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Knowledge Organiser

Name: .....

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Contents

Non-Fiction Study

Key Terminology		
1	Bias	An inclination or prejudice for or against one person or group.
2	Tone	Attitudes toward the subject and toward the audience implied in a literary work, for example: formal, informal, sarcastic, etc.
3	Empathy	The ability to understand and share the feelings of another.
4	View	A particular attitude towards or way of regarding something.
5	Imperatives	Verbs used to give orders, commands, warning or instructions.
6	Expert opinion	A belief or judgement about something given by an expert on a subject.
7	Fact	Something that is known to happen or to exist, especially for which proof exists.
8	Objective	Based on real facts and not influenced by personal beliefs or feelings.
9	Perspective	A particular attitude towards or way of regarding something.
10	Subjective	Influenced by or based on personal beliefs or feelings, rather than based on facts.

Key Knowledge: Non-fiction forms		
11	Autobiography	The account of a person's life written by that person.
12	Biography	The account of a person's life written by another person.
13	Diary	A book in which one keeps a daily record of events and experiences.
14	Essay	A short piece of writing on a particular subject.
15	Letter	A written or printed message which from one person to another, usually put in an envelope and delivered as mail.
16	Article	A piece of writing which reports news and is published in a newspaper or magazine.
17	Opinion Piece	An article in which the writer expresses their personal opinion on a particular issue or subject.
18	Speech	A formal talk usually given to a large number of people on a special occasion.
19	Review	A critical appraisal of a book, play, film, etc, often published in a newspaper or magazine.
20	Information leaflet	A leaflet is a little book or a piece of paper containing information about a particular subject.

Poetry Study

Key Terminology		
1	Alliteration	The repetition of the same consonant sound, often at the beginning of words.
2	Emotive language	Word choice which is used to evoke emotion in the reader.
3	Imagery	A literary device used to create a particular image to convey the key ideas/messages of themes in a text.
4	Metaphor	A comparison in which one thing is said to be another.
5	Personification	The attribution of human feelings, emotions, or sensations to an inanimate object.
6	Repetition	A literary device which repeats the same word or phrase a few times to make it memorable.
7	Rhyme scheme	The pattern of a poem's rhyme, often identified using letters e.g. ABABCC.
8	Simile	A comparison that uses 'like' or 'as'.
9	Stanza	A group of lines forming a unit in a poem.

Key Terminology		
10	Structure	The way a poem is organised.
11	Symbolism	The use of symbols to express ideas or qualities.
12	Tone	Feelings or ideas suggested by the language used by the poet.
13	Verse	Another word for poetry; a group of lines forming a unit in a poem, also known as a stanza.
14	Volta	A 'turning point' in a poem.

Form		
15	Form	The way a poem is set out, or a term used to categorise poems which follow particular conventions.
16	Villanelle	A 19-line poem consisting of five units of three lines, rhymed or unrhymed, followed by a quatrain.
17	Petrarchan sonnet	A poem that has 14 lines and a particular pattern of rhyme, for example ABAB CDCD EFGEFG.
18	Ballad	A narrative poem which is typically written in short stanzas.
19	Dramatic monologue	A poem in which an imagined speaker addresses a silent listener.

Prose Study (Bildungsroman)

Key Terminology		
1	**Bildungsroman**	A type of novel which focuses on the education, spiritual, psychological and moral development of its protagonist from childhood to adulthood (also known as a 'coming of age novel').
2	**Characterisation**	A literary device in which in an author builds a character in a narrative.
3	**Quest narrative**	A quest is used as a plot device in mythology and fiction. The story follows a difficult journey towards a goal, often symbolic or allegorical.
4	**Protagonist**	The central character or leading figure in a poem, narrative, novel or any other story. Sometimes can also be referred to as a "hero" by the audience or readers.
5	**Stock characters**	A fictional character based on common stereotypes. Stock characters rely heavily on cultural types or names for their personality, manner of speech, and other characteristics.
6	**Archetype**	A very typical example of a certain person or thing.
7	**First-person narrative**	A narrative or mode of storytelling in which the narrator appears as the 'I', recollecting his or her own part in the events which occur, either as a witness of the action or as an important participant in it.
8	**Literary device**	Literary devices are methods used by writers to hint at larger themes, ideas, and meaning in a story or piece of writing.
9	**Adventure**	Fast-paced, action-packed stories featuring elements of danger.
10	**Setting**	Setting is the time and place of the story, including the physical location, weather or cultural surroundings.

Key Vocabulary		
11	**Hero**	A main character in a literary work who, in the face of danger, combats adversity through feats of resourcefulness, bravery or strength.
12	**Heroism**	The qualities of a hero or heroine; exceptional or heroic courage when facing danger.
13	**Villain**	A character in a novel, play or film whose evil actions or motives are important to the plot.
14	**Moral**	Concerned with the principles of right and wrong behaviour.
15	**Moral ambiguity**	A lack of certainty about whether something is right or wrong.

Key Knowledge – Bildungsroman	
16	**How to pronounce bildungsroman:** bill-dungs-rome-ahn.
17	**The word is a combination of two German words:** bildung means education, and roman means novel.
	A Bildungsroman typically consist of three stages:
18	The set-up: The protagonist is introduced, often during his or her childhood.
19	Experiences that shape the protagonist's character, often involving some kind of crisis.
20	The protagonist reaches maturity, often involving them finding a sense of peace with themselves, or of belonging in the world.

Prose Study (Narrative Structure)

Key Terminology		
1	First-person limited narrative	The narrator's thoughts, feelings, and knowledge of situations closely follow one character's perspective.
2	Third-person omniscient narrative	Related by a narrator who knows the thoughts and feelings of all the characters in the story.
3	Characterisation	A literary device in which in an author builds a character in a narrative.
4	Pathetic fallacy	The attribution of human feelings and emotions to inanimate things or animals, often associated with the attribution of human emotions to aspects of nature (sun, sky, wind, etc.).
5	Symbolism	The use of symbols to express ideas or qualities.
6	Protagonist	The central character or leading figure in a poem, narrative, novel or any other story. Sometimes can also be referred to as a "hero" by the audience or readers.
7	Antagonist	A person who actively opposes or is hostile to someone or something; an adversary.
8	Foreshadowing	A literary device in which a writer gives an advance hint of what is to come later in the story.
9	Setting	Setting is the time and place of the story, including the physical location, weather or cultural surroundings.

Key Vocabulary		
10	Eerie	Strange and frightening.
11	Suspense	A state or feeling of excited or anxious uncertainty about what may happen.
12	Impetuous	Acting or doing something quickly without thought or care.
13	Predatory	Seeking to exploit others.
14	Menacing	Threatening or intimidating.

Key Knowledge – Narrative Structure		
15	Exposition	Refers to part of the story used to introduce background information about events, settings, characters, etc. to the reader.
16	Rising action	A related series of incidents in a literary plot that build toward the point of greatest excitement/interest.
17	Climax	The point of highest tension.
18	Falling action	Occurs immediately after the climax.
19	Resolution	Presents the final outcome of the story.

Prose Study (Gothic)

Key Vocabulary		
1	Melodramatic	Showing much stronger emotions than are necessary or usual for a situation.
2	Grotesque	Repulsively ugly or distorted, especially in a comical or frightening way.
3	Insidious	Something dangerous or unpleasant gradually and secretly causing harm.
4	Macabre	Disturbing because concerned with or causing a fear of death.
5	Malignant	Evil in nature; malevolent.
6	Pallor	An unhealthy pale appearance.
7	Redemption	The action of saving, or being saved from, sin, error, or evil.
8	Repulsion	A feeling of intense distaste or disgust.
9	Supernatural	Something that cannot be explained by the laws of science and that seems to involve gods or magic.
10	Superstition	The belief that particular events cannot be explained by reason or science and/or the belief that particular events bring good or bad luck.

Key Terminology		
11	Gothic fiction	Refers to a style of writing that is characterised by elements of fear, horror, death, gloom, and extreme emotions.
12	Epistolary novel	A novel written as a series of documents, usually in the form of letters, although newspaper clippings, diary entries and other documents can be used.
13	Characterisation	A literary device in which in an author builds a character in a narrative.
14	Mood	The feelings or atmosphere perceived by a reader in a piece of literature.
15	Symbolism	The use of symbols to express ideas or qualities.

Key Context	
16	The Gothic genre became popular in the late 18th and 19th centuries, during a time of great discovery and change.
17	Gothic novels emphasise mystery, horror, and the uncanny.
18	Typical Gothic settings are: medieval castles, old graveyards, crumbling buildings, gloomy chambers, dark forests, and wild, strange or dangerous locations.
19	Famous novel novels include Frankenstein by Mary Shelley (1818), Dracula by Bram Stoker (1897) and Rebecca by Daphne Du Maurier (1938).
20	'The Gothic sensibility in literature is seen by some as an attempt to deal with the feared and unknown consequences of social change.' (Steve Roberts, University of Brighton)

Prose Study (Dystopian Fiction)

Key Vocabulary		
1	Dystopia	An imagined place or state in which everything is unpleasant or bad, typically a totalitarian or environmentally damaged one.
2	Dehumanise	To deprive some one of positive human qualities.
3	Totalitarian	A system of government that is centralised and dictatorial and requires its people to obey the government or state without questions.
4	Fatalistic	Relating to or characteristic of the belief that all events are predetermined and therefore inevitable.
5	Futuristic	Having or involving very modern technology or design.
6	Oppressive	Something or someone that limits freedom of thought or action.
7	Paranoia	Unjustified suspicion or mistrust of people.
8	Rebellion	The action or process of resisting authority, control, or convention.
9	Societal norm	The unwritten rules of behaviour that are considered acceptable in a group or society.
10	Tyranny	Cruel, unreasonable and/or oppressive rule or government.

Key Terminology		
11	Dystopian fiction	Refers to a genre of writing which explores the loss of civil liberties, living under constant surveillance, laws controlling a woman's reproductive freedom, and denial of the right to an education.
12	Foreshadowing	A literary device in which a writer gives an advance hint of what is to come later in the story.
13	Mood	The feelings or atmosphere perceived by a reader in a piece of literature.
14	Motif	A dominant or recurring idea.
15	Symbolism	The use of symbols to express ideas or qualities.

Key Knowledge (Dystopian Fiction)	
16	Dystopia comes from the Greek dys ('bad') and topia ('place').
17	The worlds depicted are often controlled by a totalitarian or authoritarian government.
18	Dystopian stories are usually set in the future.
19	Dystopias are often thought to be 'cautionary tales' but are also used to explore the ideas of what it is to be human.
20	In dystopian stories, society itself is typically the antagonist as society is actively working against the protagonist's aims and desires.

Prose Study (Detective Fiction)

Key Vocabulary		
1	**Deduce**	Arrive at a fact or a conclusion by reasoning; draw as a logical conclusion.
2	**Deduction**	The process of reaching a decision or answer by thinking about the known facts.
3	**Idiosyncratic**	A word to describe behaviour which is considered to be distinctive or peculiar.
4	**Indiscretion**	Behaviour that is indiscreet or lacks good judgement.
5	**Temperament**	A person's or animal's nature/traits of personality, which have a permanent impact on their behaviour.

Key Terminology		
6	**Protagonist**	The central character or leading figure in a poem, narrative, novel or any other story. Sometimes can also be referred to as a "hero" by the audience or readers.
7	**Symbolism**	The use of symbols to express ideas or qualities.
8	**Tone**	The choice of writing style the writer employs to convey specific feelings, emotions or attitudes.
9	**Characterisation**	A literary device in which in an author builds a character in a narrative.
10	**Red herring**	A literary device that leads readers toward a false conclusion.

Key Terminology		
11	**Detective fiction**	A sub-genre of crime fiction and mystery fiction in which an investigator or a detective (professional, amateur or retired) investigates a crime, often murder.
12	**Literary conventions**	Defining features of particular genres such as novel, short story, ballad, sonnet, or play.
13	**First person peripheral narrator**	A type of narrative perspective in which the narrator is the another character in the story who witnesses the main character's story and conveys it to the reader.
14	**Exposition**	Refers to the part of the story used to introduce background information about events, settings, characters etc. to the reader.
15	**Antagonist**	A person who actively opposes or is hostile to someone or something.

Key Knowledge – Sherlock Holmes	
16	The Sherlock Holmes stories are a group of short stories about a fictional detective, written in the late 1880s and 1890s by Arthur Conan Doyle.
17	Doyle was influenced by Dr Joseph Bell, who was a master of logic, deduction and reasoning. Doyle felt that these were ideas that had been missing from the genre of detective fiction.
18	Doyle's Sherlock Holmes stories changed detective fiction forever, introducing many of the literary conventions that are now frequently seen in the genre.
19	One of Doyle's most important additions to the genre was including a first-person peripheral narrator (Dr Watson) who needs the events of the investigation explained to him by the protagonist (Sherlock Holmes).
20	"The love of books is among the choicest gifts of the gods." *Sir Arthur Conan Doyle*

Shakespeare Study (Comedy)

Key Terminology		
1	Magic realism	A literary genre when magic elements are a natural part in an otherwise ordinary, realistic environment.
2	Play within a play	A literary device in which an additional play is performed during the performance of the main play.
3	Soliloquy	A speech or passage in a drama when a character on stage speaks to himself or herself, expressing their inner thoughts and feelings.
4	Blank verse	Unrhymed lines written in a poetic meter and usually written in iambic pentameter (see below).
5	Rhymed verse	Poem or verse having a regular correspondence of sounds, especially at the end of lines.
6	Prose	Ordinary writing not organised with rhymes or fixed line lengths. It is the language that people speak in.
7	Rhyming couplets	Two successive lines of verse of which the final words rhyme with another.
8	Iambic pentameter	A line of verse consisting of one short (or unstressed) syllable followed by one long (or stressed) syllable, with the accent (or emphasis) placed on the second syllable.
9	Stage directions	Instructions written into the script of a play, indicating stage actions, movements of performers, or production requirements.
10	Setting	The time and place in which the story takes place in a piece of literature.

Key Vocabulary		
11	To reciprocate	To return affection or love for someone in the same way that they feel it. Also: to respond to a gesture or action by returning a similar gesture or action.
12	Cupid	Ancient Roman God of Love.
13	Besotted	To be intensely in love with someone.
14	To elope	To run away secretly in order to get married.
15	Unrequited love	When one person feels love for another but the other person does not return their feelings, or does not realise they feel that way about them.

Key Knowledge: Shakespeare's comedies		
16	Marriage	Comedies head towards marriage. Marriage would represent the achievement of happiness.
17	Misunderstandings	In Shakespearean comedies much that is funny arises from the misunderstandings of lovers or potential lovers.
18	Disguise	Shakespeare's comedies involve characters in disguise, particularly the disguising of women as young men.
19	Dramatic Irony	When the implications of something are not known by the characters on stage but are clear to the audience / reader.
20	Gender	The fact that women had to be played by young male actors adds to the dramatic irony of the use of gender disguises.

Shakespeare Study (History)

Key Vocabulary		
1	Lamentation	The passionate expression of grief or sorrow, which can include weeping and wailing.
2	Amoral	Not following any moral rules and not caring about what is right and wrong.
3	Corrupt	Having or showing a willingness to act dishonestly in return for money or personal gain.
4	Charismatic	Someone or something with a compelling and charming personality or traits that are attractive and alluring to others.
5	Machiavellian	Cunning, scheming, and unscrupulous, especially in politics.
6	Self-determination	The ability or power to make decisions for yourself.
7	Treacherous	Guilty of, or involving betrayal or deception.
8	Tyrant	A cruel and oppressive ruler.
9	Usurp	To take a position of power or importance illegally, or by force.
10	Villainous	Wicked or criminal behaviour.

Key Terminology		
11	Aside	A remark or passage in a play that is intended to be heard by the audience but is supposed to be unheard by the other characters on the stage.
12	History play	A play based on a historical narrative, often set in the medieval period.
13	Juxtaposition	The placement of two contrasting objects, images or ideas next to each other.
14	Rhyming couplets	Two successive lines of verse of which the final words rhyme with another.
15	Soliloquy	A speech or passage in a drama when a character on stage speaks to himself /herself or the audience, expressing their inner thoughts and feelings.

Key Knowledge	
16	Shakespeare's history plays are set in late medieval England.
17	Shakespeare's source for historical material, however, is generally believed to be Raphael Holinshed's The Chronicles of England, Scotland and Ireland.
18	Each historical play is named after, and focuses on, the reigning monarch of the period.
19	The history plays are based on real events but are not entirely accurate.
20	Shakespeare's history plays usually focus on the downfall of a leader.

Shakespeare (Tragedy)

Key Vocabulary		
1	**Abdication**	When a monarch renounces (gives up) their throne.
2	**Realm**	A kingdom.
3	**Disintegration**	The process of losing cohesion, strength or breaking down.
4	**Regicide**	The killing of a king.
5	**Treacherous**	Guilty of, or involving, betrayal or deception.
6	**Tyrant**	A cruel and oppressive ruler.
7	**Corrupt**	Having or showing a willingness to act dishonestly in return for money or personal gain.
8	**Machiavellian**	Cunning, scheming, and focused on the acquisition of personal power, especially in politics.
9	**Transgressive**	Violating (crossing) moral and social boundaries.
10	**Primogeniture**	The right of succession to the throne belonging to the first born, usually the son.

Key Terminology		
11	**Tragedy**	A play ending with the suffering and death of the main character.
12	**Hamartia**	The fatal flaw of a tragic hero.
13	**Anagnorisis**	The point in the plot, especially of a tragedy, at which the protagonist recognises their own character's true identity or discovers the true nature of their situation.
14	**Catharsis**	The process of releasing strong or pent-up emotions which can bring a release from tension.
15	**Soliloquy**	A speech or passage in a play when a character on stage speaks to himself or herself, expressing their inner thoughts and feelings.

Key Knowledge – Tragedy		
16	**Tragic hero**	A virtuous character whose downfall is caused by their flaws in their character.
17	**Good and Evil**	A struggle between good and evil take place as part of the plot or exists within the main character.
18	**Tragic Waste**	By the end of the play, good has been destroyed as well as evil.
19	**External Conflict**	The problem facing the hero as a result of evil forces or characters, or the events in the play.
20	**Internal Conflict**	The hero's struggle with their fatal flaw.

KPI 7.01 Place Value and Number Sense

1) Place Value	The value of a digit relating to its position in a number. In 1482 the digits represent 1 thousand, 4 hundreds, 8 tens and 2 ones.	**2) Integer**	Whole numbers including zero. -2, -1, 0, 1, 2, 3, …
3) Decimal	A number with a decimal point in it. It can be positive or negative. 0.3, 1.26, -3.4, etc	**4) Positive Number**	Any number above zero: 1, 2, 3, 4, …
5) Negative Number	Any number below zero. Always written with a negative sign in front of it: -1, -2, -3, …	**6) Zero Place Holder**	A zero that is used as a place holder to denote the absence of a power of 10 E.g. 506 has no tens so there is a 0 in the tens column.
7) Even Number	Any integer that can be divided by 2 without leaving a remainder. 2, 4, 6, 8, 10, …	**8) Odd Number**	Any integer that cannot be divided by 2 without leaving a remainder. 1, 3, 5, 7, 9, …
9) Square Number	The result of multiplying a number by itself. It will always be positive: 1, 4, 9, 16, 25, 36, 49, 64, 81, 100, 121, 144...	**10) Square Root**	The opposite of squaring a number to find the original factor e.g. $\sqrt{9} = 3$ or -3
11) Inequality	When one number, or quantity, is not equal to another. $a < b$ a is less than b $a > b$ a is greater than b $a = b$ a is equal to b $a \neq b$ a is not equal to b	**12) Ascending**	Smallest to largest
		13) Descending	Largest to smallest

KPI 7.02 Addition and Subtraction

1) Addition Plus, add, sum, more than.	To find the total of two or more numbers. The inverse operation is subtraction. 1.38 4.90 + 6.28 1	**2) Subtraction** Subtract, minus, take away, less than.	To find the difference between two numbers. The inverse operation is addition. 8 1 4.90 1.38 - 3.52
3) Commutative	Addition is commutative – the order of addition does not change the result. Subtraction is not commutative.	**4) Associative**	When you add you can do so regardless of how the numbers are grouped. Subtraction is not associative.

KPI 7.03 Perimeter

1) Perimeter	The total distance around the outside of a closed shape. 8 cm 5 cm  Perimeter = 5 + 8 + 5 + 8 = 26 cm	**2) Polygon**	A 2D shape which has 3 or more straight sides.
		3) Regular Polygon	A polygon where all sides are equal length, and all angles are of equal size.
		4) Irregular Polygon	A polygon where all sides are not equal and/or all angles are not equal.

KPI 7.04 Rounding and Estimation

1) Decimal place value	The value of each digit after the decimal point. Tenth, hundredth, thousandth etc.	**4) Rounding**	
2) Decimal places	The number of digits after the decimal point e.g. 14.278 has 3 decimal places.		
3) Estimate	Find a rough or approximate answer by rounding e.g. 2.3 x 18.4 ≈ 2 x 20 = 40 ≈ "approximately equal to"		

Round to	Circle, Underline, Decide	Answer
Nearest 1000	(5) 7 8 3 . 1 9 9	≈ 6000
Nearest 100	5 (7) 8 3 . 1 9 9	≈ 5800
Nearest 10	5 7 (8) 3 . 1 9 9	≈ 5780
Nearest integer	5 7 8 (3) . 1 9 9	≈ 5783
1 d.p	5 7 8 3 . (1) 9 9	≈ 5783.2
2 d.p	5 7 8 3 . 1 (9) 9	≈ 5783.20

KPI 7.05 Multiplication and Division

1) Multiplication

lots of, times, product, of

Multiplication is the operation of scaling one number by another.
Multiplication is the inverse operation of division.
Multiplication is commutative – the order of multiplication does not change the result
E.g. 2 x 3 = 3 x 2.
Multiplication is associative – when you multiply you can do so regardless of how the numbers are grouped
E.g. 1 x (2 x 3) = (1 x 2) x 3

2) Multiplying integers

29 x 3

$$\begin{array}{r} 29 \\ \times\ 3 \\ \hline 87 \\ \hline \not{2} \end{array}$$

3) Multiplying decimals

Remove the decimal points
Multiply
Insert the same number of decimal points in the answer as in the question
0.5 x 0.3
5 x 3 = 15
0.5 x 0.3 = 0.15

4) Division

Division can be thought of as sharing.
The number being divided is shared equally into the stated number of parts.
Division is the inverse operation of multiplication.

$$D \div \blacksquare = \blacksquare \overline{)D} = \frac{D}{\blacksquare}$$

E.g. $8 \div 9 = 9\overline{)8} = \frac{8}{9}$

$4524 \div 3$

$$3\overline{)4524} \quad \begin{matrix} 1508 \\ {\scriptstyle 1\ 2} \end{matrix}$$

$3 \div 8$

$$8\overline{)3.000} \quad \begin{matrix} 0.375 \\ {\scriptstyle 3\ 6\ 4} \end{matrix}$$

5) Dividend

The number being divided.
15 ÷ 3 → 15 is the dividend.

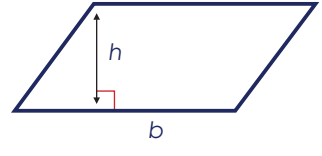
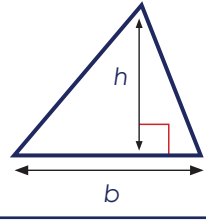
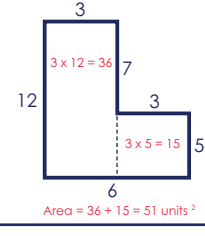
6) Divisor

The number by which another is divided.
15 ÷ 3 → 3 is the divisor.

KPI 7.06 Factors, Multiples and Primes

1) Factor	Any whole number that divides exactly into another number leaving no remainder is a factor. Factors of 20 are: 1, 2, 4, 5, 10, 20	**2) Multiple**	The result of multiplying a number with a whole number (all times tables!) The multiples of 7: 7, 14, 21, 28, 35, 42, 49, 56, 63, 70 ...
3) Highest Common Factor (HCF)	The HCF of 2 or more numbers is the largest number that is a factor of each of those numbers E.g. HCF of 18 and 45 = 9 18: 1, 2, 3, 6, (9) 18 45: 1, 3, 5, (9) 15, 45	**4) Lowest Common Multiple (LCM)**	The LCM of 2 or more numbers is the smallest number that is a multiple of each of those numbers E.g. LCM of 6 and 8 = 24 6: 6, 12, 18, (24), 30, 36, 42, 48, 54, 60 8: 8, 16, (24), 32, 40, 48, 56, 64, 72, 80
5) Prime numbers	A prime number only has two distinct factors: 1 and itself. 2 is the only even prime number. 1 is not a prime number. Prime numbers between 1 and 100 are: 2, 3, 5, 7, 11, 13, 17, 19, 23, 29, 31, 37, 41, 43, 47, 53, 59, 61, 67, 71, 73, 79, 83, 89, 97		

KPI 7.07 Area

1) Area	A measure of the space inside a 2D shape. Area is measured in square units E.g. square centimetres (cm^2), square metres (m^2).		
2) Area of a rectangle	Area = length x width 	**3) Area of parallelogram**	Area = base x height 
4) Area of triangle	Area = $\frac{base \times height}{2}$ 	**5) Compound area**	Split into regular shapes Find the area of each Sum the areas 

KPI 7.08-7.11 Fractions

1) Fraction	Part of a whole. The result of dividing one integer by a second (non-zero) integer.	$\frac{3}{4}$ 3 → **Numerator** *How many equal parts do you have?* 4 → **Denominator** *How many equal parts is the whole divided into?*	
2) Proper fraction	The numerator is smaller than the denominator e.g. $\frac{5}{6}$	**3) Improper fraction**	The numerator is greater than or equal to the denominator e.g. $\frac{11}{8}$
4) Mixed number	A whole number combined with a fraction. e.g. $2\frac{1}{3}$	**5) Simplify a fraction**	Divide both the numerator and the denominator of the fraction by their HCF. $\frac{6}{14} = \frac{3}{7}$ (÷ 2 on the numerator and ÷ 2 on the denominator)
6) Writing one number as a fraction of another	Write £15 as a fraction of £25. $\frac{15}{25} = \frac{3}{5}$		
7) Equivalent fractions	Fractions which have the same value. The numerator and the denominator can be multiplied or divided by the same number.	E.g. Fractions equivalent to $\frac{3}{5}$:	$\frac{3}{5} \times \frac{2}{2} = \mathbf{\frac{6}{10}}$; $\frac{3}{5} \times \frac{3}{3} = \mathbf{\frac{9}{15}}$; $\frac{3}{5} \times \frac{4}{4} = \mathbf{\frac{12}{20}}$; $\frac{3}{5} \times \frac{10}{10} = \mathbf{\frac{30}{50}}$
8) Convert an integer to a fraction	Whole numbers are an integer with a denominator of 1.	$3 = \frac{3}{1} = \frac{15}{5}$ (x 5 on the numerator and x 5 on the denominator)	
9) Converting an improper fraction to a mixed number	Divide the numerator by the denominator. Write down the whole number of the answer and the remainder as the numerator of the fraction. The denominator of the mixed number is the same as the denominator of the improper fraction.	$\frac{15}{7} = 2\frac{1}{7}$	
10) Converting a mixed number to an improper fraction	Change the whole number into a fraction (same denominator) and add on the fraction part.	$2\frac{3}{4} = \frac{8}{4} + \frac{3}{4} = \frac{11}{4}$	
11) Add/Subtract fractions	Make the denominators the same (find the LCM). Use equivalent fractions to change each fraction to the common denominator. Add/subtract the numerators only.	$\frac{2}{7} + \frac{2}{5} = \frac{10}{35} + \frac{14}{35} = \frac{24}{35}$	
12) Order fractions	Find the lowest common denominator. Write equivalent fractions with the LCD. Order from the smallest to largest numerator. Rewrite original fractions in the new order.	$\frac{2}{3}$, $\frac{5}{6}$, $\frac{4}{5}$ $\frac{20}{30}$ (1), $\frac{25}{30}$ (3), $\frac{24}{30}$ (2) $\frac{2}{3}$, $\frac{4}{5}$, $\frac{5}{6}$	
13) Convert fractions to decimals	Use short division. E.g. to convert $\frac{3}{8}$ to a decimal: $8 \overline{)\,3.^{3}0^{6}0^{4}0}$ = 0.375	**14) Fractions of an amount**	We divide the amount by the denominator and then multiply the result by the numerator. E.g. $\frac{2}{7}$ of 35: $35 \div 7 = 5$, $2 \times 5 = 10$

KPI 7.12 Order of Operations

1) Operation	A rule for combining numbers + - × ÷	**2) Evaluate**	To work out the value of.
3) Index notation	The **index** tells us how many times the **base** is being multiplied by itself. The plural of index is indices.		Power → Index 2^3 Base
4) Order of operations	**B** = **B**rackets **I** = **I**ndices and Roots **DM** = **D**ivision and **M**ultiplication **AS** = **A**ddition and **S**ubtraction		
	If we have a calculation with addition or subtraction only then we calculate from left to right. 18 - 10 + 2 **8** + 2 **10**		If we have a calculation with multiplication or division only then go from left to right. 8 × 5 ÷4 × 10 **8** × **5** ÷ 4 × 10 **40** ÷ 4 × 10 **10** × 10 = 100

KPI 7.13 Basic Rules of Algebra

1) $2a$	$2 \times a$	**2)** ab	$a \times b$
3) a^2	$a \times a$	**4)** $3a^2$	$3 \times a \times a$
5) a **subtracted from** b	$b - a$	**6)** a **less than** b	$b - a$
7) a **subtract** b	$a - b$	**8)** a **reduced by** b	$a - b$
9) a **divided by** b	$\frac{a}{b}$	**10)** b **divided by** a	$\frac{b}{a}$
11) 4 times smaller than a	$\frac{a}{4}$	**12) 4 times larger than** a	$4 \times a \rightarrow 4a$
13) 5th power of a	a^5	**14) Variable**	A letter used to represent any number.
15) Coefficient	The number to the left of the variable. This is the value that we multiply the variable by. $4x \rightarrow$ The coefficient of x is 4. $\quad x \rightarrow$ The coefficient of x is 1.	**16) Term**	A single number, variable or numbers and variables multiplied together.
17) Expression	A mathematical statement which contains one or more terms combined with addition and/or subtraction signs E.g. $4x + 3y$.	**18) Collecting like terms**	Combining the like terms in an expression. $7x + 3y - 2x$ is simplified to $5x + 3y$.

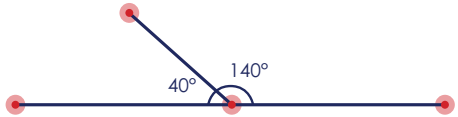
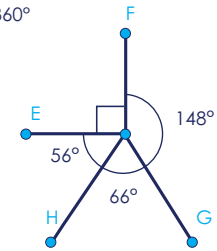
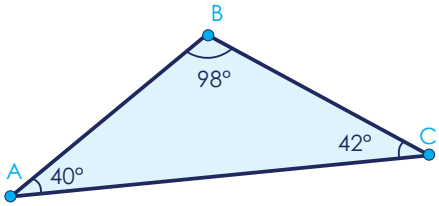
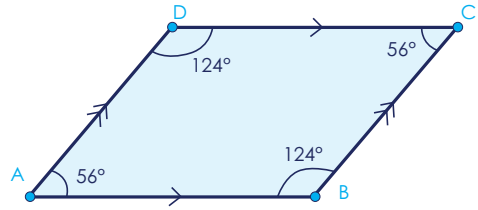
KPI 7.14 Expand and Factorise

1) Expand	Multiply out the bracket(s) in the expression. E.g. $3(5x + 7) = 15x + 21$	**2) Factorise**	Identify the HCF and rewrite the expression with brackets. E.g. $6x^2 + 9x = 3x(2x + 3)$

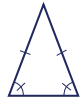
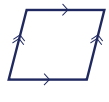
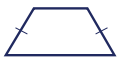
KPI 7.15 Substitution

1) Substitute	Replace a variable with a given value e.g. if b = 10, $\frac{b}{2} = \frac{10}{2} = 5$ 2b = 2 × 10 = 20 b - 2 = 10 - 2 = 8

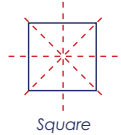
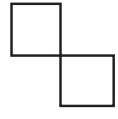
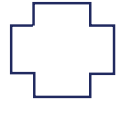
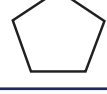
KPI 7.16 Angles

1) Angle	An angle is a measure of turn from one line segment to another. One whole turn is equal to 360 degrees.	**2) Degree**	The most common unit of measurement for angles.
3) Acute angle	Less than 90°	**4) Right angle**	Exactly 90°
5) Obtuse angle	Greater than 90° but less than 180°	**6) Reflex angle**	Greater than 180°
7) Angles on a straight line	Angles on a straight-line sum to 180° 	**8) Angles around a point**	Angles around a point sum to 360° 
9) Angles in a triangle	Angles in a triangle sum to 180° 	**10) Angles in a quadrilateral**	Angles in a quadrilateral sum to 360° 

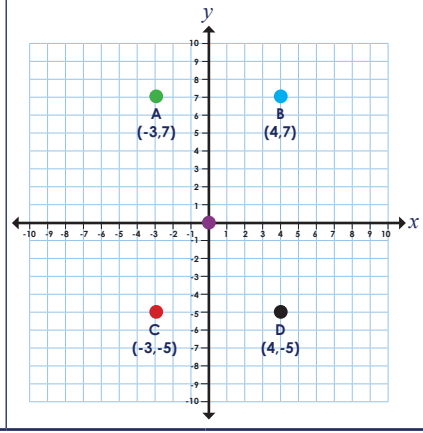
KPI 7.17 Polygons

1) 3 sides	Triangle	**2) 4 sides**	Quadrilateral
3) 5 sides	Pentagon	**4) 6 sides**	Hexagon
5) 7 sides	Heptagon	**6) 8 sides**	Octagon
7) 9 sides	Nonagon	**8) 10 sides**	Decagon
9) 11 sides	Hendecagon	**10) 12 sides**	Dodecagon
11) Equilateral triangle	• 3 equal angles • 3 equal sides 	**12) Isosceles triangle**	• 2 equal angles • 2 equal sides 
13) Scalene triangle	• All angles are different • All sides are different 	**14) Right angled triangle**	• One angle of 90° • Can be isosceles or scalene 
15) Square	• 4 right angles • 4 equal sides • 2 pairs of parallel sides 	**16) Rectangle**	• 4 right angles • 2 pairs of parallel sides • 2 pairs of equal sides 
17) Parallelogram	• 2 pairs of equal sized angles • 2 pairs of parallel sides • 2 pairs of equal sides 	**18) Rhombus**	• 4 equal sides • 2 pairs of equal sized angles • 2 pairs of parallel sides 
19) Trapezium	• 1 pair of parallel sides 	**20) Right angled trapezium**	• 2 right angles • 1 pair of parallel sides 
21) Isosceles trapezium	• 1 pair of parallel sides • 2 pairs of equal sides • 2 pairs of equal sized angles 	**22) Kite**	• 1 pair of equal sized angles • 2 pairs of equal sides 

KPI 7.18 Symmetry and Reflection

1) Line symmetry	2) Rotational symmetry
The mirror lines of a shape. If a polygon is regular, the number of sides is equal to the number of lines of symmetry.	The number of positions in which the rotated object appears unchanged. The number of positions is called the order of the symmetry. For example, **Order 3** tells us that a shape can be rotated into three positions where the shape appears unchanged.
Four lines of symmetry  *Square*	Order 2 
Three lines of symmetry  *Equilateral Triangle*	No rotational symmetry 
Six lines of symmetry  *Regular Hexagon*	Order 3 
Five lines of symmetry  *Regular Pentagon*	Order 4 
	Order 5 

KPI 7.19 Co-ordinates

1) Origin	The coordinate (0,0), where the x - axis and y - axis intersect.	**2) Axis**	x - axis is horizontal ($y = 0$) y - axis is vertical ($x = 0$) The plural of axis is axes.
3) Coordinates	Written in pairs and inside a bracket. The first number is the x - coordinate (horizontal position). The second number is the y - coordinate (vertical position).		Point A is in the SECOND quadrant Point B is in the FIRST quadrant Point C is in the THIRD quadrant Point D is in the FOURTH quadrant The coordinate (0,0) is also known as the ORIGIN

KPI 7.20 Mean

1) Average	A number expressing the central or typical value in a set of data.	**2) Mean**	The sum of the numbers divided by how many numbers are being averaged. E.g. Calculate the mean of 14, 6, 18, 2, 3. 1) Add the values: 14 + 6 + 18 + 2 + 3 = 43 2) Divide by 5 3) Mean is $\frac{43}{5} = 8.6$
3) Reversing the mean	If we have the mean but one of the data points is missing, we can find the missing value by: 1) Multiplying the 'mean' by the number of data points to get the total of the values. 2) Subtracting the sum of the known values from the total of all values.	E.g. The mean of three numbers is 5. Two of the numbers are 3 and 10. Find the third value. Total of the values: 5 x 3 = 15 15 – (3 + 10) = 2 The third value is 2	

KPI 7.21 Two-way tables and Venn diagrams

1) Two-way table

A visual representation of the possible relationships between two sets of categorical data.
You can add and subtract values horizontally and vertically to find totals or missing values.

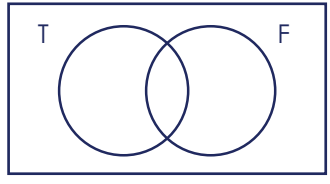
	Child	Adult	Total
Male	7	9	16
Female	8	6	14
Total	15	15	30

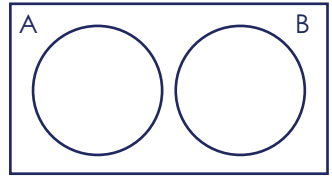
The values in a row have a total at the right-hand side of the row.

The values in a column have a total at the bottom of the column.

2) Venn diagrams

These were created by an English Mathematician, John Venn (1834 – 1923).
They are used to sort groups of data and consist of two or more circles, often overlapping, contained inside a rectangle.



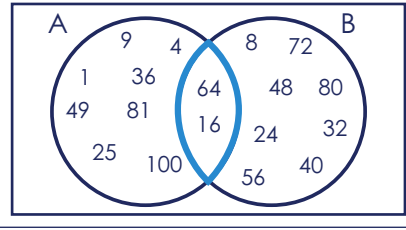


3) One intersection

In a Venn diagram with 2 circles, an overlap represents a section where **elements** (e.g. numbers) lie in **both sets** (e.g. A and B).
The overlap between the sets, is called the intersection.

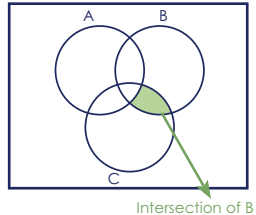
E.g.
A = First ten square numbers
B = First ten multiples of 8

16 and 64 are in the intersection as they are in both sets.

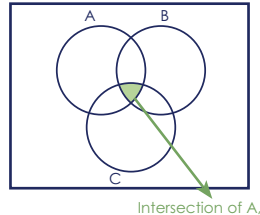


4) Multiple intersections

If a Venn diagram is representing three sets, it will have three circles. Each circle will <u>often</u> overlap with another data set twice, with all three circles overlapping at the centre.



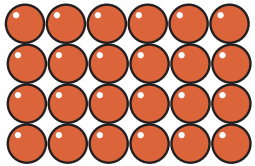
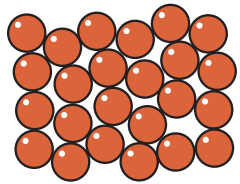
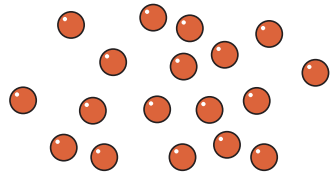
Intersection of B and C



Intersection of A, B and C

Particles

1. Describing particles in states of matter

State	Solid	Liquid	Gas
Diagram			
Arrangement Of Particles	Regular arrangement	Randomly arranged	Randomly arranged
Movement Of Particles	Vibrate about a fixed position	Move around each other	Move quickly in all directions
Closeness Of Particles	Very close	Close	Far apart

2. Explaining The Properties Of Solids

Property	Reason
Fixed shape & cannot flow	Particles cannot move from place to place
Cannot be compressed (squashed)	Particles are close together and have no space to move into

3. Explaining The Properties Of Liquids

Property	Reason
They flow and take the shape of their container	The particles can move around each other
They cannot be compressed (squashed)	The particles are close together and have no space to move into

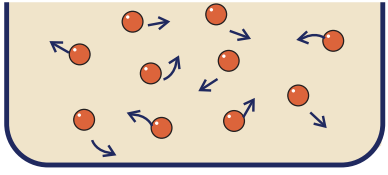
4. Explaining The Properties Of Gases

Property	Reason
They flow and completely fill their container	The particles can move quickly in all directions
They can be compressed (squashed)	The particles are far apart and have space to move into

Particles

5. Gas Pressure

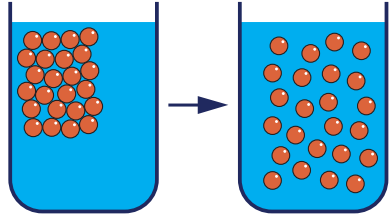
When gas particles hit the walls of their container, they cause pressure. The faster the particles move, the higher the gas pressure.



6. Diffusion

Diffusion is the movement of a substance from an **area of high concentration** to an **area of low concentration.**

Diffusion happens in **liquids** and **gases** because their particles move randomly from place to place.



7. Conservation Of Mass

The number of particles stay the same when a substance changes state - only their **closeness, arrangement** or **motion** change. This means that the **mass of the substance stays the same.**

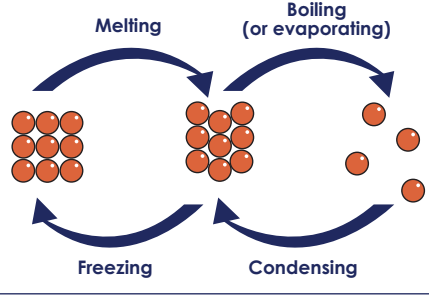
For example, 10g of water boils to form 10g of steam, or freezes to form 10g of ice. This is called **conservation of mass.**

8. Changes Of State

9. Losing Energy

	Condensing	Freezing
Description	Gas to liquid	Liquid to solid
Closeness Of Particles	Become much closer together	Stay close together
Arrangement Of Particles	Stay random	Random to regular
Motion Of Particles	Stop moving quickly in all directions, and can only move around each other	Stop moving around each other, and only vibrate on the spot

Gaining Energy



Losing Energy

10. Gaining Energy

	Melting	Evaporating or boiling
Description	Solid to liquid	Liquid to gas
Closeness Of Particles	Stay close together	Become much further apart
Arrangement Of Particles	Regular to random	Stay random
Motion Of Particles	Start to move around each other	Start to move quickly in all directions

Particles

1. Pure Substances

A pure substance contains only one type of particle.

For example:

- Pure iron contains only iron particles (called iron atoms);
- Pure water contains only water particles (called water molecules);
- Pure oxygen only contains oxygen particles (called oxygen molecules).

2. Mixtures

A mixture contains more than one type of particle that are NOT chemically joined together.

For example:

- Steel contains iron particles and small amounts of carbon particles (called carbon atoms);
- Tap water contains water particles and small amounts of other particles (called ions);
- Air contains 21% oxygen, 78% nitrogen and 1% of other gases (e.g. argon and carbon dioxide).

3. Dissolving

Dissolving is one way to make a mixture. For example, when salt is stirred into water, the salt **dissolves** in the water to make salt **solution**.

- Solute - the substance that dissolves (e.g. salt)
- Solvent - the substance that the solute dissolves in (e.g. water)
- Solution – the mixture of solute and solvent (e.g. salt water)
- Soluble – a substance that can dissolve
- Insoluble – a substance that can not dissolve
- Saturated solution - when you can't dissolve any more solute in a solvent

4. Separating Mixtures

We can separate mixtures in different ways depending on their properties:

- Filtration
- Evaporation
- Chromatography
- Distillation

Mixture

Separated

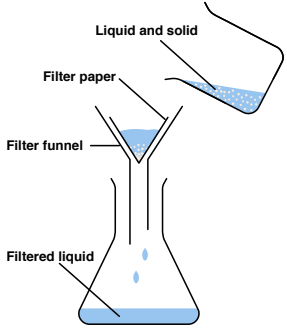
Particles

5. Filtration

Filtration - a method for separating an insoluble solid from a liquid.

Residue - the insoluble solid left behind in the filter paper.

Filtrate - the water that passes through the filter paper.

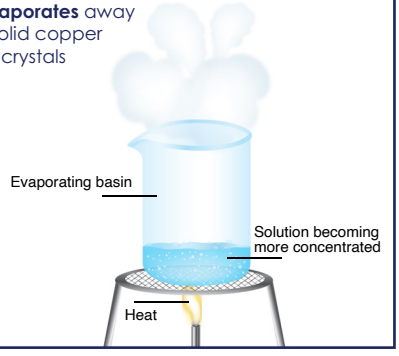


6. Evaporation

Evaporation is used to separate a **soluble** solid from a liquid.

For example, copper sulphate is soluble in water – its crystals dissolve in water to form copper sulphate solution.

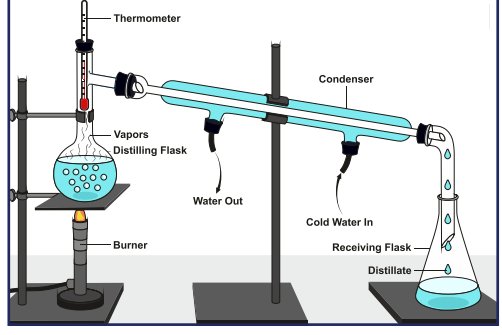
During evaporation, the water **evaporates** away leaving solid copper sulphate crystals behind.



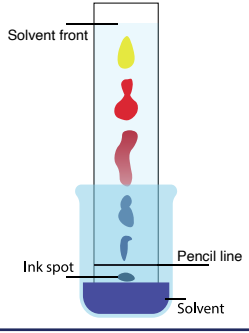
7. Distillation

Distillation is a method for separating the solvent from a **solution**.

For example, water can be separated from salt solution because water has a much lower boiling point than salt. When the solution is heated, the water **evaporates.** It is then cooled and **condensed** into a separate container. The salt does not evaporate and so it stays behind.

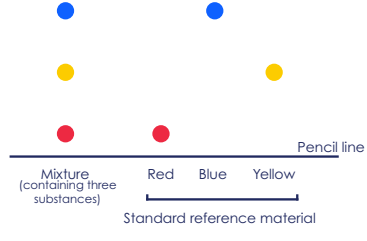


8. Chromatography



Chromatography - a method for separating dissolved substances from one another.
How it Works

- A pencil line is drawn and spots of the mixture placed on it.
- There is a container of solvent (e.g. water or ethanol).
- As the solvent travels up the paper, the ink or dyes dissolve in the solvent and are carried up the paper.
- Some substances are more soluble and are carried further up the paper, so the mixture separates.
- The spots can be compared to the chromatogram for known substances to identify them.

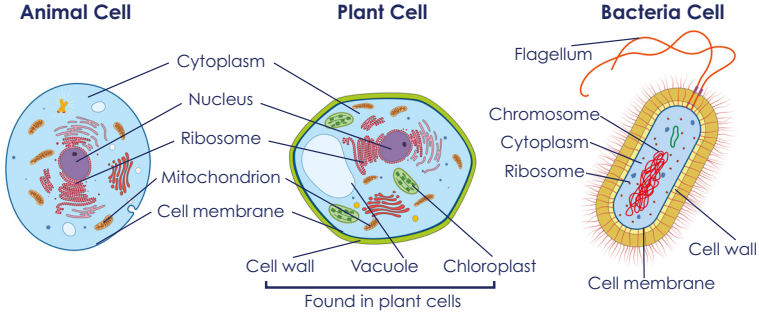


A **chromatogram**, the results of a chromatography experiment.

Cells, Tissues And Organs

1. Cell Structure

Unicellular organisms are made of one cell (e.g. bacteria).
Multicellular organisms are made of many cells (e.g. plants and humans).



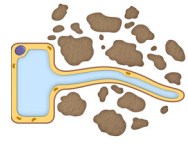
Organelle	Function
Nucleus	Contains genetic material which controls the cell's activities
Cell Membrane	Controls the movement of substances in and out of the cell
Cytoplasm	Where chemical reactions happen
Mitochondria	Where energy is released in respiration
Ribosome	Where protein synthesis happens
Cell Wall	Provides strength and support
Chloroplast	Absorbs energy for photosynthesis (contains **chlorophyll**)
Vacuole	Filled with cell sap

2. Specialised Cells

Specialised cells - cells that are adapted to do a specific job.

Sperm cell
Streamlined - Swim fast **Lots of mitochondria** that release energy for swimming

Palisade cell
Lots of chloroplasts that absorb sunlight for photosynthesis



Root hair cell
Large vacuole for storing cell sap
Large surface area to absorb water and minerals more efficiently

3. Parts Of The Microscope

- Put the slide on the stage;
- Always start on the lowest magnification as it gives you the widest field of vision;
- Use the focus to see your object;
- Then increase the magnification.

Cells, Tissues And Organs

4. Organisation

Cell → Tissue → Organ → Organ System

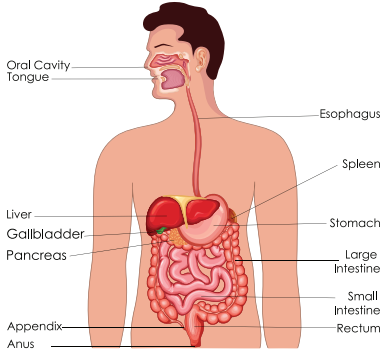
Cell	The smallest structural unit of all organisms.
Tissue	Made from a group of cells with a similar structure and function, which all work together to do a particular job.
Organ	Made from a group of different tissues, which all work together to do a particular job.
Organ System	Made from a group of different organs, which all work together to do a particular job.

5. Digestive System

Role: to break down large food molecules into smaller molecules that can be absorbed.

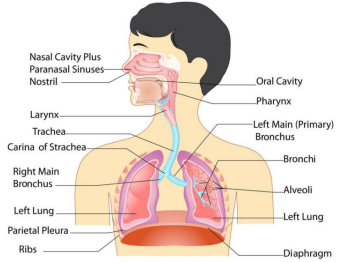
Adaptations

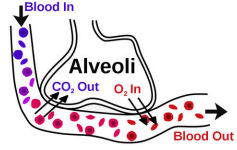
- The intestine is a highly folded structure, which increases surface area to speed up diffusion;
- The intestine is covered in many villi which are further covered by microvilli = large surface area → faster rate of diffusion;
- Thin membranes → shorter distance to diffuse → faster rate of diffusion;
- Covered in blood vessels → keeps blood moving to maintain concentration differences → faster rate of diffusion.



6. Respiratory System

Respiratory system takes in oxygen for respiration and remove carbon dioxide.





Inhaled air contains more oxygen than exhaled air.
Exhaled air contains more carbon dioxide than inhaled air.

Main Adaptations

Trachea	Contains C ring cartilage which keeps the airway open leaving a clear passage for air to travel in and out of the lungs.
Alveoli	**Thin membranes** → reduced diffusion distance **Good blood supply** → maintains concentration gradients **Highly folded membrane** → increased surface area All of the above adaptations ensure that **gas exchange**, by **diffusion**, happens efficiently.

Energy

1. The Energy Laws

1. Energy can not be destroyed or created, only transferred - this is called **conservation of energy**;
2. Energy tends to spread out and become less useful (e.g. hot objects always eventually cool down).

2. Power

Power is calculated by dividing energy transferred by time taken:

P = E/t

P= Power (W); E = energy (J); t = time (s)

Power is a measure of how fast energy is being transferred. Units of power: **Watts (W)** - **Kilowatts (kW).**

3. Different Energy Stores:

- Chemical;
- Kinetic;
- Gravitational potential;
- Elastic potential;
- Magnetic;
- Electrostatic;
- Internal (or thermal);
- Nuclear.

We can measure the amount of energy in a store.

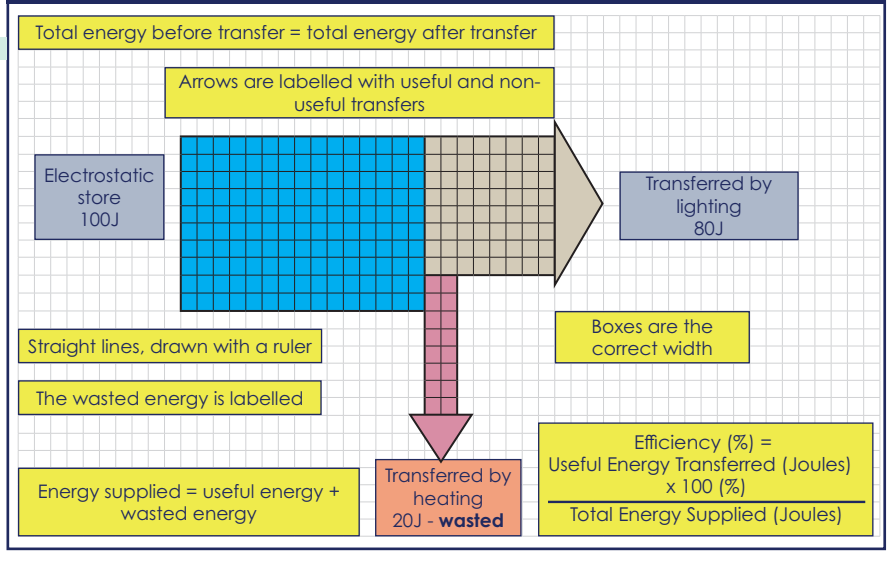
Units of energy:
joules (J);
kilojoules (kJ);
kilowatt-hours (kWh).

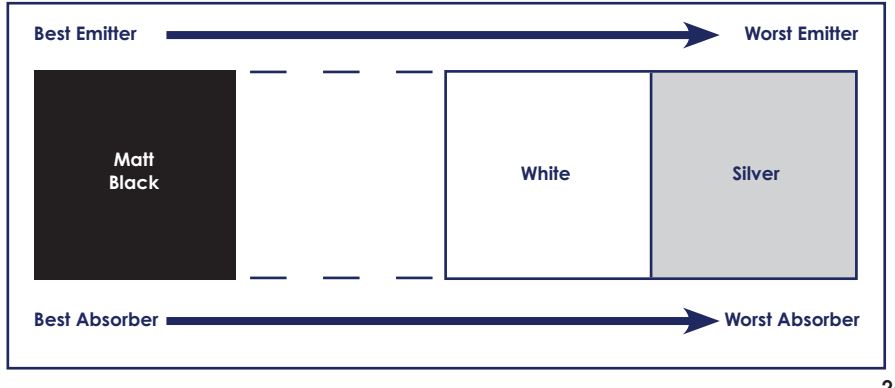
4. Pathways

There are 4 main **pathways** by which energy can be transferred:

- By **mechanical** work (a **force** causing an object to move);
- By **electrical** work (when charges move due to a potential difference);
- By **heating** (due to a difference in temperature);
- By **radiation** (due to electromagnetic waves, e.g. light or to mechanical waves, e.g. sound).

5. Sankey Diagram & Efficiency





Energy

6. Heat Transfer

There are three ways to transfer heat:

1) Conduction – heat transfer in a solid; The solid particles are always **vibrating.**
Heat makes the particles **vibrate more**. Because they are **touching,** the particles **collide** with the particles next to them with more energy, and this transfers the heat along.

2) Convection – heat transfer in fluids (liquids and gases); **Particles** *in a fluid gain* **energy** *and* ***move further apart.*** *This makes the fluid less* ***dense****, causing it to* ***rise.***

3) Radiation – heat transfer via **infra-red (thermal) radiation** – can travel through a vacuum.

7. Energy Costs Money

To work out how much it costs, you need to know:

- The amount of **units** of energy used (in **kWh** not **joules**);
- The **cost per unit** (1 unit is 1 kWh) – you will be told this.

Total cost (p) = number of kilowatt-hours (kWh) × cost per kilowatt-hour (p)

You can work out how many units something uses if you know its power (in kW) and how long you have used it for (in hours):

Number of units of energy used (kWh) = power (kW) x time (s)

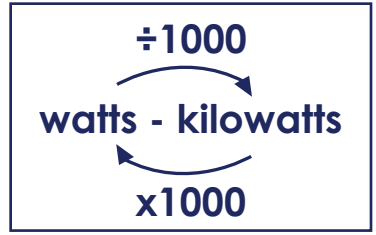
8. Renewable And Non-Renewable Resources

1) Non-renewable energy resources cannot be replaced once they are all used up;

- **Fossil fuels (coal, oil, gas)**
  - Release carbon dioxide (a greenhouse gas and increases global warming) - release sulphur dioxide and nitrogen oxides, which cause acid rain.
- **Nuclear**
  - \+ Nuclear fuels do not produce carbon dioxide or sulphur dioxide;
  - \- Non-renewable energy resources. They will run out one day;
  - \- Risk of radioactive material being released into the environment.

2) Renewable energy resources can be replaced, and will not run out;

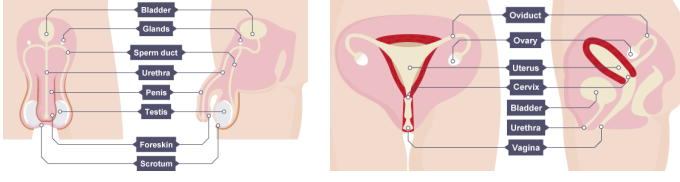
- **Wind**
  - \+ No release of carbon dioxide or sulphur dioxide;
  - \- If there is no wind, there is no electricity.
- **Water (wave, tidal or hydroelectric)**
  - \+ No release of carbon dioxide or sulphur dioxide.
  - \- Difficult for wave machines to produce large amounts of electricity;
  - \- Tidal barrages destroy the habitats;
  - \- Hydroelectric floods farmland and can push people from their homes.
- **Geothermal**
  - \+ No release of carbon dioxide or sulphur dioxide;
  - \- Most parts of the world do not have suitable areas for geothermal.
- **Solar**
  - \+ No release of carbon dioxide or sulphur dioxide;
  - \- If there is no sunlight, there is no electricity.



Reproduction

1. Male Reproductive System

Testes	Produces gametes (sex cells) called sperm; make male sex hormones.
Glands	Produce a fluid which is mixed with sperm. The mixture of sperm and fluid is called **semen**.
Sperm Ducts	Takes the sperm from the testes to the penis.
Urethra	Semen passes through here during **ejaculation**.
Penis	Passes urine out of the man's body; passes semen out of the man's body.

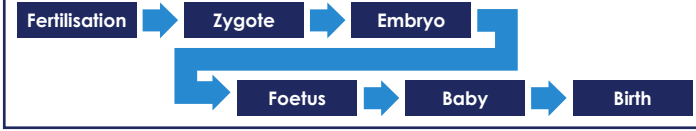


3. Gestation

A **foetus** develops in the **uterus**
The foetus relies on its mother for:

- Protection against bumps, and temperature changes;
- Oxygen for respiration;
- Nutrients (food and water).

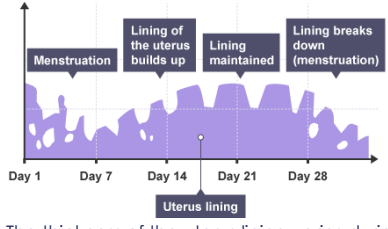
The foetus also needs its waste substances removing.
The foetus is protected by the **uterus** and the **amniotic fluid**, a liquid contained in a bag called the **amnion**.
The **placenta** provides oxygen and nutrients, and removes waste (e.g. carbon dioxide). The **umbilical cord** joins the placenta to the uterus.



2. Female Reproductive System

Ovaries	Contain hundreds of undeveloped female gametes (sex cells) called **ova** (egg cells).
Oviducts	Connect the ovary to the uterus; lined with **cilia**. Every month, an egg develops, becomes mature and is released from an ovary to the uterus.
Uterus	A muscular bag with a soft lining; where a baby develops until birth.
Cervix	A ring of muscle at the lower end of the uterus; keeps baby in place during pregnancy.
Vagina	Muscular tube leading from cervix to the outside of a woman's body. The penis goes into the vagina during sexual intercourse.

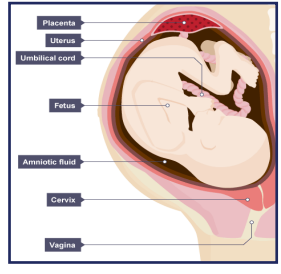
4. The Menstrual Cycle



The thickness of the uterus lining varies during the menstrual cycle.
The **menstrual cycle** lasts about **28 days**, it stops while a woman is pregnant:

- **Day 1**, is when bleeding from the vagina begins, caused by the loss of the uterus lining, with a little blood. This is called **menstruation** or having a **period**.
- **Day 5**, the loss of blood stops. The uterus lining begins to re-grow; an egg cell starts to mature in one of the ovaries.
- **Day 14**, the mature egg cell is released from the **ovary**. This is called **ovulation**. The egg cell travels through the **oviduct** towards the **uterus**.

If the egg cell does not meet with a sperm cell in the oviduct, the lining of the uterus begins to break down and the cycle repeats.



5. Fertilisation

Fertilisation happens if the egg cell meets and joins with a sperm cell in the **oviduct**. The fertilised egg (**zygote**) attaches to the lining of the uterus.
The woman becomes pregnant, the lining of the uterus does not break down and menstruation does not happen.

Reproduction

6. Plant Reproduction

Pollen grains need to move from the **anther** of one flower to the **stigma** of another flower.

Plants can be **insect pollinated** or **wind pollinated**.

Feature	Insect-pollinated	Wind-pollinated
Petals	Large and brightly-coloured - to attract insects	Small, often dull green or brown - no need to attract insects
Scent and nectar	Usually scented and with nectar - to attract insects	No scent or nectar - no need to attract insects
Number of pollen grains	Moderate - insects transfer pollen grains efficiently	Large amounts - most pollen grains are not transferred to another flower
Pollen grains	Sticky or spikey - sticks to insects well	Smooth and light - easily carried by the wind without clumping together
Anthers	Inside flower, stiff and firmly attached - to brush against insects	Outside flower, loose on long filaments - to release pollen grains easily
Stigma	Inside flower, sticky – pollen grains stick to it when an insect brushes past	Outside flower, feathery - form a network to catch drifting pollen grains

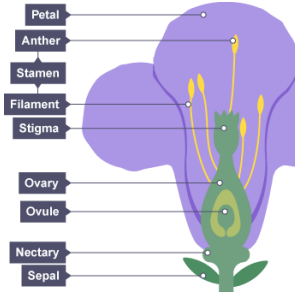
7. Structure Of A Flower

Structure	Function
Sepals	Protect the unopened flower
Petals	May be brightly coloured to attract insects
Stamens	The male parts of the flower (each consists of an anther held up on a filament)
Anthers	Produce male sex cells (pollen grains)
Stigma	The top of the female part of the flower which collects pollen grains
Ovary	Produces the female sex cells (contained in the ovules)
Nectary	Produce a sugary solution called **nectar**, which attracts insects

Reproduction

8. Plant Fertilisation

- **Pollen grain** starts to grow when it lands on stigma;
- **Pollen tube** grows until it reaches an **ovule** inside the **ovary**;
- The **nucleus** of the pollen grain (the **male gamete**) moves along the tube and joins with nucleus of the ovule (the **female gamete**);
- The ovules become **seeds**.



9. Seed Dispersal

Plants compete with each other for:

- Light
- Water
- Space
- Minerals in the soil

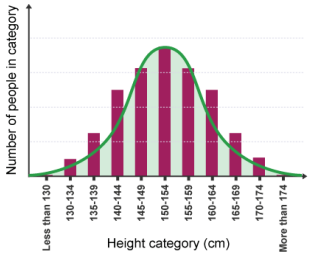
Seeds must be **dispersed** from each other and from the parent. This reduces **competition**.

Method	Detail	Examples
Wind	Seeds have lightweight parts, wings or parachutes	Dandelion, sycamore
Animals (inside)	Brightly coloured and tasty fruits contain seeds with indigestible coats, so that the seeds pass through the animal's digestive system undamaged	Tomato, plum, raspberry, grape
Animals (outside)	Fruits have hooks that attach them to the fur of passing animals	Goose grass, burdock
Self-propelled	Have a pod that bursts open when ripe, throwing the seeds away from the plant	Pea pod

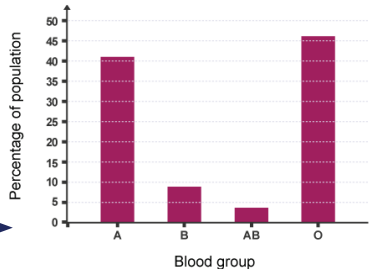
10. Variation

Differences between living things is called **variation**.

Continuous variation can be any **value** in a **range**, E.g. height or weight



Discontinuous variation has values that are one thing or another, but have no values in between. E.g. blood group, gender (male or female), eye colour.



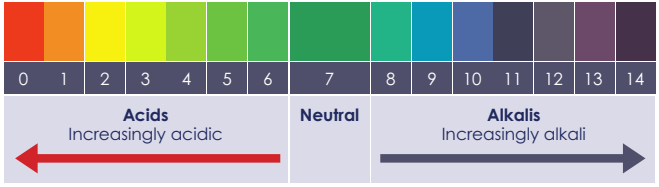
Chemical Reactions

1. The pH Scale

Solutions can be **acidic, alkaline or neutral**:

- **Acidic solutions** form when **acids** dissolve in water;
- **Alkaline solutions** form when **alkalis** dissolve in water;
- Solutions that are neither acidic nor alkaline are **neutral**;
- Pure water is neutral.

Universal indicator can tell us how strong acidic or alkaline a solution is. This is measured using the **pH scale**, which runs from pH 0 to pH 14:



- **The closer to pH 0** you go, the **more strongly acidic** it is;
- **The closer to pH 14** you go, the **more strongly alkaline** it is.

2. Conservation Of Mass

Total mass of the reactants = Total mass of the products

We say that **mass is conserved** in a chemical reaction.

3. Oxidation Reactions

We can represent theses reactions using **WORD EQUATIONS**
- **Reactants** - the substances that react together
- **Products** - the substances that are formed in the reaction

The ➔ shows that we are making something new

An example of an oxidation reaction is where metals react with oxygen to make metal oxides.

Metal + oxygen ➔ Metal oxide

E.g. Magnesium + oxygen ➔ Magnesium oxide

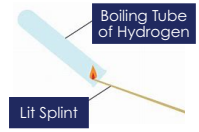
Another example is a combustion reaction, where we burn fuels in oxygen:

Fuel + oxygen ➔ Carbon dioxide + water

4. Reacting Metals With Acids

Metal + acid ➔ metal salt + hydrogen
E.g. **zinc + hydrochloric acid ➔ zinc chloride + hydrogen**

To test if **hydrogen is produced**:
- Hold a **lit splint** to the gas and
- Listen for it to **burn with a squeaky pop**.



5. Hazard signs

Hazard signs to be aware of when dealing with acid and alkalis:

Corrosive

Irritant

6. Naming Salts

The name of a salt has two parts:
- The first part comes from the **metal** in the alkali used;
- The second part comes from the **acid** that was used.

Acid Used	Second Part Of Salt's Name
hydrochloric acid	chloride
sulfuric acid	sulfate
nitric acid	nitrate

Potassium nitrate

From an alkali containing potassium, E.g. potassium hydroxide

From the acid "NITRIC ACID"

7. Neutralisation

Neutralisation - when an acid reacts with an alkali (or **base**), a **neutral** salt solution is formed.

Acid + alkali ➔ salt + water

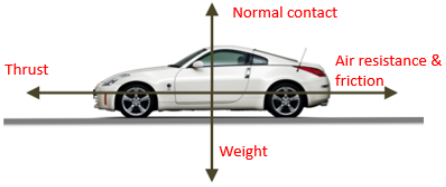
E.g. sodium hydroxide + hydrochloric acid ➔ sodium chloride + water

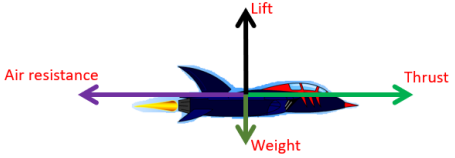
Forces & Motion

1. Force Diagrams

Always include three pieces of information about each force:

1. **Direction** - Use arrows to state the direction of the force;
2. **Size** - The longer the arrow the bigger the force;
3. **Name** - Label your force arrow with a name of the force.





Forces are measured Newtons (N) using a Newton meter

2. Using Forces To Explain Motion:

1. **Balanced forces** acting on an object will cause it to **stay stationary** or travel with **constant speed**
2. **Unbalanced forces** acting on an object will cause it to **accelerate, decelerate** or **change direction**

3. Pressure

Pressure is a measure of how spread out a force is.
We calculate it by using:

p = F/A

p = pressure (Pa or N/m^2);
F = Force (N);
A= Area (m^2).

4. Presenting Calculations

1. Write down the values that you know;
2. Identify the value that you are trying to work out;
3. Write down the formula that you will use;
4. Substitute the known values into the formula;
5. Calculate your answer and write it down;
6. Underline your answer;
7. Include the correct unit.

A toy car travels **20m** in **5s**. Calculate the velocity.

- d = 20m;
- t = 5s;
- v = ?;
- v = d/t
- v = 20/5
- v = 4 m/s

5. Velocity And Speed

Speed is a measure of how quickly an object travels a given distance.
We calculate speed by using:

Speed (m/s) = distance (m)/time (s)

Velocity is the same as speed, but tells us the direction we are travelling in as well (i.e. forwards or backwards).

6. Names For Types Of Force:

- Air resistance
- Friction
- Lift
- Magnetic force
- Normal contact
- Tension
- Thrust
- Upthrust
- Water resistance
- Weight

7. Mass, Weight And Gravity

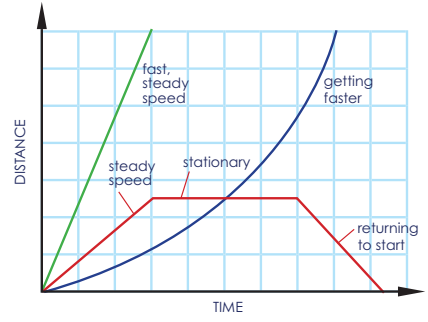
Mass is a measure of how much matter an object is made up of. It is measured in **kilograms (kg)**.

Weight is the force of gravity pulling on every kg of mass. It is measured in **Newtons (N)**. We can calculate weight by using:

W = m x g

W = weight (N);
m = mass (kg);
g = gravitational field strength (N/kg)

Gravitational field strength of Earth is 9.8N/kg.



Worldviews c. 1000

A. Keywords

1. **Abbasid dynasty** - The line of rulers of the Islamic Empire from 750 to 1258.
2. **Astrolabe** - A metal instrument that uses the stars to find direction and position.
3. **Astrology** - Studying the movement of stars and planets and interpreting their influence on the world.
4. **Astronomy** - The study of space, stars and planets.
5. **Baghdad** - The capital of the Islamic Empire under the Abbasid dynasty.
6. **Bishop** - The person in charge of the Church in a diocese (a group of parishes).
7. **Byzantine Empire** - The Greek-speaking eastern Roman Empire.
8. **Caliph** - The religious and political leader of an Islamic empire.
9. **Christendom** - Christian people or countries as a whole.
10. **Constantinople** - The capital of the eastern Roman Empire.
11. **Empire** - A group of countries ruled by a single ruler (Emperor/Empress).
12. **Eucharist** - A ritual when Christians eat bread and drink wine to remember Christ's death.

B. Key People

1. **Al-Ma'mun** - The Abbasid caliph from 813-833.
2. **Al-Mansur** - The Abbasid caliph from 754-775.
3. **Al-Masudi** - An Arab geographer (896-956).
4. **Al-Razi** - A physician in Baghdad who wrote books on medicine (854-925).
5. **Arinisdus** - A monk who stole Saint Foy's body in the 9th century to take to the monastery at Conques.
6. **Bernard of Angers** - A monk who wrote The Miracles of Saint Foy in the 11th C.
7. **Emperor Constantine** - Roman Empire who converted to Christianity and created a new capital at Constantinople.
8. **Empress Zoe** - Byzantine Empress, 1028-1050.
9. **Euclid** - A Greek mathematician from the 3rd century BCE.
10. **Foy** - A girl from Agen, France, who was killed for refusing to give up her Christian beliefs and became a saint.
11. **Galen** - A Greek doctor from the 2nd century CE.
12. **Guibert** - A servant who miraculously had his eyes restored by Saint Foy in 983.
13. **Ptolemy** - A Greek astronomer from the 2nd century CE.

C. Keywords

1. **Geometry** - Mathematics that deals with points, lines, angles and shapes.
2. **House of Wisdom** - A place in Baghdad where scholars met to learn and discuss knowledge.
3. **Madrasa** - A Muslim school or college.
4. **Monastery** - A community of monks living together.
5. **Monk** - A man who commits his whole life to God, living in a monastery.
6. **Mosque** - A Muslim place of worship.
7. **Pope** - Head of the Roman Catholic Church.
8. **Pilgrim** - Someone who travels to a holy place.
9. **Priest** - The person in charge of the church in each parish.
10. **Relic** - The remains of a saint's body or belongings.
11. **Saint** - A person recognised as being holy.
12. **Silk Roads** - The land route used for trade between China, the Middle East, Europe and North Africa.

D. Timeline

324 Emperor Constantine made Constantinople the new capital of the Roman Empire.	**380** Christianity was made the official religion of the Roman Empire.	**5th century** The western Roman Empire collapsed.	**537** The Hagia Sophia was built in Constantinople.	**632** The Prophet Muhammad died but his Muslim followers continued to spread Islam.	**762** Caliph Al-Mansur ordered the city of Baghdad to be built as the capital of the Islamic Empire.	**801** Dado the Hermit founded a monastery at Conques, in France.	**9th century** A monk, Arinisdus, stole the body of Saint Foy from Agen to take to the monastery at Conques. Saint Foy Abbey (pictured).	**983** Guibert had his eyes miraculously restored by Saint Foy (interpretation of Saint Foy pictured).	**1042** Empress Zoe's nephew tried to seize her throne.	**1043** Russian ships attacked the city of Constantinople.

Norman England

A. Who Were The Claimants To The Throne In 1066?

Keywords:
1. **Harold Godwinson** - An Anglo-Saxon promised the throne on Edward the Confessor's death bed.
2. **William of Normandy** - The Duke of Normandy claimed Edward made a prior promise to him.
3. **Harald Hardrada** - A fearsome Viking who wanted to take advantage of the chaos and claim the throne.
4. **Anglo-Saxon** - Tribes that invaded England from Germany in 400 AD.
5. **Viking** - Seafaring people from Scandinavia who raided countries across Europe.
6. **Monarch** - King or Queen of a country.
7. **Witan** - Collection of Anglo-Saxon noblemen who advised the king.
8. **Claimant** - One of the three challengers for the throne.
9. **Succession** - A new monarch taking over the throne from the last monarch.
10. **Illegitimate** - Someone born out of marriage, without royal blood.
11. **Oath** - Promise witnessed by God.

Key dates:
January 1066: The death of Edward the Confessor.

B. How Was England Conquered In 1066?

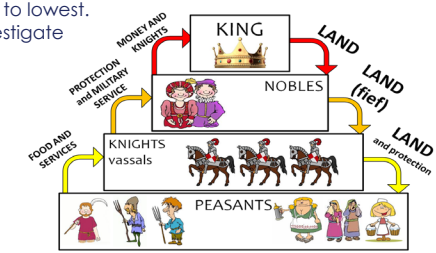
Keywords:
1. **Fyrd** - Anglo-Saxon part-time soldier, working men who were called up from villages all over England to help the king in times of danger.
2. **Huscarls** - Professional soldiers of Anglo-Saxon kings, highly trained.
3. **Shield wall** - Barrier created by soldiers standing shoulder to shoulder, holding their shields in front of them.
4. **Archer** - A soldier who shoots with bow and arrows.
5. **Bayeux Tapestry** - A 70-metre long embroidered cloth depicting William's conquest of England (pictured).
6. **Cavalry** - Soldiers who fought on horseback.
7. **Tactic** - A carefully planned strategy in battle.
8. **Illegitimate** - Someone born out of marriage, without royal blood.
9. **Oath** - Promise witnessed by God.

Key dates:
September 1066: The Battle of Stamford Bridge.
October 1066: The Battle of Hastings (pictured above).

C. How Did William Take Control Of England?

Keywords:
1. **William the Conqueror** - The first Norman king of England (pictured).
2. **Normans** - William's soldiers and nobles brought over from Normandy in France to England.
3. **Coronation** - A ceremony where the new king is officially crowned.
4. **Harrying** - To repeatedly attack somewhere or someone.
5. **Revolt** - To fight in a violent manner against a ruler.
6. **Fortification** - A construction or building to defend a place against attack.
7. **Motte and Bailey Castle** - A simple castle with a man-made hill surrounded by a clear defensive area.
8. **Domesday Book** - A book ordered by William that details the possessions of every village in England.
9. **Feudal System** - The structure of medieval society, where land was exchanged for service and loyalty (pictured).
10. **Hierarchy** - A triangular social structure where people are ranked according to their status, from highest to lowest.
11. **Survey** - To examine or investigate somewhere.

Key dates:
- **25 December 1066:** William's coronation.
- **1069:** Harrying of the North.
- **1086:** Domesday Book.



Feudal Pyramid of Power

D. How Much Did Anglo-Saxon England Change?

Keywords:
1. **King Canute** - Viking king of England in 1016 who ruled for 19 years.
2. **Danegeld** - Large sums of money given to Vikings to prevent further invasions.
3. **Danelaw** - English territory given over to Viking rule.
4. **Wergild** - An amount of money that an individual's life is worth.
5. **Assimilate** - To adapt to a society and culture.

The Medieval Church

A. How Powerful Was The Church?

Keywords:

1. **The Pope** - The head of the Catholic Church.
2. **The Archbishop of Canterbury** - The most senior churchman in England.
3. **Clergy** - Officials of the church who were led by the Pope.
4. **Excommunication** - The power of the Pope to expel someone from the church.
5. **Laity** - People that did not work for the church and were led by the king.
6. **Secular** - Any person, power or organisation that is not religious.
7. **Mass** - The main religious service given on Sunday that parishioners were expected to attend.
8. **Parish church** - A local church attended by ordinary people (parishioners).
9. **Pilgrimage** - A religious journey, typically taken to a site of religious importance.
10. **Relic** - The remains of a saint's body or belongings.

B. How Did The Church Control Ordinary People?

Keywords:

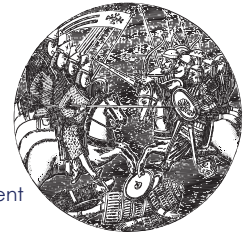
1. **Alms** - Money donated to the Church by the rich to help the poor.
2. **Observance** - An act performed for religious reasons.
3. **Tithe** - A church tax of 10% of a persons' earnings.
4. **Afterlife** - Where medieval people thought they went for eternity after death
5. **Doom Painting** - A painting showing people being sent to heaven or hell on the Day of Judgment.
6. **Purgatory** - A stage before heaven, where the dead are removed of their remaining sins.
7. **Pilgrimage** - A religious journey, typically taken to a site of religious importance.
8. **Relic** - Part of a saint's body or something they owned which was believed to have the power to perform miracles.

C. What Was The Role Of Monasteries?

Keywords:

1. **Monastery** - A building housing a religious order of monks or nuns.
2. **Nun** - A woman that dedicates her entire life to God and lives in a monastery Chastity: they could not marry or have any kind of relations with the opposite sex.
3. **Poverty** - They could not own property.
4. **Obedience** - Monks and nuns had to obey the abbot.

D. What Were The Crusades?



Keywords:

1. **Pope Urban II** - Called for the First Crusade to recapture Jerusalem.
2. **Saladin** - Saracen leader who recaptured Crusader States.
3. **Richard the Lionheart** - English king who fought in the Crusades.
4. **Christendom** - All the Christian countries together.
5. **Indulgence** - The grant of a reduction in punishment in the afterlife for sins.
6. **Jerusalem** - The holy city, for both Muslims and Christians, conquered by Muslims in 638.
7. **Crusader States** - Established by Europeans after the First Crusade.
8. **Booty** - The valuable items stolen by the winner after a battle.
9. **Chivalry** - A religious, moral and social code that knights lived by.
10. **Crusader Knights** - Warriors who lived together in religious orders. E.g. Knights Templar and the Knights Hospitaller.
11. **Saracen** - A name given to the Muslims fighting in the Crusades.

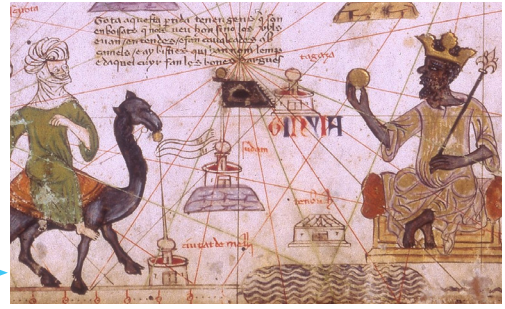
Key dates:

- **1079:** Seljuk Turks seize control of Jerusalem from the Fatimids.
- **1095:** Pope Urban II launches First Crusade.
- **1099:** Crusaders capture Jerusalem, creating the Kingdom of Jerusalem.
- **1187:** Saladin captures Jerusalem.
- **1192:** The Third Crusade ends with peace between Richard I and Saladin.

The Empire Of Mali

Keywords

1. **Hajj** - A religious journey to Mecca.
2. **Ambitious** - A strong desire or determination to succeed.
3. **Architecture** - Designing and construction of different and new types of buildings.
4. **Astrology** - The discovery and recordings of space, stars and planets.
5. **Catalan Atlas** - A map from Mali which had Mansa Musa's Empire at its heart.
6. **Desert** - Vast land of sand, such as the Sahara Desert in Africa.
7. **Emperor** - The leader of an empire.
8. **Empire** - Lands, or many states, that are ruled over by one leader.
9. **Griot** - Official oral (verbal) recordkeepers/ storytellers in Africa.
10. **Legacy** - How someone, or something, is remembered.
11. **Mansa** - Sultan or Emperor.
12. **Mathematics** - The discovery and recordings of algebra and number theory.
13. **Medieval** - The time period, as known in Europe, when Mansa Musa lived.
14. **Mosque** - An Islamic religious building of worship.
15. **Pilgrimage** - A religious journey.
16. **Resonant** - Something with a special meaning or that is important to people.
17. **Sankore Madrasah** - Centre of intellectual learning at Timbuktu, including the biggest library since Alexandria.
18. **Slaves** - People who were not free.



Key Dates

1230 - Sundiata Keita founds the Mali Empire.
1280 - Mansa Musa is born.
1307 - Mansa Musa becomes Emperor.
1324 - Mansa Musa pilgrimages to Mecca.
1325 - Sankore Madrasah (library) was extended in Timbuktu after Mansa Musa's visit.
1330s - Mansa Musa dies (we don't know the exact date).
1600 - The end of the Malian Empire.

Key People

1. **Al-Umari** - African historian who recorded stories about Mansa Musa's time in Cairo.
2. **Ibn Baltuka** - A traveller that visited Mali in the 1350s and created accounts of the empire.
3. **Mansa Maghan** - Mansa Musa's son and the next Emperor of Mali.
4. **Mansa Musa** - Emperor of Mali, famous for being 'the wealthiest man to have lived'.
5. **Sundiata Keita** - Founder of the Malian Empire.

Key Places

1. **Cairo** - An important city in Egypt that Mansa Musa stayed at on his way to Mecca.
2. **Gao** - An important trade centre of the Mali Empire.
3. **Mali Empire** - A West African Islamic Empire, 13th - 16th Century, it had vast wealth, with gold & salt mines.
4. **Mecca** - The holiest city of Islam, in the Middle East, where Mansa Musa travelled to.
5. **River Niger** - Mansa Musa extended the Mali Empire around this river.
6. **Timbuktu** - Intellectual centre and trade (salt, gold, ivory and slaves) centre of the Mali Empire.
7. **West Africa** - The vast region covering a large part of the Sahara Desert.

Medieval Monarchs

A. How Powerful Were Medieval Monarchs?

Keywords:

1. **Edward III** - An example of a 'strong' king.
2. **Henry VI** - An example of a 'weak' king.
3. **Divine Right** - The belief that a king was appointed by and only answerable to God.
4. **Dynasty** - A line of monarchs who inherit the throne.
5. **Civil War** - A war between people from the same country.

B. Who Was More Powerful, The Church Or The Crown?

Keywords:

1. **Henry II** - A powerful King of England between 1154-89, appointed Thomas Beckett as Archbishop of Canterbury.
2. **Thomas Becket** - Chancellor to Henry II and later Archbishop of Canterbury.
3. **Chancellor** - The king's chief servant. A very important and senior job.
4. **Criminous clerks** - Any churchman who had committed a crime such as rape or murder.
5. **Exile** - To be sent away or to run away from your own country.
6. **Martyr** - A person who dies for their religion.
7. **Saint** - Martyrs could become saints if the Pope approved it and miracles were linked to them.

Key dates:

- **1162:** Becket made Archbishop of Canterbury.
- **1164:** Constitutions of Clarendon drawn up and Becket refused to support them.
- **1170:** Becket excommunicates Henry's bishops and is murdered by knights.

C. Could King John Take On The Barons?

Keywords:

1. **King John** - Monarch from 1199, nicknamed 'Lackland' and unpopular with his subjects.
2. **Interdict** - A law ruled by the Pope that temporarily shuts down the church in a country.
3. **Tyrant** - A cruel ruler who rules alone and with absolute power.
4. **Charter** - A document grating certain rights, powers and privileges from the king e.g. The Magna Carta.
5. **Great Council** - An assembly of church leaders and barons who met with the king to discuss national affairs.

Key dates:

- **1209:** Pope excommunicates John and orders interdict.
- **1215:** The barons force King John to sign the Magna Carta (pictured below).

D. What Was The Impact Of The Black Death?

Keywords:

1. Bubonic Plague - A type of plague named after the swellings on victims' bodies.
2. Flagellant - Someone who punishes themselves for their sins through self-harm (whipping themselves).
3. Miasma - The theory that disease is caused by the spreading smell of a poisonous cloud of 'foul air'.

Date:

- **1348:** The Bubonic Plague hits England.

E. What Was The Peasants' Revolt?

Keywords:

1. **John Ball** - Criticised wealthy priests and lords from 1360.
2. **John of Gaunt** - Raised a poll tax to pay for war against France.
3. **Wat Tyler** - Leader of the peasants, killed.
4. **Richard I** - Young king who put down the revolt (pictured).
5. **Bondage** - When a peasant is tied to the landowner; a form of slavery.
6. **Poll tax** - A tax paid by every single Englishman, at the same rate, rich or poor.
7. **Yeoman** - A new class in medieval England; peasants who owned their own land.

Key dates:

- **1351:** Statute of Labourers passed.
- **1363:** Sumptuary Laws passed.
- **1381:** Poll Tax established and peasants refusal to pay in Essex; gates of London opened to the peasants; revolt fails; Wat Tyler murdered.

The Renaissance

A. How Did The Renaissance Begin?

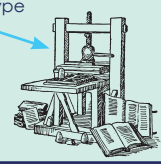
Keywords:
1. **Italian Renaissance** - Classical writing began to find its way back into Europe after the collapse of the Byzantine Empire and Islamic world that had kept it alive. It began in Italy and spread across Europe.
2. **Renaissance** - Meaning 'rebirth', a period of cultural flourishing in late medieval Europe.
3. **City States** - When a single city governs itself.
4. **Florence** - Italian city state where the renaissance is said to have begun.
5. **Republic** - A state where the ruler is not a monarch but comes from amongst the people.
6. **Classical** - Relating to the art and culture of Ancient Rome and Greece.
7. **Leonardo da Vinci** - Renaissance artist who painted the last supper.
8. **Filippo Brunelleschi** - Renaissance architect that pioneered the use of perspective.

Key dates:
- **1453:** Fall of Constantinople.
- **1498:** Leonardo da Vinci completes 'Last Supper'.
- **1526:** The Four Humours rejected by Paracelsus.
- **1628:** William Harvey published a book challenging Galen suggesting blood circulated, was pumped, around the body.

B. What Scientific Progress Was Made?

Keywords:
1. **Humanism** - A system of thought that focus on the human realm, often in place of religion.
2. **Universities** - By 1400 there were 53 universities in Europe teaching law, medicine & maths.
3. **Printing press** - A revolutionary invention that used movable type-printing, created in 1455.
4. **Revolution** - A change which means nothing will ever be the same again.
5. **Astronomy** - The science and study of extra-terrestrial objects, and the universe.
6. **Geocentric** - A system in astronomy where the earth is at the centre of the universe.
7. **Heliocentric** - A system of astronomy where the sun is at the centre of the universe, or solar system.
8. **Medical Renaissance** - A period between 1500-1700 when scientific thought and advancement happened.
9. **Anatomy** - The scientific study of the structure of the body.
10. **Gun powder** - A revolutionary invention, invented in China and used during the siege at Constantinople in 1453.
11. **Galileo Galilei** - Italian astronomer who supported a heliocentric theory of the universe.
12. **Johannes Gutenberg** - German publisher who introduced movable-type printing to Europe.

Key dates:
- **1455:** The Gutenberg bible is printed in Mainz.
- **1609:** Galileo first astronomer to use the telescope.



C. How Important Was Columbus's Voyage?

Keywords:
1. **Columbian Exchange** - The transfer of plants, animals, technology, diseases and ideas between the old (Europe) and new (The Americas) worlds in the 15th and 16th centuries.
2. **Patron** - Someone who gives financial support, most often to an artist.
3. **Santa Maria** - The flagship Columbus used for his successful voyage in 1492.
4. **Native** - A person born to a country or region.
5. **Taino** - The native people of the Caribbean, wiped out by European disease.
6. **Smallpox** - A European disease that killed many native people throughout The Americas.
7. **Ferdinand and Isabella** - The King and Queen of Spain that funded Columbus's exploration voyages.
8. **Christopher Columbus** - An Italian explorer who crossed the Atlantic and claimed land he encountered for Spain.

Key dates:
- **1492:** Columbus sails to the Caribbean.
- **1494:** The Treaty of Tordesillas (divided the New World between Spain and Portugal).

D. Where Was There Expansion?

Keywords:
1. **Silk road -** An ancient overground trade route which linked East Asia with the West.
2. **Colony** - A country or area under political control of another.
3. **Cape of Good Hope** - The southern tip of South Africa, renowned for stormy seas.
4. **New World** - The term given to The Americas after Columbus's voyage in 1492.
5. **Conquistadors** - Spanish soldiers who led the conquest to America.
6. **Circumnavigate** - To sail around the world.
7. **Tenochtitlan** - The city centre of the Aztec world destroyed by the Spanish.
8. **Ferdinand Magellan** - First ever European to circumnavigate the world.
9. **Hernan Cortes** - Spanish conquistador who defeated the Aztecs.
10. **Vasco da Gama** - The first European to establish an overseas trading route with India.

Key dates:
- **1499:** Vasco da Gama returns from his voyage to India.
- **1498:** The fall of Tenochtitlan to Hernan Cortes.
- **1522:** Magellan's first ever circumnavigation.

Maps

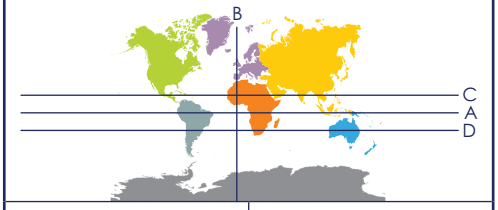
Background

1. Geography is the study of the Earth's natural features. It is also about people and places and how they affect one another. **(C)**
2. In geography maps are important. World maps show the location of the continents and oceans. **(A, B, D)**
3. The UK is made up of 4 countries. **(E)**
4. Maps are made up of different parts, OS maps are the most widely used in the UK and can show the height of the land. **(F, G, H)**

A - Continents (7)

1. North America
2. South America
3. Europe
4. Africa
5. Asia
6. Oceania
7. Antarctica

B - Lines On Global Maps (4)



A. Equator	C. Tropic of Cancer
B. Prime Meridian	D. Tropic of Capricorn

C - Types of Geography (2)

Human	Studying what people do to the Earth
Physical	Studying what is naturally occurring on Earth

D - Oceans (5)

1. Arctic Ocean
2. Atlantic Ocean
3. Indian Ocean
4. Pacific Ocean
5. Southern Ocean

E - Geography of the UK

1. London, England
2. Cardiff, Wales
3. Edinburgh, Scotland
4. Belfast, Northern Ireland

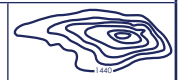
F - Parts of a Map (6)

Latitude	How far north or south a place is from the equator.
Longitude	How far east or west a place is from the Prime Meridian.
Scale	A length on the map, in real life.
Altitude	Height above sea level.
Compass	Used to show direction on maps.
Distance	How far two places are from one another.

G - OS maps (13)

Ordnance Survey	The organisation that produces the maps that are most widely used in the UK.
	Bus station
	Railway (train) station
	Places of worship
	Information point (for help)
	Deciduous Trees
	Coniferous Trees
	Youth Hostel
M	Museum
Sch	School
PO	Post Office
	Viewpoint (good view from here)
	Campsite

H - Contour Lines (3)

A. What are they?	Lines that show the height and shape of land.	
B. How do they show steep hills?	Lots of contour lines close together.	
C. How do they show sloping hills?	Contour lines far apart.	

Development

Background

1. Across the world the standard of living and quality of life can be very different.
2. Countries therefore have different classifications, based on the quality of life within them. **(A)**
3. How developed a country is can be measured in different ways. **(B)**
4. Development levels can vary within and between countries. There are many reasons why some countries are more developed than others. **(C)**
5. Worldwide different strategies are used to help improve the quality of life in certain areas of certain countries, examples include aid and Fairtrade. **(D, E, F)**
6. Aid strategies can have much success. **(G)**

A - Country Classification (3)

Developed Country	Normally has lots of money, many services and a high standard of living.
Developing Country	Often quite poor compared to others, fewer services and a lower standard of living.
The Brandt Line	An imaginary line dividing the world into developed and developing countries.

B - Measuring Development (6)

Gross Domestic Product Per Capita (GDP Per Capita)	The total number of goods and services sold by a country, divided by its population.
Infant Mortality	The number of babies that die per 1000 before their first birthday.
Life Expectancy	The average age you are expected to live to in a country.
Literacy Rate	The % of people that can read and write.
People Per Doctor	The number of people to one doctor.
Human Development Index	Combines GDP per capita, life expectancy and education.

C - Factors Influencing Development

Development	How rich or poor a country is compared with other areas

Factors which encourage development (4):	**Factors which hinder development (4):**
1. A strong and stable government. 2. A large coastline for trade. 3. Availability of natural resources e.g. oil, coal, fertile soil etc. 4. A pleasant climate, ideal for growing crops.	1. Colonialism may have led to resources being exploited from the country. 2. The country is landlocked, making trade difficult. 3. Few natural resources to power industry. 4. A harsh climate, so cannot grow crops reliably.

D - What Is Aid? (6)

Donor	A country that gives aid to another country.
Recipient	A country which receives aid.
Bilateral	International aid given by one country to another.
Multi-Lateral	Aid given by NGOs (Non-Government Organisations) like the Red Cross or Oxfam.
Short Term Aid	Aid given to support a country following a crisis e.g. after an earthquake.
Long Term Aid	Aid given over a prolonged period of time to support a country's development e.g. teaching farmers different farming techniques.

E - Aid - Advantages / Disadvantages

Advantages (3)	1. People learn new skills e.g. improved farming techniques; so become independent. 2. Can save lives after a natural disaster e.g. supplying clean water, food and medicines. 3. Simple technology e.g. water pumps, are easy for the locals to maintain.
Disadvantages (3)	1. Countries can become dependent upon aid,causing problems if it is removed. 2. Corrupt governments can sell the aid on, so it does not reach those in need. 3. The recipient can end up in debt if loans or deals are made.

F - Fairtrade

What it is:	Trade which involves giving producers in developing countries a fair price for their goods.

Advantages (2)	**Disadvantages (2)**
1. Farmers receive a fair and decent price. 2. Ensures good working conditions for farmers.	1. Non-Fairtrade farmers may lose out. 2. Sales can often be low as the price of Fairtrade goods can be high.

G - Case Study: Tree Aid

Where?	In countries along the Sahel across northern Africa e.g. Mali.

Features (2)	**Success (2)**
1. Tree seeds given, so people can develop tree nurseries. 2. Bikes and donkey carts given.	1. Reliable food source e.g. cashew nuts. 2. Money made from the sale of cashew nuts can be used to send children to school.

How Does Geology Shape The UK?

Background

1. There are three main types of rock that are created in different ways. **(A, D)**
2. Different parts of the UK have different types of geology. **(B)**
3. We can divide history into different lengths of time called eras. There are many eras during which different rocks are created but there are three main ones. **(C)**
4. The rock cycle is how different types of rock are created, destroyed, and then recreated over and over again. **(D)**
5. Erosion and weathering are the main processes affecting the geology of our plant. **(D, E)**
6. Weathering processes create several geological landforms that you can see in the landscape. **(F)**
7. Different rock types are used by humans in many ways. **(G)**
8. Ketton quarry is an example that shows how conflicts occur when humans extract rock. **(H)**

A - The Three Types Of Rock (3)

Igneous rock	Formed by volcanoes. Contains crystals. Examples include basalt and granite.
Sedimentary rock	Formed on the seabed in layers. Examples include chalk and clay.
Metamorphic rock	Sedimentary or igneous rock changes because of extreme heat or pressure and becomes a new type of rock. Examples include slate and marble.

B - Location Of The Main Geological Areas Of The UK (4)

Igneous Rock	Found in the south west and parts of Scotland.
Metamorphic Rocks	Found across large parts of Scotland.
Caenozoic Rocks	Found in the south east of England.
Silurian - Cambrian	Found in the north east of Wales and the north east of England.

C - The Main Geological Time Periods (3)

Cenozoic	0-64 million years before present. We are currently in this era.
Mesozoic	65-244 million years before present.
Paleozoic	245-555 million years before present.

D - Processes In The Rock Cycle (3)

The Rock Cycle	The way rock changes between igneous, sedimentary, and metamorphic in a cycle.
Deposition	When rock particles settle on the sea bed in layers.
Melting	Occurs in the mantle of the Earth, turning sedimentary rock into metamorphic or igneous.

E- Types Of Weathering (4)

Mechanical Weathering	Breaking down of rocks without changing the chemical nature.
Biological Weathering	Breaking down of rocks by plant roots or burrowing animals.
Chemical Weathering	Breaking down of rocks by chemical reactions.
Freeze Thaw Weathering	Water gets into cracks, freezes and expands. This widens the crack. This repeats until large sections of rock break off.

F - Landforms Created By Weathering (3)

Limestone Pavements	A large, flat, slab of rock. Broken up into sections by chemical weathering and erosion.
Stalactite	Hangs down from the ceiling of limestone caves like an icicle.
Stalagmite	Grows up from the floor of caves. Made when calcite drips to the floor from the ceiling.

G - How Humans Use Different Rocks (3)

Uses Of Sedimentary Rock	Gives us limestone which we use to make paper, insecticides, glass, and coating on types of chewing gum.
Uses Of Metamorphic Rock	Gives us marble which is useful for decorative building materials and sculptures.
Uses Of Igneous Rock	Gives us granite which is a very solid rock that is used to make buildings, bridges and monuments.

H - Case Study Example: Hanson Cement Quarry In Ketton

Where?	Rutland, England

Advantages (2)	Disadvantages (3)	Conflicts created (2)
1. Jobs are created extracting rock. 2. It provides cement which is an essential resource for building.	1. Huge visual impact making the area look unattractive. 2. Noise pollution comes from blasting and lorries to transport materials. 3. Air pollution from the disturbance of dust and engines.	1. The Hanson Cement company makes profit from extracting rock and provides vital cement for the building industry. 2. Environmentalists are concerned that the quarry destroys animal habitats. 3. Local businesses have more money because workers spend their wages in the area.

Rivers

Background

1. Rivers affect the landscape and the lives of people who live near them.
2. Rivers are found within their own drainage basin and have their own distinct features. **(A)**
3. As a river moves from its source in the upper course, to its mouth in the lower course, its profile changes. **(B)**
4. There are many different river processes which can impact the landscape. **(C, D)**
5. Processes of erosion and deposition can lead to the formation of different river landforms. **(E, F, G)**
6. Flooding is a key feature of rivers, and drainage basin processes play a significant role in this. By altering the drainage basin of a river, we can interfere with these processes. **(H)**
7. There are many famous examples of floods. Today many strategies have been put in place in an attempt to manage the flood risk. **(I)**

A - Drainage Basin Features (6)

Drainage basin	An area of land drained by a river and its tributaries.
Source	The start of a river.
Mouth	Where the river enters the sea or lake.
Tributary	A small river that joins a larger river.
Confluence	The point at which two or more rivers meet.
Watershed	The dividing line between two drainage basins.

B - River Profile (3)

Upper Course	The narrow, steep, upper part of a river, contains waterfalls.
Middle Course	The wider, deeper channel, contains meanders and ox-bow lakes.
Lower Course	The widest, flattest part of the river, near the mouth, contains the floodplain.

C - Types Of Erosion (4)

Hydraulic action	The sheer force of the river causing the bed and banks to erode.
Abrasion	Material carried by the river erodes by scraping along the bed and banks.
Attrition	Eroded material carried by the river, hits into each other breaking down into smaller pieces.
Solution	The water dissolves certain rocks.

E - Waterfall – Upper Course (2)

Plunge Pool	A pool which forms at the bottom of a waterfall, undercutting the hard rock above.
Gorge	A steep sided valley left behind when a waterfall retreats up stream.

F - Meander – Middle Course (2)

Slip off slope	The sloping bed of a meander, from the inside (shallow) to the outside (deep).
River cliff	The undercut bank on the outside bend of a meander.

G - Floodplain – Lower Course (2)

Silt	The fertile, eroded material transported by a river.
Levees	Banks found at the side of a river in the lower course.

D - Other River Processes (5)

River Load	The material the river transports.
Transportation	The movement of material by the river.
Deposition	When a river loses energy so drops its load.
Lateral Erosion	When erosion moves across the land, causing the bends of meanders to widen.
Vertical Erosion	Erosion which takes place downwards into the land.

H - Drainage Basin Processes (6)

Precipitation	Liquid that falls from the sky e.g. rain, snow, hail.
Interception	When the leaves of trees stop precipitation reaching the ground.
Surface Run-Off	The movement of water overland back into a river.
Surface Storage	Water stored on the surface in lakes or puddles.
Infiltration	The movement of water from the surface into the soil.
Through Flow	The movement of water through the soil back into the river.

Case Study Example: Boscastle

Where/when?	Cornwall in the south west of the UK, happened in August 2004. A tourist destination.

Cause (3)	Effect (4)	Response (3)
1. Very heavy rainfall, 89mm in just 1 hour. 2. Steep slopes of Bodmin Moor caused surface run-off. 3. Impermeable ground meant precipitation could not infiltrate.	1. 25 businesses ruined, costing £25 million in lost trade. 2. Four bridges destroyed. 3. Homes damaged costing £500 million to repair. 4. 75 cars washed away.	1. Immediate - seven helicopters sent in to rescue people from the roofs of buildings. 2. Long term – river widened and deepened. 3. Long term - bridges made wider.

World Of Work

Background

1. The world of work can be classified into four different employment sectors. **(B)**
2. Many factors influence the type of employment sector which will be found within a particular country. **(C)**
3. Furthermore, industrial location is influenced by some key factors, which are more important for some industries in comparison to others. **(D)**
4. Employment structure within countries varies based upon the level of development. **(E)**
5. However, employment structures are not fixed, just like in the UK they can change over time. **(F)**
6. Tourism is a rapidly growing tertiary industry worldwide. **(G)**
7. Tourism can bring both positive and negative impacts for the host country. **(H)**

A - Classifications Of Employment (2)

Employment	When people are in work, receiving a wage and paying tax.
Unemployment	When people are not in work, therefore do not receive a wage and do not pay tax.

B - Different Employment Sectors (4)

Primary Sector	Industries which collect raw materials such as; farming, logging, oil rigging, mining, quarrying etc.
Secondary Sector	Industries which manufacture goods into products such as; car manufacturers, food processing plants, toy assembly plants, builders etc.
Tertiary Sector	Industries which provide a service such as; teaching, accounting, health care, sales assistants etc.
Quaternary Sector	Defined as hi-tech, research and design. They include hardware and software engineers and pharmaceutical companies.

C - Influences On Employment Structure (5)

Imports	Goods brought into a country.
Exports	Sending goods to another country for sale.
Industrialisation	When a country begins to move from primary employment to secondary employment, with a rise in manufacturing.
Mechanisation	When machinery begins to do the jobs which once required humans.
Disposable Income	The money a person has left to spend after they have paid all of their bills.

D - Factors Which Influence The Location Of Industry (5)

Raw Materials	Natural resources that are used to make things.
Transport Links	The links which allow goods and workers to be transported in and out of industries.
Labour	Workers, employed people.
Market	A place where raw materials or goods are sold.
Footloose	Industries which are not tied to a location due to natural resources or transport links.

E - Employment Structure Differences (3)

Developing Countries	Large primary sector, growing secondary sector and a moderate tertiary sector.
Emerging Countries	They have a large secondary sector, rapidly falling primary sector and growing tertiary sector.
Developed Countries	A large tertiary sector, a growing quaternary sector, both primary and secondary employment are low.

F - Employment Structure Change In Developed Countries (2)

Falling Primary And Secondary Sector (3)	1. Cheaper to import. 2. Mechanisation has taken jobs. 3. Raw materials have been exhausted in certain areas.
Growing Tertiary Sector (2)	1. Disposable income has increased, so a greater demand for services. 2. A large public sector e.g. health and education, due to a high tax revenue.

G - Features Of Tourism (3)

Tourist	A person who is visiting a place for pleasure.
Positive Multiplier Effect	The introduction of a new industry in an area also encourages growth in other industrial sectors, leading to further growth.
Butler Model	Shows how tourist resorts go through six stages, from discovery, growth, success, stagnation to rejuvenation or decline.

H - Tourism in Kenya

Where?	The Maasai Mara National Reserve, in southern Kenya.

Positive (3)	**Negative (4)**
1. Tourism provides 11% of Kenya's GDP. 2. The National Reserve is protected, saving many animals e.g. cheetahs. 3. Large infrastructure projects have been funded by overseas companies e.g. new road networks.	1. Mini-buses are driving across the Savannah. 2. Shadows from hot air balloons are scaring the wildlife. 3. Only 2% of the profit stays with the local people, much is lost to tour companies. 4. Animals are being fed by tourists, which is stopping them from hunting, impacting the food chain.

The Basics

1.1.1 Salut, comment t'appelles-tu? - Hi, what's your name?	
Bonjour	Hello
Salut	Hi
Merci	Thank you
Comment t'appelles-tu ?	What is your name?
Je m'appelle…	I'm called…
Comment il/elle s'appelle?	What is he/she called?
Elle/il s'appelle…	S/he is called…
Au revoir	Good-bye

1.1.3 Quel âge as-tu? Quel âge a-t-elle/il? - How old are you? How old is she/he?	
Quel âge as-tu ?	How old are you?
J'ai … ans.	I am … years old.
Quel âge a-t-elle/il?	How old is she/he?
Elle/il a … ans.	She/he is … years old.

1.2 Quelle est la date de ton anniversaire? - When is your birthday ?	
Mon anniversaire est le…	My birthday is…
Premier **deux/trois**	First of… second/third
Mon anniversaire est le cinq mars	My birthday is the 5th March

1.1.4 Où habites-tu? Quelle est ta nationalité? - Where do you live? What's your nationality?	
Où habites-tu?	Where do you live?
D'où viens-tu ? Quelle est ta nationalité?	Where do you come from? What nationality are you?
J'habite	I live
à (+ name of town/city)	In (+ name of town/city)
en/au/aux (+ country)	In (plus country)
En… Angleterre/Écosse/Irlande du Nord/France/ Espagne/Allemagne…	In England/Scotland/Northern Ireland/France/Spain/ Germany…
Au Pays de Galles/Portugal/Canada	In Wales/in Portugal/in Canada
Aux Etats-Unis/aux Pays-Bas	In the USA/in the Netherlands
Je suis… anglais(e)/écossais(e)/gallois(e)/ nord-irlandais(e)…	I am… English/Scottish/Welsh/Northern Irish…
Je parle… français/espagnol/allemand/arabe	I speak… French/Spanish/German/Arabic
Je veux parler…	I want to speak…

1.3 Qu'est-ce que tu aimes faire? - What do you like doing? **Qu'est-ce que tu n'aimes pas faire? -** What don't you like doing?	
J'aime (+infinitive/noun with article) **J'aime danser / J'aime le chocolat**	I like I like dancing/I like chocolate
Je n'aime pas (+infinitive/noun with article) **Je n'aime pas chanter**	I don't like I don't like singing
J'adore (+infinitive/noun with article)	I love
Je déteste (+infinitive/noun with article)	I hate
Je préfère (+ infinitive/noun with article)	I prefer
Jouer (au foot/au tennis/au rugby/au golf)	To play (football/tennis/rugby/golf)
Jouer sur mon Xbox	To play on my Xbox
Faire du sport	To play (to do) sport
Manger (de la pizza / du chocolat)	To eat (pizza/chocolate)

My Family

2.1 Parle-moi de ta famille - Tell me about your family	
Dans ma famille	In my family
Il y a	There is/are
Ma mère/Ma belle-mère	My mum/step mum
Ma sœur	My sister
Ma grand-mère	My grandma
Mon père/Mon beau-père	My dad/step dad
Mon frère	My brother
Mon grand-père	My grandad
Mes frères et sœurs	My brothers and sisters
Elle/il s'appelle…	S/he is called…
Elle/il a…ans	S/he is … years old

2.2.1 Tu es comment? - What are you like?	
J'ai les yeux …(bleus/verts/noisette/marron)	I have …(blue/green/hazel/brown) eyes.
J'ai les cheveux… (blonds/roux/gris/noirs/bruns)	I have … (blonde/red/grey/black/brown) hair.
Longs	Long
Courts	Short
Raides	Straight
Ondulés	Wavy
Bouclés/Frisés	Curly
Je suis…/Je ne suis pas…	I am…/I am not…
Grand(e)	Tall
Petit(e)	Small
Mince	Slim
Gros(se)	Big/fat
Drôle/Marrant(e)	Funny

2.2.2 Décris ton père/ton frère/ta mère/ta sœur - Describe your Dad/Brother/Mum/Sister	
Ton/ta/tes	Your
Mon père a …	My dad has…
Mon père est…/mon père n'est pas…	My dad is…/my dad isn't…
Elle a…/il a… (…ans/les cheveux…/les yeux…)	He has/She has..(…years/…hair/…eyes)
Elle est… /il est… grand/grande	He is/She is tall
Elle/il aime… (+ noun or infinitive) Elle aime le tennis/Il aime jouer au tennis	He/she likes She likes tennis/He likes to play tennis
Elle/il préfère… (+ noun or infinitive)	S/he prefers
Elle/il porte	S/he wears
Une barbe	A beard
Chauve	Bald

My Family

2.3 Qu'est-ce que tu aimes faire? Qu'est-ce qu'elle/il aime faire? - What do you like doing? What does s/he like doing?	
J'aime (+ infinitive/noun with article)	I like…
Elle/il aime (+ infinitive/noun with article)	S/he likes…
J'adore (+ infinitive/noun with article)	I love…
Elle/il adore (+ infinitive/noun with article)	S/he loves…
Je déteste (+ infinitive/noun with article)	I hate…
Elle/il déteste (+ infinitive/noun with article)	S/he hates…
Je n'aime pas (+ infinitive/noun with article)	I don't like…
Elle/il n'aime pas (+ infinitive/noun with article)	S/he doesn't like…
Je préfère (+ infinitive/noun with article)	I prefer…
Elle/il préfère (+ infinitive/noun with article)	S/he prefers…

2.4.1 As-tu des animaux? Décris ton animal - Have you got any pets? Describe your pet.	
J'ai…	I have…
Un chat/deux chats	A cat/two cats
Un chien/deux chiens	A dog/two dogs
Un lapin/deux lapins	A rabbit/two rabbits
Un cochon d'Inde/deux cochons d'Inde	A guinea pig/two guinea pigs
Un poisson rouge/deux poissons rouges	A goldfish/two goldfish
Un oiseau/deux oiseaux	A bird/two birds
Un serpent/deux serpents	A snake/two snakes
Un cheval/deux chevaux	A horse/two horses
Une tortue/deux tortues	A turtle/two turtles
Une araignée/deux araignées	A spider/two spiders
Qui s'appelle…	Who is called…
Qui s'appellent…	Who are called…
Elle/il est…	S/he is…

2.4.2 Quels animaux préfères-tu/veux-tu? - What animals do you like/do you want?	
Je préfère les…(chiens/chats/chevaux/lapins/tortues/serpents/ cochons d'Inde/oiseaux/araignées)	I prefer (dogs/cats/horses/rabbits/turtles/snakes/guinea pigs/birds/spiders)
Car elle/il sont…	Because they are…
Mon animal préféré est le …	My favourite animal is…
À l'avenir	In the future
Je veux avoir…	I want to have…

My School

3.1.1 Quelles matières as-tu le lundi? - What lessons do you have on Mondays?	
Le lundi j'ai…	On Mondays I have…
Le lundi on a…	On Mondays we have…
L'anglais	English
L'informatique	ICT
L'EPS (éducation physique et sportive)	P.E.
L'allemand	German
L'espagnol	Spanish
L'instruction civique	Citizenship
L'histoire	History
La religion	R.E.
La géographie	Geography
La musique	Music
La technologie	Technology
Le théâtre	Drama
Le français	French
Les maths	Maths
Les sciences	Science
Les arts plastiques	Art
Le matin	In the morning
L'après-midi	In the afternoon
À … heures	At … o'clock
À … heures et demie	At half past …

3.1.2 Quelle est ta matière préférée? - What is your favourite subject? **Quelles matières aimes-tu? -** Which subjects do you like?	
Ma matière préférée est…	My favourite subject is…
Parce que/car c'est…	Because it's…
Ce n'est pas…	It isn't…
Compliqué	Complicated
On a beaucoup de devoirs	We get lots of homework
J'aime/Je n'aime pas le/la prof	I like/I don't like the teacher
Je préfère…	I prefer…
Plus intéressant/e(s) que…	More interesting than…
Moins intéressant/e(s) que…	Less interesting than…

3.2 Décris-moi tes profs - Describe your teachers to me	
Mon/ma prof préféré(e) s'appelle…	My favourite teacher is called…
Mon/ma prof de/d'…	My …(subject) teacher
Elle/il est grand(e)/ petit(e)/de taille moyenne	S/he is tall/small/average height
Elle/il a les cheveux courts/longs/blonds/ gris/ noirs/bruns/raides/frisés	S/he has short/long/blonde/grey/ black/ brown/straight/curly hair
Elle/il porte des lunettes	S/he wears glasses
Elle/il est…	S/he is…
Elle/il nous aide	S/he helps us
Elle/il explique des choses bien	S/he explains things well
Elle/il n'explique pas bien	S/he doesn't explain well
Elle/il crie	S/he shouts

My School

3.3 Décris ton collège - Describe your school	
Mon collège est…	My school is…
Il y a … bâtiment(s)	There are … buildings
Dans mon collège il y a…	In my school there is/are…
Les salles de classe	Classrooms
Les laboratoires de sciences	Science labs
Un court de tennis/de basket	A tennis/basketball court
Un terrain de sport	A playing field
Un gymnase	A sports hall
Un théâtre	A theatre
Une cantine/une cafétéria	A canteen
Une salle informatique	A computer room
Une salle des profs	A staffroom
Une bibliothèque	A library
Une piscine	A swimming pool
Je voudrais…	I would like…
Un/une autre…	Another…
Plus de/d'…(ordinateurs/salles de classe)	More (computers/ classrooms)
Une salle de danse	A dance studio
Une salle de jeux	A games room

3.4 Qu'est-ce que tu vas faire après le collège/l'école aujourd'hui? - What are you going to do after school today?	
Après le collège	After school
Je vais…(+infinitive) **Retrouver mes amis/ Faire mes devoirs**	I'm going… To meet my friends to do my homework
Je ne vais pas…(+infinitive) **Promener mon chien**	I'm not going… To walk my dog

3.5 Qu'est-ce que tu fais pendant la récré? - What do you do during break? **Qu'est-ce que tu fais après le collège généralement? -** What do you do generally after school?	
Pendant la récré	During break
Je mange à la cantine/On mange à la cantine	I eat in the canteen/we eat in the canteen
Un sandwich	A sandwich
Un casse-croûte	A snack
Du chocolat	Chocolate
Des fruits	Some fruit
Des chips	Crisps
Je bois (de l'eau, du coca)/On boit	I drink (water/coke)/we drink
Je lis/On lit	I read/we read
Je joue au foot/au basket/On joue au foot/au basket	I play football/basketball/ we play football/basketball
Je bavarde avec mes amis/On bavarde	I chat with my friends/we chat
Je vais dehors/ On va dehors	I go outside/we go outside
Après le collège	After school
Je vais au parc	I go to the park
Je retrouve mes amis	I meet my friends
Je fais du sport/du vélo/de la danse/mes devoirs	I do sport/ ride my bike/dance/do my homework
J'écoute de la musique dans ma chambre	I listen to music in my bedroom
Je joue aux jeux vidéo	I play video games
Je regarde la télé/ Netflix	I watch television/Netflix

Where I Live

4.1.1 Où habites tu? - Where do you live?	
J'habite dans…	I live in…
Une petite/grande maison	A small/big house
Une maison individuelle	A detached house
Une maison jumelée	A semi-detached house
Un appartement	An apartment
…est situé(e)/…se trouve	…is situated/…is located
Dans le nord/le sud/l'est/ l'ouest de l'Angleterre	In the north/south/east/west of England
À la campagne	In the countryside
À la montagne	In the mountains
Au bord de la mer	By the seaside
Dans une (grande) ville	In a town/city
Dans un village	In a village
Près d'un aéroport/d'un centre commercial	Near an airport/shopping centre
J'aime habiter ici	I like living here
On peut (+infinitive)	You can
Il y a…	There is/are…
Beaucoup de choses à faire	Lots of things to do
Opportunités pour les jeunes	Opportunities for young people
Un bon système de transport en commun/transports publics	A good public transport system
J'aime la tranquillité	I like the peacefulness

4.1.2 Décris ta maison - Describe your house	
Ma maison est… **Mon appartement est…**	My house is… My apartment is…
Il y a… (+ un/une or number)	There is/are…
Il n'y a pas de (+item)	There isn't/aren't…
Un salon	A living room
Un balcon	A balcony
Un garage	A garage
Un jardin	A garden
Un bureau	A study/office
Une cuisine	A kitchen
Une buanderie	A utility room
Une salle de bains	A bathroom
Une salle à manger	A dining room
Une chambre **Deux chambres**	A bedroom Two bedrooms
La chambre de mes parents/ ma soeur	My parent's/sister's bedroom

4.2 Décris ta chambre - Describe your bedroom	
Il y a… (+ un/une or number)	There is/are…
Il n'y a pas de (+item)	There isn't/aren't…
Un lit	A bed
Un bureau	A desk
Un poster	A poster
Un ordinateur	A computer
Une chaise	A chair
Une armoire	A wardrobe
Une étagère	A bookshelf
Des lits superposés	Bunk beds
Sous	Under
Sur	On top of
Entre	Between
Devant	In front of
Derrière	Behind
À côté du/de la/des	Next to

Where I Live

4.3.1 Décris ta ville ou ton village - Describe your town or village

Qu'est-ce qu'il y a dans ta ville ?	What is there in your town?
Il y a… (+ un/une or number)	There is/are…
Il n'y a pas de (+item)	There isn't/aren't…
Beaucoup de	Lots of
Un centre commercial	A shopping centre
Un centre de loisirs	A leisure centre
Un parc	A park
Un cinéma	A cinema
Un restaurant (italien/ chinois)	A (Italian/Chinese) restaurant
Un café	A café
Un parc d'attractions	A theme park
Un théâtre	A theatre
Un bowling	A bowling alley
Un château	A castle
Un musée	A museum
Une piscine	A swimming pool
Une patinoire	An ice rink
Une bibliothèque	A library

4.3.2 Qu'est-ce qu'on peut faire dans ta ville? - What can you do in your town?

On peut (+infinitive)	You can
On ne peut pas (+infinitive)	You can't
Aller au cinéma	Go to the cinema
Aller à la plage	Go to the beach
Aller au bowling	Go to the bowling alley
Jouer au parc	Play in the park
Manger au restaurant	Eat at a restaurant
Visiter le musée/le château	Visit the museum/the castle
Voir un spectacle	See a show
Faire des promenades	Go for walks
Faire du shopping	Go shopping

4.4.1 Tu aimes habiter ici? Pourquoi/pourquoi pas? - Do you like living here? Why (not)?

J'aime habiter ici	I like living here
Je n'aime pas habiter ici	I don't like living here
Beaucoup de choses à faire	Lots of things to do
Beaucoup d'emplois	Lots of jobs
Beaucoup d'opportunités pour les jeunes	Lots of opportunities for young people
Beaucoup d'espaces verts	Lots of green space
Trop de pollution	Too much pollution

4.4.2 Où vas-tu habiter plus tard? - Where are you going to live later?

À l'avenir	In the future
Je vais habiter	I'm going to live
Je voudrais habiter	I would like to live
Je veux habiter	I want to live
À (+city name)	In
À la campagne	In the countryside
À la montagne	In the mountains
Au bord de la mer	By the sea
Dans une grande ville	In a city
À l'étranger	Abroad
En France/en Espagne/en Allemagne/en Australie	In France/in Spain/in Germany/in Australia
Au Portugal/au Maroc	In Portugal/In Morocco
Aux États-Unis/aux Caraïbes	In the USA/in the Caribbean
J'aime le soleil	I like the sun
J'adore la culture	I love the culture
J'aime la nourriture	I like the food
J'aime faire du ski	I like skiing
C'est plus intéressant que…	It's more interesting than…

The Basics

1.1.1 Hola, ¿Qué tal?	
Hola	Hello
Buenos días/buenas tardes	Good morning/afternoon
Gracias	Thank you
¿Cómo te llamas?	What's your name?
Me llamo	My name is…
¿Cómo se llama?	What is s/he is called?
Se llama…	S/he is called…
Adiós/hasta luego	Good-bye

1.1.3 ¿Cuántos años tienes? - How old are you? How old is he/she?	
¿Cuántos años tienes?	How old are you?
Tengo … años.	I am … years old.
¿Cuántos años tiene?	How old is s/he?
Tiene … años.	S/he is … years old.

1.2 ¿Cuando es tu cumpleaños? - When is your birthday?	
Mi cumpleaños es el…	My birthday is on…
Primero/uno de Dos/tres/cuatro de…	Second/third/fourth of…
Mi cumpleaños es el cinco de marzo	My birthday is the 5th March

1.1.4¿De dónde eres? ¿Dónde vives? - Where are you from? Where do you live?	
¿Dónde vives?	Where do you live?
¿De dóndes eres? ¿Cuál es tu nacionalidad?	Where are you from? What is your nationality?
Vivo en… Inglaterra/Escocia/Irlanda del Norte/Gales/Francia/ España/Alemania/Portugal/Italia/los Estados Unidos (EEUU)	I live in… England/Scotland/Northern Ireland/Wales/France/Spain /Germany/Portugal/Italy/United States (USA)
Soy…	I am…
inglés/inglesa	English
escocés/escocesa	Scottish
galés/galesa	Welsh
irlandés/irlandesa	Irish
Hablo…	I speak…
español	Spanish
árabe	Arabic
francés	French
alemán	German
Me gustaría hablar…	I would like to speak…

1.3 ¿Qué (no) te gusta hacer? - What do you (not) like doing?	
Me gusta (+ infinitive/noun with article) Me gusta bailar/el regetón	I like I like dancing/I like regeton
No me gusta (+ infinitive/noun with article) No me gusta cantar	I don't like I don't like singing
Me encanta (+ infinitive/noun with article)	I love
Detesto (+ infinitive/noun with article)	I hate
Prefiero (+ infinitive/noun with article)	I prefer
Jugar (al + sport)	To play
Jugar con la consola/a los videojuegos	To play my Xbox
Hacer deporte	To play - to do sport
Comer	To eat

My Family

2.1 Háblame de tu familia - Tell me about your family	
En mi familia	In my family
Hay…personas	There are ... people
Mi madre/mi madrastra	My mum/step mum
Mi hermana	My sister
Mi abuela	My grandma
Mi padre/mi padrastro	My dad/stepdad
Mi hermano	My brother
Mi abuelo	My grandad
Mis hermanos	My brothers and sisters
Tiene … años.	S/he is ... years old

2.2.1 ¿Cómo eres? - What are you like?	
Tengo los ojos (azules/verdes/marrones)	I have …(blue/green/brown) eyes.
Tengo el pelo (rubio/pelirrojo/gris/negro/castaño)	I have … (blonde/red/grey/black/brown) hair.
Largo	Long
Corto	Short
Liso	Straight
Ondulado	Wavy
Rizado	Curly
Soy…/no soy…	I am…/I am not…
Muy	Very
Bastante	Quite
Un poco	A bit

2.2.2 Describe a tu madre/padre - Describe your mother/father	
Tu/tus	Your
Mi padre tiene…	My dad has…
Mi padre es/mi padre no es…	My dad is…/my dad isn't…
Tiene	S/he has
Es	S/he is
A … le gusta…	S/he likes
Prefiere	S/he prefers
Lleva	S/he wears
Barba	A beard
Bigote	A moustache
Gafas	Glasses
Pecas	Freckles
Aparato	Braces

My Family

2.3 ¿Qué te gusta hacer? ¿Qué le gusta hacer? - What do you like doing? What does s/he like doing?	
Me gusta (+ infinitive/noun with article)	I like…
A… le gusta (+ infinitive/noun with article)	S/he likes…
Me encanta (+ infinitive/noun with article)	I love…
Le encanta (+ infinitive/noun with article)	S/he loves…
Detesto (+ infinitive/noun with article)	I hate…
Detesta (+ infinitive/noun with article)	S/he hates…
No me gusta (+ infinitive/noun with article)	I don't like…
No le gusta (+ infinitive/noun with article)	S/he doesn't like…
Prefiero (+ infinitive/noun with article)	I prefer…
Prefiere (+ infinitive/noun with article)	S/he prefers…

2.4.1 ¿Tienes mascotas? ¿Cómo es tu perro/gato? - Have you got pets? What is your dog/cat like?	
Tengo …	I have…
Un gato/dos gatos	A cat/two cats
Un perro/dos perros	A dog/two dogs
Un conejo/dos conejos	A rabbit/two rabbits
Una cobaya/dos cobayas	A guinea pig/two guinea pigs
Un pez/dos peces	A goldfish/two goldfish
Un pájaro/dos pájaros	A bird/two birds
Una serpiente/dos serpientes	A snake/two snakes
Un caballo/dos caballos	A horse/two horses
Una tortuga/dos tortugas	A turtle/two turtles
Una araña/dos arañas	A spider/two spiders
Que se llama…	Who is called…
Que se llaman…	Who are called…
Es…	S/he, it is…

2.4.2 ¿Qué animales prefieres/te gustaría tener o proteger? - What animals do you prefer? What animals would you like to have or protect?	
Prefiero los (perros/gatos/ caballos/conejos/tortugas/ serpientes/cobayas/pájaros/arañas)	I prefer (dogs/cats/horses/rabbits/turtles/snakes/ guinea pigs/birds/spiders)
Porque son …	Because they are…
Mi animal preferido es el…	My favourite animal is the…
En el futuro	In the future
Me gustaría tener/proteger	I would like to have/protect…
Animales/especies en peligro de extinción	Endangered animals/species

School

3.1.1 ¿Qué asignaturas tienes los lunes? - What subjects have you got on Mondays?	
¿Qué asignaturas tienes los lunes?	What lessons do you have on Mondays?
Los lunes tengo…	On Mondays I have…
Los lunes tenemos…	On Mondays we have…
inglés (el)	English
informática (la)	ICT
educación física (la)	P.E.
alemán (el)	German
español (el)	Spanish
ética (la)	Citizenship
historia (la)	History
religión (la)	R.E.
geografía (la)	Geography
música (la)	Music
diseño (el) y tecnología (la)	Technology
arte dramático (el)	Drama
francés (el)	French
matemáticas (las)	Maths
ciencias (las)	Science
por la mañana	In the morning
por la tarde	In the afternoon
A las…	At … o'clock
A las… y media	At half past …

3.1.2 ¿Cuál es tu asignatura favorita? - What is your favourite subject?	
¿Qué asignaturas (no) te gustan ?	Which subjects do you (not) like?
Mi asignatura favorita es el/la/las…	My favourite subject is…
Porque es…/son…	Because it's…
Interesante/s	Interesting
Una pérdida de tiempo	A waste of time
Tenemos muchos/demasiados deberes	We get a lot/too much homework
(No) me gusta el/la profe	I don't like the teacher
Prefiero	I prefer
Más útil que	More useful than…
Menos interesante que	Less interesting than…

3.2 ¿Cómo son tus profes? - What are your teachers like?	
Mi profe favorita/o es la/el de…	My favourite teacher is called…
Mi profe de (+ asignatura)	My …(subject) teacher
Es alta/o, baja/o, de mediana estatura	S/he is tall/small/average height
Tiene el pelo corto/largo/rubio/gris/ negro/castaño/liso/rizado	S/he has short/long/blonde/grey/ black/brown/straight/curly hair
Lleva gafas	S/he wears glasses
Creo que…	I think that…
En mi opinión	In my opinion
Es…	S/he is…
Nos ayuda	S/he helps us
Explica bien las cosas	S/he explains things well
No explica bien	S/he doesn't explain well
Grita a menudo	S/he shouts often

School

3.3 ¿Cómo es tu instituto? Describe tu colegio - What is your school like?	
Mi instituto/colegio es	My school is…
Hay… edificios	There are … buildings
En mi colegio hay…	In my school there is/are…
Aulas (las)	Classrooms
Laboratorios de ciencias (los)	Science labs
Una pista de tenis/baloncesto	A tennis/basketball court
Un campo de juego	A playing field
Un gimnasio	A sports hall
Un teatro	A theatre
Una cafetería/un comedor	A canteen
Una clase de informática	A computer room
Una sala de profesores	A staffroom
Una biblioteca	A library
Una piscina	A swimming pool
Me gustaría/quisiera	I would like…
Otro/otra	Another…
Más (ordenadores/aulas/espacio)	More (computers/ classrooms/space)
Un aula para bailar	A dance studio
Une sala de juegos	A games room

3.4 ¿Qué vas a hacer hoy después del colegio? - What are you going to do today after school?	
Después del colegio/instituto	After school
(No) voy a + infinitivo **Salir con mis amigos**	I'm (not) going… Go out with my friends
(No) quiero + infinitivo **Pasear al perro**	I (don't) want… Walk the dog

3.5 ¿Qué haces en el recreo? - What do you do during break? ¿Qué haces normalmente después del colegio? - What do you do generally after school?	
En el recreo	During break
Como/comemos en la cafetería	I/we eat in the canteen
Un bocadillo	A sandwich
Unos caramelos	Some sweets
Una chocolatina	A chocolate bar
Fruta	Some fruit
Patatas fritas	Crisps/chips
Bebo (agua/un refresco)/ bebemos	I drink (water/a soft drink)/we drink
Después del instituto	After school
Voy/vamos al parque/al centro	I go/we go to the park/ to the town centre
Hago/ hacemos los deberes	I do/we do my homework
Juego/ jugamos al baloncesto/ al ordenador	I/we play basketball /on the computer
Charlo con mis amigas/os	I chat with my friends

Where I live

4.1.1 ¿Dónde vives? - Where do you live?	
¿Dónde está tu casa?	Where is your house?
Vivo en…	I live in…
Una casa (independiente)/un chalet (individual)	A detached house
Una casa adosada	A semi-detached/ terraced house
Un piso/ apartamento	A flat/an apartment
Una caravana/una roulotte	A caravan
Está…	…is situated/…is located
En el norte/sur/este/oeste de Inglaterra	In the north/south/east/ west of England
En el campo	In the countryside
En la(s) montaña(s)	In the mountains
En la costa	By the seaside/coast
En una ciudad	In a town/city
En un pueblo (grande/ pequeño)	In a (big/small) village
Cerca de/lejos de un aeropuerto/centro comercial	Near to/far from an airport/shopping centre
Me gusta vivir aquí	I like living here
Hay…	There is/are…
Muchas cosas que hacer	Lots of things to do
Oportunidades para la gente joven/los jóvenes	Opportunities for young people
Buen transporte público	Good public transport
Me encanta la tranquilidad	I like the peacefulness

4.1.2 ¿Cómo es tu casa? - What is your house like?	
Mi casa es… **Mi piso es…**	My house is… My apartment is…
Hay… (+ un/una or number)	There is/are…
No hay (+ item without the article)	There isn't/aren't…
Un salón	A living room
Un balcón/ una terraza	A balcony
Un garaje	A garage
Un jardín	A garden
Un despacho	A study/office
Una cocina	A kitchen
Un lavadero	A utility room
Un cuarto de baño	A bathroom
Un comedor	A dining room
Una habitación/ un dormitorio **Dos habitaciones/dos dormitorios**	A bedroom Two bedrooms

4.2 ¿Qué hay en tu habitación/dormitorio? - What is there in your bedroom?	
Hay… (+ un/una or number)	There is/are…
No hay (+ item, no article)	There isn't/aren't…
Una cama	A bed
Una mesa	A desk
Un poster	A poster
Un ordenador	A computer
Una silla	A chair
Un armario	A wardrobe
Una estantería	A bookshelf
Literas	Bunk beds
Debajo de	Under
Encima de	On top of
Entre	Between
Delante de/enfrente de	In front of
Detrás de	Behind
Al lado de	Next to

Where I live

4.3.1 ¿Qué hay en tu pueblo? - What is there in your town?	
Describe donde vives	Describe where you live
¿Qué hay en tu pueblo/zona/ barrio?	What is there in your town/ neighbourhood?
Hay (+ un/una or number)	There is/are…
No hay (+item)	There isn't/aren't…
Muchos/as	Lots of
Un centro comercial	A shopping centre
Un polideportivo	A leisure centre
Un parque	A park
Un cine	A cinema
Un restaurante (italiano/chino)	A (Italian/Chinese) restaurant
Una cafetería	A café
Un parque de atracciones	A theme park
Un teatro	A theatre
Una bolera	A bowling alley
Un castillo	A castle
Un museo	A museum
Una piscina	A swimming pool
Una pista de patinaje	An ice rink
Una biblioteca	A library

4.3.2 ¿Qué se puede hacer donde vives? - What can you do where you live?	
Se puede (+infinitive)	You can
No se puede (+infinitive) **No se puede visitar el museo /castillo**	You can't You can't visit the museum/ the castle
Ir al cine	Go to the cinema
Ir a la playa	Go to the beach
Ir a la bolera	Go to the bowling alley
Jugar en el parque	Play in the park
Comer en un restaurante	Eat at a restaurant
Visitar el museo/castillo	Visit the museum/the castle
Ver un espectáculo	See a show
Dar paseos/ir de paseo	Go for walks
Ir de compras	Go shopping

4.4.1 ¿Te gusta donde vives? ¿Por qué (no)? - Do you like where you live? Why (not)?	
Me gusta vivir aquí	I like living here
No me gusta vivir aquí	I don't like living here
Muchas cosas que hacer	Lots of things to do
Mucho trabajo	Lots of jobs
Muchas oportunidades para los jóvenes	Lots of opportunities for young people
Suficientes espacios verdes	Lots of green space
Demasiada polución	Too much pollution

4.4.2 ¿Dónde te gustaría vivir en el futuro? - Where would you like to live in the future?	
Quisiera (+ infinitive) vivir	I would like to live
Quiero (+ infinitive) vivir	I want to live
Me gustaría (+infinitive) vivir	I would like to live
Prefiero (+infinitive) vivir	I prefer to live
En (+city name)	In
En el campo	In the countryside
En la montaña	In the mountains
En la costa	By the sea
En una ciudad	In a city
En el extranjero	Abroad
En + country	In + country
Me encanta el sol	I love the sun
Me apasiona la cultura	I love (I am passionate about) the culture
Me gusta la comida	I like the food
Es más interesante que…	It's more interesting than…

Origins of Abrahamic Faith

Origins of Abrahamic Faith					
1	**Genesis**	The first book of the Jewish and Christian scriptures.	11	**Moses**	The Hebrew prophet who led the Israelites out of Egypt and delivered the Law during their years of wandering in the wilderness.
2	**Adam and Eve**	According to Genesis, they were the first human beings created by God.	12	**Exodus**	Second book of the Jewish and Christian scriptures which tells the story of Moses and the Israelites.
3	**Noah**	The hero of the biblical flood story in the book of Genesis.	13	**Leviticus**	Third book of the Jewish and Christian scriptures which contains laws and ceremonial practices.
4	**The Flood**	God's decision to return the Earth to its pre-creation state of watery chaos and then remake it in a reversal of creation.	14	**Day of Atonement**	A religious practice described in Leviticus to remove the sins of the community.
5	**Abraham (Ibrahim in Islam)**	The common founder of Judaism, Christianity and Islam.	15	**Jesus**	First-century Jewish teacher who Christians believe to be the Son of God.
6	**Covenant**	Conditional promises made to humanity by God.	16	**Pharisees**	An ancient Jewish group, distinguished by strict observance of the traditional and written law.
7	**Sacrifice**	An act of slaughtering an animal or person or surrendering a possession as an offering to a deity.	17	**Crucifixion**	An ancient form of execution in which a person was nailed or bound to a cross.
8	**Isaac**	Abraham's son who went on to be ancestor to the Jewish people.	18	**Salvation**	Saving from sin and its consequences, believed by Christians to be brought about by faith in Jesus.
9	**Ishmael**	Abraham's son who went on to be ancestor to the Muslim people.	19	**Polytheism**	The belief in more than one god.
10	**Mecca**	Holy city for Muslims established by Ibrahim and Ishmael.	20	**Monotheism**	The belief in one God.

Judaism

Judaism					
1	Judaism	An ethnic religion made up of the collective religious, cultural, and legal tradition and civilization of the Jewish people.	11	Shabbat	The Jewish day of rest.
2	Monotheism	The belief in one God.	12	Pesach (Passover)	Jewish celebration which remembers the Hebrews' freedom from slavery in Egypt.
3	Torah	The law of God as revealed to Moses and recorded in the first five books of the Hebrew scriptures.	13	Seder	A Jewish ritual service and ceremonial dinner for the first night or first two nights of Passover.
4	Tanakh	The Jewish Scriptures comprising the books of law, the prophets, and collected writings.	14	Yom Kippur (Day of Atonement)	The holiest day of the year where Jews spend most of the day in the Synagogue.
5	Talmud	The body of Jewish civil and ceremonial law and legend.	15	Anti-Semitism	Hostility to or prejudice against Jewish people.
6	Orthodox Judaism	A major branch within Judaism which teaches strict following of Jewish law and its traditional observances.	16	Jewish Deicide	The anti-Semitic belief that the Jewish people were collectively responsible for the death of Jesus.
7	Reform Judaism	A branch of Judaism which has reformed or abandoned aspects of Orthodox Jewish worship and ritual in an attempt to adapt to modern life.	17	Persecution	Hostility and ill-treatment, especially because of race or political or religious beliefs; oppression.
8	Synagogue	A Jewish place of worship.	18	Genocide	The deliberate killing of a large number of people from a particular nation or ethnic group with the aim of destroying that nation or group.
9	The Western Wall	The holiest site where Jews are allowed to pray, behind it lies the foundation stone.	19	Holocaust (Shoah)	The genocide of European Jews during WWII, committed by the Nazis, killing six million Jewish people.
10	The Foundation Stone	In traditional Jewish sources, it is considered the place from which the creation of the world began.	20	Holocaust Memorial Day	Holocaust Memorial Day is a national commemoration day in the United Kingdom dedicated to the remembrance of the Jews and others who suffered in the Holocaust, under Nazi persecution.

Christianity

Christianity					
1	Christianity	The religion based on the person and teachings of Jesus Christ.	11	Resurrection	The Christian belief that Jesus rose from the dead.
2	Jesus	First-century Jewish teacher who Christians believe to be the Son of God.	12	Ascension	The ascent of Jesus Christ into heaven on the 40th day after his Resurrection.
3	The Nativity	The birth of Jesus Christ.	13	Nicene Creed	A statement of Christian beliefs.
4	Immaculate Conception	The teaching that God preserved the Virgin Mary from the taint of original sin.	14	Trinity	The three persons of the Christian godhead; Father, Son and Holy Spirit.
5	Messiah	A messiah is a saviour or liberator of a group of people. Christians believe Jesus to be the Messiah.	15	Original Sin	The evil within all human beings, inherited from Adam and Eve.
6	Ministry	The work of a religious person.	16	Saint Augustine	A Bishop who established the concept of Original Sin.
7	Sermon on the Mount	A collection of sayings and teachings attributed to Jesus Christ, which emphasises his moral teaching.	17	Reformation	A 16th-century movement for the reform of abuses in the Roman Church ending in the establishment of the Reformed and Protestant Churches.
8	Beatitudes	The blessings listed by Jesus in the Sermon on the Mount.	18	Roman Catholic	A branch of Christianity whose main source of authority is the Pope and the Bible.
9	Last Supper	The final meal that Jesus shared with his disciples before his crucifixion.	19	Protestant	A branch of Christianity whose main source of authority is the Bible.
10	Eucharist	The Christian service commemorating the Last Supper, in which bread and wine are consecrated and consumed.	20	Evangelism	Churches that stress the preaching of the gospel of Jesus Christ, personal conversion experiences and Scripture as the sole basis for faith.

Buddhism

Buddhism					
1	**Buddha**	A title meaning 'enlightened one'.	11	**Samsara**	The cycle of rebirth.
2	**Siddhartha Gautama**	A man who gave up world comforts then attained Enlightenment and became known as the Buddha.	12	**Rebirth**	Death and rebirth are by ignorance, desire and hatred.
3	**Ascetic**	Severe self-discipline and refrain from all forms of indulgence.	13	**Nirvana**	Release from the cycle of rebirth.
4	**Enlightenment**	In Buddhism, when a Buddhist finds the truth about life and stops being reborn as they have reached Nirvana.	14	**Samudaya**	The cause of suffering: craving and desire.
5	**Meditation**	A practice which encourages a calm seeing of the true nature of things.	15	**Nirodha**	The renouncing of craving and desire.
6	**The Middle Way**	Avoiding extremes of self-denial and self-indulgence.	16	**Magga**	The 'cure' for suffering.
7	**Dukkha**	Refers to the 'suffering' of life.	17	**The Noble Eightfold Path**	Right views, right thinking, right speech, right action, right livelihood, right effort, right mindfulness and right meditation.
8	**Anatta**	The teaching that there is no soul.	18	**Bhikkhu**	An ordained monk in Buddhism.
9	**Anicca**	The teaching that nothing lasts and everything is in a constant state of change.	19	**Precept**	A general rule intended to regulate behaviour or thought.
10	**Karama**	Action driven by intention which leads to future consequences.	20	**The 5 Precepts**	Not killing or causing harm to other living beings, not taking the not-given, avoiding sexual misconduct, avoiding false speech and abstaining from drink and drugs that cloud the mind.

Rhythm & Pulse

Musical Context

Drum kit:
- Bass drum, snare drum, hi-hat
- Often plays **fills** at the end of phrases

Samba:
- Musical style from Brazil
- Carnival music featuring lots of percussion (the batterie)
- Instruments: Surdo, Caixa, repenique, tamborim, chocalho
- Calls and responses are called **bossas**

'The Rite of Spring':
- A ballet
- Written by Russian composer, Stravinsky, in 1913
- Revolutionary piece that caused a riot
- Accented rhythms and syncopations
- Changing metre

'Connect It':
- Body percussion piece
- Written by Anna Meredith in 2015
- Use of canon and imitation

Vocabulary

Pulse	The main heartbeat of the music
Ostinato	Repeated rhythm
Syncopation	Off beat rhythm
Metre	Organisation of pulse (in 3, in 4)
Phrase	Musical sentence
Call And Response	Imitation/copying a phrase
Cadence	End of a musical phrase
Binary	Structure in two parts
Canon	Playing the same music, starting at different times
Accent	Stronger note with more emphasis

Terminology

Rhythm	Length of notes and how they are organised
Structure	The order of the sections in a piece of music
Tempo	Speed of the music
Timbre	The tone quality of a sound
Dynamics	The loudness/softness of the music

Theory

Note Name	Note Symbol	Note Value
Semi-breve		**4 beats**
Minim		**2 beats**
Crotchet		**1 beat**
Quaver		**1/2 of a beat**
Pair of Quavers		**2x 1/2 beats = 1**
Semi-quaver		**1/4 of a beat**

Rest	A silence - a crotchet rest (1 beat), a quaver rest (a 1/2 beat)
Dotted Notes	A dot next to a note increases the length by half of the original note
Triplets	Three notes played in the time of two
Time Signature	This shows how many beats are in a bar (the metre)
Simple Time Signature	Each beat divides into 2 (2/4, 4/4, 3/4)
Compound Time Signature	Each beat divides into 3 (6/8, 12/8, 9/8)

Singing and the Elements

Musical Context

Singing

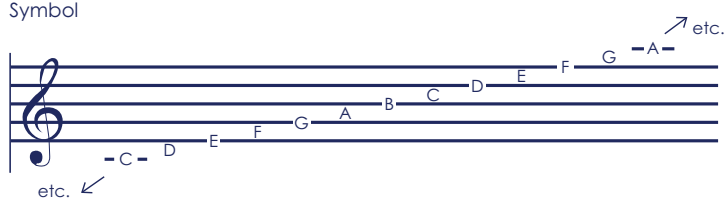
- 3 steps for warming up the voice: Stretching – Breathing – Diction

Terminology

Tonality	The key of the music, e.g. major
Dynamics	The loudness of the music
Tempo	Speed of music
Articulation	How notes are played, the separation between notes
Structure	The order of the sections in a piece of music

Theory

Treble Clef Symbol



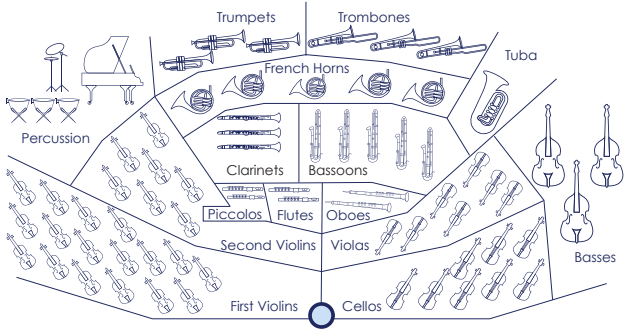
Vocabulary

Major	Bright, happy sounding key
Minor	Sad, gloomy sounding key
Forte	Loud
Piano	Soft
Fortissimo	Very loud
Pianissimo	Very soft
Crescendo	Gradually getting louder
Diminuendo	Gradually getting softer

Allegro	Fast tempo
Adagio	Slow tempo
Presto	Quick tempo
Lento	Very slow tempo
Legato	Smooth playing
Staccato	Detached playing
Round	Musicians play the same music, starting at different points

Melody Pitch and Patterns

Musical Context

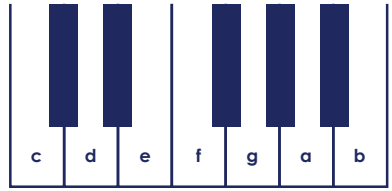


Musical Context

O Fortuna:

- The introduction to 'Carmina Burana' by the composer Carl Orff
- Secular – a piece that is not religious or part of worship
- Cantata – vocal piece with orchestra

Keyboard layout:

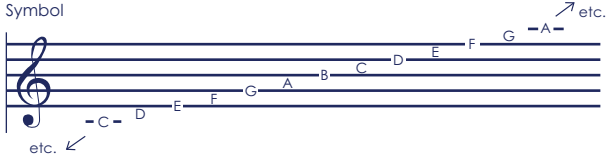


Vocabulary

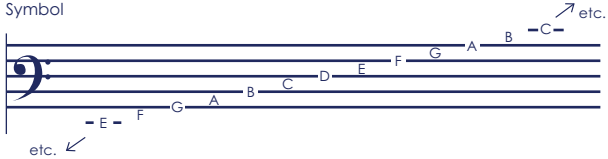
Accompaniment	Musical background
Scale	Pitches moving by step
Stepwise Movement	Moving to an adjacent note
Forte	Loud
Fortissimo	Very loud
Piano	Soft
Pianissimo	Very soft
Ostinato	Repeated rhythm or musical phrase
Third	Interval between notes, 3
Octave	Interval between notes, 8
Musical Score	Notation of combined instruments/voices
Pedal	Sustained note
Improvisation	Creating music in the moment

Theory

Treble Clef Symbol



Bass Clef Symbol



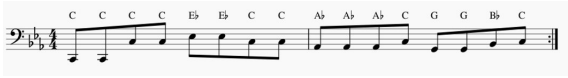
Terminology

Melody	Tune
Dynamics	The loudness of the music
Tempo	The speed of the music
Texture	The layers of sound
Structure	The order of the sections in a piece of music

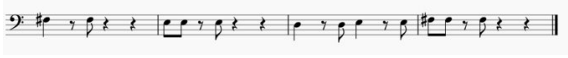
Hooks & Riffs

Musical Context

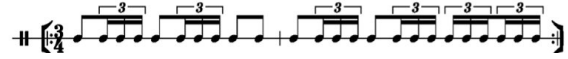
Bass Line Riff from Sweet Dreams – Eurythmics



Bass Line Riff from Word Up – Cameo



Ostinato from Bolero – Ravel



Ostinato from Habanera – Bizet

Terminology

Melody	Tune
Dynamics	The loudness of the music
Tempo	The speed of the music
Texture	The layers of sound
Structure	The order of the sections in a piece of music

Vocabulary

Hook	Short, 'catchy' line from a song
Melodic Hook	Hook played on instruments, or sung
Rhythmic Hook	Hook based on the rhyming or repeated words of the chorus
Riff	Repeated rhythmic musical phrase
Ostinato	Repeated rhythm or musical phrase
Bass Line	The lowest pitched part of the music

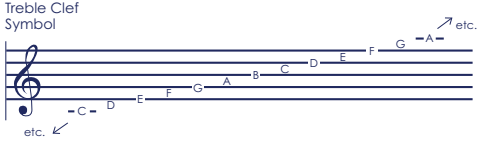
Theory

Repeat Sign

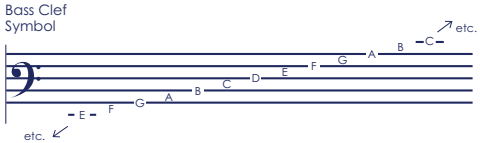
Flat

Sharp

Treble Clef Symbol

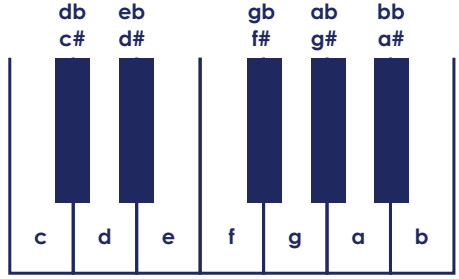


Bass Clef Symbol



Musical Context

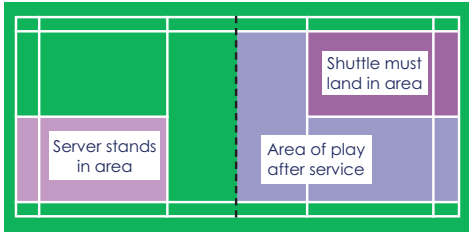
Keyboard layout:



Badminton

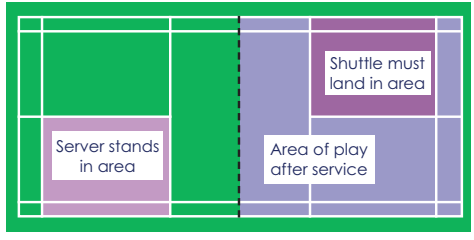
Singles Serving And Area Of Play

Singles

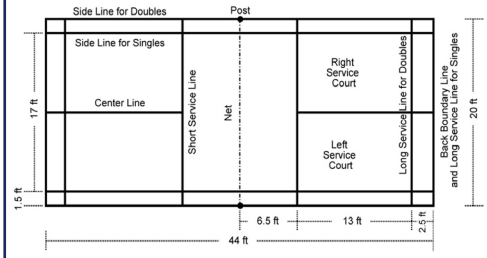


Doubles Serving and Area of Play

Doubles



Badminton Court Lines



Key Skills

	Key Skills	What is it?	Why is it used?
Serve	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.
	Long	Shuttle to be hit towards the back of the court.	To move the opponent to the back of the court.
Basic Shots	Clear	A high defensive shot.	Used to force your opponent to the rear court.
	Drop Shot	A softer shot that should land just over the net and land at the front of the court.	To bring your opponent close the net and to vary the pace of the rally.
	Smash	It is a powerful downward smash towards your opponent's feet.	It is the most powerful shot in badminton to win a point.
Grips	Forehand	Forehand grip is often known as the 'hand-shake' grip. Backhand 'thumb' grip, this is where your thumb is facing upwards on the grip of the racket.	Depending on whether it is a forehand or backhand shot, this will determine which grip you would use.
	Backhand		

Key Rules

Rule
• 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.

Football

Warm Up

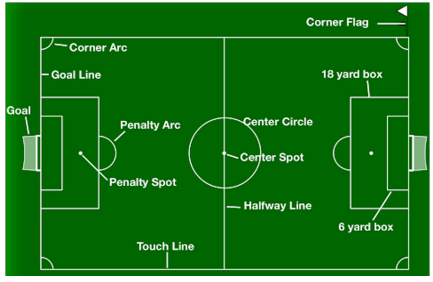
Phases of Warm up	What it is?	Specific Examples	Benefits of Warm up
Pulse Raiser	Slowly increasing HR	Jogging around the football pitch	• Warming up muscles. • Reduce chance of injury.
Stretching	Static – stationary Dynamic - moving stretches	Hamstring stretch or Lunges	

Key Skills

	What is it?	Why is it used?
Dribbling	Moving the ball into space quickly and efficiently, keeping close control of the ball.	An attacking skill to cover as much space as possible towards your attacking goal.
Passing	Using the inside of your foot to move the ball to a teammate who is in space. A long or short pass can be used.	To retain the ball and to create attacking opportunities for your team.
Defending	A role within the team all players must fulfil. Keeping a low body position to put pressure on the opposition.	To prevent opposition from scoring the defender must decide whether to press the attacker with the ball or block the pass to intercept.
Shooting	Using accuracy and power to create opportunities to score in front of the goal.	To create a scoring opportunity for your team.

Diagram Identifying The Key Lines On A Football Pitch.

- Goal/Goal line
- 6-yard box/18-yard box
- Halfway Line/Centre spot/ Centre Circle.
- Penalty spot/Arc
- Corner flag/Corner Arc
- Touch Line



Rules

How long is a football match?	- 45-minute halves. - 90 minutes overall.
When and where is a Penalty given?	- A penalty is given for a foul INSIDE the 18-yard box. The penalty is taken from the penalty spot.
Can you use your hands?	- 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.
How many players on a football team?	- Each team can have a maximum of 11 players on the pitch with 3 substitutions.

Positions

Goalkeeper	Can use any part of the body to save shots at goal. E.g. Gianluigi Buffon – Juventus & Italy.
Defender	An outfield player whose primary role is to stop attacked and prevent the opposing team from scoring. E.g. Lucy Bronze – Olympique & England.
Midfielder	Outfield player. The link between the defence and attack and must demonstrate attacking and defending skills in a game. E.g. David Silva – Manchester City & Spain.
Striker	Main purpose is to create scoring opportunities for themselves and teammates. E.g. Alex Morgan – Orlando Pride & USA.

Football

Key Skills			
	Teaching Points	**What Does It Look Like?**	**Why Is It Used?**
Dribbling	Keep your head up. Use inside and outside of BOTH feet. Make gentle, close contact with the ball.		An attacking skill to cover as much space as possible towards your attacking goal.
Passing	Eyes on the ball. Place dominant foot at a right angle in line with the ball. Non-dominant foot next to the ball. Use inside of the foot to pass the ball.		To retain the ball and to create attacking opportunities for your team.
Defending	Low body position, bent knees. Side on. Keep eye on the ball.		To prevent opposition from scoring the defender must decide whether to press the attacker with the ball or block the pass to intercept.
Shooting	Power and accuracy. Non-dominant foot next to the ball. Strike the ball with your dominant foot using the inside or laces of your boot.		To create a scoring opportunity for your team.

Gymnastics

Key Skills

	What is it?	Why is it used?
Roll	Travelling across the mat using rotation and different parts of the body. Rolls allow you to travel forwards, backwards and sideways.	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.
Cartwheel	A rotation skill that travels from one point to another. Feet-hands-feet. 	• To travel from one area of the floor to another. • To link more than one skill together in a sequence or tumble.
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

	What is it?
Extension	Straightening/extending the arms and legs to show clarity of shape. E.g. 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 or routine looks to the audience.
Fluency	Moving from one skill to another easily and smoothly.
Body Tension	Tensing & stretching the muscles in order to keep the body in line & held in a shape during a skill.
Shape	The position the body holds during a skill.
Explore	Try out different ways of performing basic skills E.g. rolls – forwards, backwards, sideways; creating different shapes in the air, during a skill.
Take Off	The preparation for a jump. Two feet together, swing arms behind and upwards to push the feet off the floor.
Landing	The placement of the feet on the floor/apparatus at the end of a jump/flight. Bend the knees on contact with the floor/apparatus, arms out in front of the body to control the landing.
Travel	The movement from one area to another, using gymnastics skills. E.g. a leap, a roll.
Sequence/ Tumble	A series of gymnastics skills linked together without stopping. A tumble is travel in a straight line. A sequence is skills performed in different directions around the floor area.

Handball

Roles

Teams	Teams are made up of 7 players on the court at any one time.
Aim Of The Game	To score more goals than your opposition and defending your goal.
Offensive Team	To create space against the defence to give yourself the best scoring opportunity.
Defensive Team	To keep a defensive solid line to make it difficult for the attacking team.
Length Of Game	Two 30 minute halves.
Court Dimensions	40m x 20m court. 6m line GK, 9m line for free throw.

Passing Technique

Key Skills

	Key Skills	What is it?	Why is it used?
Passing	Side	Quickly pass sideways without changing direction of body.	Get the ball to your team without getting the ball intercepted.
	Bounce	Short pass to go under a defender.	
	Shoulder	Quick powerful pass – high elbow.	
Receiving The Ball	Frontal	Catching the ball from the front.	To receive all passes to you so avoid dropping the ball for the other team to collect.
	Sideways	Catching from the side.	
	Backwards	Catch the ball when it is behind you.	
Shoot		Get the ball into the goal to score.	Include a jump shot to jump into the circle.
Defend	Standing together	Hands up to create a barrier.	To stop shots and turnover the ball.
	Contact	Always tackle from the front, no tackling from the side at any point.	
	Direction	Force opposition into wide position for bad shooting angle.	
Attack	Dodging	Moving from side to side to confuse the opponent.	Creating a space to run into.

Key Rules

Remember the 3 C's: 3 Seconds (to pass/shoot) 3 Metres 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.
Travel	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.
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.

Health Related Fitness

Heart Rate

Heart rate	The number of times the heart beats per minute.
How to measure heart rate	Wrist Neck
Resting heart rate	The number of beats per minute at rest.
Working heart rate	The number of beats per minute whilst working.

Warm-up Phase

Phase 1	Pulse Raiser	An activity that raises the heart rate, increasing blood flow through active muscles, and raises body temperature.
Phase 2	Dynamic Stretches	Stretching whilst moving.
Phase 3	Static Stretches	Stretching still.
Phase 3	Sport Specific	Performing some sport specific skills, e.g. passing.

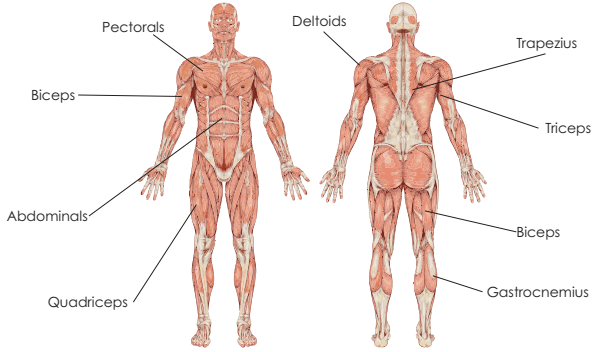
Cool Down

Phase 1	Slow Cardio	Slow movements to return the body to its rest state.
Phase 2	Static Stretches	Stretching holding the muscle in a still position.

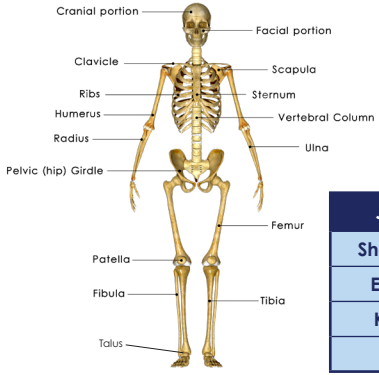
Effects Of Exercise On The Body

Short term effects	Long term effects
Increased body temperature	Increased muscle mass
Increased heart rate	Decreased fat mass
Increased breathing rate	Lower resting heart rate
Sweating/red face	Hypertrophy of the heart

Muscles, Bones And Joints Of The Body



Key Terms	
Hypertrophy	Increase in the number and size of muscle cells.
Muscles	Create movement within the body by exerting force.
Bone function	Support movement and protect vital movement.



Joint	Bones
Shoulder	Humerus, Scapula
Elbow	Humerus, Radius and Ulna
Knee	Femur , Tibia
Hip	Femur, Pelvis

Netball

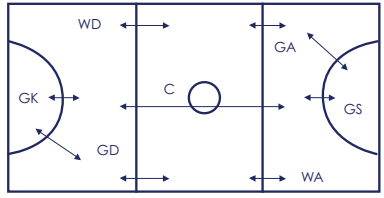
Roles

Positions	Roles
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 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.	
Ball Handling	Stationary	Catching the ball when still.	To receive a pass from your team to move up court.
	On the move	Catching the ball on move.	Running pass – increase speed of play and attacking your end.
Shooting	Stationary	The acronym used when learning to shoot is: **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.

Court Layout



Key Rules

Rule	Definition	Sanction
Free Pass	When a rule is broken that does not directly affect another player. This is when a penalty pass is awarded. **No players are out of play.**	
Penalty Pass	When a rule is broken that directly affects another player. The player who committed the foul must stand next to the player taking the penalty and remain out of play until the penalty has been taken.	
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	3 seconds to pass a ball.	Free Pass
Offside	When a player moves into an area of the court that they are allowed in.	Free Pass
Obstruction	A player must always be at least 3 feet away from an opponent with the ball when defending.	Penalty Pass
Centre Passes	Before the whistle, all players must start in the goal thirds except the two Centres.	Players not in correct position will get called for offside.
Receiving Centre Pass	When the whistle is blown the Centre pass must be caught or touched by a player standing in or landing wholly within the Centre third.	If not set the ball gets turned over.

Rounders

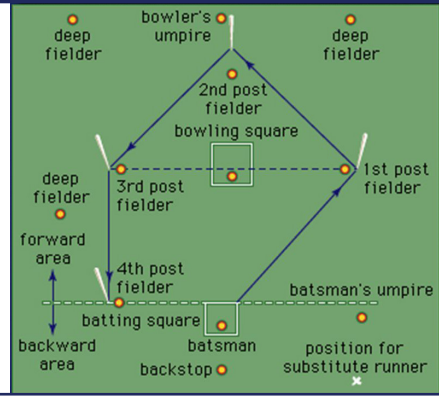
Roles

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 2nd base

Key Skills

	Key Skills	What is it?	Why is it used?
Fielding	Overarm Throw	Fast and powerful throw over a distance.	To get the ball into posts from deep field.
	Underarm Throw	Short but quick throw.	Use for bowling or short passes.
	Catching	Retrieving the ball from the air.	To catch the batter out.
	Long barriers	Way to stop the ball which is going across the ground.	To stop the ball going any further out field.
Batting	Making contact	To hit the ball consistently.	To potentially score ½ rounder by getting to 2nd base or full rounder making it all the way round the pitch.
Bowling	Underarm	To get the bowl to the batters.	An underarm bowl must be bowled between the knee and head of the batter.

Pitch Layout



Key Rules

Rule	Definition
The Bat	- The batter must keep hold of the bat when running around the posts - MUST touch 4th base when running past
Scoring	A team can only score when in bat - ½ rounder if hitting the ball and making it to 2nd base - ½ rounder of 2 no balls from bowler - 1 rounder if you hit the ball and make it round to 4th base
Bowling And No-Balls	The bowler must bowl a ball towards the batter so that: - It is bowled with a smooth underarm action - The ball arrives without bouncing and within the batters' square - The ball is above the batter's knee, below the batter's head, and not at the batter's body - The bowler's feet are inside the bowler's square when the ball is bowled
The Batter Is Out If:	- The batter hits the ball and it is caught - The post being run to is 'stumped' - a fielder touches it with the ball - The batter runs inside a post - The batter overtakes a fellow batter when running around the posts

Rugby

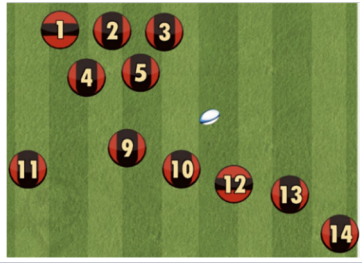
Roles

Positions	Roles	Numbers
Prop	In the front row of the scrum, aim to drive the scrum forward.	1 + 3 Forwards
Hooker	In the middle of the front row. The hooker's job is to hook the ball back towards his team in the scrum.	2 Forwards
Second Row	The second rowers are locked in behind and in between the prop and hooker. Their job is to push the front row forward.	4 + 5 Forwards
Scrum Half	The scrum half is the key passer of the team. They will pass the ball to the fly half from most rucks.	9 Backs
Centres	Centres are in commonly found in the middle of the pitch and must be able to perform all the main skills.	12 + 13 Backs
Fly Half	The fly half's job is to distribute the ball and bring other players into the game.	10 Backs
Winger	Wingers are usually on the outsides of the pitches and their job is to run and score tries.	11 + 14 Backs

Key Rules

Definition	What it is
Forward pass	In rugby, a pass must go backwards or laterally. If the pass goes forward a scrum will be awarded to the opposition.
Ruck	Players must enter the ruck through the gate and not from the side. Players must stay on their feet and not use their hands in the ruck.
Tackle	The tackler must tackle below the neck and wrap their arms around the ball carrier. They must not lift the ball carrier pass horizontal. If these laws are broken, it will result in a penalty to the opposing team.
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.
Knock On	If a player drops the ball and it goes forward, a scrum will be awarded to the opposition.

Picture



Key Skills

	Key Skills	What is it?	Why is it used?
Passing	Pop	A short pass between players.	The pass is used to move the ball from player to player.
Passing	Spin	A longer pass between players.	
Decision Making	Run forward	The ball carrier must run forward with intent.	To give the attack momentum.
Decision Making	2 vs 1 Creating a mismatch	Supporting the ball carrier in order to isolate defenders.	Expose gaps in defence and create a mismatch in the defensive line.
Ball Handling	Catching stationary	Catching the ball when still.	To receive a pass.
Ball Handling	On the move	Catching the ball on move.	Running pass – increase speed of play and attacking.
Defend	Tackling	Taking the ball carrier to the ground.	To stop the ball carrier making ground.
Defend	Line	A defensive line needs to be a flat horizontal line.	To ensure there are minimal gaps between defenders.
Attack	Line	The line should be a steep diagonal line, either side of the ball carrier.	To ensure the ball can be passed effectively.

Tennis

Key Rules

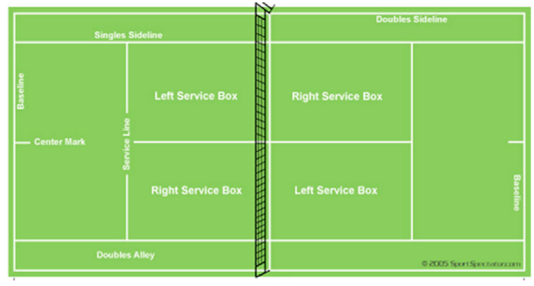
Rule	Definition
Single Strike	A player can only hit the ball once on their side of the court, a double strike means the point is won by the opponent.
Single Bounce	If the ball bounces more than once on your side of the court your opponent wins the point.
Serve	A shot that starts a point. Hit from behind the baseline diagonally into the opposite service box.
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 hits 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 hits the net but lands in the service box, this is known as a let and the server must re-serve the ball. This does not count as a service fault.

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.
	Ground stroke	A ball hit after one bounce.	To return the ball back to your opponent.
	Rally	The act of hitting the ball back and forth over the net.	To move your opponent around the court.
	Forehand	A groundstroke hit on the player's dominant side, usually with a one-handed grip.	To generate power and accuracy to win the point.
	Backhand	A groundstroke hit on a player's non-dominant side; can be hit with a one- or two-handed grip.	Allows a player to hit the ball on both sides of their body saving time.
Decision making	• Where to place the ball • Deciding what shot to play and at what time • Deciding where to stand when returning serve		

Key Terms

Baseline	The furthest line from the net that marks the boundary on the length of the court. Also, where the server stands to serve.
Net	Standing three feet high, divides the court into two halves. The ball must be hit over the net on each shot.
Point	Anytime the ball does not go over the net and land in the opponent's court, a point is scored. Four points are needed to win a game. The points system is 15, 30, 40, game (see picture).
Game	A unit of scoring. The first player to win four points wins the game. Six games are needed to win a set.
Set	A unit of scoring. The first player to win six games wins a set. The first player to win three sets in a best-of-five set match (or two sets in a best-of-three set match) wins the match.
Service box	The area in which a serve must land for play to continue.



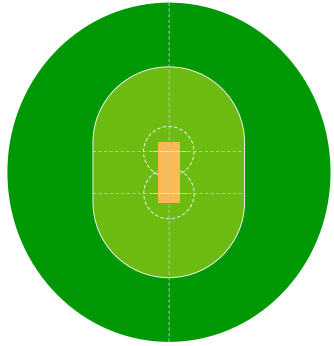
Number of points won	Corresponding Call
0	"LOVE"
1	"15"
2	"30"
3	"40"
4	"Game"

Cricket

Roles

Teams	Cricket is played between 2 teams made up of 11 players each.
Aim Of Game	Games comprise 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.
Bowling	Bowl the ball in attempt to hit the stumps.

Cricket Pitch



Catching

Key Skills

	Key Skills	What Is It?	Why Is It Used?
Fielding	Long barrier	Way to stop the ball which is going across the ground.	To stop the ball going any further out field.
	Catching	Retrieving the ball from the air.	To get a batter out after they have hit it. A fielder throwing the ball into a wicket to catch and stump.
	Overarm Throw	Fast and powerful throw over a distance.	To get the ball into wickets from mid to deep field (more powerful).
	Underarm Throw	Short but quick throw.	To aim to throw the ball at the stumps from a short distance (more accuracy).
Batting	Drive	Attacking shot along the floor.	To score runs and reduce the risk of being caught out.
Bowling	Basic	When the ball is bowled, hits the stumps and the bails dislodge.	To get the batsman out, reducing the number of runs scored.

Key Rules

Rule	Definition
Caught	When the ball is hit by the batter and a fielder catches the ball before it hits the ground.
Stumped	When the wicket keeper collects the ball and knocks off the bails before the batter gets their bat or any part of their body grounded behind the batting crease.
Hit Wicket	The batter dislodges their bails whilst playing a shot or avoiding a delivery. It can be with either the bat or the body.
Leg Before Wicket (LBW)	The ball hits the batsmen's leg/s when bowled that would have gone on to hit the wickets. However, there are several exceptions!
Run Out	When the batsman is going for a run or runs, but fall short of the batting crease when the stumps are broken by the fielding team.
Bowled	When the batsman misses the ball and the ball hits the stumps.

Notes

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