at the base before you get there.
Tag	If you are off base and you are tagged with the ball.
Pitching	Must be done underarm.
Walk	If 4 'Balls' are pitched to the same Hitter, the Hitter gets a free pass to 1 st Base.
Inning	An inning ends when the hitting team gets 3 outs and then swap with the fielding team.
Home Run	A hit that clears the field. The hitter will circle the bases and score a run (Also runs counted for those already on base).

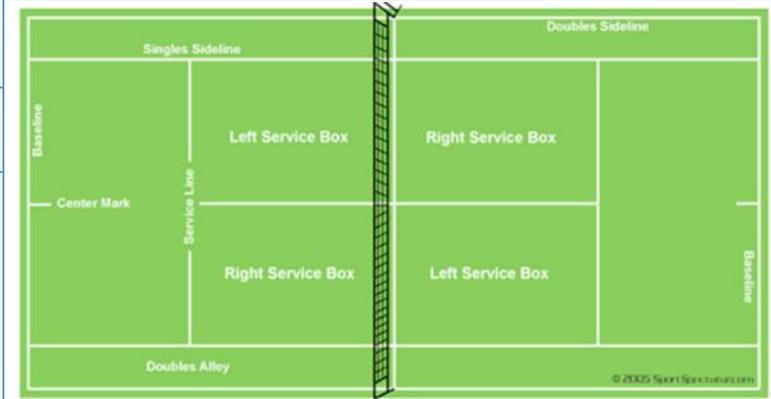
Physical Education - Street Netball

Key Rules		
Rule	Definition	Sanction
Game Start	5 V 5 but can increase to 7 v 7. Start the game with a jump start (basketball style).	
Restart	To restart the game after a goal – a backline will be played.	
Scoring	1 point is scored when the ball enters the goal basket. Only shoot from inside the semi-circle.	
Positions	Players can go anywhere on court.	
	Attacking Only 2 attackers allowed in the semi-circle to shoot at anytime	Defending Only 2 defenders allowed in the semi-circle to defend at anytime
Footwork	Players cannot walk or run when holding the ball.	Free pass to the other team.
Contact	Players cannot make physical contact with each other on court.	Penalty Pass/ shoot
Held ball	Holding the ball for more than 3 seconds	Free Pass
Offside	When a player moves into an area of the court that they are allowed in	Free Pass
Obstruction	A player must be at least 3 feet (0.9M) away from a player with the ball.	Penalty Pass
	Get your distance first, then hands up to mark the ball.	

Key Skills			
	Key Skills	What is it?	Why is it used?
Passing	Chest	Fast and powerful short distance pass.	Get the ball to your team with accuracy .
	Bounce	Short pass to go under a defender.	
	Shoulder	Loop a player for distance.	
Shooting	BEEF:	Balance Elbow Eye Flick/Follow Through	Get ball through the net.
	Defend	Rebounds	Jumping to regain or retrieve a loose ball.
	Intercepting	When a player regains possession of the ball.	
	Marking	Staying on your player.	
Attack	Dodging	Quick movement to get in front of opposite. This is to get into space.	To get free to receive a pass. This is used during a centre pass or back line.

Physical Education - Tennis

Key Terms	
Singles side-line	The two lines that run the full length of the court and mark the boundary on the width of the court.
Doubles alley	The additional area on the sides of the court used in doubles play.
Deuce	Used to break a tie for a game. The player who wins the point following the deuce is said to have the "advantage". If the player holding the advantage loses the following point, the score returns to deuce. The first player to win a point while holding the advantage wins the game.



Key Skills			
	Key Skills	What is it?	Why is it used?
Ground strokes	The ready position	A front on stance, feet shoulder width apart with the racket in the middle of the body.	Allows the player to push off in either direction to return the serve.
	Backhand	A groundstroke hit on a player's non-dominant side; can be hit with a one- or two-handed grip.	Allows a player can hit the ball on both sides of their body saving time.
	Smash/overhead	A shot that is hit powerfully above the hitter's head with a serve-like motion.	Usually following a poorly hit lob close to the net to win the point easily.
Volley	Volley	A ball that is hit in mid-air, before it bounces on the hitter's side of the court.	Normally hit when the players are near the net to return the ball quickly or if the returning player.
	Half volley	A ball hit immediately after it bounces on the court.	When there isn't enough time to get to the ball and execute a traditional volley or get back and hit a groundstroke.

Key Rules	
Rule	Definition
Service fault	A serve that does not land in the service box, a server is allowed 2 attempts to serve.
Double fault	A serve in tennis is a shot to start a point. If the ball is served out or hit the net the server is allowed another attempt. If there have been two faults on this point, the point is awarded to the receiver.
Let	When a player serves and the ball, the ball hits the net but lands in the service box, this is known as a let and the server must reserve the ball. This does not count as a service fault.
Double strike	If the player must not strike the ball twice in a row. If this happens the opponent will win the point.
Tie-break game	When a game score of 6-6 is reached and tie-break set rules are used, players must play a tie-break game in order to decide who wins the set. Players need to reach 7 points with a two-point advantage to win.

Physical Education - Volleyball

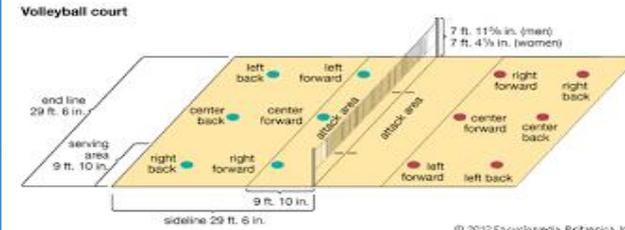
Positions

The 'setter' controls the team's attackers. Ideally the setter volleys the ball after the serve has been received.

The 'outside hitter' attacks the ball from the left-hand side of the court and aim to spike the ball onto the floor of the opposite side.

The 'middle hitter' works closely to the setter and can respond quickly to a set in the middle of the court, but they also need to be quick to block any attack from the opposition.

Back court players are 'diggers'. They receive the ball from a serve, take the power out of the ball and send it high towards the front court players.



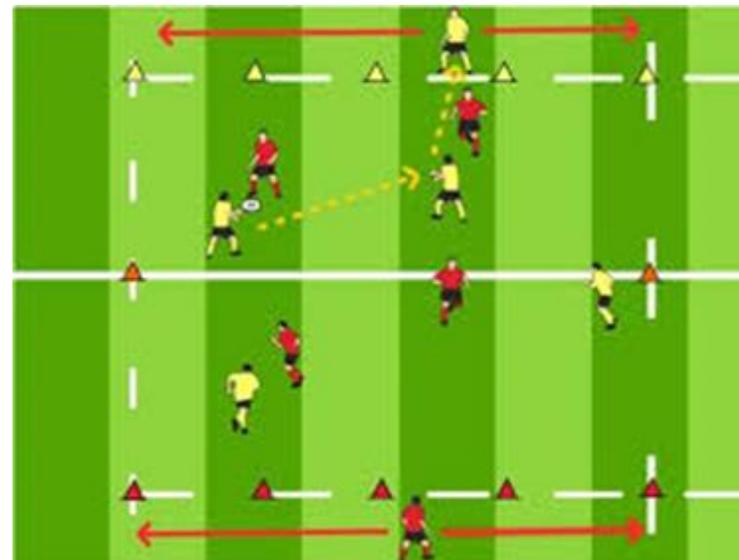
Key Skills	Tactics	Rules
<p>Volley or Set shot</p> <ul style="list-style-type: none"> An attacking skill to play the ball high in front of the net. The ball must not come to rest in the players hands. 	<ul style="list-style-type: none"> The player setting the ball can set it to any position along the net. It is usually the second skill after the dig when setting up a point scoring position. 	<ul style="list-style-type: none"> 6 players on a team. 3 on the front row, 3 on the back row. Maximum of three hits per side. A serve must be taken from the back line. Player may not hit the ball twice in succession. It is illegal to catch hold or throw the ball.
<p>Dig</p> <ul style="list-style-type: none"> This is a defensive skill, played when receiving a serve. The ball needs to be low. It helps give height and control the ball. 	<p>The first dig of a rally should be aimed towards one of the setters at the front of the court.</p>	
<p>Underarm Serve</p> <ul style="list-style-type: none"> Hold the ball in the non-dominant hand waist height. Feet slightly apart with the non-dominant foot forward. Contact the ball at waist height by swinging the arm forward hitting the ball with the base of the palm. 		<p>Scoring</p> <p>Each game is played to 25 points and must be won by 2 clear points. A point can be scored off either teams serve.</p> <ul style="list-style-type: none"> The ball may be played off the net during a rally point, but not from a serve. A ball hitting a boundary line is in. <p>A ball is out if it hits:</p> <ul style="list-style-type: none"> the floor completely outside the court the net and lands on the same side the ceiling above a non-playable area.
<p>Overarm Serve</p> <ul style="list-style-type: none"> Feet shoulder width apart. Bring your dominant hand back and throw the ball up with the opposite hand. Transfer weight on to the front foot and contact the ball using the palm of your hand. 		
<p>Spike</p> <ul style="list-style-type: none"> Take 2 steps towards the ball and jump straight up. Elbow needs to be level with your shoulder and the forearm above head. Ball is hit with the palm. 	<p>This skill is played following a set at the front of the net. It is the third shot in the sequence, it needs to be fast and direct. The follow through motion adds strength and speed to the shot with the aim of scoring a point.</p>	

Physical Education - Vortex

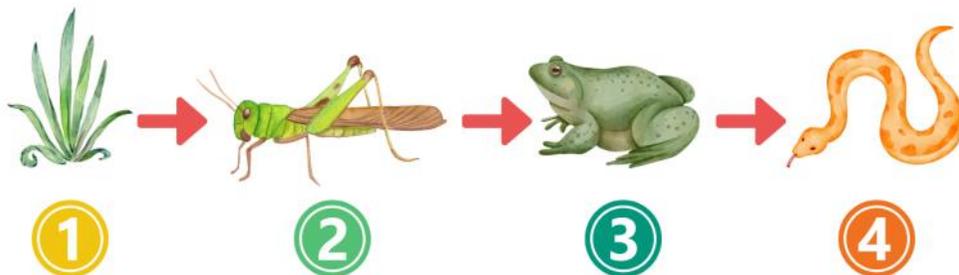
Phases of Warm up	What is it?	Specific Examples	Benefits of a warmup
Pulse Raiser	Slowly increasing HR	Jogging around the vortex pitch	Warming up muscles
Mobility	Taking joints to their full range of movement	Circling shoulders – opening and closing the gate	Preparing the body physically and mentally for competition Increase body temperature - Improve flexibility of muscles and joints therefore reducing the chance of injury.
Stretching	Static-stationary/ Dynamic-moving stretches	Hamstring stretch or lunges	
Dynamic Movements	Show a change in speed and direction	Sprint shuttles, fast feet and side steps	
Skill Rehearsal	Practising movement patterns and skills that will be used in the activity	Throwing and catching	

Key Skills		
Skill	What is it?	Why is it used?
Throwing	Passing the vortex from one player to another.	Used to move the vortex on the pitch towards the attacking end.
Catching	Receiving the vortex in your hands.	To receive the vortex from your team. Can either be stationary or moving.
Marking	Staying close to someone from the other team.	To prevent the other team from getting the ball and to try and gain possession of the vortex through an interception.
Dodging	Quick movement using changes of direction and speed.	Allows you to get into space or away from the opposition to receive a pass.

Key Rules		
Rule	Definition	Sanction
Contact	If you play dangerously or cause harm to another player by trying to win the vortex.	Free pass to the other team from where the offence took place.
Out of play	If the vortex is thrown out of the playing area.	The other team throws it in from where it went out.
Goal	Passing the vortex to your teammate within the goal zone without them dropping it.	If they drop it, no goal is scored. If they catch it successfully play restarts from the centre.



Food Chains		
Number on diagram	Part of food chain	Definition
1	Producer	The start of a food chain, usually a plant, they produce their own food via photosynthesis
2	Primary consumer	The first consumer in the food chain; they feed on the producer
3	Secondary consumer	The second consumer in the food chain; they feed on the primary consumer
4	Tertiary consumer	The third consumer in the food chain. This consumer does not usually have any predators and is the end of the food chain



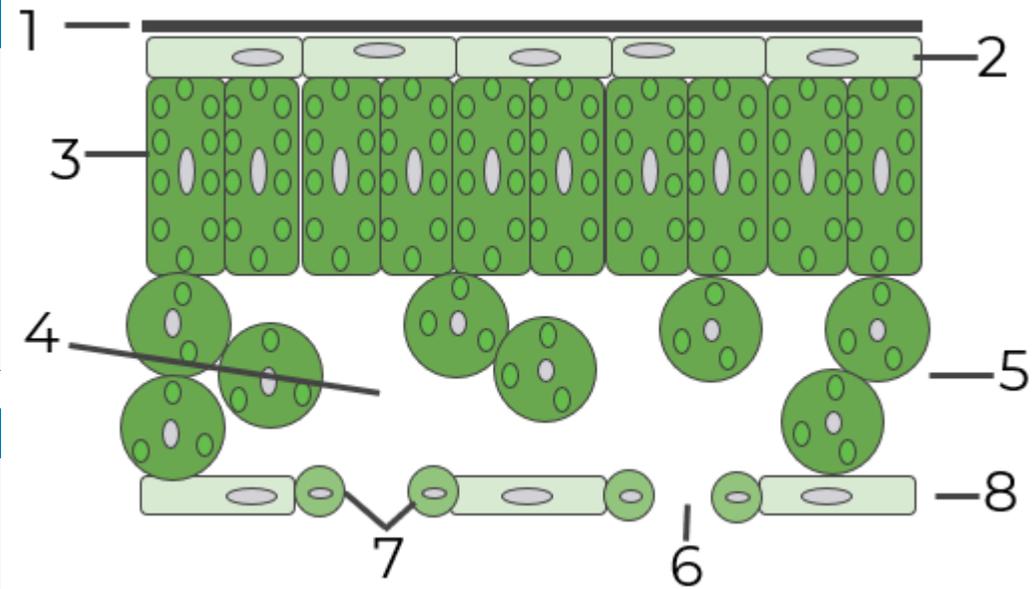
Classification	
Key term	Mnemonic
Kingdom	K eep
Phylum	P onds
Class	C lean
Order	O r
Family	F rogs
Genus	G et
Species	S ick
Binomial name	The scientific name given to a species. It is always the genus and then the species written in italics, with the genus capitalised. E.g. <i>Panthera leo</i>

Key Terms	
Environment	All the conditions surrounding a living organism e.g. water, soil, temperature
Habitat	The place in which an organism lives
Population	Total number of a single species living in the same habitat
Community	The populations of all the different organisms living in the same habitat
Ecosystem	The interaction between the community and the habitat in which organisms live
Interdependence	Within a community each species depends on other species for food, shelter, pollination, seed dispersal etc
Photosynthesis	The process plants use to produce food using sunlight (carbon dioxide + water → glucose + oxygen)
Herbivore	An organism which only eats plants
Carnivore	An organism which only eats other animals
Omnivore	An organism with a diet made up of both plants and animals
Predator	An animal that hunts, kills and eats other animals for food
Prey	Organisms that predators hunt and kill for food
Extinction	When there are no more individuals of a certain species left alive
Species	An organism which is able to breed to produce fertile offspring
Variation	The differences between organisms of the same species e.g. environmental or inherited
Adaptation	Organisms have features that enable them to survive in the conditions in which they normally live
Competition	Plants compete for light, space, water and mineral ions. Animals compete for food, mates and territory
Bioaccumulation	The gradual build up over time of a chemical in a food chain
Pesticides	These are not broken down in the food chain and accumulate. The further up the food chain, the higher the concentration of toxic chemicals. Examples are mercury and DDT
Quadrat	A grid used during sampling to count the number of organisms in an area

Biodiversity	
Biodiversity	The variety of all the different species of organisms living in the same ecosystem
Factors that reduce biodiversity	Destruction of habitats, global warming, waste and 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

Natural Selection	
Charles Darwin	Wrote the theory of natural selection in his book 'On the Origin of Species' in 1859.
Natural selection	The idea of 'survival of the fittest' where the organisms best adapted for survival in their habitat will survive, reproduce and pass on the successful genes to offspring.
Evolution	The change of inherited characteristics within a population over time through natural selection, which may result in the formation of a new species.

Extinction	
Factor	Reason
New disease introduced	A species is not adapted to fight off a new disease.
New predators	A species is not adapted to avoid being preyed upon.
Change in the physical environment	A species is not adapted to the change in its environment e.g. loss of shelter or food.
New species introduced	A species is not able to compete for resources against another species.
Habitat destruction	Deforestation for agriculture and urbanisation



Source: Continuity Oak

Created by R Humphries

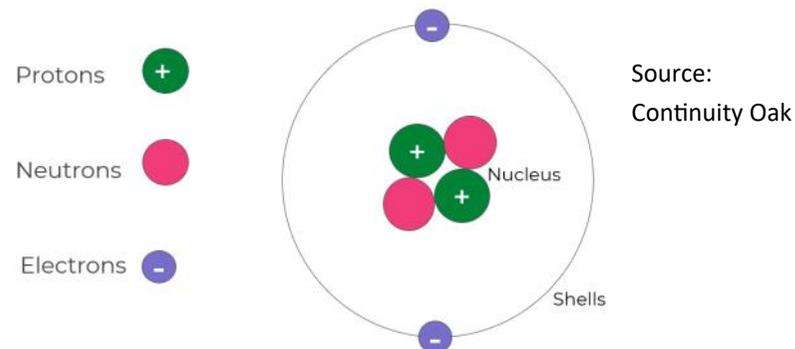
Structure of the leaf	
Number	Structure
1	Waxy cuticle – reduces water loss
2	Epidermis
3	Palisade cells – contain many chloroplasts for photosynthesis
4	Air spaces
5	Spongy mesophyll layer—allows gases to diffuse through the leaf
6	Stomata – hole that allows gas exchange. Controlled by guard cells
7	Guard cell
8	Epidermis

Science - Periodic Table

Key Words	Definitions
Atom	The smallest part of an element
Element	Made of 1 type of atom only e.g. gold
Compound	2 or more different elements chemically combined e.g. water (H ₂ O)
Mixture	2 or more elements and/or compounds not chemically combined e.g. salt in water
Conservation of mass	Mass of reactants equals mass of products, mass cannot be created or destroyed
Reactants	Chemicals that react together – left side of equation
Products	Chemical that are produced from a reaction – right side of equation
Periodic table	Where elements are arranged in order of atomic number
Group	Vertical columns on the periodic table; tells you the number of electrons in an atom's outer shell
Period	Rows on the periodic table, tells you the number of shells an atom has
Sub-atomic particle	Particles that make up an atom – protons, neutrons and electrons
Mass number	Total number of protons and neutrons in the nucleus of an atom
Atomic number	The number of protons in an atom. The number of protons is the same as the number of electrons
Electronic configuration	A set of numbers to show how the electrons in an atom are arranged in shells – 2, 8, 8, 2

Equations	
Chemical equations	Shows the chemical reaction and will include reactant(s) and product (s). There will always be an energy change.
Word equations	Uses words to show reaction reactants → products magnesium + oxygen → magnesium oxide
Symbol equations	Uses symbols to show reaction reactants → products $2\text{Mg} + \text{O}_2 \rightarrow 2\text{MgO}$

Sub-atomic particles			
Name	Mass	Charge	Location
Proton	1	+1	Nucleus
Neutron	1	0	Nucleus
Electron	Very small	-1	Shells



Group 7	Melting point	Density	Reactivity
Fluorine	↑ Increases down the group	↑ Increases down the group	↓ Decreases down the group
Chlorine	↓	↓	↓
Bromine			
Iodine			

Group 1	Melting point	Density	Reactivity
Lithium	↓ Decreases down the group	↑ Increases down the group	↑ Increases down the group
Sodium	↓	↓	↓
Potassium			
Rubidium			

Science - Periodic Table

Groups of the periodic table		
Group number	Name of group	Reactivity
Group 1	Known as the alkali metals	Increase in reactivity as you go down the group, due to electron being more easily transferred. 1 electron on the outer shell.
Group 7	Known as the halogens	Decrease in reactivity down the group, due to electrons being harder to gain. 7 electrons on the outer shell.
Group 0	Known as the noble gases	Unreactive, do not form molecules, as have a full outer shell of electrons.

Properties of metals	Properties of non-metals
Good conductor of electricity	Poor conductor of electricity
Good conductor of heat	Poor conductor of heat
High melting and boiling point	Low melting and boiling point
High density	Low density
Malleable	Dull
Ductile	Brittle

1	2											3	4	5	6	7	0		
																		He	1
Li	Be											B	C	N	O	F	Ne	2	
Na	Mg											Al	Si	P	S	Cl	Ar	3	
K	Ca	Sc	Ti	V	Cr	Mn	Fe	Co	Ni	Cu	Zn	Ga	Ge	As	Se	Br	Kr	4	
Rb	Sr	Y	Zr	Nb	Mo	Tc	Ru	Rh	Pd	Ag	Cd	In	Sn	Sb	Te	I	Xe	5	
Cs	Ba	La	Hf	Ta	W	Re	Os	Ir	Pt	Au	Hg	Tl	Pb	Bi	Po	At	Rn	6	
Fr	Ra	Ac	Rf	Db	Sg	Bh	Hs	Mt	Ds	Rg	Cn	Nh	Fl	Mc	Lv	Ts	Og	7	

The diagram shows a Sodium atom with a blue nucleus and a blue electron cloud. The atomic number 11 is at the top, the element symbol 'Na' is in the center, the element name 'Sodium' is below the symbol, and the relative atomic mass 23 is at the bottom. Arrows point from a table on the right to these four components.

11	Atomic Number
Na	Element symbol
Sodium	Element name
23	Relative atomic mass

Development of the periodic table	
Early periodic tables	Were incomplete, some elements were placed in inappropriate groups if the strict order of atomic weights were followed.
Dmitri Mendeleev (1869)	Mendeleev rearranged the elements in order of increasing relative atomic mass. He left gaps for elements that had not been discovered yet

Metals

Non-Metals

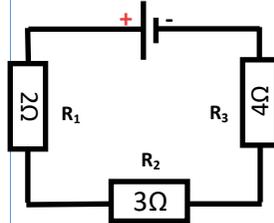
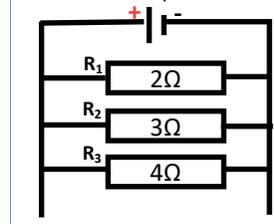
Science - Electricity and Magnetism

Key terms	
Key words	Definition
Current	The flow of electrical charge per second measured in Amps (A) using an Ammeter
Electron	Subatomic particle, with a negative charge
Potential difference	Tells us the amount of energy being carried by the electrons and the amount of energy they are transferring to the components it is measured in volts (V) using a Voltmeter
Resistance	Resistance opposes the flow of current in a circuit. Measure in Ohms (Ω)
Factors affecting resistance in a wire	<ul style="list-style-type: none"> as the length increases the resistance increases as the cross-sectional area increases, resistance decreases as the temperature increases the resistance increases the material of the component effects the resistance
Conductor	An electrical conductor is a material which allows electrons to flow through it easily. It has a low resistance
Insulator	Material that does not allow electrons to flow through it easily. It has a high resistance
Series circuit	Circuit with only one branch
Parallel circuit	Circuit with multiple branches

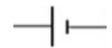
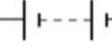
Magnets and magnetic fields	
Magnets	An object that produces a magnetic field
Magnetic field	The region around a magnet where a force acts on another magnet or on a magnetic material The closer the field lines are together, the stronger the magnetic field
Magnetic materials	Include nickel, cobalt, iron and steel
Permanent magnet	A magnet that produces its own magnetic field all of the time and cannot be turned off
Induced magnet	Becomes magnetic when placed in a magnetic field

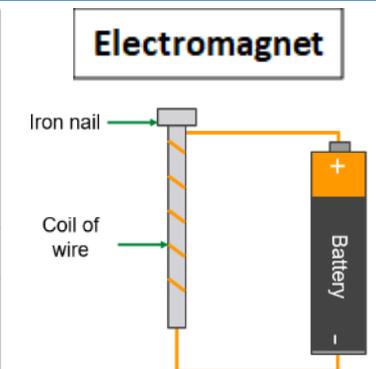
Static Electricity	
Static electricity	Static electricity is caused when electrons are transferred from one insulator to another by friction
Static charges	<ul style="list-style-type: none"> If an object gains electrons, it becomes negatively charged if an object loses electrons, it becomes positively charged opposite charges attract, like charges repel

Electromagnets	
Solenoid	A coil of wire carrying an electric current to create a magnetic field
Electromagnet	A magnet made by wrapping a coil of wire around an iron bar and passing an electric current through the coil
Increasing the strength of an electromagnet	<ul style="list-style-type: none"> use an iron core increase the number of coils increase the current

V, I and R in Series and Parallel			
Components connected in...	Current	Potential Difference	Resistance
Series - one branch 	In a series circuit, the current is the same in all parts of the circuit	The potential difference 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. $R_{\text{total}} = R_1 + R_2 + R_3$
Parallel - multiple branches 	The current in a parallel circuit is shared between the branches	In a parallel circuit, the potential difference across each branch is the same as the potential difference of the cells	Total resistance is less than the smallest resistance of R₁ and R₂ and R₃

Equations
Potential difference (V) = current (A) x resistance (Ω) (V = IR)
Power (W) = current (A) x potential difference (V) (P = IV)

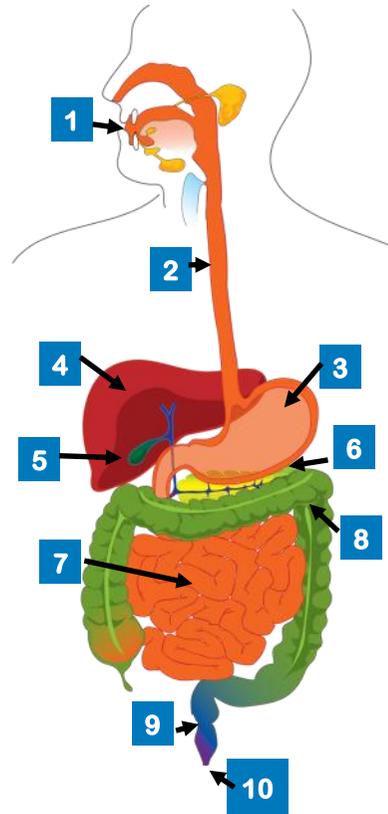
Symbol	Component
	Cell
	Battery
	Voltmeter
	Ammeter
	Lamp
	Resistor
	Switch
	Variable Resistor



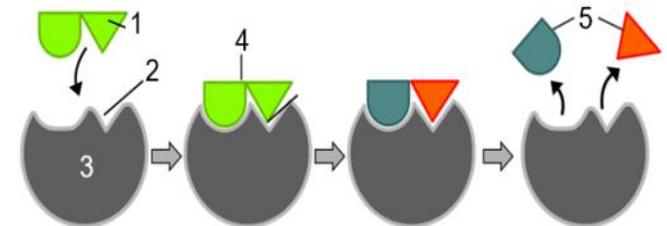
Source: Continuity Oak; Image created by R Humphries

Science - Digestion and Nutrition

Parts of the digestive system		
#	Organ	Function
1	Mouth	Mechanical digestion by chewing. Saliva from salivary glands, contains the enzyme amylase.
2	Oesophagus	Muscular tube which moves ingested food to the stomach by peristalsis.
3	Stomach	Mechanical digestion by churning. cells in the lining of the stomach release acid to kill bacteria and produce the enzyme protease.
4	Liver	Produces bile (neutralises stomach acid and emulsifies fats).
5	Gall bladder	Stores bile.
6	Pancreas	Produces and releases digestive enzymes.
7	Small intestine	Where large molecules are broken down into small soluble molecules that can diffuse into the blood. It has a large surface area, good blood supply and thin membranes so nutrients can diffuse quickly into the blood.
8	Large intestine	Where water is absorbed into the blood stream.
9	Rectum	Where faeces is stored.
10	Anus	Ring of muscle allowing faeces to exit the body.



Lock and Key model	
Number	Organ
1	Substrate
2	Active site
3	Enzyme
4	Enzyme-substrate complex
5	Products



Source: Continuity Oak

Digestive enzymes				
Enzyme	Site of production	Site of action	Substrate	Product
Carbohydrase - e.g. amylase	Salivary glands, pancreas and small intestine wall	Mouth, small intestine	Carbohydrates	Simple sugars
Protease	Stomach, pancreas, small intestine wall	Stomach, small intestine	Proteins	Amino acids
Lipase	Pancreas, small intestine wall	Small intestine	Lipids	Glycerol and fatty acids

Nutrient groups	
Nutrient	Function
Carbohydrate	Quick release energy
Protein	Growth and repair
Fat	Energy store, insulation and protection of organs
Vitamins and minerals	Maintain health e.g. calcium for strong teeth and bones
Fibre	Helps digestive system run smoothly, by helping the food to pass through the gut
Water	Needed for cells and body fluids

Science - Digestion and Nutrition

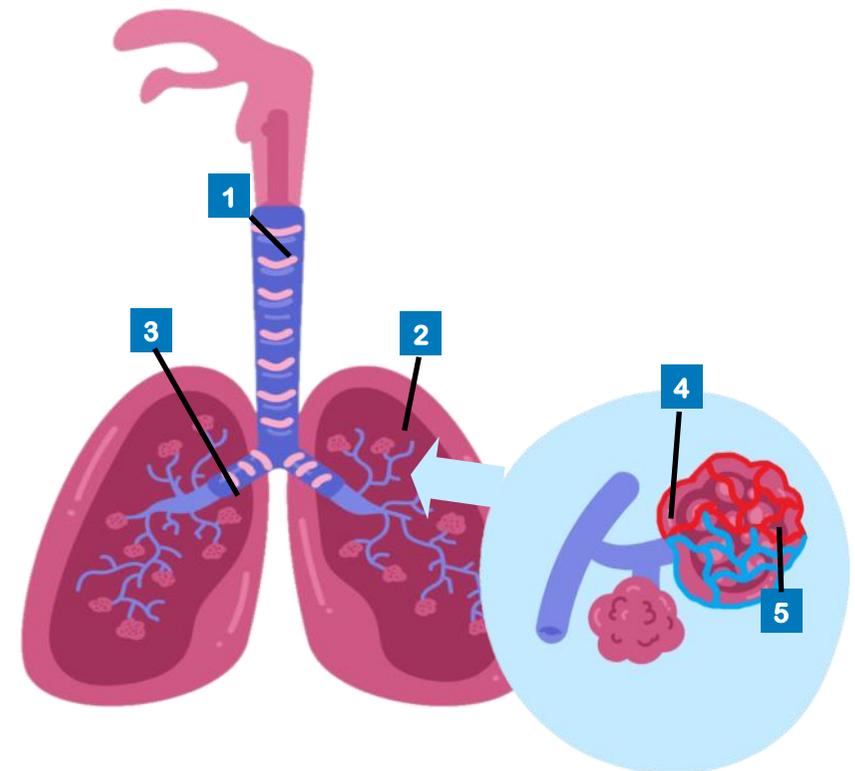
Food tests		
Molecule	Reagent	Positive result
Starch	Iodine solution	Orange to black
Sugar	Benedict's solution. Heat in a water bath	Blue to red, yellow or green
Protein	Biuret solution	Blue to purple
Lipid	Water and ethanol	Colourless to cloudy

Respiration	
Key word	Definition
Respiration	A chemical process in all cells that releases energy
Aerobic respiration	Respiration that uses oxygen (produces lots of energy)
Anaerobic respiration	Respiration that does not use oxygen
Diffusion	The movement of particles from a region of high concentration of particles to a region of low concentration of particles.
Oxygen debt	The extra oxygen needed to react with the built up lactic acid, to remove it, following anaerobic respiration

Respiration equations	
Aerobic respiration	Glucose + oxygen → carbon dioxide + water
Anaerobic respiration	Glucose → lactic acid

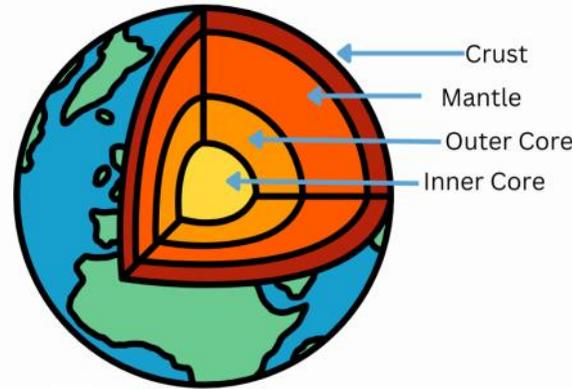
Structure of the lungs		
#	Name	Adaptations
1	Trachea	Tubes through which gases move. Lined with cartilage so they do not collapse
2	Lung	Organ where gas exchange occurs
3	Bronchus	Tubes through which gases move. Lined with cartilage so they do not collapse
4	Bronchiole	Tubes not lined with cartilage
5	Alveoli	Small sacs where gas exchange occurs. The alveoli are surrounded by capillaries, have a large surface area, good blood supply and thin walls

Nasal cavity



Science - Materials and the Earth

Structure of the Earth	
Layer	Description
Crust	Top layer of the Earth that is relatively thin and rocky.
Mantle	Thickest layer made from molten rock that can flow.
Outer core	Made from liquid nickel and iron.
Inner core	Centre of the Earth made from <u>solid</u> nickel and iron.

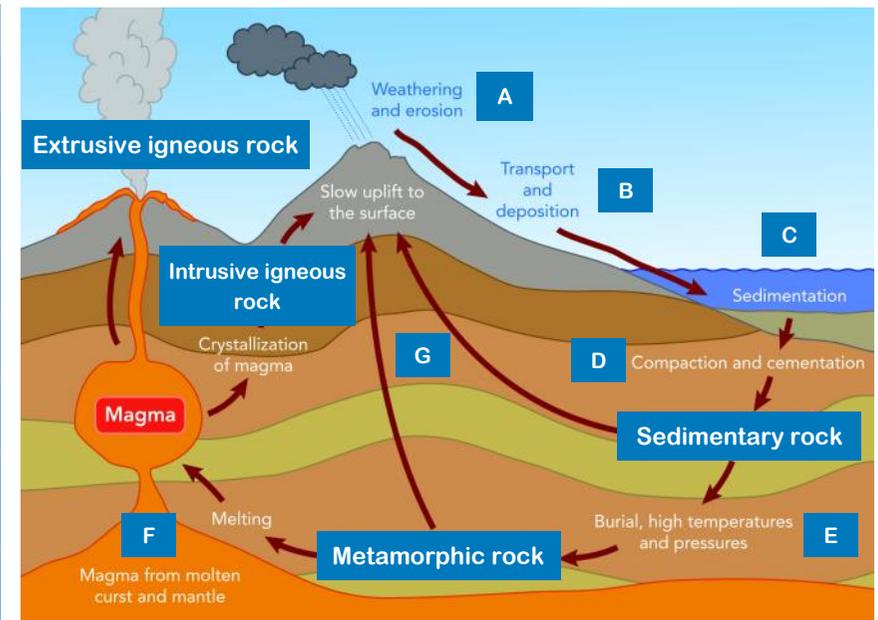


Composition of the current atmosphere	
Gas	Percentage (%)
Nitrogen	78
Oxygen	21
Other gases e.g. carbon dioxide	1

The rock cycle		
Letter	Process	Description
A	Weathering and erosion	Weathering breaks down rocks on the surface of the Earth.
B	Transportation and deposition	Rivers and streams transport rock particles to other places. Rock particles are deposited in lakes and seas.
C	Sedimentation	Rock particles form layers in lakes or seas
D	Compaction and cementation	Pressure from the above layers compresses the layers and causes particles to cement together
E	High temperature and pressure	Rocks underground get heated and put under pressure, and are changed into metamorphic rock
F	Melting	Rocks underground that get heated so much they melt turn into magma. Some reaches the surface as lava and cools quickly to form extrusive rock.
G	Slow uplift to the surface	Some magma rises slowly cooling slowly within the earth to form intrusive rock.

Types of rock		
Rock	How it is formed	Properties
Sedimentary	Broken remains of other rocks by weathering, which are joined together	<ul style="list-style-type: none"> porous (contains small holes) soft contains fossils made of layers of grains
Igneous	Molten rock that has cooled and solidified – either intrusive or extrusive	<ul style="list-style-type: none"> hard rock. does not contain fossils. contains crystals (intrusive igneous rock has cooled slowly and has large crystals, extrusive igneous rock has cooled quickly and has small crystals).
Metamorphic	High heat and pressure	<ul style="list-style-type: none"> hard rock contains distorted layers and crystals. colourful

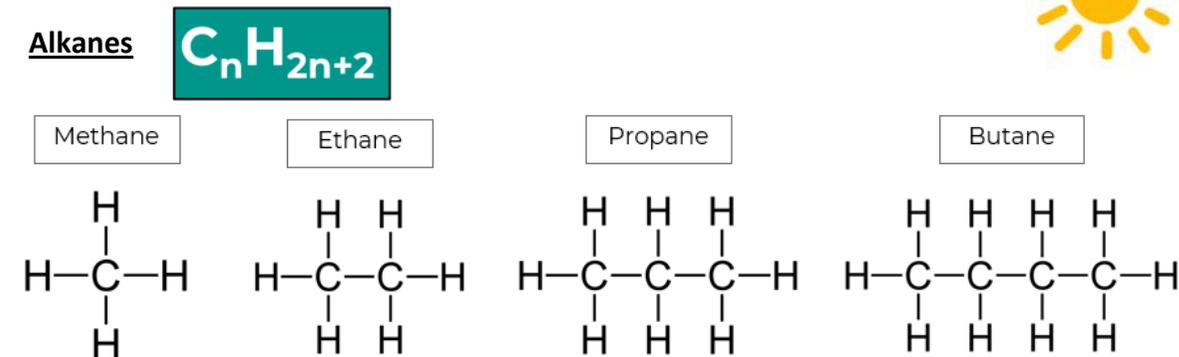
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Science - Materials and the Earth

Materials	
Key term	Definition
Monomer	Substance made of single molecules.
Polymer	Substance made from long chains of monomers.
Ceramic	Materials made out of clay soil that have been dug up from the ground and heated in a kiln.
Composite	Made from two or more different types of material.
Resources	Any materials that are useful
Recycling	Reusing materials or reprocessing waste materials to produce new materials.
Hydrocarbons	Compounds that contain hydrogen and carbon only
Fossils	The remains of a dead organism from millions of years ago trapped in rocks

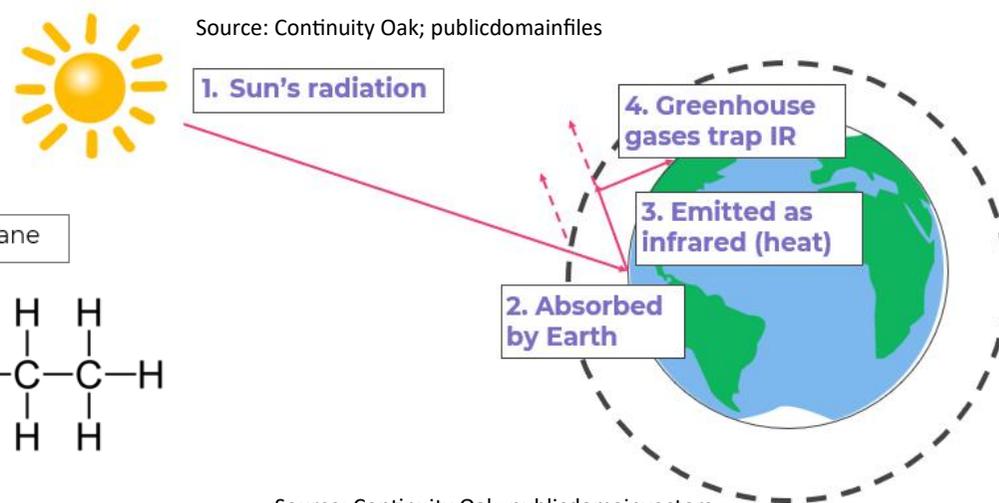
Crude oil	
Definition	A mixture of different length hydrocarbons (compounds made from carbon and hydrocarbon atoms only)
Formation	Formed from ancient remains of plankton from millions of years ago
Uses	Can be extracted and separated for fuels and plastics



Source: Continuity Oak; [Wikimedia Commons] - [Ethan Lewis]

The carbon cycle	
Stage	Description
1	Carbon enters the atmosphere as carbon dioxide from respiration and combustion.
2	Carbon dioxide is absorbed by producers through photosynthesis.
3	Animals feed on the plant passing the carbon compounds along the food chain. Most of the carbon they consume is exhaled as carbon dioxide formed during respiration.
4	Decomposers eat the dead organisms and carbon in their bodies is released, as carbon dioxide. In some conditions, decomposition is blocked. The plant and animal material will become fossil fuels.

Greenhouse gases	
Global warming	The rise in the average temperature of the Earth's surface
Greenhouse effect	The retention of heat in the atmosphere caused by the build-up of greenhouse gases
Greenhouse gases	Gases responsible for global warming - carbon dioxide, methane and nitrous oxides
Effects of climate change	Droughts, ice caps melting, extreme weather patterns, flooding, rising sea levels



Source: Continuity Oak; publicdomainvectors

Science - Light and Space

Light	
Key word	Definition
Shadow	Dark area produced by an object blocking light
Opaque	Light cannot pass through
Translucent	Allows some light to pass through, objects are unclear
Transparent	Allows light to pass through so objects can be clearly seen
Filter	Allows certain colours of light to pass through
Absorb	Take in
Reflect	Light bounces off a surface
Refract	Where a ray of light changes speed when entering a different density medium and so changes direction
Density	How tightly packed particles are, density = mass / volume
Medium	Substance the wave is travelling through
Spectrum of visible light	Band of colours seen in a rainbow (red, orange, yellow, green, blue, indigo, violet)
Speed of light	300 million m/s (metres per second)
Law of reflection	Angle of incidence = angle of reflection
Electromagnetic spectrum	A continuous spectrum of waves with different frequencies and wavelengths

Adding red and green makes yellow

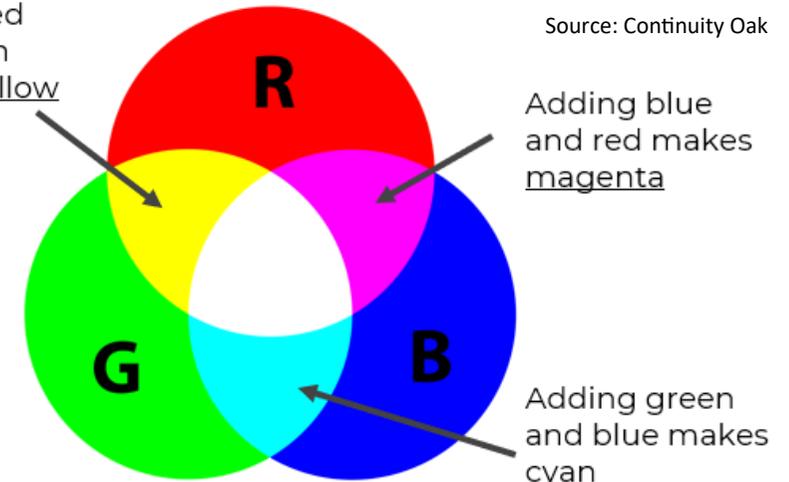
Source: Continuity Oak

Primary colours of light:

Red, green and blue

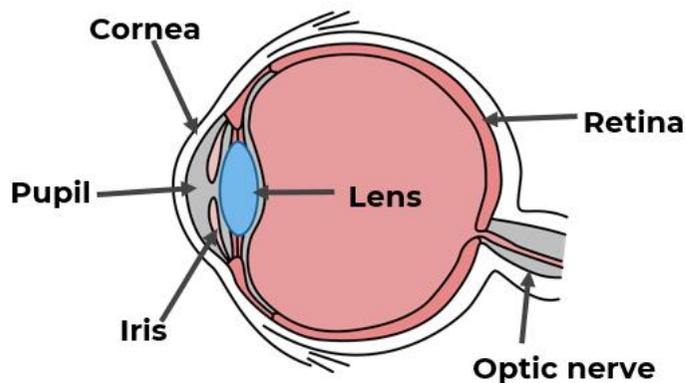
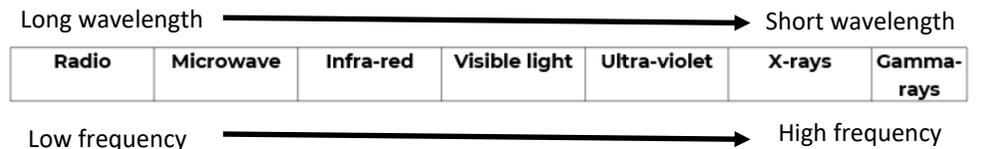
Secondary colours of light:

Yellow, magenta and cyan



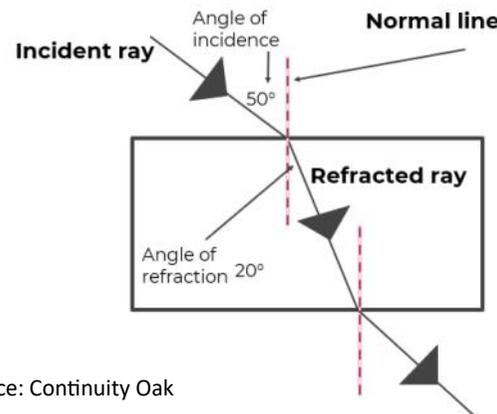
Electromagnetic spectrum

Source: Continuity Oak



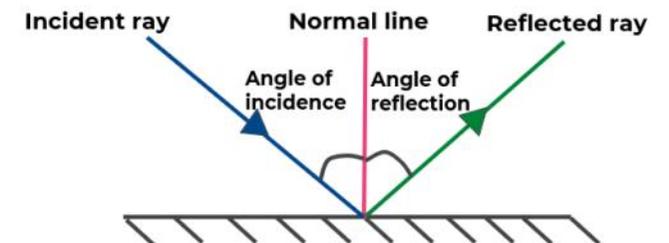
Source: Continuity Oak

Refraction



Source: Continuity Oak

Reflection



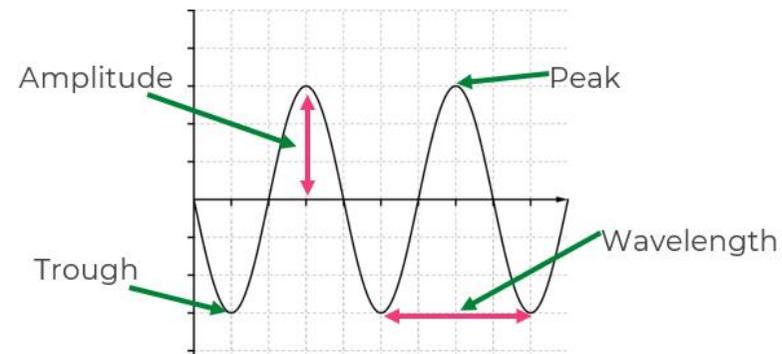
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Science - Light and Space

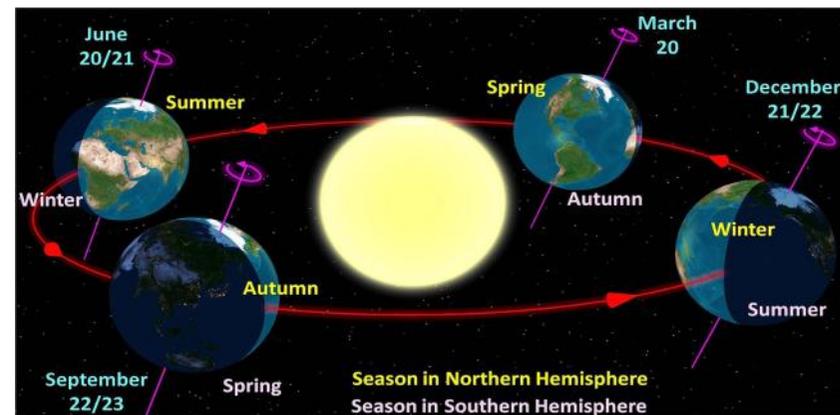
Planets and solar system	
Key word	Definition
Earth	Planet we inhabit (live on).
Day	1 rotation of the Earth - takes 24 hours.
Year	1 orbit of the Earth around the Sun - takes 365 ¼ days.
Summer	Season when hemisphere is tilted towards the Sun.
Winter	Season when hemisphere is tilted away from the Sun.
Seasons	The different periods of a year caused by the tilt of Earth's axis.
Hemisphere	Southern and Northern halves of the Earth.
Orbit	Pathway around an object due to the force of gravity.
Axis	The line that the Earth rotates about, which is tilted at an angle of 23.5°.
Gravity	Gravity is a force of attraction between all objects with mass.
Mass	The amount of matter an object contains. Mass is measured in kilograms (kg).
Weight	The force acting on an object due to the pull of gravity Weight (N) = Mass (kg) x gravitational field strength (N/kg)
Solar	Associated with the sun.
Lunar	Associated with the moon.
Satellite	A satellite is a small object that orbits, or revolves around, a larger object in space. Satellites can be natural or artificial (made by people).

Planets and their order in the Solar System	
Mercury → Venus → Earth → Mars → Jupiter → Saturn → Uranus → Neptune	
My → Very → Enthusiastic → Mother → Just → Served → Us → Noodles	

Waves	
Key word	Definition
Wave	Waves transfer energy from one place to another.
Transverse	A wave that has oscillations perpendicular to the direction of energy transfer i.e. water waves, EM waves.
Longitudinal	A wave that has oscillations parallel to the direction of energy transfer, have areas of compressions and rarefactions, i.e. sound.
Frequency	The number of waves passing a point each second.
Amplitude	The height of a wave above the zero line.
Wavelength	The distance covered by a full cycle of the wave, usually measured from peak to peak, or trough to trough.
Oscillation	The repeated and regular fluctuations, above and below the same position.



Source:
Continuity
Oak; Credit:
Mr Benyohai



Seasons

Source:
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season,
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Literacy Guide

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

