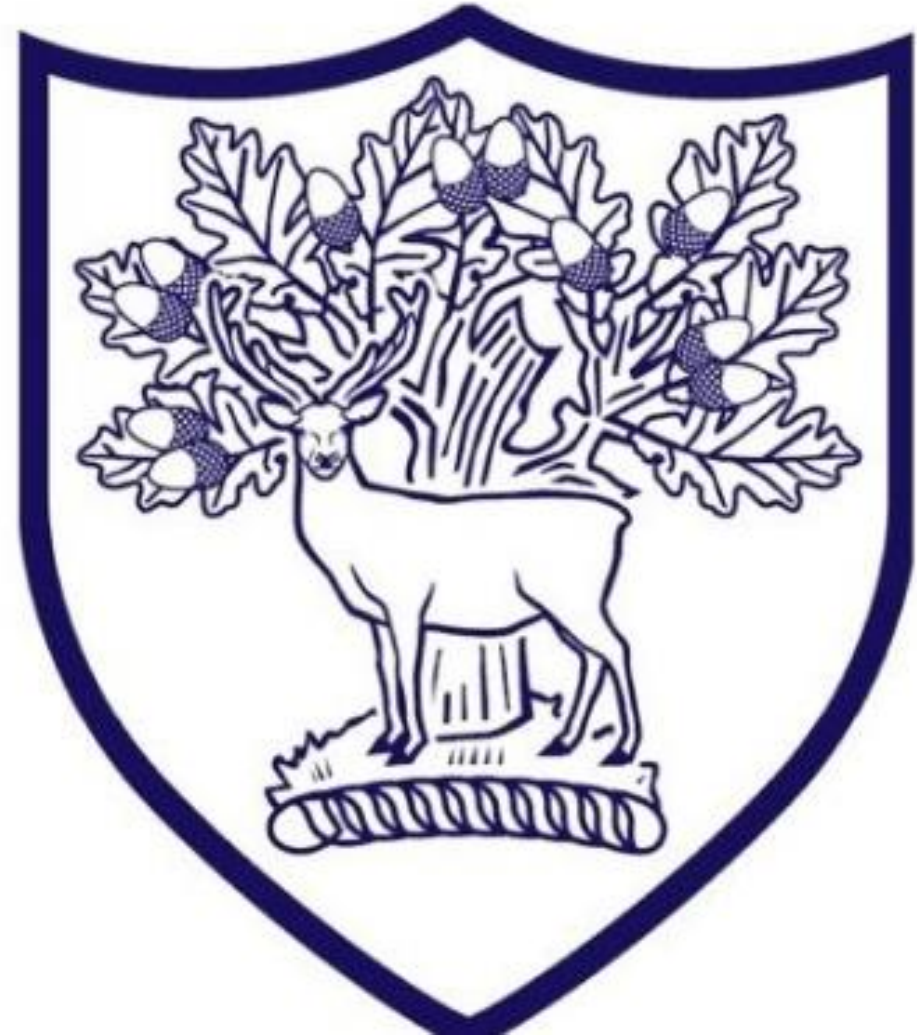


Knowledge Organiser

Year 8



Contents Page

1. Art
2. Computer Science
3. D&T
4. Dance
5. Drama
6. English
7. French
8. Geography
9. History
10. Maths
11. Music
12. Science
13. Spanish
14. Textiles

MECHANICAL OBJECTS | YEAR 8 | ART | TERM 1

PARTS OF LIGHT

1	Highlight	The brightest part of the object
2	Mid-tone/half-tone	The tones between shadows and highlights
3	Core shadow	The darkest part of the shadow often on the boundary between half-tones an the shadow area
4	Reflected light	Light that is reflected of other objects into the shadow areas
5	Cast shadow	Is the dark area behind the object on the opposite side of the light source

COLOUR THEORY AND COLOUR MIXING

1	Colour Wheel	a diagram used in the visual arts to represent all colours and their relationships to one another. It can be used to help with colour selection when creating artwork
2	Complementary Colours	Colours on the opposite side of the colour wheel. This combination creates the greatest contrast
3	Analogous Colours	Colours close to each other on the colour wheel. These combinations create harmony in artwork.
4	Primary Colours	Colours that cannot be made by mixing other colours but can be used to mix all other colours of the spectrum. YELLOW, RED, BLUE
5	Process Primaries	YELLOW, MAGENTA, CYAN
5	Secondary Colours	Colours made by mixing two primary colours together
7	Orange Green Purple	Yellow + Red/Magenta Yellow and Blue/Cyan Red/Magenta + Blue/Cyan
8	Tertiary Colours	Colours made by mixing a primary colour with its close secondary colour, such as yellow-green.
9	Tints and Shades	Lighter or darker version of a colour by adding white to lighten or adding black to darken.
10	Mixing Brown	Red and Green or orange with a little bit of blue

KEYWORDS

1	Proportion	The size of one thing compared to the size of another
2	Centre Line	A line of symmetry can help you draw objects that are the same on both sides, such as a face.
3	Line drawing	Drawing made with lines only
4	Shading	Adding different tones to create 3D effect
5	Composition	The arrangement of different parts of an art piece
6	Pattern	A symbol or shape that is repeated
7	Line	A mark which can be used to make a drawing
8	Shape	A 2D area that is enclosed by a line
9	Tone	The lightness or darkness of something
10	Distortion	The act of twisting or altering something out of its true, natural, or original state.

PROCESSES

1	Mono-print	An artwork created by transfer of media from one surface to another resulting in a single unique print.
2	Printing	Artwork created by the transfer of media from a matrix or printing block to another surface.
2	Collage	The technique and the resulting work of art in which pieces of paper, photographs, fabric and other ephemera are arranged and stuck down onto a supporting surface.
3	Drawing	The act of making picture with a pencil or pen and other dry media
4	Sculpture	3D artwork designed to be viewed from several angles. Sculpture can be made out of variety
5	Digital Art	Art created using software on a computer or other devices

MECHANICAL OBJECTS | YEAR 8 | ART | TERM 2

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MECHANICAL OBJECTS | YEAR 8 | ART | TERM 3

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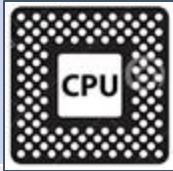
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Year 8 | Computer Science | Term 1: Computer Systems

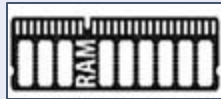
Hardware Components

CPU



Processes **data and instructions** in binary. Fetches them one by one from RAM and **controls other components**

RAM



Stores **data and instructions** needed to run any programs **currently open**. Volatile: Wiped when power is off

Storage



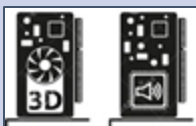
Long-term storage of programs and files. Non-volatile: Data is safe when power is off

Motherboard



Connects components together, allowing **power and data** to flow where needed

Expansion Cards



Additional cards that **process graphics or sound** better than CPU can do by itself

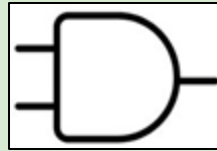
Binary Logic Gates

Binary

The language of 0s and 1s used by computers to make logical calculations.

0 = transistor off, 1 = transistor is on

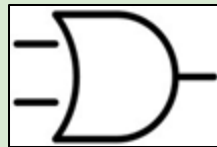
AND



Has two inputs, one output.

Both inputs must be 1 for the output to be 1. Output will be 0 in all other cases

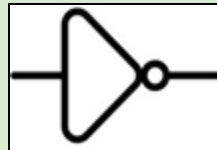
OR



Has two inputs, one output.

Either input must be 1 for the output to be 1. Output will be 0 in all other cases

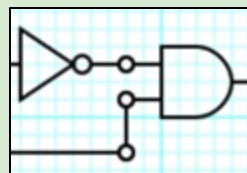
NOT



Has one input, one output.

Flips inputs so a 0 going in will output 1, 1 going in will output 0

Logic Circuits



Connecting several logic gates together to perform more complicated tasks or calculations

Input, Process, Output

All computers receive data through an **input**, perform some sort of **process** on that data and then **output** the result

Input Devices

Mouse, keyboard, microphone, touchscreen, joystick, scanner

Output Devices

Monitor, printer, speaker, headphones, projector

Operating Systems

- Software that connects all other apps to the hardware
- Manages resources like memory and access to the CPU
- Provides a graphical user interface (GUI) that allows the user to interact with apps and hardware

AI and Machine Learning

AI

When a computer system performs tasks that would need intelligence if a human did it

Machine Learning

When AI is given training data to learn from and makes its own rules based on patterns/similarities it finds

Ethics

Problems sometimes occur where machine learning systems do what we might see as morally wrong

Programming Constructs
<p style="text-align: center;"><u>Sequence</u></p> <p>Start program Complete action 1 Complete action 2 End program</p>
<p style="text-align: center;"><u>Selection</u></p> <p>Start program IF condition is TRUE: Complete action 1 ELSE: Complete action 2 End program</p>
<p style="text-align: center;"><u>Iteration</u></p> <p style="text-align: center;"><u>For loop</u></p> <p>Start program FOR x number of times: Complete action 1 Complete action 2 End program</p> <p style="text-align: center;"><u>While loop</u></p> <p>Start program WHILE condition is TRUE: Complete action 1 Complete action 2 End program</p>

Data Types	
String - str()	“A sequence of characters inside quotation marks usually words or sentences.”
Character – char()	Single character inside quotation marks: “A”
Integer – int()	Whole numbers: 7
Float – float()	Decimal numbers: 7.5
Boolean – bool()	Can only be: TRUE or FALSE

Logical Operators	
Less than	5 < 10
More than	10 > 5
Equal to	5 == (2+3)
Less than OR equal to	5 <= 10
NOT equal to	5 != 10

Arithmetic Operators			
Add	+	Subtract	-
Multiply	*	Exponent	*
Divide	/	Floor div	//
Remainder of a division			%

Errors
<p style="text-align: center;">Syntax error</p> <p>A typo such as a spelling mistake with a key word, capital letter, bracket, colon, comma or quotation mark in the wrong place.</p>
<p style="text-align: center;">Logic error</p> <p>Something that confuses the program, such as trying to add a string to and integer or divide by 0.</p>

Variables
<p>Variables are used to store some data that we can use later in our code. Remember to:</p> <ul style="list-style-type: none"> • Use a descriptive name. • No spaces in the name. • Use one equals sign to store something in it. • Call it by name to reuse it <pre>age = 50 name = "Bob" print(name, " is ", age, " years old")</pre>

Inputs and Outputs
<p>We show information <u>to</u> the user with the keyword print.</p> <pre>print("This is a message ") print(5 + 5)</pre> <p>We get information <u>from</u> the user with the keyword input. Here the user is asked to enter their name, whatever they type in as an input is stored in the variable myName.</p> <pre>myName = input("What is your name?")</pre>

Binary

Computers have switches on the motherboard called **transistors**. On = 1 and off = 0

Converting denary number 165 into binary:

Create a conversion table

128	64	32	16	8	4	2	1

Start on the right of the table. If the number is smaller than the one you are converting, put a 1 in the box and subtract it.

128	64	32	16	8	4	2	1
1							

165 - 128 = 37 so continue moving along the line with 37 and repeat the process.

128	64	32	16	8	4	2	1
1	0	1	0	0	1	0	1

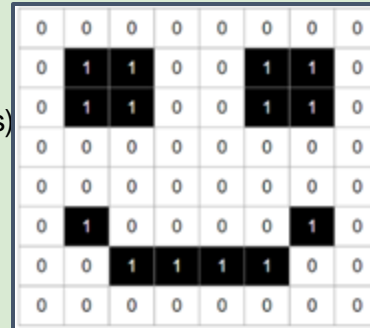
Images

Images are split into individual coloured blocks called **pixels**. The total number of pixels is known as the **resolution**. It is calculated by **height X width**

Each pixel contains a binary number that is linked to a colour.

To include more colours, the image needs more bits of data (more 0s and 1s) in each pixel.

Example with 2 bits:
 00 = White
 01 = Black
 10 = Pink
 11 = Blue



The number of bits (0s and 1s) in each pixel is known as the **colour depth**.

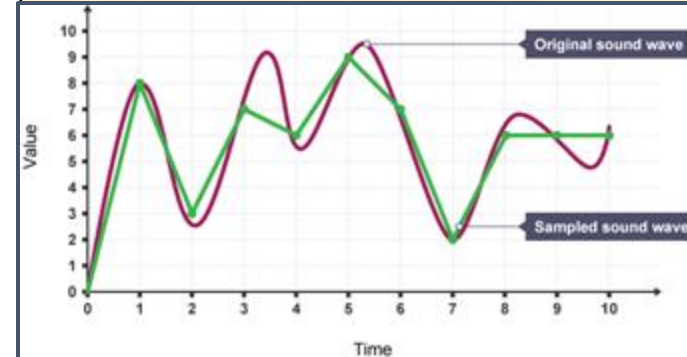
RGB

RGB uses a number between 0 and 255 for the amount of red, green and blue in a pixel. By adjusting these three values, computers can show 16+ million different colours and shades

Sound

Microphones detect soundwaves (changes in air pressure) and use **analogue to digital converters** to turn it into a binary sequence.

The **amplitude** of the sound wave is measured at set intervals. How often it is measured is known as **sample rate**. The higher the sample rate, the closer the digital sound will be to the original sound.









Once the wave is measured, the samples can then be converted to binary. They will be recorded to the nearest whole number.

The range of numbers available to plot the sample against is known as the **bit depth**. Again, a higher bit depth means that the digital version will be a closer match to the original.

Character Sets

Character sets are globally agreed lists that give each character on a keyboard a binary sequence. This means that a message typed on a phone in the UK can be read by a laptop in another country. Capital letters, lowercase letters, numbers and special characters like @ each have their own section and run in sequence (A is 65, B is 66...)

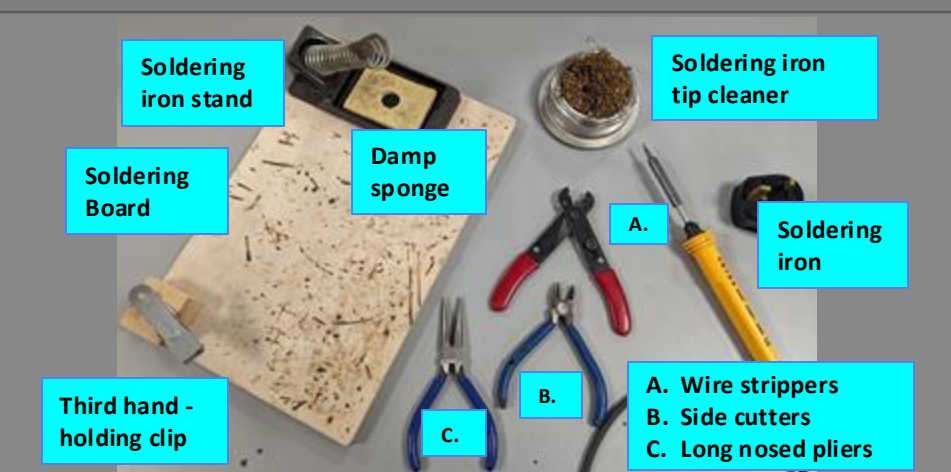
ASCII was the first character set but didn't have enough bits available for all languages/symbols so **Unicode** was developed

Design Movement	Time period and Key designers of the Design Movement	Key Principles of the style/feel of design during the Design Movement	Examples of patterns, products and architectural features from the Design Movement
Arts & Craft Design Movement	1880 to 1910 William Morris John Ruskin	<ul style="list-style-type: none"> • Simplicity • Rebellion against mass production • Use of craft techniques • Put 'man' back into the design & manufacturing process 	
Art Nouveau Design Movement	1890 - 1910 Louis Tiffany Charles Rennie Macintosh Alphonso Mucha	<ul style="list-style-type: none"> • Curved lines • Sinuous • Natural Forms • Making use of nature to inspire the look and feels as opposed to Greek and Roman styles 	
Art Deco Design Movement	1920s - 1930s William Van Allen Rene Lalique Tamara de Lempicka	<ul style="list-style-type: none"> • Luxury style • Focused on use of geometric shapes and bold colours • Influenced by Egyptian artefacts • Chrysler Building, Empire State Building 	
Bauhaus/ Modernist Design Movement	1917 - 1933 Modernism up to the 1970s Walter Gropius Harry Beck Ludwig Mies Van Rohe	<ul style="list-style-type: none"> • Rejecting the decoration of the past • Form follows function • Using steel and industrial methods of production • Modernity – glass and chrome • Simplicity • Less is More • Functional 	
Streamline Design Movement	1928 - 1955 Raymond Lowey Eames and Saarinen	<ul style="list-style-type: none"> • Streamlining products to make them appear more modern and slick • Very inspired by cars and aircrafts at the time • Streamline caravans are items we still see 	
Post Modernist Design Movement	1970 - 1990 Ron Arad Phillipe Starke Ettore Sotsass Andy Warhol	<ul style="list-style-type: none"> • Form does not follow function. Less is a bore • Liked to design with unnecessary ornamentation/decoration • Use of plastics • Geometric shapes, repeat patterns, and bright colours • Shattering the establishment with gestures that were confrontational, funny, sometimes absurd 	

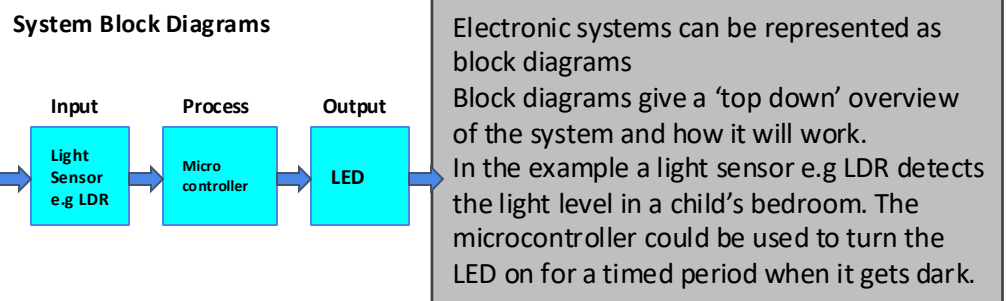
Health & Safety Precautions for soldering

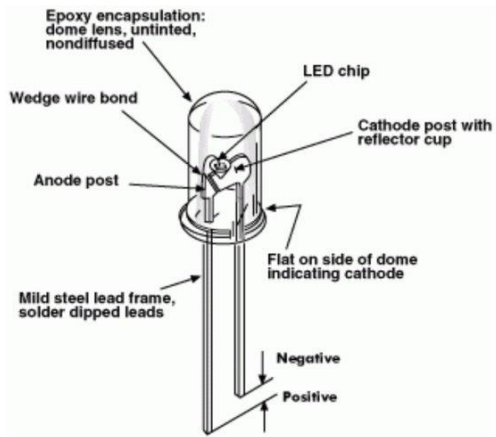
<p>To avoid burns from soldering iron</p>	<ul style="list-style-type: none"> • Only hold by handle of soldering iron • If a burn occurs, straight under cold running water for 5-10 minutes. Another student to notify teacher. • Soldering iron in spring when not in use (but spring made of metal, so this will also get hot!!! Do not touch!) • Never leave soldering iron laying on board • If soldering iron is dropped, let it fall • When putting soldering irons away give people space to allow them to return safely to holder • If H&S instructions ignored, no warning, straight to RFL
<p>Other H&S precautions</p>	<ul style="list-style-type: none"> • Always wear goggles when soldering and long hair tied back • Only use small amounts of solder, this will create a better solder joint but also limit the vapour coming off when soldering and reduce risk of spitting • Always hold circuit board in clip on soldering board • Focus on task being completed, do not become distracted • Ensure room is well ventilated by opening doors and windows

Soldering Equipment



Component Name	Circuit Symbol	Input, Process or Output?	What does it do?
Push to make switch		Input	Allows current to flow through it when pressed
Tilt Switch		Input	Allows current to flow through it when tilted
Light Dependent Resistor/ LDR		Input	Has a resistance that changes depending on the light level
Infrared Sensor		Input	Detects infrared light coming from objects within its range
Light Emitting Diode/LED		Output	Produces light when current flows from the anode to the cathode
Buzzer		Output	Produces a buzzing sound when current flows through it
Speaker		Output	Turns electronic signals into sounds
Motor		Output	Produces rotary motion when current flows through it

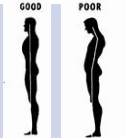




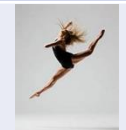







Disadvantages	
High price	LEDs are currently more expensive, price per lumen, on an initial capital cost basis, than most conventional lighting technologies.
Blue pollution	Because cool-white LEDs (i.e. LEDs with high colour temperature) emit much more blue light than conventional outdoor light sources such as high-pressure sodium lamps, the strong wavelength dependence of Rayleigh scattering means that cool-white LEDs can cause more light pollution than other light sources.
Area light source	LEDs do not approximate a “point source” of light, but rather a lambertian distribution. So LEDs are difficult to use in applications requiring a spherical light field.

Using LEDs	
Advantage	
Efficiency	LEDs produce more light per watt than incandescent bulbs; this is useful in battery powered or energy-saving devices.
Colour	LEDs can emit light of an intended colour without the use of colour filters that traditional lighting methods require. This is more efficient and can lower initial costs.
Size	LEDs can be very small (smaller than 2 mm) and are easily populated onto printed circuit boards.
On/off time	LEDs light up very quickly. A typical red indicator LED will achieve full brightness in microseconds. LEDs used in communications devices can have even faster response times.
Cycling	LEDs are ideal for use in applications that are subject to frequent on-off cycling, unlike fluorescent lamps that burn out quickly when cycled frequently, or HID lamps that require a long pause before restarting.
Dimming	LEDs can very easily be dimmed either by pulse-width modulation or lowering the forward current.
Cool light	In contrast to most light sources, LEDs radiate very little heat in the form of IR that can cause damage to sensitive objects or fabrics. Wasted energy is dispersed as heat through the base of the LED.
Slow failure	LEDs mostly fail by dimming over time, rather than the abrupt burn-out of incandescent bulbs.
Lifetime	LEDs can have a relatively long useful life. One report estimates 35,000 to 50,000 hours of useful life, though time to complete failure may be longer. Fluorescent tubes typically are rated at about 10,000 to 15,000 hours, depending partly on the conditions of use, and incandescent light bulbs at 1,000–2,000 hours.
Shock resistance	LEDs, being solid state components, are difficult to damage with external shock, unlike fluorescent and incandescent bulbs which are fragile.
Toxicity	LEDs do not contain mercury, unlike fluorescent lamps



Physical Skills

1		Posture The way the body is held.
2		Alignment Correct placement of body parts in relation to each other.
3		Balance A steady or held position achieved by an even distribution of weight.
4		Coordination Efficient combination of body parts.
5		Control The ability to start & stop movement, change direction & hold a shape efficiently.
6		Flexibility The range of movement in the joints.
7		Strength Muscular power.
8		Stamina Ability to maintain physical and mental energy over periods of time.
9		Extension Lengthening one or more muscles or limbs.

High Quality Performance Expressive Skills

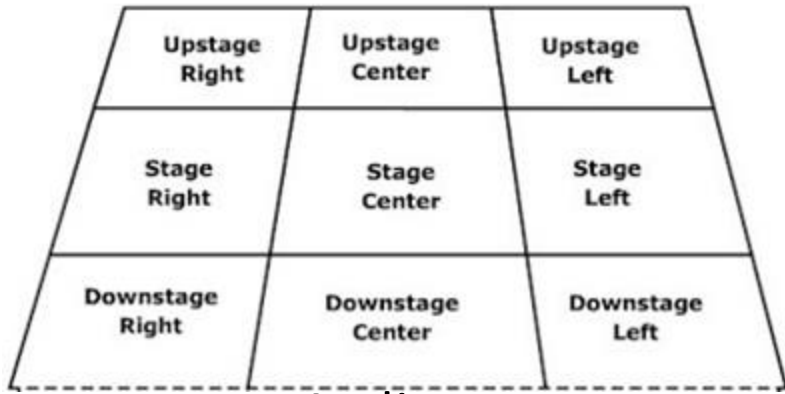
1	Focus	The use of the eyes to enhance performance.
2	Projection	The energy the dancer uses to connect with & draw in the audience.
3	Musicality	The ability to match the movement to the unique qualities in the accompaniment.
4	Facial Expression	The use of the face to show mood, meaning or character.
5	Spatial Awareness	The awareness of the space and ability to use it effectively.
6	Communication of the choreographic intent	The aim of the dance. What the choreographer wants to communicate.
Mental Skills		
7	Rehearsal discipline	Showing concentration when taking dance class. Listening to the teacher, responding well to corrections and working hard to achieve your best.
8	Confidence	Bringing energy to the performance & being bold whilst looking up and out to the audience, without shyness or hesitation.
9	Commitment	Fully committing to the performance, being professional, fully involved and not holding back.
10	Movement Memory & concentration	Remaining mentally focused throughout the performance so you do not forget the movement, timing or challenging moments of choreography.

Choreography DANCE ACTIONS

1	TRAVEL	When a dancer moves through the space on a pathway.
2	TURN	When a dancer rotates their body around in space.
3	ELEVATION	The act of rising up, as in a jump.
4	GESTURE	A movement of a body part in the air.
5	FLOOR WORK	Shapes & movements which take place on the floor.
DYNAMICS		Qualities of speed, strength & flow added to movement to give expression & meaning.
1	SPEED	Fast and slow Sudden and sustained Acceleration and deceleration
2	STRENGTH	Strong and light
3	FLOW	Abrupt and flowing
		

Vocal Skills		Scripts (Blood Brothers)		Physical Skills	
Pitch	The particular level (high or low) of a voice, instrument or tune.	Script	A script is the written content for a visual story such as a play, television show or movie.	Facial Expression	Look on face which shows emotions.
Pace	The speed at which someone or something moves, or with which something happens or changes.	Playwright	Someone who writes plays.		
Pause	A break in speaking, period of silence.	Blood Brothers details	Playwright: Willie Russell. Written:1981. Set 1960s-70s	Body Language	A range of nonverbal signals that you can use to communicate your feelings and intentions.
Tone	This suggests your mood and your intention towards the listener, eg happy or sad.	Blood Brothers main characters	Mickey, Edward, Linda, Mrs Johnson, Mrs Lyons		
Volume	Loudness or quietness of the voice.	Plot summary	Blood Brothers, a musical by Liverpoolian playwright Willy Russell, revolves around twin boys (Mickey and Edward) who are separated at birth and brought up in completely different environments in the city.	Gesture	A sign that communicates a character's action, state of mind and relationship with other characters to an audience.
Emphasis	Where a performer will stress a particular word or phrase within a sentence to indicate importance.	Mime			
Accent	A way of speaking in a local area or country.	Mime	Showing a character, scene or scenario entirely by gesture and bodily movement and without the use of props. Making the invisible visible.	Posture	Physical alignment of a performer's body, or a physical stance taken by a performer which conveys information about the character being played.
Clarity of diction	Clearness of the voice.	Exaggeration	To make something seem larger, more important, better, or worse than it really is		
		Precision	the quality, condition, or fact of being exact and accurate.	Levels	They show action in a different place/time and can reflect relationships.
		Tension	condition where one or more muscles remains semi-contracted for a prolonged period.		
				Gait	A person's manner of walking.

Blood Brothers key plot details

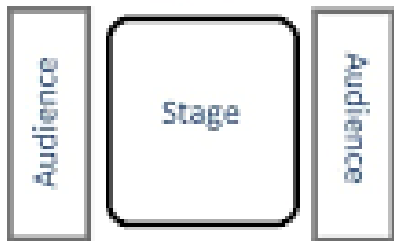


Audience

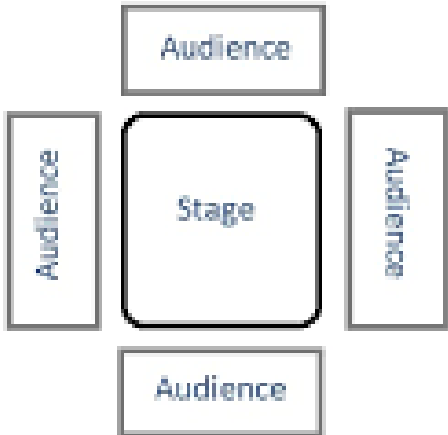
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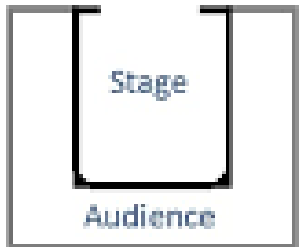
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In the Round



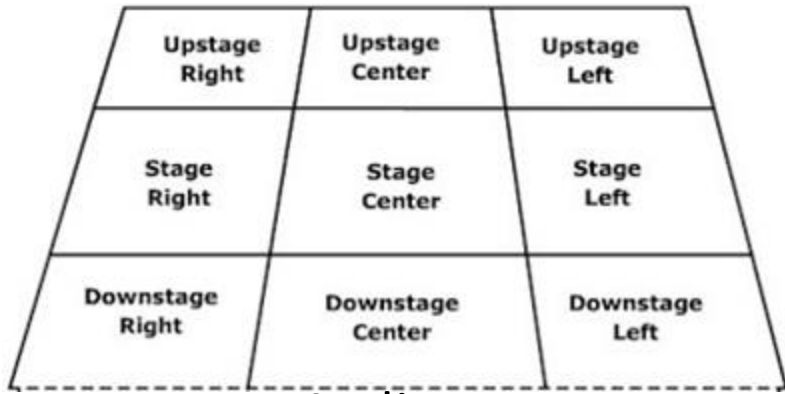
Thrust



Mrs J gives Mrs L one of her babies
 Mrs L brings Edward up as her own
 Mickey and Edward become best friends
 The Lyons family move
 Mickey loses his factory job and is sent to prison
 Mickey and Edward rekindle their friendship
 Mickey becomes depressed and takes pills to cope
 Mrs J tells Mickey and Edward they are twins
 Edward and Linda start a "light romance"
 Mickey kills Edward and the police kill Mickey

Vocal Skills		Commedia Dell'arte		Physical Skills	
Pitch	The particular level (high or low) of a voice, instrument or tune.	Commedia Dell'arte	Commedia dell'arte was an early form of professional theatre, originating from Italy, that was popular in Europe from the 16th to the 18th century. It is improvised comedy based on stock characters.	Facial Expression	Look on face which shows emotions.
Pace	The speed at which someone or something moves, or with which something happens or changes.	Stock Characters	Zanni, Pantalone Il Dottore, Arlecchino, Pulcinella, Colombina, Il Capitano, Brighella	Body Language	A range of nonverbal signals that you can use to communicate your feelings and intentions.
Pause	A break in speaking, period of silence.	Improvisation	A style of theatre where it is made up on the spot, without rehearsal or script. Actors have to make up the action and think on their feet.	Gesture	A sign that communicates a character's action, state of mind and relationship with other characters to an audience.
Tone	This suggests your mood and your intention towards the listener, eg happy or sad.	Lazzi	Lazzi are stock comedic routines. Performers had many examples of this in their repertoire and would use improvisatory skills to weave them into the plot of dozens of different scenarios.		
Volume	Loudness or quietness of the voice.	The rule of three	The rule of three is where a trio of events occur to create comedy or break tension.	Posture	Physical alignment of a performer's body, or a physical stance taken by a performer which conveys information about the character being played.
		Shakespeare's Macbeth			
Emphasis	Where a performer will stress a particular word or phrase within a sentence to indicate importance.	Macbeth details	Written in 1606 by William Shakespeare		
Accent	A way of speaking in a local area or country.	Macbeth plot summary	Three witches tell the Scottish general Macbeth that he will be King of Scotland. Encouraged by his wife, Macbeth kills the king, becomes the new king, and kills more people out of paranoia. Civil war erupts to overthrow Macbeth, resulting in more death.		
Clarity of diction	Clearness of the voice.	Main characters	Macbeth, Lady Macbeth, Macduff, Three Witches,, Malcolm and Banquo		

Macbeth key plot details

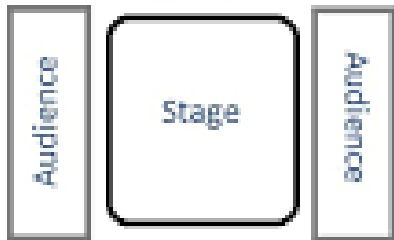


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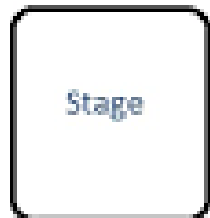
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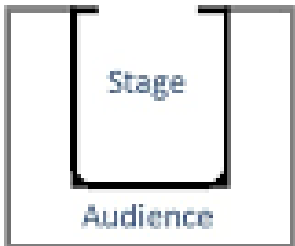
Traverse



In the Round



Thrust



Devising			Context			Physical and Vocal Skills		
1	Devising	To plan and create your own theatre	1	Devising	Making a performance from scratch	1	Pitch	How high or low your voice
2	Stimulus	A starting point	2	Collaboration	The skill of communicating to work creatively together	2	Pace	How fast or slow you speak
3	Initial ideas	The first ideas you have about a stimulus	3	Ensemble	A group of people who share responsibility for creating and delivering a performance	3	Pause	A moment of silence
4	Narrative	A story	4	Playwright	The person who writes a play	4	Tone/Emphasis	The emotion of speech and which words are stressed
5	Blocking	The first draft of staging	5	Director	The person who organises the actors	5	Volume/Projection	How loud you are/Sending your voice to the audience
6	Monologue	Single actors speech about their inner thoughts and feelings	6	Producer	The person in charge of the money	6	Body language	Using your body to express feeling or character
7	Choral speech/movement	When a group of actors move or speak at the same time.	7	Designers	Lights, Sound, Costume, Set and Props	7	Facial expression	Using your face to express a feeling or thought
8	Placards	A sign or written information for the audience	8	Stage manager	Organises all off-stage activity	8	Posture	Having a balanced and solid physical position from which to perform
9	Split-staging	The stage is split into two sections, so two different pieces of action can be seen alongside each other.	9	Technicians	Operates, lighting sound scenery	9	Gesture	Using hands and arms to communicate
10	multi-roling	when an actor plays more than one character on stage	10	Actor	Performs on stage	10	Level/Proximity	Using height and space to communicate
			Playwriting			11	Eye contact	Interacting with another character or the audience. (Could include avoiding eye contact)
			1	Dramatic aims and intentions	The decisions, made by theatre makers, to communicate meaning.	12	Inflection	Change in pitch or loudness of the voice.
			2	Script	The written text of the play	13	Accent	A way of speaking in a local area or country.
			3	Stage directions	Part of the script of a play that tells the actors how they are to move or speak their lines.	14	Gait	A person's manner of walking.
			4	5 Points for structuring	The Inciting Incident, Plot Point I, Midpoint, Plot Point II, Climax.	15	Interaction with other performers	Use of eye contact, focus, proxemics and physical contact with other performers.
			5	3 C's of script writing	Concept, Characters, Conflict			

Scene number and title: Always at the start of each scene and usually in bold letters

Setting description: normally below the scene number and title, helps to set the scene.

Stage directions: Always written in brackets or italics. Tells the performer what or how to do something. Not said out loud to the audience

Character name: The name of each character in the play, so you know who says what line.

Character speech: What it is your character has to say that the audience can hear.

Scene 7 – A Mad Tea Party

The Mad Hatter, Dormouse and Hare are sitting at a table having afternoon tea.

Narrator: Lost and lonely, Alice continued towards the sound. She didn't know what to expect when she reached a clearing...

(Alice enters the scene, stage left)

Mad Hatter: (starts for a moment, pauses and a broad grin appears across his face. He gets up out of his chair and walks across the table towards Alice) It's you.

Dormouse: (exasperated) No it's not! Hare brought us the wrong Alice!

Hare: (gasps and throws his hands against his head) It's the wrong Alice!

Mad hatter: You're absolutely Alice, I'd know you anywhere.

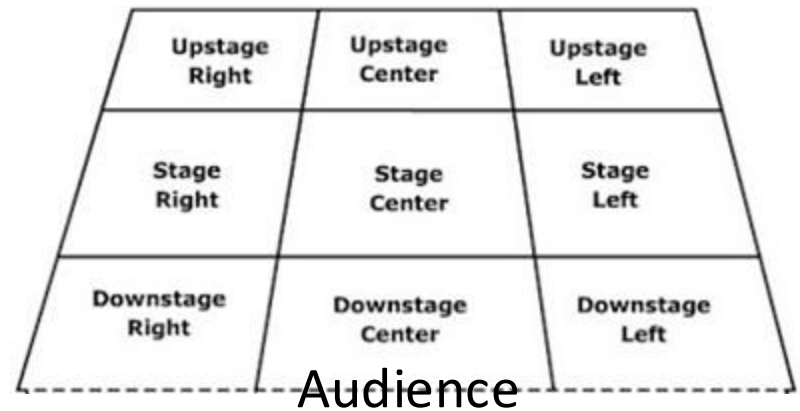
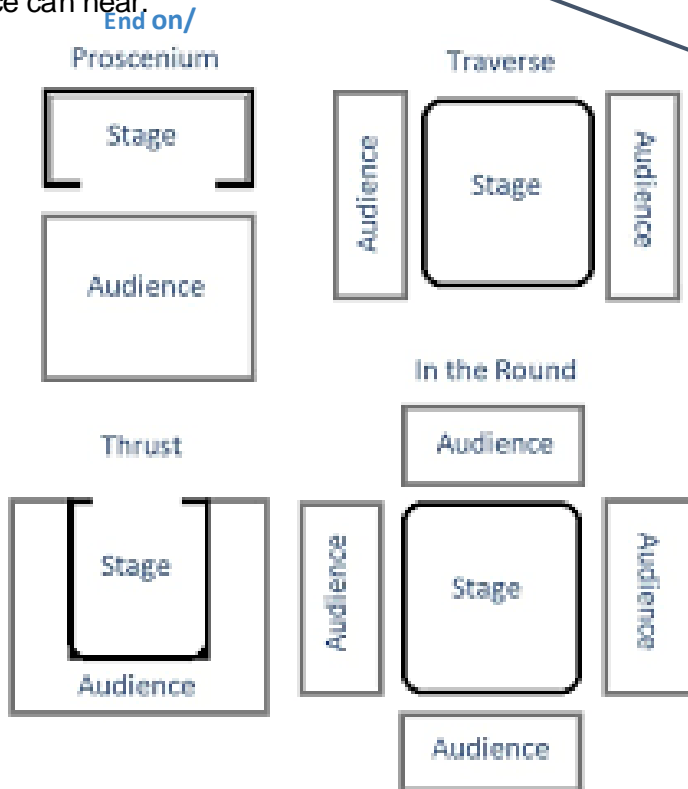
(to the rest of the characters at the table)

I'd know him anywhere!

(Dormouse and Hare laugh manically)

Well, as you can see we're still having tea. You're terribly late you know... naughty.

Alice: I'm incredibly intrigued.



Annie John Knowledge Organizer

Key Words	
Adversity	A difficult or unpleasant situation
Rebellion	An action/ process of resisting authority, control or covention
Coming of age	The age or occasion when one formally becomes an adult
Autonomy	A person's ability to act on her/his own values and interests
Transient	Lasting only for a short time
Adolescence	The process of developing from a child to an adult

Context	
Colonialism	The policy or practice of acquiring full or partial political control over another country, enslaving its inhabitants, occupying it with settlers, and exploiting it economically
Post Colonialism	An approach that is concerned with the lasting impact of colonisation, seeking to spread awareness and be critical of the system
Windrush Generation	Relating to the people who emigrated from the Caribbean to Britain on the British ship the <i>Empire Windrush</i> in 1948
Captain Cook	Controversial British explorer who colonised the Caribbean (1728-1779)
Obeah	Obeah is the local spiritual system that relies upon the use of herbs as well as sorcery and spells
John Milton- Paradise Lost	A poem concerning the biblical story of the Fall of Man
Charlotte Bronte- Jane Eyre	The novel follows the story of Jane, a seemingly plain and simple girl as she battles through life's struggles

Questions to consider:
How and why does Kincaid explore the transition from girlhood to womanhood in Annie John?
How and why does Kincaid explore traditional gender roles in Annie John?
How and why does Kincaid describe the British Caribbean colonial world in Annie John?
How and why does Kincaid manipulate the timings of events in Annie John?
How and why does Kincaid explore Annie's need for intellectual exploration?

Plot Overview	
Rising Action	At 10 Annie becomes obsessed with death and realises how transient life can be. She is entering her adolescence and begins to question and rebel. Her once close relationship with her mother becomes fragile.
Climax	Annie gets into a ferocious argument with her mother, which ends in her mother using offensive language. This signifies the breakdown of their relationship for good and Annie's coming of age.
Falling Action	Annie has come of age and realises that her narrative is not her own. She decides to leave Antigua for England, thus separating herself from her parents.

Key Terminology	
Eponymous Hero	Eponymous hero is the character in a play or book whose name is the title of that play or book.
Bildungsroman	A novel dealing with one person's formative years or moral/ psychological education.
Memoir	A written account in which someone details their past experiences
Symbolism	The use of symbols to represent ideas or qualities. E.g The trunk, Paradise Lost or the marbles.
Motif	A literary technique that consists of a repeated element that has symbolic significance e.g Obeah, water or death
Foreshadowing	A warning or indication of a future event e.g How the mother's quarrelling with her parents mirrors Annie's quarrelling with her mother.
Sequencing	Order in which events occur e.g chronological order
Unreliable narrator	An untrustworthy storyteller, most often used in narratives with a first-person point of view

William Blake Knowledge Organizer

Poem Summary	
Laughing Song	Excitement of children in nature at summertime
Infant Sorrow	The narration of a child born into poverty by its parent
The Shepherd	What it means to be moral, the shepherd is comparable to Jesus Christ
A Poison Tree	How humanity can be immoral, close links to the Garden of Eden parable

Context	
Neo-Classic Poetry	Restrictive style of poetry that came before the Romantic Movement (18 th -19 th Century)
The Romantic Movement	Poetry that focused on liberty, freedom and nature (19 th century)
Industrialisation	A period of rapid development in Victorian England (19 th century)
French Revolution	Social and political upheaval in France
Peterloo Massacre	Cavalry charge on group of people protesting for a reform of parliament
Blake as a 'Christian Visionary'	He often saw 'visions' such as angels and spirits. He was against the 'Old Testament' teaching.
Class Hierarchy	Unequal class status led to the corruption and inequality of Victorian society.
Urban Poverty	Mass movement to cities and inequality led to sprawling urban slums.

Literary Terms	
Alliteration	Same letter or sound at the beginning of adjacent or closely connect words
Anaphora	Repetition of a word/phrase at the beginning of successive clauses
Biblical Allusion	A figure of speech that makes direct reference to a biblical story
Metaphor	A metaphor is a figure of speech that is used to make a comparison between two things that aren't alike but do have something in common
Plosives	The exaggerated 'p, b, d, g' sound
Repetition	When the same word/ phrase is repeated
Sibilance	The 'S' sound
Quatrain	Four line stanza
Rhyme Scheme	A poet's deliberate pattern of rhyming words or lack of
Rhyming Couplets	Two lines that rhyme and have the same amount of syllables

Ambitious vocabulary	
Fragility	the quality of being easily broken or damaged.
Morality	principles concerning the distinction between right and wrong or good and bad behaviour.
Pessimism	a tendency to see the worst aspect of things or believe that the worst will happen.
Optimism	hopefulness and confidence about the future or the success of something.
Hypocrisy	the practice of claiming to have higher standards or more noble beliefs than is the case.
Hierarchy	an arrangement of items that are represented as being "above", "below", or "at the same level as" one another.

Journey's End: Knowledge Organizer

English - Journey's End Knowledge Organiser	
<p>Themes:</p> <p>Realities of War: The poor treatment of soldiers, futility of war, lack of care from commanding officers, the fact the Germans weren't evil monsters and the pointless deaths of soldiers (and young life) are all evident throughout the play.</p> <p>Comradeship: Stanhope inspires camaraderie and unity amongst his men. Fear: Stanhope and Hibbert both show fear, but deal with it in differing ways. To what extent are the other soldiers' fearful?</p> <p>Heroism/ Stoicism: Stanhope doesn't see himself as a hero, despite the fact he works incredibly hard; Raleigh hero worships him. To what extent could the other soldier's be deemed 'heroes'?</p> <p>Pointlessness of War: The deaths of the soldiers seems avoidable- in both the Raid and the Big Attack- if only superior officers cared about the lives of the men.</p> <p>Home: The characters talk about home (and nature) to distract themselves from the reality of the trenches and to remind themselves of why they are fighting.</p>	<p>Plot Summary:</p> <p>R.C. Sherriff's 1928 play is a grim World War I drama that unfolds in the trenches of France in 1918. The play spans four days leading up to a significant British offensive. Captain Stanhope, a seasoned and jaded officer, serves as the protagonist of the narrative. His coping mechanism involves heavy drinking, reflecting the profound psychological toll of the war. Lieutenant Raleigh, a new officer and Stanhope's former schoolmate, joins the company with idealistic enthusiasm. However, he quickly confronts the harsh reality of trench warfare. The camaraderie among the officers, including characters like the loyal 2nd in Command Osborne, and the ever-optimistic and cheery cook Mason, highlights the bonds formed in the face of adversity. Other characters, such as Hibbert, are more isolated and struggle with the loneliness of war. As the impending attack looms, the officers grapple with fear, boredom, and the constant threat of death. The play skillfully portrays the toll of war on the soldiers' mental and emotional well-being. Moments of humour and brotherhood contrast sharply with the underlying tension, creating a poignant exploration of the human experience in the midst of conflict. The climax occurs during the planned offensive, where the characters we have come to know over the play's 3 Acts go 'over-the-top' and, presumably, to their death. Sherriff, himself a WW1 soldier, forces his audience to confront the devastating consequences of war. Characters face physical and emotional trauma, and the play does not shy away from portraying the harsh realities of combat. The futility of the conflict becomes starkly evident as the characters confront their mortality. The play stands as a powerful anti-war statement, emphasising the tragedy of armed conflict. It pays tribute to the resilience and sacrifice of individuals caught in the brutality of battle, making it a timeless exploration of the human cost of war and the enduring bonds forged under its harrowing circumstances.</p>
<p>Context:</p> <p>World War One: 1914-1918. Considered one of the most brutal and bloodiest conflicts in history.</p> <p>Propaganda: Convinced young soldiers to sign up- that fighting in WWI was noble. Also presented Germans as evil monsters.</p> <p>Vimy Ridge: A horrific battle whereby commanding officers ordered their soldiers to run at German machine guns.</p> <p>Shell Shock: Nowadays known as 'post-traumatic stress disorder'. Soldiers were effectively paralysed with fear.</p> <p>Superior officers: Soldiers were expected to follow the command of their superior officer, regardless of how daft the order was. Any refusal (also known as insubordination) would result in being court marshalled and shot.</p>	<p>Ambitious Vocabulary:</p> <p>jaded: disillusioned; lost enthusiasm after too much of something</p> <p>profound: deeply-affecting and intense</p> <p>psychological: occurring in the mind</p> <p>idealistic: a positive, but naive, outlook on things</p> <p>camaraderie: close friendship forged through adversity</p> <p>adversity: a period of struggle</p> <p>impending: upcoming</p> <p>poignant: conjuring a sense of sadness or regret</p> <p>trauma: an emotional scar</p> <p>futility: pointlessness</p> <p>harrowing: deeply unsettling/upsetting</p>
<p>Characters:</p> <p>Stanhope: Commander of 'C' Company</p> <p>Osborne: Second in Command</p> <p>Trotter: Lieutenant</p> <p>Hibbert: Lieutenant; Hibbert struggles with the loneliness of war</p> <p>Raleigh: Stanhope's younger friend from school</p> <p>Mason: Cook</p> <p>Sergeant Major: A Senior Officer</p> <p>The Colonel: Stanhope's superior</p> <p>Hardy: Another commanding officer</p> <p>Madge: Stanhope's girlfriend and Raleigh's brother [unseen]</p> <p>Dr Preston: Never let a 'shirker' past him [unseen character]</p> <p>Brigadier: The Colonel's superior [unseen character]</p>	<p>Symbolism and Motifs:</p> <p>Time: There are constant references to time and 'waiting' throughout the play- to reflect the boredom of life in the trenches and the reality that the soldiers are simply waiting to die in the big attack (or raid).</p> <p>Light: Through the play, the light in the trenches becomes increasingly dim- to reflect either the darkening mood or increasing lack of hope. After Osborne's death, artificial light (the dugouts is 'festively lit with candles') to symbolise the artificial 'happiness' of Stanhope.</p> <p>Osborne's Pipe: Osborne has to leave his pipe unfinished - and whilst it still has a 'glow' on it - to go on the raid - which is symbolic for how his and other soldiers' lives were cut short.</p> <p>Uniforms: Used to reflect the characters' mental states. Stanhope's is tidy but 'war-stained', whilst Raleigh's is 'fresh'. However, after the Raid his too has become war-stained. This is symbolic for the minds of the soldiers.</p>

Contemporary Poetry: Knowledge Organizer

Glossary of Poetic Terms:

Alternate rhyme: ABAB rhyme scheme
Anaphora: the repetition of a word or phrase at beginning of a line
Assonance: repeated use of same vowel sounds (e.g. it howled on the ground)
Caesura: a pause in the middle of a line; a punctuation break
Couplet: a pair of two lines of verse, usually rhyming.
Chiasmus: a mirroring of words (e.g. fair is foul, and foul is fair)
Elegy: a poem about grief or loss
Enjambment: where one line of poetry runs into the next unpunctuated
Free verse: a poem with no fixed rhyme or meter
Juxtaposition: a contrast between two things placed near to each other
Metre: rhythm; syllable-patterns between lines
Stanza: a verse of poetry
Quatrain: a stanza of four lines
Semantic field: a cluster of words that link to a wider theme
Speaker: the voice we hear through a poem (similar to a narrator)
Tone: the attitude of a poetic speaker (e.g. joyful, melancholic, jaded)

Ambitious Vocabulary:

Transience: impermanence
Fusion: joining
Ephemeral: lasting for a short time
Solidarity: togetherness
Vanity: obsession with appearance
Self-perception: the way one sees themselves
Distort: to twist something out of shape
Satire: a critical or humorous take on the human condition
Legacy: long-lasting impact
Pastoral: an idealised version of country life

Poem Summaries:


Hiraeth, Old Bombay - by Imtiaz Dharker: The speaker speaks to an unnamed "you", who she wishes she could have taken to a café in Mumbai, India (formerly known as Bombay). At the conclusion of the poem, it is revealed that not only is the café shut, but the unnamed "you" is not around anymore either. The poem explores a fusion of cultures, memory, grief, and transience.

If They Come for Us - by Fatimah Asghar: The speaker delivers a monologue about strangers and how much she cares about them in spite of not knowing them. She describes them as "my people", showing her care and love, describing her "kin" at all different ages. The poem explores identity from the perspective of a child of immigrant parents.

Mirror - by Sylvia Plath: The narrator of the poem, a mirror, describes itself. It is personified by Plath as something that has opinions and feelings. In the second stanza, the speaker is a different kind of reflective mirror: the surface of a lake, over which a woman bends to look at herself. Over time, the woman turns from a "young girl" into an "old woman". The poem explores self-perception, distortion of truth, and time, whilst presenting a satirical take on our vanity.

Digging - by Seamus Heaney: The speaker holds a pen, trying to write, when he hears his father digging outside. He looks out of the window and watches him dig, admiring his ability with a spade, and considers how both his father and grandfather – manual, rural labourers – are talented diggers in a way that he is not. The poem explores legacy, family, the pastoral, and growth.

Romeo and Juliet: Knowledge Organizer

KS3 UNIT 5 ENGLISH		Romeo and Juliet		
GENRE	CHARACTER	CONTEXT		
CONVENTIONS OF TRAGEDY <ul style="list-style-type: none"> I. The tragedy takes place in one place during one day, featuring one story. II. The tragic hero would fall from high to low (<u>peripeteia</u>). III. The fall would have a wide impact on the setting of the tragedy. IV. The play was structured into three distinct parts: rising action/climax/falling action. V. The climax would feature a scene of realisation or recognition (<u>anagnorisis</u>). VI. The falling action would feature scenes of suffering. VII. The tragedy would inspire feelings of pity or fear in order to purge these emotions in the audience (<u>catharsis</u>). 		The conventions of a tragic hero. <ul style="list-style-type: none"> I. A person of high status. II. A person neither completely good nor completely bad. III. A person with a fatal flaw (<u>hamartia</u>). IV. A person who would experience a realisation or a recognition (<u>anagnorisis</u>). V. A person who suffers. 		WILLIAM SHAKESPEARE <ul style="list-style-type: none"> • William Shakespeare was born c.1564 and died 1616. • Elizabeth I (1533-1603) was the monarch of England when Shakespeare began his career. • The Renaissance era saw a renewed public interest in culture and the arts. It is most noticeable in England through the wealth of drama produced during 'the Golden Age' of Elizabeth's reign. • Shakespeare was the greatest Elizabethan dramatist. He used Renaissance ideas about drama to write his plays and Renaissance ideas about humanity to create his characters. • Shakespeare used soliloquies in his plays to show the inner life of his characters.
		RENAISSANCE VALUES		
		TRAGIC HEROES EMBODIED THE VALUES OF THE RENAISSANCE		
		INDIVIDUALISM	THOUGHT AND INTROSPECTION	
		SCEPTICISM	CLASSICISM	
LANGUAGE				
FORMS AND STYLES IN ROMEO AND JULIET				
<ul style="list-style-type: none"> • A prologue: an introduction to a literary work that explains the story, the characters and the setting. • Iambic pentameter: lines that are 10 syllables long, featuring an unstressed syllable followed by a stressed syllable (an iamb), for example: <i>from FORTH the FATE/LOINS of THESE two FOES</i>. The rhythm is said to echo the rhythm of a heartbeat. • Blank Verse: unrhymed lines of iambic pentameter. • A sonnet: a 14 line love poem where every line is 10 syllables long. The rhyme scheme to a Shakespearean sonnet is ABAB CDCDEFEFGG. • Oxymoron: a combination of two opposites into one phrase, used to highlight conflict. • Soliloquy: a dramatic device where a character speaks their inner thoughts and feelings out loud to themselves. 		CONTEXTUAL THEMES <ol style="list-style-type: none"> 1. The individual versus the group Romeo and Juliet make their choices based on what they think is right; by doing this they defy their families. 2. The medieval ideal of love versus the Renaissance ideal of love The idea of love was a new idea in the Renaissance. During the medieval era, marriage was a negotiation between families. For the Renaissance, love was an individual choice. 3. The Petrarchan ideal versus the Elizabethan ideal The Italian poet Petrarch was responsible for the early Renaissance ideal of love as an unrequited act of suffering from a male to an idealised female. However, the Elizabethans favoured the mutual presentation of desire, where passion would consume both the male and the female alike. 		

SENTENCE BUILDER 1

<p>Mon meilleur ami <i>My best friend (m)</i></p> <p>Ma meilleure amie <i>My best friend (f)</i></p>	<p>s'appelle (Français) <i>is called (Français)</i></p> <p>s'appelle (Française) <i>is called (Française)</i></p>	<p>il a <i>he has (is)</i></p> <p>elle a <i>she has (is)</i></p>	<p>onze (11) douze (12) treize (13) quatorze (14) quinze (15) seize (16) dix-sept (17) dix-huit (18) dix-neuf (19)</p>	<p>ans <i>years</i> <i>(old)</i></p>
<p>Il a <i>he has</i></p> <p>Elle a <i>she has</i></p>	<p>les yeux bleus <i>blue eyes</i> les yeux verts <i>green eyes</i> les yeux marron <i>brown eyes</i></p>	<p>les cheveux blonds <i>blond hair</i> les cheveux roux <i>red hair</i> les cheveux gris <i>grey hair</i> les cheveux blancs <i>white hair</i> les cheveux noirs <i>black hair</i> les cheveux bruns <i>brown hair</i> les cheveux châtain <i>chestnut/brown hair</i></p> <p>les cheveux courts <i>short hair</i> les cheveux longs <i>long hair</i></p>	<p>un animal <i>a pet</i> un chien <i>a dog</i> un chat <i>a cat</i> un lapin <i>a rabbit</i> un cheval <i>a horse</i></p>	
<p>Il est <i>he is</i></p> <p>Elle est <i>she is</i></p>	<p>petit(e) <i>short</i> grand(e) <i>tall</i> de taille moyenne <i>of average height</i> beau/ belle <i>beautiful</i> religieux/euse <i>religious</i> fils unique <i>only child (m)</i> fille unique <i>only child (f)</i></p>			
<p>très <i>very</i> trop <i>too</i> assez <i>quite</i> un peu <i>a bit</i></p>	<p>vraiment <i>really</i> simplement <i>simply</i> absolument <i>absolutely</i> complètement <i>completely</i> parfaitement <i>perfectly</i> totalement <i>totally</i> extrêmement <i>extremely</i></p>	<p>amusant(e) <i>funny</i> patient(e) <i>patient</i> content(e) <i>happy</i> fort(e) <i>strong</i> faible <i>weak</i> triste <i>sad</i> fidèle <i>loyal</i></p> <p>pratique <i>practical</i> populaire <i>popular</i> agréable <i>nice</i> responsable <i>responsible</i> unique <i>unique</i></p> <p>heureux/euse <i>happy</i> sérieux/euse <i>serious</i> travailleur/euse <i>hardworking</i></p> <p>sportif/ive <i>sporty</i> gentil/gentille <i>kind</i> sympa <i>kind</i></p> <p>sûr(e) de lui/d'elle <i>self-confident (sure of himself/herself)</i></p>	<p>que moi <i>than (as) me</i></p> <p>que mon père <i>than (as) my dad</i></p> <p>que ma sœur <i>than (as) my sister</i></p> <p>que mes autres copains <i>than (as) my other friends</i></p>	
<p>plus <i>more</i></p> <p>moins <i>less</i></p> <p>aussi <i>as</i></p>				



SENTENCE BUILDER 2

<p>En général <i>In general</i></p> <p>Parfois <i>Sometimes</i></p> <p>Quelquefois <i>Sometimes</i></p> <p>De temps en temps <i>From time to time</i></p> <p>D'habitude <i>Usually</i></p>	<p>je m'entends bien avec <i>I get on well with</i></p> <p>je ne m'entends pas bien avec <i>I don't get on well with</i></p> <p>je me dispute avec <i>I argue with</i></p> <p>je dépends de <i>I depend on</i></p>	<p>mon père <i>my dad</i></p> <p>mon beau-père <i>my step dad</i></p> <p>mon grand-père <i>my grandad</i></p> <p>mon frère <i>my brother</i></p> <p>mon demi-frère <i>my half brother/ my step brother</i></p> <p>mon oncle <i>my uncle</i></p> <p>mon copain <i>my friend</i></p> <p>mon meilleur ami <i>my best friend (m)</i></p>			<p>amusant(e)(s) <i>funny</i></p> <p>patient(e)(s) <i>patient</i></p> <p>content(e)(s) <i>happy</i></p> <p>fort(e)(s) <i>strong</i></p> <p>faible(s) <i>weak</i></p> <p>triste(s) <i>sad</i></p> <p>fidèle(s) <i>loyal</i></p>
<p>Mon modèle c'est <i>My role model is</i></p> <p>La personne que j'admire c'est <i>The person that I admire is</i></p> <p>j'aime <i>I like</i></p> <p>j'adore <i>I love</i></p> <p>je préfère <i>I prefer</i></p> <p>je n'aime pas <i>I don't like</i></p> <p>je déteste <i>I hate</i></p> <p>je ne supporte pas <i>I can't stand</i></p>		<p>ma mère <i>my mum</i></p> <p>ma belle-mère <i>my step mum</i></p> <p>ma grand-mère <i>my grandmother</i></p> <p>ma sœur <i>my sister</i></p> <p>ma demi-sœur <i>my half sister/ my step sister</i></p> <p>ma tante <i>my aunt</i></p> <p>ma copine <i>my friend</i></p> <p>ma meilleure amie <i>my best friend (f)</i></p> <p>mes parents <i>my parents</i></p> <p>mes grands-parents <i>my grandparents</i></p> <p>mes deux frères <i>my two brothers</i></p> <p>mes trois sœurs <i>my three sister</i></p>	<p>il est <i>he is</i></p> <p>elle est <i>she is</i></p> <p>ils sont <i>they are</i></p> <p>elles sont <i>they are (f)</i></p> <p>parce que (qu') <i>because</i></p> <p>car <i>because</i></p> <p>puisque (qu') <i>because/ since</i></p>	<p>il est <i>he is</i></p> <p>elle est <i>she is</i></p> <p>ils sont <i>they are</i></p> <p>elles sont <i>they are (f)</i></p>	<p>pratique(s) <i>practical</i></p> <p>populaire(s) <i>popular</i></p> <p>agréable(s) <i>nice</i></p> <p>responsable(s) <i>responsible</i></p> <p>unique(s) <i>unique</i></p> <p>heureux/euse(s) <i>happy</i></p> <p>sérieux/euse(s) <i>serious</i></p> <p>travailleur/euse(s) <i>hardworking</i></p> <p>sportif/ive(s) <i>sporty</i></p> <p>gentil/gentille(s) <i>kind</i></p> <p>sympa(s) <i>kind</i></p> <p>sûr(e) de lui/d'elle <i>self-confident (sure of himself/herself)</i></p> <p>il/elle me téléphone souvent <i>he/she calls me often</i></p> <p>il/elle m'invite aux fêtes <i>he/she invites me to parties</i></p> <p>il/elle garde mes secrets <i>he/she keeps my secrets</i></p> <p>il/elle m'envoie des textos sur WhatsApp <i>he/she sends me messages on WhatsApp</i></p> <p>il/elle me comprend <i>he/she understands me</i></p> <p>ils/elles me téléphonent souvent <i>they call me often</i></p> <p>ils/elles m'invitent aux fêtes <i>they invite me to parties</i></p> <p>ils/elles gardent mes secrets <i>they keep my secrets</i></p> <p>ils/elles m'envoient des textos sur Snapchat <i>they send me messages on Snapchat</i></p> <p>ils/elles me comprennent <i>they understand me</i></p>

SENTENCE BUILDER 3

<p>Normalement <i>Normally</i></p> <p>Généralement <i>Generally</i></p> <p>En ce moment <i>At the moment</i></p> <p>Quelquefois <i>Sometimes</i></p> <p>De temps en temps <i>From time to time</i></p> <p>Souvent <i>Often</i></p> <p>Dans ma maison <i>In my house</i></p> <p>Chez moi <i>At mine</i></p> <p>Au restaurant <i>At the restaurant</i></p>	<p>pour le petit-déjeuner <i>for breakfast</i></p> <p>pour le déjeuner <i>for lunch</i></p> <p>pour le dîner <i>for dinner</i></p> <p>après les cours <i>after lessons (school)</i></p> <p>le soir <i>in the evening</i></p> <p>pour commencer <i>To start</i></p> <p>comme entrée <i>As a starter</i></p> <p>comme plat principal <i>For the main meal</i></p> <p>comme dessert <i>For dessert</i></p>	<p>je mange <i>I eat</i></p> <p>je prends <i>I have (take)</i></p> <p>je bois <i>I drink</i></p> <p>on mange <i>we eat</i></p> <p>on prend <i>we have (take)</i></p> <p>on boit <i>we drink</i></p>	<p>du pain <i>bread</i></p> <p>du chocolat <i>chocolate</i></p> <p>du fromage <i>cheese</i></p> <p>du poisson <i>fish</i></p> <p>du riz <i>rice</i></p> <p>du fruit <i>fruit</i></p> <p>du gâteau <i>cake</i></p> <p>du fastfood <i>fastfood</i></p> <p>de la viande <i>meat</i></p> <p>de la glace <i>ice-cream</i></p> <p>des oeufs <i>eggs</i></p> <p>des légumes <i>vegetables</i></p> <p>des pâtes <i>pasta</i></p> <p>des frites <i>chips/fries</i></p> <p>du lait <i>milk</i></p> <p>du thé <i>tea</i></p> <p>du café <i>coffee</i></p> <p>de la bière <i>beer</i></p> <p>de l'eau <i>water</i></p> <p>un sandwich <i>a sandwich</i></p> <p>une baguette <i>a baguette / French stick</i></p>
<p>Pour rester en bonne santé <i>To stay in good health</i></p>			
<p><u>Additional useful vocabulary</u></p> <p>J'ai faim <i>I am hungry (I have hunger)</i></p> <p>J'ai soif <i>I am thirsty (I have thirst)</i></p> <p>L'addition s'il vous plaît <i>the bill please</i></p> <p>Où sont les toilettes? <i>Where are the toilets?</i></p> <p>Une table pour deux personnes s'il vous plaît <i>A table for two people please</i></p> <p>Est-ce que je peux voir la carte s'il vous plaît ? <i>Can I see the menu please?</i></p>			

SENTENCE BUILDER 4

<p>Pour rester en bonne santé <i>(In order) to stay healthy / in good health</i></p> <p>Pour être en forme <i>(In order) to be in shape</i></p>	<p>j'essaie de (d') <i>I try</i></p> <p>j'ai tendance à <i>I tend</i></p> <p>je vais <i>I'm going</i></p>	<p>manger <i>to eat</i></p> <p>boire <i>to drink</i></p> <p>prendre <i>to have (take)</i></p> <p>acheter <i>to buy</i></p> <p>commander <i>to order</i></p> <p>cuisiner <i>to cook</i></p>	<p>du pain <i>bread</i></p> <p>du chocolat <i>chocolate</i></p> <p>du fromage <i>cheese</i></p> <p>du poisson <i>fish</i></p> <p>du riz <i>rice</i></p> <p>du fruit <i>fruit</i></p> <p>du gâteau <i>cake</i></p> <p>du fastfood <i>fastfood</i></p> <p>de la viande <i>meat</i></p> <p>de la glace <i>ice-cream</i></p> <p>des oeufs <i>eggs</i></p> <p>des légumes <i>vegetables</i></p> <p>des pâtes <i>pasta</i></p> <p>des frites <i>chips/fries</i></p> <p>du lait <i>milk</i></p> <p>du thé <i>tea</i></p> <p>du café <i>coffee</i></p> <p>de la bière <i>beer</i></p> <p>de l'eau <i>water</i></p> <p>un sandwich <i>a sandwich</i></p> <p>une baguette <i>a baguette</i></p>
		<p>bien dormir <i>to sleep well</i></p> <p>boire beaucoup d'eau <i>to drink lots of water</i></p> <p>jouer au foot <i>to play football</i></p> <p>pratiquer les sports <i>to practise sport</i></p> <p>aller à la gym <i>to go to the gym</i></p> <p>faire de l'exercice <i>to do exercise</i></p> <p>courir <i>to run</i></p> <p>marcher <i>to walk</i></p> <p>faire du vélo <i>to ride a bike</i></p> <p>me reposer <i>to rest</i></p> <p>être actif / active <i>to be active</i></p> <p>bouger plus <i>to move more</i></p> <p>être dehors <i>to be outside</i></p>	
		<p>éviter <i>to avoid</i></p>	<p>les sucreries <i>sugary food</i></p> <p>les boissons sucrés <i>sugary drinks</i></p> <p>le fastfood <i>fast food</i></p> <p>un régime malsain <i>an unhealthy diet</i></p> <p>être fatigué(e) <i>being tired</i></p> <p>être malade <i>being ill</i></p>

SENTENCE BUILDER 5

<p>Normalement <i>Normally</i></p>	<p>je fais du shopping <i>I go shopping</i></p>	<p>au supermarché <i>at the supermarket</i></p>	<p>parce que (qu') <i>because</i></p>	<p>c'est cher <i>it's expensive</i></p>
<p>Généralement <i>Generally</i></p>	<p>je fais les courses <i>I go grocery shopping</i></p>	<p>au marché <i>at the market</i></p>	<p>car <i>because</i></p>	<p>c'est bon marché <i>it's cheap</i></p>
<p>En ce moment <i>At the moment</i></p>	<p>je fais les achats <i>I make purchases</i></p>	<p>au centre commercial <i>in the shopping centre</i></p>	<p>puisque (qu') <i>since</i></p>	<p>c'est tendance <i>it's fashionable / trendy</i></p>
<p>Quelquefois <i>Sometimes</i></p>		<p>aux magasins de mode <i>in fashion shops</i></p>		<p>il y a des ventes <i>there are sales</i></p>
<p>De temps en temps <i>From time to time</i></p>		<p>aux magasins de marque <i>in brand shops</i></p>		<p>il y a des offres <i>there are offers</i></p>
<p>Souvent <i>Often</i></p>		<p>en ville <i>in the city/town</i></p>		<p>il y a plus de tailles / couleurs <i>there are more sizes / colours</i></p>
		<p>en ligne <i>online</i></p>		<p>il y a foules <i>there are crowds</i></p>
	<p>j'achète <i>I buy</i></p>	<p>un cadeau <i>a present</i></p>	<p>un chapeau <i>a hat</i></p>	<p>noir(e)(s) <i>black</i></p>
		<p>un livre <i>a book</i></p>	<p>un pull <i>a jumper</i></p>	<p>bleu(e)(s) <i>blue</i></p>
		<p>un portable <i>a mobile phone</i></p>	<p>un pantalon <i>trousers</i></p>	<p>vert(e)(s) <i>green</i></p>
		<p>un ordinateur <i>a computer</i></p>	<p>une robe <i>a dress</i></p>	<p>gris(e)(s) <i>grey</i></p>
		<p>un sac <i>a bag</i></p>	<p>une jupe <i>a skirt</i></p>	<p>rose(s) <i>pink</i></p>
<p>Récemment <i>Recently</i></p>	<p>j'ai acheté <i>I bought</i></p>	<p>un ordinateur <i>a computer</i></p>	<p>une cravate <i>a tie</i></p>	<p>rouge(s) <i>red</i></p>
		<p>un sac <i>a bag</i></p>	<p>une chemise <i>a shirt</i></p>	<p>jaune(s) <i>yellow</i></p>
			<p>des chaussures <i>some shoes</i></p>	<p>blanc(he)(s) <i>white</i></p>
			<p>des chaussettes <i>some socks</i></p>	<p>marron <i>brown</i></p>
			<p>des baskets <i>some trainers</i></p>	<p>orange <i>orange</i></p>
			<p>vêtements (de marque) <i>(designer) clothes</i></p>	

SENTENCE BUILDER 6

<p>Demain <i>Tomorrow</i></p> <p>Le weekend prochain <i>Next weekend</i></p> <p>Le mois prochain <i>Next month</i></p> <p>La semaine prochaine <i>Next week</i></p> <p>L'année prochaine <i>Next year</i></p>	<p>je vais acheter <i>I am going to buy</i></p> <p>nous allons acheter <i>we are going to buy</i></p>	<p>du pain <i>bread</i></p> <p>du chocolat <i>chocolate</i></p> <p>du fromage <i>cheese</i></p> <p>du poisson <i>fish</i></p> <p>du riz <i>rice</i></p> <p>du fruit <i>fruit</i></p> <p>du gâteau <i>cake</i></p> <p>du fastfood <i>fastfood</i></p> <p>de la viande <i>meat</i></p> <p>de la glace <i>ice-cream</i></p> <p>des oeufs <i>eggs</i></p> <p>des légumes <i>vegetables</i></p> <p>des pâtes <i>pasta</i></p> <p>des frites <i>chips/fries</i></p> <p>du lait <i>milk</i></p> <p>du thé <i>tea</i></p> <p>du café <i>coffee</i></p> <p>de la bière <i>beer</i></p> <p>de l'eau <i>water</i></p> <p>un sandwich <i>a sandwich</i></p> <p>une baguette <i>a baguette / French stick</i></p>
<p>Je vais payer <i>I am going to pay</i></p>	<p>à la caisse <i>at the till</i></p> <p>par carte <i>by card</i></p> <p>en monnaie <i>in change / cash</i></p> <p>en euros <i>in euros</i></p> <p>en livres <i>in pounds</i></p>	

SENTENCE BUILDER 7

<p>J'écoute toujours <i>I always listen to</i></p> <p>Je préfère écouter <i>I prefer to listen to</i></p> <p>Je n'écoute jamais de (de-la/-du) <i>I never listen to</i></p>	<p>de la musique pop <i>pop music</i></p> <p>de la musique classique <i>classical music</i></p> <p>de la musique électronique <i>electronic music</i></p> <p>du jazz <i>jazz</i></p> <p>du rap <i>rap</i></p>	<p>parce que (qu') <i>because</i></p> <p>car <i>because</i></p> <p>puisque (qu') <i>since</i></p>	<p>j'admire <i>I admire</i></p> <p>j'aime <i>I like</i></p> <p>j'adore <i>I love</i></p> <p>je préfère <i>I prefer</i></p> <p>je n'aime pas <i>I don't like</i></p> <p>je déteste <i>I hate</i></p> <p>je ne supporte pas <i>I can't stand</i></p>	<p>ses chansons <i>his/her songs</i></p> <p>leurs chansons <i>their songs</i></p> <p>ses concerts <i>his/her concerts</i></p> <p>leurs concerts <i>their concerts</i></p> <p>ses paroles <i>his/her lyrics</i></p> <p>leurs paroles <i>their lyrics</i></p> <p>sa musique <i>his/her music</i></p> <p>leur musique <i>their music</i></p> <p>sa voix <i>his/her voice</i></p> <p>leur voix <i>their voice</i></p>
<p>Ma mère écoute <i>My mum listens to</i></p> <p>Mon frère écoute <i>My brother listens to</i></p> <p>Mon meilleur ami écoute <i>My best friend listens to</i></p> <p>Moi et mes amis écoutons <i>My friends and I listen to</i></p> <p>Mes parents écoutent <i>My parents listen to</i></p>	<p>du rock <i>rock</i></p> <p>le chanteur... <i>the singer...</i></p> <p>la groupe... <i>the band/group...</i></p> <p>l'artiste... <i>the artist...</i></p>		<p>elle aime <i>she likes</i></p> <p>il adore <i>he loves</i></p> <p>nous aimons <i>we like</i></p> <p>ils adorent <i>they love</i></p>	<p>son rythme <i>his/her rhythm</i></p> <p>leur rythme <i>their rhythm</i></p> <p>son son <i>his/her sound</i></p> <p>leur son <i>their sound</i></p> <p>son style <i>his/her style</i></p> <p>leur style <i>their style</i></p>

SENTENCE BUILDER 8

<p>Récemment <i>Recently</i></p> <p>Hier <i>Yesterday</i></p> <p>Le weekend dernier <i>Last weekend</i></p> <p>Le mois dernier <i>Last month</i></p> <p>La semaine dernière <i>Last week</i></p> <p>L'année dernière <i>Last year</i></p>	<p>je suis allé(e) au festival de musique <i>I went to a music festival</i></p>	<p>avec <i>with</i></p>	<p>mes amis <i>my friends</i></p> <p>mes parents <i>my parents</i></p> <p>ma famille <i>my family</i></p> <p>mon / ma meilleur(e) ami(e) <i>my best friend</i></p>
<p>Pendant le festival <i>During the festival</i></p> <p>Le premier jour <i>On the first day</i></p> <p>Le deuxième jour <i>On the second day</i></p> <p>Le dernier jour <i>On the last day</i></p> <p>Ce que j'ai aimé le plus c'était quand <i>The thing I liked the most was when</i></p>	<p>on a chanté <i>we sang</i></p> <p>on a dansé <i>we danced</i></p> <p>on a mangé <i>we ate</i></p> <p>on a bu <i>we drank</i></p>	<p>ensemble <i>together</i></p> <p>sous la pluie <i>in the rain</i></p> <p>sous le soleil <i>in the sun</i></p> <p>dehors <i>outside</i></p>	<p>Quelle chance! <i>How lucky!</i></p> <p>Quel plaisir! <i>How nice!</i></p> <p>Quel régal! <i>What a treat!</i></p> <p>Quelle dommage! <i>What a shame!</i></p> <p>Quelle catastrophe! <i>Wat a disaster!</i></p> <p>Quel cauchemar! <i>What a nightmare!</i></p>
<p>Je crois forcément que <i>I strongly believe that</i></p> <p>Je dois avouer que <i>I must admit that</i></p> <p>Mes parents disent que <i>My parents say that</i></p> <p>Mes copains pensent que <i>My friends think that</i></p> <p>Ça aurait été génial mais <i>It would have been great but</i></p>	<p>c'était <i>it was</i></p>	<p>amusant <i>fun</i></p> <p>spéciale <i>special</i></p> <p>intéressant <i>interesting</i></p> <p>divers <i>diverse</i></p> <p>positif <i>positive</i></p> <p>parfait <i>perfect</i></p> <p>traditionnel <i>traditional</i></p> <p>extraordinaire <i>extraordinary</i></p> <p>différent <i>different</i></p> <p>étonnant <i>amazing</i></p> <p>passionnant <i>exciting</i></p>	<p>ennuyeux <i>boring</i></p> <p>affreux <i>awful</i></p> <p>fatigant <i>tiring</i></p> <p>cher <i>expensive</i></p> <p>dangereux <i>dangerous</i></p>
		<p>un rêve devenu réalité <i>a dream come true</i></p> <p>le meilleur moment de ma vie <i>the best time of my life</i></p> <p>mon pire cauchemar <i>my worst nightmare</i></p>	



SENTENCE BUILDER 9

L'année prochaine <i>Next year</i>		l'art <i>Art</i>		génial <i>Great</i>
Après mes examens <i>After my exams</i>		le français <i>French</i>		intéressant <i>interesting</i>
Quand je vais au lycée <i>When I go to sixth form</i>		le théâtre <i>Drama</i>		passionnant <i>Exciting</i>
Si je vais à l'université <i>If I go to university</i>	j'étudierai <i>I will study</i>	le sport <i>sport</i>		utile <i>Useful</i>
Quand je serai plus âgé(e) <i>When I'm older</i>	j'apprendrai <i>I will learn</i>	l'anglais <i>English</i>		pratique <i>Practical</i>
Quand j'aurai (dix-huit) ans <i>When I'm (18) years old</i>	je continuerai étudier <i>I will continue to study</i>	l'histoire <i>history</i>	ce qui sera <i>which will be</i>	différent <i>differnt</i>
À l'avenir <i>In the future</i>	j'irai au lycée pour étudier <i>I will go to sixth form to study</i>	la technologie <i>DT</i>		difficile <i>Difficult</i>
Dans le futur <i>In the future</i>		la musique <i>Music</i>		nul <i>Rubbish</i>
Un jour <i>One day</i>		la religion <i>RE</i>		ennuyeux <i>Boring</i>
Plus tard dans la vie <i>Later in life</i>		les maths <i>Maths</i>		dur <i>hard / difficult</i>
		les sciences <i>Science</i>		inutile <i>Useless</i>
		les langues <i>languages</i>		fatigant <i>tiring</i>

SENTENCE BUILDER 10

<p>L'année prochaine <i>Next year</i></p> <p>Après mes examens <i>After my exams</i></p>		<p>avoir <i>to have</i></p>	<p>une bonne carrière <i>a good career</i> une bonne éducation <i>a good education</i> un bon salaire <i>a good salary</i> un bon travail <i>a good job</i> un enfant <i>a child</i> une famille <i>a family</i></p>
<p>Quand je vais au lycée <i>When I go to sixth form</i></p> <p>Si je vais à l'université <i>If I go to university</i></p> <p>Quand je serai plus âgé(e) <i>When I'm older</i></p> <p>Quand j'aurai (dix-huit) ans <i>When I'm (18) years old</i></p>	<p>j'espère <i>I hope</i></p> <p>je veux <i>I want</i></p> <p>je tiens à <i>I want</i></p> <p>j'ai envie de (d') <i>I fancy</i></p> <p>j'ai l'intention de (d') <i>I intend</i></p>	<p>être <i>to be</i></p> <p>devenir <i>to become</i></p>	<p>directeur/directrice d'un entreprise <i>manager of a company / business</i> patron(ne) <i>the boss</i> chef(fe) <i>the boss</i> riche <i>rich</i> heureux/euse <i>happy</i></p>
<p>À l'avenir <i>In the future</i></p> <p>Dans le futur <i>In the future</i></p>	<p>je vais <i>I am going</i></p> <p>je voudrais / j'aimerais <i>I would like</i></p>	<p>travailler comme <i>to work as</i></p>	<p>médecin <i>a doctor</i> influenceur <i>an influencer</i> policier <i>a police officer</i> professeur <i>a teacher</i></p>
<p>Un jour <i>One day</i></p> <p>Plus tard dans la vie <i>Later in life</i></p>		<p>étudier <i>to study</i></p>	<p>les langues <i>languages</i> la médecine <i>medicine</i> à l'université <i>at university</i></p>
		<p>gagner <i>to earn / to win</i></p>	<p>beaucoup d'argent <i>lots of money</i></p> <p>la loterie <i>the lottery</i></p>

SENTENCE BUILDER 11

<p>Récemment <i>Recently</i> Hier <i>Yesterday</i> Le weekend dernier <i>Last weekend</i> Le mois dernier <i>Last month</i> La semaine dernière <i>Last week</i> L'année dernière <i>Last year</i></p> <p><u>Il y a un an</u> <i>1 year ago</i> <u>Il y a deux ans</u> <i>2 years ago</i></p>	<p>je suis allé(e) <i>I went</i></p>	<p>à Paris <i>to Paris</i> à Londres <i>to London</i> à Québec <i>to Québec</i> en Angleterre <i>to England</i> en France <i>to France</i> en France d'Outre-mer <i>to overseas France</i> en Martinique <i>to Martinique</i> en Algérie <i>to Algeria</i> en Espagne <i>to Spain</i> en Afrique <i>to Africa</i> en Amérique <i>to America</i> en Asie <i>to Asia</i> en Europe <i>to Europe</i> au Royaume-Uni <i>to the UK</i> au Madagascar <i>to Madagascar</i> aux États-Unis <i>to the USA</i></p>		<p>avec ma famille <i>with my family</i> avec mes parents <i>with my parents</i> avec mes grands-parents <i>with my grandparents</i> avec mes copains <i>with my friends</i> avec mes amis <i>with my friends</i> avec mon collège <i>with my school</i> seul(e) <i>alone</i></p>			
<table border="1"> <tr> <td data-bbox="17 818 268 1114"> <p>j'ai voyagé <i>I travelled</i></p> <p>on a voyagé <i>we travelled</i></p> </td> <td data-bbox="268 818 482 1114"> <p>en voiture <i>by car</i> en car <i>by coach</i> en train <i>by train</i> en bateau <i>by boat</i></p> </td> <td data-bbox="482 818 891 1114"> <p>en avion <i>by plane</i> en bus <i>by bus</i> en métro <i>by metro/underground/tube</i> à pied <i>on foot</i></p> </td> <td data-bbox="891 818 1402 1114"> <p>c'était <i>it was</i></p> <p>rapide <i>fast</i> lent <i>slow</i> confortable <i>comfortable</i> inconfortable <i>uncomfortable</i> amusant <i>fun</i> ennuyeux <i>boring</i></p> </td> </tr> </table>				<p>j'ai voyagé <i>I travelled</i></p> <p>on a voyagé <i>we travelled</i></p>	<p>en voiture <i>by car</i> en car <i>by coach</i> en train <i>by train</i> en bateau <i>by boat</i></p>	<p>en avion <i>by plane</i> en bus <i>by bus</i> en métro <i>by metro/underground/tube</i> à pied <i>on foot</i></p>	<p>c'était <i>it was</i></p> <p>rapide <i>fast</i> lent <i>slow</i> confortable <i>comfortable</i> inconfortable <i>uncomfortable</i> amusant <i>fun</i> ennuyeux <i>boring</i></p>
<p>j'ai voyagé <i>I travelled</i></p> <p>on a voyagé <i>we travelled</i></p>	<p>en voiture <i>by car</i> en car <i>by coach</i> en train <i>by train</i> en bateau <i>by boat</i></p>	<p>en avion <i>by plane</i> en bus <i>by bus</i> en métro <i>by metro/underground/tube</i> à pied <i>on foot</i></p>	<p>c'était <i>it was</i></p> <p>rapide <i>fast</i> lent <i>slow</i> confortable <i>comfortable</i> inconfortable <i>uncomfortable</i> amusant <i>fun</i> ennuyeux <i>boring</i></p>				
<table border="1"> <tr> <td data-bbox="17 1114 268 1363"> <p>je suis resté(e) <i>I stayed</i></p> <p>on est restés <i>we stayed</i></p> </td> <td data-bbox="268 1114 891 1363"> <p>dans un hôtel <i>in a hotel</i> dans un camping <i>in a campsite</i> dans une tente <i>in a tent</i> dans un appartement <i>in an apartment / a flat</i> dans un logement <i>in an accommodation</i></p> </td> <td data-bbox="891 1114 1402 1363"> <p>près de la plage <i>near to the beach</i> loin de la plage <i>far from the beach</i> au centre-ville <i>in the town centre</i> au bord de la mer <i>at the seaside</i> à la campagne <i>in the countryside</i> à la montagne <i>in the mountains</i></p> </td> </tr> </table>				<p>je suis resté(e) <i>I stayed</i></p> <p>on est restés <i>we stayed</i></p>	<p>dans un hôtel <i>in a hotel</i> dans un camping <i>in a campsite</i> dans une tente <i>in a tent</i> dans un appartement <i>in an apartment / a flat</i> dans un logement <i>in an accommodation</i></p>	<p>près de la plage <i>near to the beach</i> loin de la plage <i>far from the beach</i> au centre-ville <i>in the town centre</i> au bord de la mer <i>at the seaside</i> à la campagne <i>in the countryside</i> à la montagne <i>in the mountains</i></p>	
<p>je suis resté(e) <i>I stayed</i></p> <p>on est restés <i>we stayed</i></p>	<p>dans un hôtel <i>in a hotel</i> dans un camping <i>in a campsite</i> dans une tente <i>in a tent</i> dans un appartement <i>in an apartment / a flat</i> dans un logement <i>in an accommodation</i></p>	<p>près de la plage <i>near to the beach</i> loin de la plage <i>far from the beach</i> au centre-ville <i>in the town centre</i> au bord de la mer <i>at the seaside</i> à la campagne <i>in the countryside</i> à la montagne <i>in the mountains</i></p>					
<p>Tous les jours <i>Every day</i></p> <p>Tous les soirs <i>Every evening</i></p> <p>Chaque jour <i>Every day</i></p> <p>Chaque nuit <i>Every evening</i></p>	<p>j'ai visité <i>I visited</i></p> <p>on a visité <i>we visited</i></p>	<p>le quartier <i>the neighbourhood</i> le café <i>the cafe</i> le château <i>the castle</i> le centre commercial <i>the shopping centre</i> le stade <i>the stadium</i> le jardin public <i>the public garden (park)</i> le marché <i>the market</i> le musée <i>the museum</i> le pont <i>the bridge</i> le restaurant <i>the restaurant</i> le théâtre <i>the theatre</i></p> <p>la ville <i>the town/city</i> la piscine <i>the pool</i> la plage <i>the beach</i> la place <i>the square</i></p> <p>les bâtiments <i>the buildings</i> les sites historiques <i>the historic sights</i> les magasins <i>the shops</i></p> <p>c'était... <i>it was...</i> historique <i>historic</i> moderne <i>modern</i> propre <i>clean</i> calme <i>quiet</i> ordinaire <i>ordinary</i> unique <i>unique</i> populaire <i>popular</i> célèbre <i>famous</i> agréable <i>pleasant</i> ennuyeux <i>boring</i></p> <p>il y avait beaucoup de... <i>there was/were a lot of...</i> gens <i>people</i> bruit <i>noise</i></p>					

SENTENCE BUILDER 12

Où est...? <i>where is...?</i>		Où sont...? <i>where are...?</i>
le café <i>the cafe</i> le château <i>the castle</i> le centre commercial <i>the shopping centre</i> le stade <i>the stadium</i> le jardin public <i>the public garden (park)</i> le marché <i>the market</i> le musée <i>the museum</i> le pont <i>the bridge</i> le théâtre <i>the theatre</i>	la ville <i>the town/city</i> la piscine <i>the pool</i> la plage <i>the beach</i> la place <i>the square</i> la gare <i>the train station</i> la boulangerie <i>the bakery</i> la pâtisserie <i>the cake shop</i> la pharmacie <i>the pharmacy</i> la station (de bus/metro) <i>the (bus/metro) station</i> l'hôpital <i>the hospital</i> l'hôtel <i>the hotel</i> l'aéroport <i>the airport</i>	les bâtiments <i>the buildings</i> les sites historiques <i>the historic sights</i> les magasins <i>the shops</i> les restaurants <i>the restaurants</i>

Informal	Formal		
Va <i>Go</i> Continue <i>Continue</i>	Allez <i>Go</i> Continuez <i>Continue</i>	tout droit <i>straight ahead</i> au carrefour <i>to the crossroads</i> aux feux <i>to the traffic lights</i>	
Tourne <i>Turn</i>	Tournez <i>Turn</i>	à gauche <i>left</i> à droite <i>right</i>	
Prends <i>Take</i>	Prenez <i>Take</i>	la première rue <i>the first road</i> la deuxième rue <i>the second road</i> la troisième rue <i>the third road</i>	à gauche <i>on the left</i> à droite <i>on the right</i>
Traverse <i>Cross</i>	Traversez <i>Cross</i>	la place <i>the square</i> le pont <i>the bridge</i>	
Descends <i>Go down</i>	Descendez <i>Go down</i>	la rue <i>the road</i>	
C'est <i>It's</i>	devant <i>in front of</i> derrière <i>behind</i> entre <i>between</i> à côté de (du/de la/des) <i>next to</i>	le pont <i>the bridge</i> la place <i>the square</i> les magasins <i>the shops</i>	
	proche <i>close</i> loin <i>far</i> au coin <i>on the corner</i>		



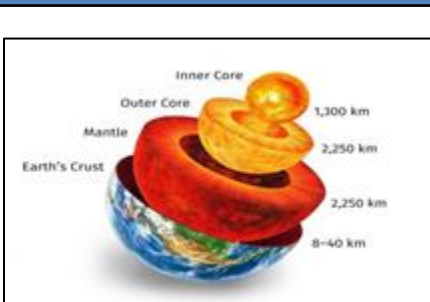
Tectonic Hazards

Inside the Earth

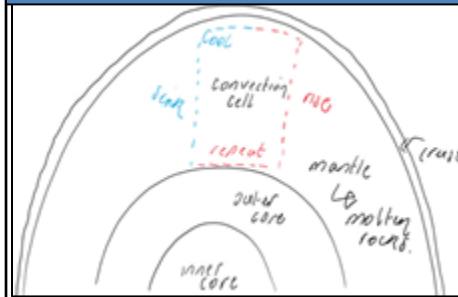


At around 22°C the thinnest layer of the Earth is solid. CRUST	Consists of iron, nickel, sulphur and oxygen. This liquid layer is found 5,150km deep. It is thought to be 4,000-6,000 °C. OUTER CORE
Its temperature ranges from 1,400°C to 3,000°C. It is made up of iron, oxygen, silicon, magnesium and aluminium. The majority of this layer is molten. MANTLE	This layer makes up 80% of the Earth's structure. MANTLE
The layer beneath the ocean bed is about 8km thick and is mainly made from a rock called basalt. CRUST	A huge solid metal ball of iron and nickel measuring 2,500 km wide. INNER CORE
At 5,000-6,000 °C this part of the Earth is 6,000 times hotter than our atmosphere. INNER CORE	The layer that makes up the land ranges from 8km to 70km thick and is mostly made from a rock called granite. CRUST
This layer is divided up into segments called tectonic plates. These are moving very slowly. CRUST	It is the movement of metals in this layer that creates our Earth's magnetic field. OUTER CORE

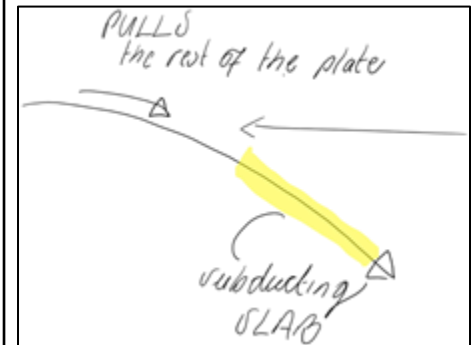
Layers of the Earth



Convection Currents



Slab and Pull Theory



Key Terms

Conservative plate margin	Tectonic plate margin where two tectonic plates slide past each other.	Magma	Molten rock below the Earth's surface.
Constructive plate margin	Tectonic plate margin where rising magma adds new material to plates that are diverging or moving apart.	Plate margin	The margin or boundary between two tectonic plates.
Destructive plate margin	Tectonic plate margin where two plates are converging or coming together, and oceanic plate is subducted. It can be associated with violent earthquakes & explosive volcanoes.	Primary effects	The initial impact of a natural event on people and property, caused directly by it, for instance the ground buildings collapsing following an earthquake.
Earthquake	A sudden or violent movement within the Earth's crust followed by a series of shocks	Richter Scale	A unit of measurement for the magnitude and strength of an earthquake. Typically ranges 1-10.
Epicentre	The point on the surface of the Earth, directly above the focus, where the shockwaves will be felt the strongest.	Secondary effects	The after-effects that occur as indirect impacts of a natural event, sometimes on a longer timescale, for instance fires due to ruptured gas mains resulting from the ground shaking.
Focus	The point below the Earth's within the crust where pressure is released, and shockwaves travel outwards from.	Tectonic Plate	A rigid segment of the Earth's crust which can 'float' across the heavier, semi-molten rock below. Continental plates are less dense, but thicker than oceanic plates.
Immediate responses	The reaction of people as the disaster happens and in the immediate aftermath.	Tsunami	Waves generated by an earthquake on the seabed.
Long-term responses	Later reactions that occur in the weeks, months and years after the event.	Volcano	An opening in the Earth's crust from which lava, ash and gases erupt.

Key

Processes:

Tectonic Drift

- The earth was initially a super continent called Pangea 250 million years ago.
- Plates move a few centimeters a year, but this adds up to thousands of kilometers over millions of year.
- This movement is called Tectonic Drift.



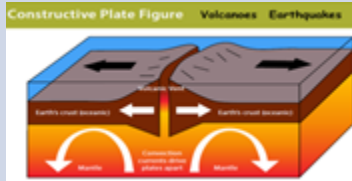
PERMIAN
225 million years ago



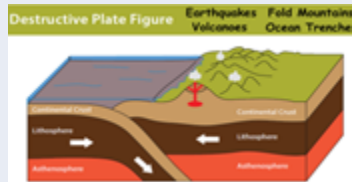
PRESENT DAY

Tectonic Hazards

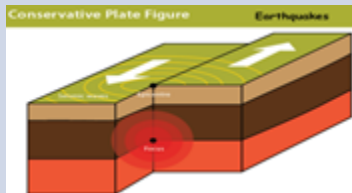
Plate Tectonics



Constructive margins are where two plates are moving away from each other. Magma (molten rock) rises to fill the gap and cools, creating new crust.



Destructive margins are where two plates are moving towards each other. Where an oceanic plate meets a continental plate, the denser oceanic plate is forced down into the mantle and destroyed. This often creates volcanoes and ocean trenches (very deep sections of the ocean floor where the oceanic plate goes down). When two continental plates meet, the plates collide, and the ground is folded & forced upwards to create mountain ranges.



Conservative margins are where two plates are moving sideways from each other or moving in the same direction but at different speeds. Crust isn't created or destroyed.

Earthquake location Both 7.8 magnitude	LIC Gorkha Nepal, 2015 GDP per capita: US\$ 690	HIC Kaikoura, New Zealand 2016: GDP per capita: US\$ 40,331
Primary effects	9,000 people died, 20,000 injured.	2 died and 50 injured.
Secondary effects	A lack of clean water led to 13 dying from Typhus.	100,000 landslides blocked roads and rail.
Short term responses	Search and rescue teams, water and medical support arrived quickly from India and China.	200 of the most vulnerable were evacuated from Kaikoura in 24 hours.
Long term responses	The road from Nepal to Tibet was reopened after 2 years.	Most roads and rail systems were repaired within 2 years.



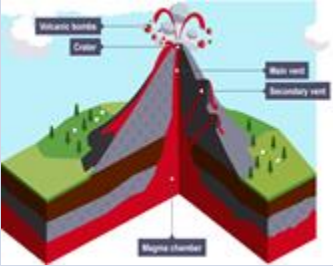
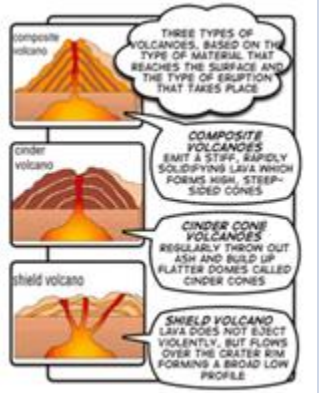
Tectonic Hazards

Predicting and Preparing for Volcanic Eruptions	Predicting and Preparing for Earthquakes
Tiltmeters used to measure change in shape.	Use seismometers to identify irregularities in tremors.
Spectrometers to measure sulphur dioxide emissions.	Measure radon gas that will appear as cracks in the ground.
Evacuation and exclusion zones around the volcano.	Retrofit existing buildings with cross bracings.
Ensure medical, food and water supplies are stocked.	Practice earthquake drills.

Why do people live in areas of tectonic hazards?
1. Creates tourism (e.g. Vesuvius in Italy).
2. The ash makes the land fertile meaning jobs for farmers.
3. Friends and family may live nearby.
4. Some people cannot afford to live elsewhere.

Volcanoes

Active volcanoes erupt often, or have erupted recently. Dormant volcanoes have not erupted for a long time, but can still erupt. Extinct volcanoes can no longer erupt and have not erupted for thousands of years.





Key Terms

Crust	The Earth's hard skin of rock.
Mantle	It is below the crust. It is mostly toffee like.
Core	This is made of metal and silica. It is solid.
Lithosphere	This is the crust and upper mantle.
Oceanic crust	Is under the sea and made of basalt. It is around 7km thick.
Continental crust	It is above the sea and mostly made of granite. It is around 30-50km deep.
Fault	A crack in rock. This is where blocks of rock can move.
Focus	The point in the Earth's crust where the earthquake starts.
Epicentre	This is the point directly above the focus on the earth's surface.
Seismic wave	This is the energy given off by an earthquake.
Aftershock	As rock settles in a new position there can be little earthquakes.
Tsunami	A wave created by an earthquake in the ocean floor.
Magma	Melted rock below the earth's surface.
Lava	Melted rock on the earth's surface.
Crater	The top of a volcano.
Pyroclastic flow	A heavy cloud of ash and gases which collapses and moves over the land.
Mud flow	A mixture of pyroclastic flow and water. This can happen when there is a glacier on a volcano.

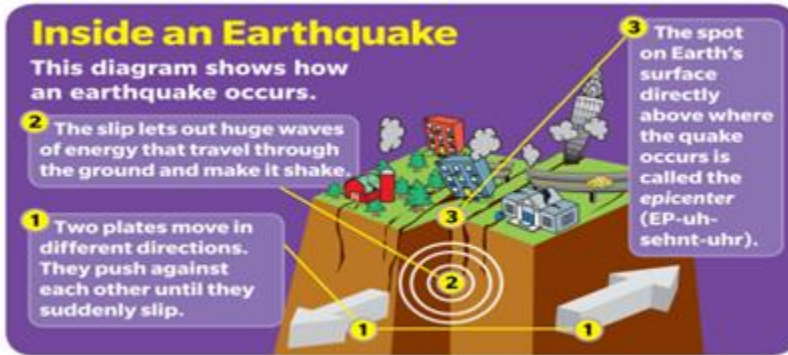
The Richter Scale

The Richter Scale is a measure how powerful an earthquake has been. It is measured using a seismometer. This measures the shaking of the ground. The amount of energy given out by the earthquake is called magnitude.



Tectonic Hazards

The Inside of an earthquake



Earthquakes

Seismology	The study of earthquakes
Focus	The point within the Earth's crust where the rocks fracture and the earthquake begins.
Epicentre	The point directly above the focus on the Earth's surface where the earthquake is felt strongest
Shock Waves	The name of the vibrations of energy that travel through the Earth's crust. The further they travel, the weaker they become.
Seismometer	This piece of equipment will measure the strength of the earthquake by recording the vibrations caused by the tremors. The vibrations are plotted on a seismograph.
Richter Scale	Measures the magnitude (strength) of the earthquake on a scale of 1-10.



Why people live in the danger zone

- People have lived there for a long time
- They are too poor to leave
- There is good soil
- Money from tourism
- Geothermal energy
- Valuable minerals
- Fossil fuels

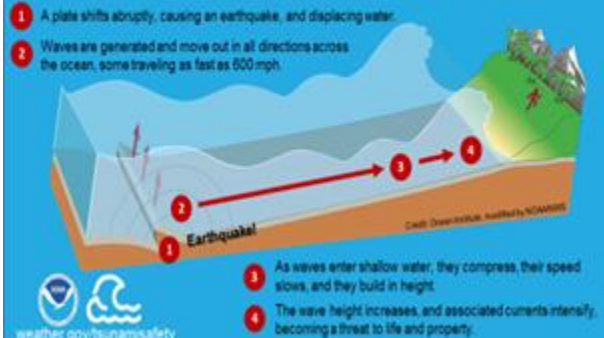


What causes a tsunami?

A tsunami is caused when there is an earthquake under the sea. This sets off waves that move in all directions. They are deadly and move at around 700km per hour. Reaching the coast it slows the wave and they can become up to 30 meters high.

How a Tsunami Works

Most tsunamis are caused by large earthquakes below or near the ocean floor.



Development

Key Vocabulary			
Bilateral Aid	When a government in one country provides aid to the government of a foreign country.	GNI	A measurement of economic activity that is calculated by dividing the gross (total) national income by the size of the population. GNI considers not just the value of goods and services, but also the income earned from investments overseas.
Child Bride	Child marriage is a formal marriage of a minor below the age of 18 years old.	GNI per capita	The total GNI of a country divided by the total population.
Choropleth map	A map which uses differences in shading within areas to indicate the average values of a particular quality.	Human Development Index (HDI)	A method of measuring development in which income, life expectancy and education are combined to give an overview.
Colonisation	Type of government where a geographic area is ruled by a foreign power.	Income	Money that an individual, business or country earns in exchange for providing a good or service.
Department for International Development (DfID)	A government body in the United Kingdom who oversees aid.	Inequality	Difference between wealth and poverty, as well as peoples' wellbeing and access to things like jobs, housing and education.
Development indicator	A piece of data which is used to measure part of a country's development.	Life expectancy	The average age a person may be expected to live.
Developing	When a country is changing for the better to ensure people reach an acceptable standard of living or quality of life.	Non-governmental aid	Charities call non-governmental organisations (NGOs) raise money from the public to support development projects in other countries.
Development	The process of change by which people reach an acceptable standard of living or quality of life.	Poverty	When an individual lacks access to basic human needs such as clean water, shelter, food, work, healthcare, sanitation and education.
Ecological footprint	The amount of the environment required to produce the goods and services necessary to support a particular lifestyle.	Quality of Life	The general well-being of people which includes income, health, education, employment, and the environment.
Extreme Poverty	When an individual lives below the international poverty line of \$190 and has a severe deprivation of basic human needs.	Subsistence Farming	A type of agriculture producing food and materials for the benefit only of a farmer and his family.
Gender Inequality	The unequal treatment of individuals based on their gender. There are different forms of gender-based discrimination, gender stereotyping and unequal distribution of power between men, women, girls and boys, and other genders.	United Nations	An intergovernmental organisation of 193 member states formed after the Second World War. The primary aims of the UN are to secure international peace, eliminate poverty and protect human rights.

Development

The Development Compass Rose

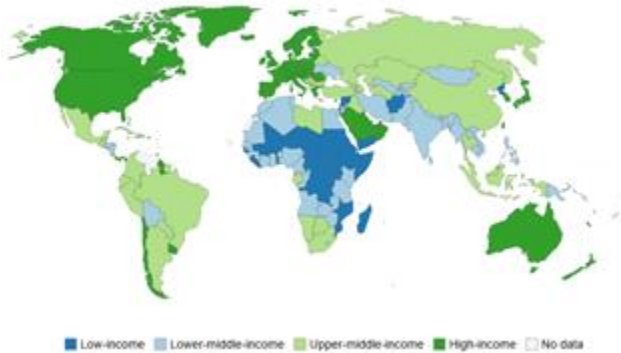


Development isn't only about having money, it's a range of ways in which the quality of peoples' lives in a country can be improved.

Understanding and questioning the idea of development involves thinking about a variety of factors. The Development Compass Rose is a tool to support this thinking. It encourages a range of questions and explores links between the four areas – **Natural**, **Social/cultural**, **Economic** and **Who decides** (Political).

Country	GNI per capita	Population
Singapore	103,000	5,607,280
Ireland	99,000	4,773,100
Qatar	97,000	
Switzerland	76,000	8,272,100
Norway	69,000	5,492,930
USA	68,000	323,127,510
Denmark	61,000	5,721,120
Netherlands	60,000	17,394,901
United Arab Emirates	59,000	10,030,009
Taiwan	59,000	23,987,345

How is money spread around the world



The World Bank's income classifications split countries into one of four categories determined by the country's gross national income (GNI) per capita. The GNI thresholds between income groups have change through time based on World Bank definitions.

Factors affecting development

Historic factors	Country was colonised – resulting in resources and people being exploited to benefit the empire. Empires created new borders which divides traditional tribal areas
Economic factors	The value of products sold by countries, which varies depending on the product. Eg: selling bananas is a low value. Whereas, selling cars is higher value, earning the country more money
Environmental factors	The climate of a country Natural disasters Being landlocked
Political factors	Conflict or civil war Corrupt government Lack of investment

Indicators of Development

Gross Domestic Product (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 (HDI)	Combines GNI per capita, life expectancy and years in schooling.

Development

One of the key questions to ask about development is the standard of living of the people who live in a country. There are many ways to measure the quality of life or level of development of a place.





ECONOMIC INDICATORS

INDICATORS	EXAMPLES OF MEASURES
Wealth	Gross Domestic Product (GDP) - the total value of all goods and services produced in a country
	Gross National Product (GNP) - GDP plus earnings from foreign investment
	GNP per capita - GNP divided by the total population
Jobs	The types of jobs people do differ between countries. In high income countries (HICs) more people work in tertiary and quaternary jobs. In low income countries (LICs) more people work in primary jobs such as farming and secondary jobs such as manufacturing

SOCIAL INDICATORS

INDICATORS	MEASURES
Health	Life expectancy
	Death rate: deaths per 1,000 per year
	Infant mortality rate
	Birth rate: births per 1,000 per year
Education	Percentage in primary education
	Literacy rate
Equality	Equal opportunities for women
	Fair distribution of wealth
	Freedom of speech, eg people can vote

Development

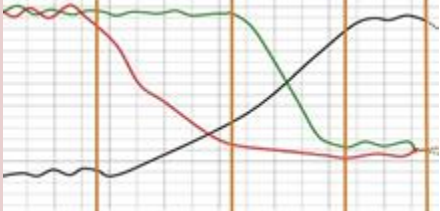
Physical factors affecting uneven development	
Natural Resources	Natural Hazards
<ul style="list-style-type: none"> Fuel sources such as oil. Minerals and metals for fuel. Availability for timber. Access to safe water. 	<ul style="list-style-type: none"> Risk of tectonic hazards. Benefits from volcanic material and floodwater. Frequent hazards undermines redevelopment. 
Climate	Location/Terrain
<ul style="list-style-type: none"> Reliability of rainfall to benefit farming. Extreme climates limit industry and affects health. Climate can attract tourists. 	<ul style="list-style-type: none"> Landlocked countries may find trade difficulties. Mountainous terrain makes farming difficult. Scenery attracts tourists. 

Variations in the level of development	
LICs	Poorest countries in the world. GNI per capita is low and most citizens have a low standard of living.
NEEs	These countries are getting richer as their economy is progressing from the primary industry to the secondary industry. Greater exports leads to better wages.
HICs	These countries are wealthy with a high GNI per capita and standards of living. These countries can spend money on services.







Causes of uneven development

Development is globally uneven with most HICs located in Europe, North America and Oceania. Most NEEs are in Asia and South America, whilst most LICs are in Africa. Remember, development can also vary within countries too.



The Demographic Transition Model					
<p>The demographic transition model (DTM) shows population change over time. It studies how birth rate and death rate affect the total population of a country.</p> 	STAGE 1	STAGE 2	STAGE 3	STAGE 4	STAGE 5
	<p>High DR High BR Steady</p>	<p>BR Low Declining DR Very High</p>	<p>Rapidly falling DR Low BR High</p>	<p>Low DR Low BR Zero</p>	<p>Slowly Falling DR Low BR Negative</p>
	e.g. Tribes	e.g. Kenya	e.g. India	e.g. UK	e.g. Japan

Development


Human factors affecting uneven development	
<p>Aid </p> <ul style="list-style-type: none"> Aid can help some countries develop key projects for infrastructure faster. Aid can improve services such as schools, hospitals and roads. Too much reliance on aid might stop other trade links becoming established. 	<p>Trade </p> <ul style="list-style-type: none"> Countries that export more than they import have a trade surplus. This can improve the national economy. Having good trade relationships. Trading goods and services is more profitable than raw materials.
<p>Education </p> <ul style="list-style-type: none"> Education creates a skilled workforce meaning more goods and services are produced. Educated people earn more money, meaning they also pay more taxes. This money can help develop the country in the future. 	<p>Health </p> <ul style="list-style-type: none"> Lack of clean water and poor healthcare means a large number of people suffer from diseases. People who are ill cannot work so there is little contribution to the economy. More money on healthcare means less spent on development.
<p>Politics </p> <ul style="list-style-type: none"> Corruption in local and national governments. The stability of the government can effect the country's ability to trade. Ability of the country to invest into services and infrastructure. 	<p>History </p> <ul style="list-style-type: none"> Colonialism has helped Europe develop, but slowed down development in many other countries. Countries that went through industrialisation a while ago, have now develop further.

Consequences of Uneven Development	
<p>Levels of development are different in different countries. This uneven development has consequences for countries, especially in wealth, health and migration.</p>	
Wealth	People in more developed countries have higher incomes than less developed countries.
Health	Better healthcare means that people in more developed countries live longer than those in less developed countries.
Migration	If nearby countries have higher levels of development or are secure, people will move to seek better opportunities and standard of living.

Glaciation

Key Terms			
Arête	A sharp, knife-like ridge formed between two corries cutting back by processes of erosion and freeze thaw.	Lake District	A mountainous region in north west England and popular holiday destination. It is famous for its lakes, forests and mountains with many features formed by the processes of glaciation.
Bulldozing	Ice pushes material of all shapes and sizes as it moves slowly forward.	Land use conflicts	Disagreements which arise when different users of the land do not agree on how it should be used.
Corrie	(Also called cirque) Armchair-shaped hollow in the mountainside formed by glacial erosion, rotational slip and freeze-thaw weathering. This is where the valley glacier begins. When the ice melts, it can leave a small circular lake called a tarn.	Moraine	Frost-shattered rock debris and material eroded from the valley floor and sides, transported and deposited by glaciers.
Drumlin	A hill made of glacial till deposited by a moving glacier, usually elongated or oval in shape, with the longer axis parallel to the former direction of ice.	Pyramidal peak	Where several corries cut back to meet at a central point, the mountain takes the form of a steep pyramid.
Erratic	Rocks which have been transported and deposited by a glacier some distance from their source region.	Ribbon lake	A long, narrow lake found in glaciated valleys formed in locations where the glacier had more erosive power, eg in areas of softer rock, where the valley gradient temporarily steepened or a tributary glacier joined the main valley.
Glacial trough	A river valley widened and deepened by the erosive action of glaciers; it becomes 'U'-shaped instead of the normal 'V'-shape of a river valley.	Rotational slip	This occurs when the ice moves in a circular motion. This process can help to erode hollows in the landscape, and deepen hollows into bowl shapes.
Glacier	a slowly moving mass or river of ice formed by the accumulation and compaction of snow on mountains or near the poles.	Till	An unsorted mixture of sand, clay and boulders carried by a glacier and deposited as ground moraine over a large area.
Hanging valley	A tributary valley to the main glacier, too cold and high up for ice to be able to easily move. It therefore was not eroded as much as the lower main valley, and today is often the site for a waterfall crashing several hundred metres to the main valley floor.	Truncated spur	A former river valley spur which has been sliced off by a valley glacier, forming cliff-like edges.

The Ice Age




The maximum extent of ice cover during the last ice age, 20,000 years ago. This was known as the Pleistocene Epoch.

Glacial Processes

Freeze-Thaw Weathering

Water gets into cracks in the rocks. The water freezes and expands, putting pressure on the rock. The ice then thaws, releasing the pressure. The process repeats itself many times until the rock shatters and breaks apart.

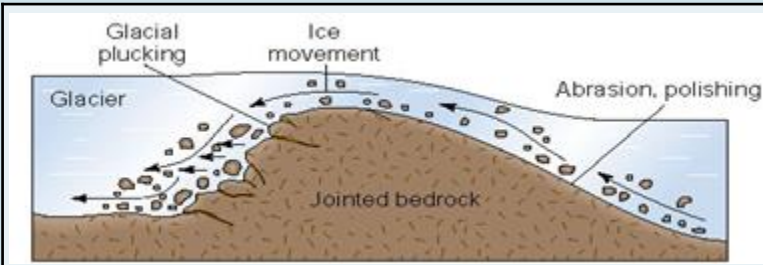


Plucking

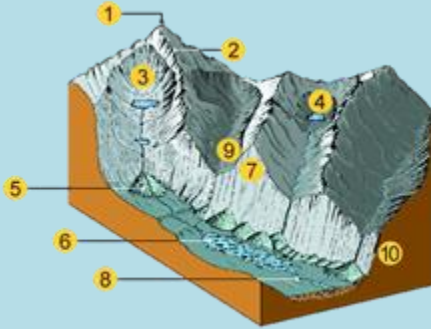
Melt water underneath, on the back or the sides of the glacier freezes onto the rock. As the glacier moves forward it pulls pieces of rock out.

Abrasion

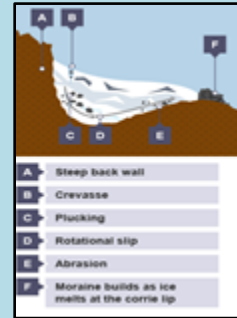
Bits of rock stuck in the glacier grind against the rock below the glacier, wearing it away – a bit like sandpapering.



Features of Glacial Erosion



- 1 Pyramidal Peak is a steep, triangular rock face divided by sharp ridges or arêtes.
- 2 Arête is a sharp ridge between corries.
- 3 Corrie is an armchair shaped hollow with steep back and sides.
- 4 Tarn is where water has gathered in the hollow in the floor of the corrie.
- 5 Alluvial Fan is a fan shaped pile of rock remains (alluvium) washed down by the stream and piled up where the steep valley side meets the valley floor.
- 6 Ribbon Lake is a long narrow lake in a part of the valley cut deeper by the glacier.
- 7 Truncated Spur is where an interlocking spur has been cut off sharply by ice that flowed down the main valley.
- 8 Misfit Stream a stream which is far too small to have cut the valley.
- 9 Hanging Valley where the valley floor is much higher than the floor of the main valley.
- 10 'U' Shaped Valley which has steep sides and a nearly flat floor. (The other side of the valley is missing in this cut-away diagram).



Formation of a corrie and tarn

- Freeze-thaw weathering above the glacier breaks off pieces of rock which fall onto the glacier.
- Snow collects in a shallow hollow, turns into ice and then moves downhill.
- Plucking behind the glacier steepens the back wall.
- Abrasion under the ice deepens the hollow.
- A rock lip forms where there is less erosion. It may be covered with moraine deposited by the glacier.
- When the ice melts, a bowl shape is left in which a tarn may form.

The Lake District



- The Lake District gets 16.4m visitors every year.



- Tourism employed over 16,000 people in 2014 and visitors spent over £1 billion.

Problems with Tourism

- × The average price of a house in the village of Grasmere is over £350,000, while the average household income is only £27,000. Many local people cannot afford to stay living in the area.
- × An estimated 89% of visitors to the Lake District arrive by car. This makes roads very busy.
- × Businesses in tourist hotspots like Ambleside cater mainly for tourists. About 40% are cafes, restaurants & hotels and around 10% sell outdoor clothing.
- × More than 16% of properties in the Lake District National Park are second homes or holiday homes. This means there are fewer people living in the area in winter, so some shops and services close down for several months.

Strategies to Manage the Problems

- ✓ Zoning schemes mean that some water sports are only allowed in some lakes. Lake Windermere has a 10 knot speed limit for all boats. This keeps peaceful areas for people to enjoy.
- ✓ In 2012, planning permission was granted for 134 affordable homes and 141 houses that only local people are allowed to buy – they cannot be used as holiday homes or lets.



How can people use the land in a glaciated area?

Quarries and Mining

- ✓ Erosion by glaciers exposes lots of rock, making it easy to get to. Glacial landscapes are often quarried for slate, granite and limestone.
- ✗ Quarrying damages habitats. The noise of the blasting and trucks can scare the wildlife and spoil the peacefulness of the area. Large scars from quarrying may also put tourists off visiting as the area won't look as attractive. This could mean loss of income for local businesses such as hotels and restaurants.

Tourism

- ✓ Glaciated areas have dramatic landscapes, making them attractive places to visit. Popular activities in these areas include; hiking, climbing, boating, mountain biking and skiing.
- ✗ Tourist developments such as hotels and attractions may spoil the natural scenery. For example there is a visitor centre on the top of Mount Snowdon in North Wales.
- ✗ Large numbers of tourists can damage stone walls, scare sheep, leave gates open and drop litter. Some farmers don't want lots of tourists walking on their land. They may try to block footpaths by putting up fences.

Forestry

- ✓ Coniferous (evergreen) forests are often planted in upland areas because these trees can cope with the cold weather and high rainfall. The trees are used for timber for building materials and paper.
- ✗ When the trees are chopped down for timber this scares off wildlife and damages habitats.



Impacts of tourism can be good and bad

Tourism offers employment to local people who work in hotels, shops, cafes & other services. However, these jobs are often only during peak months & are low paid.

Tourism keeps local services going. Local buses and shops would have closed if it wasn't for the tourists. Locals can make use of these facilities. However, sometimes these facilities are closed in the winter months when tourist numbers are low.



Farming

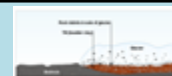
- ✓ It's usually too cold to grow crops, but grass is grown to make hay to feed the sheep and cows.
- ✓ Cattle are kept on the flatter valley floors.
- ✓ Sheep farming is common in the upland glaciated areas because the steep slopes and poor soils makes it unsuitable for any other type of farming.



Increased traffic causes problems as the country lanes are often narrow and winding. Congestion is common and there isn't enough car parking available. Lack of car parking spaces mean tourists often park on the side of the roads on grass verges. This damages vegetation. However, developing facilities such as car parks can increase income from tourism (e.g. car park charges). This can be invested into the area to pay for improvements such as repairing footpaths, planting trees and conserving habitats.

Features of Glacial Deposition

Glaciers slowly move down valleys. When they reach the lower altitudes, the temperature warms and they begin to melt. The material they carry within the ice is called glacial till – a mixture of rock, sand, boulders and pebbles. This will be deposited by the glacier's melt water, creating features of glacial deposition, such as those below.



- > Terminal moraines are found at the terminus or the furthest (end) point reached by a glacier.
- > Lateral moraines are found deposited along the sides of the glacier.
- > Medial moraines are found at the junction between two glaciers.



Drumlins are elongated hills of glacial deposits. They can be 1km long and 500m wide, often occurring in groups. A group of drumlins is called a drumlin swarm or a 'basket of eggs'. These would have been part of the debris that was carried along and then accumulated under the ancient glacier. The drumlin would have been deposited when the glacier became overloaded with sediment.



Erratics are large rocks or boulders that are often found on their own, rather than in piles. They have been carried by the glacier, sometimes for hundreds of miles and dumped when the glacier has melted. They are unusual shapes, unusually large and of a rock type uncommon to the area.



Globalisation

Globalisation - The process by which the world is becoming increasingly interconnected as a result of increasing flows of trade, people, ideas and resources around the world.

Key Words

Outsourcing	When a company gets some of its jobs/ processes done in a different country	Labour intensive	A business or manufacture that needs a lot of workers
TNC	Transnational cooperation – a company that is doing business in several different countries	Trade	The activity of buying, selling, or exchanging goods or services between people, firms, or countries
Host country	The country that tends to have the factories and the less skilled workers (usually LIC)	Child Labour	The employment of children in an industry, especially when it is illegal
Origin country	The country where the product was designed e.g. where the HQ are (usually HIC)	Interdependent	When 2 things are linked and dependent on one another to survive
Economy	The wealth and resources of a country in terms of the goods that are produced and the consumed there	LIC	Low Income Country (earning less than \$1,047 per person)
Imports	Raw materials brought into a country from abroad	MNC	Multi-National Company (or Corporation) A company that has facilities in more than one country (e.g. offices and factories in different countries)
Exports	Raw materials, good and services sold to another country	NEE	Newly Emerging Economy (sometimes known as Newly Industrialising Country (Earning between \$1,048 - \$12,747 per person))
Manufacturing	Making products by hand or by machine, usually in a factory, that are then sold to customers, people or businesses	Sweatshop	A factory or workshop where workers are paid very low wages for long hours in poor working conditions. Health and safety standards are often very low too

Globalisation

FACTORS DRIVING GLOBALISATION

There are four main flows that drive globalisation:

- **Flows of people** – more people are moving to other countries than before (migration). International migration has increased by over 40% between 2000 and 2015!
- **Flows of information** – International news, sports fixtures and emails can now be exchanged a lot easier between people living in different countries.
- **Flows of money** – The internet allows for money to be moved instantly across the world. Most countries' economies are now dependent on flows of money from other countries. This has led an interconnected global economy.
- **Flows of products** – Most products are now produced in lower income countries and then imported to higher income countries for people to buy. This is mainly due to cheaper production costs in LICs.



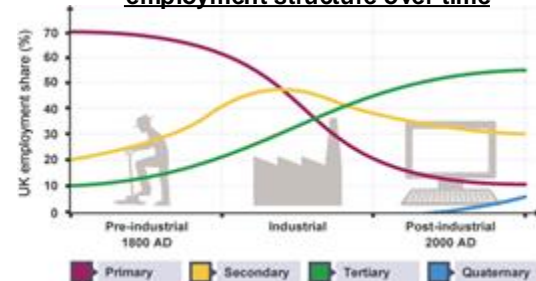
All these flows have been moving around the world for hundreds of years however, **improvements in technology** such as airplanes and the internet have meant that these flows can now move around the world quicker and easier than in the past. Globalisation began to rapidly increase in the 1980s and the world is now extremely interconnected.

EMPLOYMENT SECTORS

Jobs fit into 4 employment sectors:

- **Primary sector** – jobs that work with raw materials from the land or sea like farmers, miners or forestry workers.
- **Secondary sector** – jobs that take raw materials and turn it into a product for example baking or clothes making.
- **Tertiary sector** – jobs that involve providing people with a service for example teachers, doctors and shop assistants.
- **Quaternary sector** – jobs that provide information, research and consultancy (advice) for example computer programmers.

A graph showing the changes to the UK employment structure over time



REASONS FOR CHANGES TO THE UK EMPLOYMENT STRUCTURE

- Decrease in primary sector jobs as coal reserves were used up in the country and mines were no longer required
- Decrease in secondary sector jobs due to manufacturing and labour costs being cheaper and less regulated abroad in LICs.
- Increase in tertiary and quaternary sector jobs due to improvements in education, mainly at university level which results in people have the skills required to high skilled jobs in these sectors.

Globalisation

Key Concept – What is the purpose of MNCs?

MNCs operate in more than one country. They often have factories in less developed countries. This is because labour is cheaper (they can pay their workers less). The offices and headquarters tend to be located in more developed countries (HICs). Examples include:

- Coca-Cola
- Nike
- Apple
- Starbucks
- McDonalds



What has caused globalisation?

1. Some countries are more efficient at different parts of the process
2. **Transport** is cheaper and easier now. Larger Cargo ships means that the cost of transporting goods has decreased, while transport improvements mean that good and people can travel quicker.
4. **ICT developments** mean communication is now global. The internet and mobile technology has allowed greater communication between people in different countries.
5. **Labour availability and skills** mean labour intensive industries like clothing can easily take advantage of lower wages and higher skill levels in different countries. LICs are unlikely to have a minimum wage to protects its workers.
6. **Resource availability** means it is more common now for each stage of the manufacturing process to be in different countries due to specialised processes in each country minimising costs to Multi-National Corporations

Geographical Skills – Identifying patterns on a map: Locations of bottling plants for Coca-Cola



Coca-Cola has mostly invested in South Asia, particularly India, Bangladesh, Vietnam and Cambodia. It has Bottling Plants in 11 different African countries, which are all located in Southeast Africa. These countries are all either LICs or NEEs and they have been chosen as the product can be easily moved across the Indian Ocean before being distributed around the world.

Impacts of globalisation



TRANSNATIONAL CORPORATIONS (TNCs)

A TNC is a large company that operates in several countries for example Nike and Apple – the flows mentioned before make it a lot easier for companies to have a business that is spread across many countries.

- TNCs are often part of very complex chains. For example, Apple iPhones are often designed in the USA but assembled in China and then shipped all over the world to stores where they are sold to customers. This links to the **flow of products**.
- The majority of TNCs have their headquarters and tertiary/quaternary sector jobs in HICs like the UK and USA, whilst their primary and secondary sector jobs are in LICs where workers received significantly less pay.

Advantages of TNCs

- Provides jobs in LICs which are often better paid and more reliable than primary sector jobs like farming.
- Some TNCs invest in infrastructure for example building new roads/schools for local children.
- Sometimes TNCs invest in training so employees benefit from new skills.

Disadvantages of TNCs

- Working conditions are often poor due to relaxed laws in LICs – workers often work 60 hours per week and have few breaks during their working day.
- Most profits go back overseas to the headquarters where most of the highly paid jobs are.
- Some TNCs take advantage of natural resources and exploit (use up) them.
- TNCs are 'footloose' this means they can easily move elsewhere if they want to e.g. if workers demand more pay. This results in workers being left unemployed if the factory closes and moves away.

MIGRATION

Migration is the movement of people from one place to another (involving a change of home). It could be rural-to-urban, within the same country or international migration.

People migrate because of push and pull factors:

Push – move **away** from things they do not like or reduce their standard of living e.g. war, famine and drought.

Pull – move **towards** things they are attracted to which they believe will increase their standard of living e.g. better paid jobs, easier access to education and health care.

Migration links to the **flow of people** around the world and the UK has experienced lots of migration which has resulted in a country that has lots of cultures mixing together.



ENVIRONMENT

Globalisation results in significant environmental issues because of the flows that constantly move around the world. Planes and cargo ships are used to transport food, resources and people around the world which leads to environmental damage.

Some of these environmental issues include:

- **Air pollution** – As a result of people travelling around the world for business/pleasure, more fuel is burnt leading to more harmful chemical in the air.
- **Loss of habitats** – Farming and mining often means that habitats are destroyed, animals lose their homes, and the landscape is destroyed.
- **Deforestation** – People are buying and importing more products from around the world. Trees are cut down to make packaging (paper and cardboard) or to make the actual products.
- **Water pollution** – Huge container ships pollute the seas by leaking oil and sewage, damaging sea ecosystems.



Impacts of globalisation



FOOD

Today, often the food we see in the supermarket has been imported into the UK – this means it has been brought in from another country.

This connects people in the UK to farmers around the world – this links to the **flow of products**.

There are also many restaurants with different types of cuisine in the UK which allows people to experience cultures from all around the world!

+	<ul style="list-style-type: none"> · Farming jobs are created in LICs · We can import food we cannot grow in the UK e.g. bananas
-	<ul style="list-style-type: none"> · Flying/shipping food a round the world = environmental damage (CO₂ emissions) · UK farmers struggle to compete with cheap imports · Some LICs are struggling to feed their own populations and the land is used for UK food.

Positive impacts of globalisation	Negative impacts of globalisation
<ol style="list-style-type: none"> 1.TNC's create jobs in developing countries 2.TNCs bring wealth and foreign currency to local economies when they buy things (products/ services) there. They can spend this on education, health and infrastructure 3.Increased awareness of events in far-away parts of the world (e.g. of natural disasters, so the world can respond) 4.Makes people more aware of global issues e.g. deforestation, sustainable development and global warming 5.Sharing ideas, experiences, food and lifestyles 	<ol style="list-style-type: none"> 1.Globalisation mostly helps the richest countries get richer. The poorer developing countries provide cheap workers and raw materials 2.The profits are often sent back to the richer countries where the TNC is based 3.Because the TNC is so big, smaller companies go out of business 4.TNCs operate in a way that wouldn't be allowed in developed countries because the laws are weaker in developing countries. International laws are not as strict 5.Threatens the world's diversity – it may drown out local business, languages and traditions and make the world increasingly similar to the rich countries (particularly America). There are some terms for this process: <ul style="list-style-type: none"> - Mcdonaldization - Disneyfication - Americanization - Westernification

Africa

Africa is Not A Country!
It's a Continent of 54 countries



Overview

- Africa is the second-largest continent in the world. It covers about 30.3 million km², including its outlying islands. This is about 20% of the earth's land surface area.
- It is also the second-most populous continent in the world – it has a population of about 1.2 billion people (about 16% of the world's population).
- The continent straddles the Equator, with more of its landmass in the northern hemisphere.
- Central Eastern Africa is generally considered to be the birthplace of mankind: the place in which modern humans originated.

Skills: Choropleth Maps



Densely populated areas have a **high** number of people per km².
Sparsely populated areas have a **low** number of people per km².

Welcome to Africa








Africa

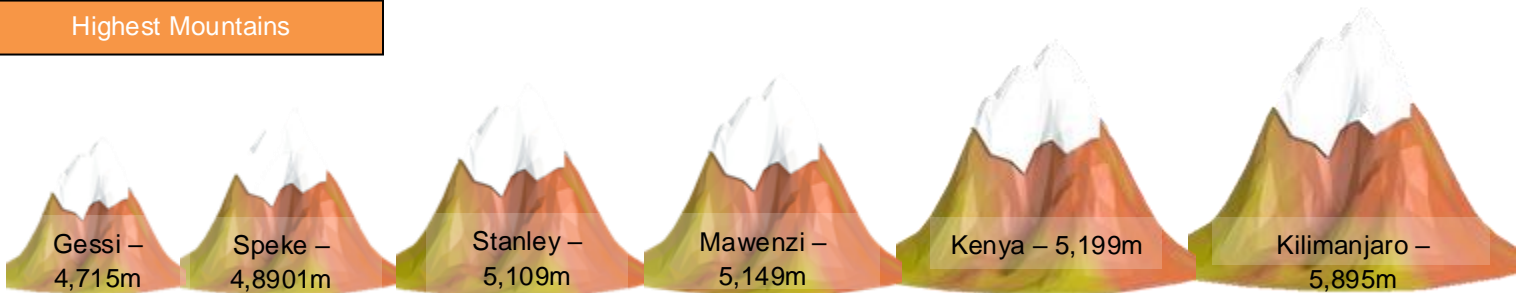
Key Terms

Africa	One of the seven continents.	Population	All the inhabitants of a particular place. In Geography, we normally mean people as the inhabitants.
Consumers	Those who will purchase the finished product, e.g. someone who buys a chocolate bar from a shop.	Population density	The number of people in a given area. Usually measured in square km.
Country	Humans have divided continents up into political units called countries. Africa contains 54 countries.	Population distribution	The spread of people across a given area; where people live.
Desertification	The process by which land becomes drier and degraded.	Producers	Those involved in supplying raw materials to sell on to companies who manufacture a product from this. Usually a farmer, e.g. cocoa producer.
Equator	The imaginary line that divides the northern hemisphere from the southern hemisphere. The equator runs through Africa, including Kenya, Uganda, Somalia and the DRC.	Profit	A financial gain, especially the difference between the amount earned and the amount spent in buying, operating or producing something.
Fair Trade	Trade between companies in richer countries and producers in poorer countries in which fair prices are paid to the producers.	Pull Factors	Reasons that attract people to the cities.
Imperialist	Imposing influence through military force, economic dominance or diplomacy.	Push Factors	Reasons for people to leave rural areas.
Manufacturer	The company who will turn the raw material into the finished product ready to sell on to the consumer, e.g. Cadbury's.	Safari	An expedition to observe animals in their natural habitat, especially in East Africa.
Migration	The movement of people from one place to another.	Tourism	The commercial organisation and operation of holidays and visits to places of interest.

Africa






Human Features of Geography				
Deforestation		Both the Congo Basin and parts of East Africa have suffered rapid deforestation. According to UNEP, parts of Africa are suffering deforestation at twice the world rate, e.g. 90% of West Africa's forests are already destroyed.	Why? Deforestation is often caused by unregulated logging and mining.	Key Fact: West Africa lost the highest % of tropical rainforests through the 1980s and 1990s.
Poaching		Africa faces a major poaching crisis, as animals are being killed in order to sell their body parts (e.g. tusks) for vast sums of money. Many animals, for example black rhinos, are now close to extinction (population down 98% since 1960).	Why? Rhino horn is falsely believed to cure illnesses. It sells for more than gold.	Key Fact: As many as 35,000 African elephants are killed by poachers each year.
Atlantic Slave Trade		The Atlantic slave trade involved the transporting thousands of enslaved western and central African people to the Americas. The African people were sold by Western European slave traders against their will.	When? This took place between the 16 th -19 th centuries.	Key Fact: Conditions on slave boats were appalling & many died in transit.
Poverty and Famine		Many African countries are extremely poor. When this is combined with a hot climate, poor harvests, wars, and corruption, there is little food to go around. Many people across East and Central Africa suffer hunger/famine every day.	Who? South Sudan, Nigeria, Somalia, Ethiopia.	Key Fact: At least 15 million people in Africa go hungry most days.
AIDs in Africa		AIDS is a deadly illness that attacks the immune system. About 69% of all people living with AIDS/HIV are in Africa. As a result, in many countries, life expectancy is declining.	Who? 15 million people in Africa have already died of AIDS.	Key Fact: Life expectancy in some African countries is now as low as 34 years old.

Highest Mountains



Africa

Physical Geography Features

<p>The Nile</p>		<p>The Nile River is the longest river in Africa, and the disputed longest in the world. It flows through 11 countries and has been vital to life in the area for thousands of years.</p>	<p>Where? From Central Africa to the Mediterranean north of Egypt.</p>	<p>Key Fact: The Nile discharges 3.1 million litres of water every second!</p>
<p>Congo Basin</p>		<p>The Congo Basin is the area around the Congo River, largely made up of a large rainforest – the Congo rainforest is the 2nd largest in the world and has relatively low deforestation.</p>	<p>What? The Congo is the 2nd longest river in Africa.</p>	<p>Key Fact: The area is home to the last remaining mountain gorillas.</p>
<p>Animals</p>		<p>Africa has a huge variety of animals, including a whole host of large mammals. Some of these include lions, rhinos, hippos, giraffes, zebras, and cheetahs. Although most of the animals used to live in abundance, human encroachment and poaching has meant that many are now vulnerable to extinction.</p>	<p>What? Many creatures are dangerous to humans, e.g. Nile Crocodiles kill hundreds of people every year.</p>	<p>Key Fact: Four of the five fastest land animals are found in Africa. The cheetah is fastest, able to run at a speed of 110kph!</p>
<p>Sahara Desert</p>		<p>The Sahara Desert is the largest hot desert in the world. It is spread across almost all of North Africa. It is believed that over-grazing of cattle is causing the Sahara to grow larger still.</p>	<p>What? There is very little vegetation, and lots of sand!</p>	<p>Key Fact: The temperature exceeds 50°C in summer.</p>
<p>Serengeti</p>		<p>The Serengeti National Park is a famous Tanzanian National Park, which is famous for having over 1.5 million wildebeest and 250,000 zebra. It also holds a dense population of Nile crocodiles and honey badgers.</p>	<p>Where? Northwestern Tanzania, covering 14,750 km²</p>	<p>Key Fact: The Maasai people have hunted in the Serengeti for hundreds of years.</p>

Longest Rivers



Africa

Regions and Countries of Africa

Top 5 largest African countries

1. Algeria – 2.4 million km²
2. DR Congo – 2.3 million km²
3. Sudan – 1.9 million km²
4. Libya – 1.8 million km²
5. Chad – 1.3 million km²

There are 54 countries in Africa, and a further 2 whose independence is disputed (Western Sahara and Somaliland).

Top 5 most populous African countries

1. Nigeria – 201 million
2. Ethiopia – 110 million
3. Egypt – 101 million
4. DR Congo – 87 million
5. Tanzania – 61 million



Northern Africa

Northern Africa contains some of Africa's largest countries by area, including Algeria, Libya and Egypt. Many countries in Northern Africa have an Arabic culture, use the Arabic language, and are predominantly Muslim. Northern Africa is dominated by the vast Sahara Desert, the largest hot desert in the world (it is over 9.2 million km²).

Eastern Africa



Eastern Africa is made up of around 20 countries (depending on definition) and is known for its wide array of wildlife. The Serengeti (Tanzania) and Masai Mara (Kenya) National Reserves house the 'Big 5' mammals (lions, leopards, elephants, rhinos, buffalo). Mount Kilimanjaro, at 5,895m, is the highest mountain in Africa. Africa's largest lakes are also in Eastern Africa.



Western Africa

Western Africa is generally considered to consist of 16 countries, in which just under 400 million people live. Nigeria is the most populous country in Africa, and one of its main cities, Lagos, is the most populous city on the continent. Deforestation has erased about 90% of West Africa's rainforests.

Southern Africa



Southern Africa is often considered to be the portion of the continent that is south of the Zambezi River. The terrain is varied, ranging from forest and grasslands to deserts. The country of South Africa is the economic powerhouse of the region and contains the spectacular Table Mountain.

Landscapes of the UK

Major Upland & Lowland Areas of the UK

Key terms	
Weathering	The breakdown of material in situ by physical, chemical and biological processes; if movement is involved this becomes erosion.
Igneous	Rocks formed within the interior of the Earth from molten rock
Sedimentary	Rocks formed by layers of sediment, usually at the bottom of the sea.
Metamorphic	Rocks that have been changed as a result of heat and pressure being applied to them for long periods of time.
Geomorphic processes	Processes that result in a change in the shape of the Earth; from 'geo' meaning the earth and 'morph' meaning to change shape.
Upland areas	

Upland areas:

- Scotland - The Northwest Highlands, the Cairngorm Mountains, the Grampian Mountains and the Southern Uplands. Ben Nevis is the UK's highest peak and is found in the Grampian Mountains.
- England - The Pennines, Lake District, Dartmoor and Exmoor. Scafell Pike is the highest mountain in England and is found in the Lake District.
- Wales - Snowdonia and the Brecon Beacons. Snowdon is the highest mountain in Wales and is found in Snowdonia.

Lowland areas:

- around The Wash (East Anglia and Lincolnshire)
- Lincolnshire
- the Fens in East Anglia - the lowest place in the UK
- the Midlands
- the London Basin
- the Vale of York



Landscapes of the UK: Coasts

Key Terms			
Erode	The wearing away of rocks, soil and stones by waves, rivers, wind and glaciers.	Stack	A pillar left behind when an arch collapses.
Transport	The carrying of material by rivers, sea and glaciers.	Stump	The remains of an eroded stack.
Deposit	To drop material that have been eroded.	Wave-cut platform	The flat rocky area left by the action of waves.
Longshore Drift	How sand and other materials is moved parallel to the coast.	Spit	A strip of sand or shingle in the sea.
Beach	An area of sand or small pebbles deposited by waves	Salt Marsh	A low-laying marshy area by the sea, with salty water from the tides.
Bay	A smooth curve of coast between two headlands.	Constructive wave	A wave which deposits material on a coast line.
Headland	Land that juts out into the sea.	Destructive Wave	A wave that removes material from a coast line.
Cave	An area of cliff that has been eroded.	Coastal Management	The way that the coastline is managed to protect the land behind it.
Arch	The curved structure left behind when a cave is eroded through a headland	Abrasion	Eroded material is hurled or scrapes against the cliff, breaking off rock.
Hydraulic Action	Waves compress pockets of air in cracks in a cliff, causing the crack to widen, breaking off rock.	Attrition	Eroded material in the sea, hit into each other breaking down into smaller pieces.
Solution	Cliffs e.g. chalk dissolve in seawater.		

Landscapes of the UK: Coasts

Key Processes:

Coasts: The coast is the zone between land and sea. The action of the waves and the sea constantly changes the shape and form of the coast, and people manage these changes in different ways

Erosional Processes

- Hydraulic action - this is the sheer power of the waves as they smash against the cliff.
- Abrasion - this is when pebbles grind along a rock platform, much like sandpaper.
- Attrition - this is when rocks that the sea is carrying knock against each other.
- Solution - this is when sea water dissolves certain types of rocks.



Weathering Processes

Freeze-Thaw Weathering (Mechanical)	Temperature changes causes water to freeze and then melt widening cracks in rocks until they break.
Root Action (Biological)	Seeds fall into cracks in rocks. These germinate and the roots break the rocks open until they break.
Burrowing (Biological)	Animals widen cracks in rocks.
Acid Rain (Chemical Weathering)	Rainwater is slightly acidic due to dissolved CO ₂ . This reacts with limestone rock causing it to dissolve.

What are coasts used for?

Coasts are important for many different reasons and for different groups of people.

They provide:

- places to live
- places to work, e.g. fishing, ports and power stations
- places to relax - leisure and tourism industries
- wildlife habitats
- beautiful scenery
- educational value, e.g. geology and natural history



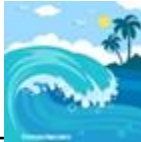
Landscapes of the UK: Coasts

What causes waves

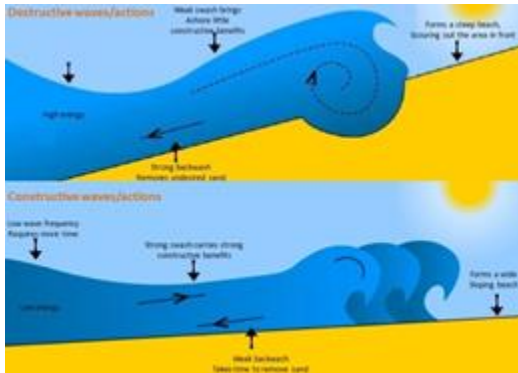
They are formed by the wind **dragging** along the surface of the water. The length of water the wind blows over is called the **fetch**.

The size of waves is determined by:

- The **strength** of the wind
- How long it has blown for
- The length of the **fetch**



The Types of wave



Waves shape our coastline 24 hours a day! It is rather like a digger! It takes things away (**erosion**), it moves material (**transportation**) and it puts it down (**deposition**).

Headland Erosion

Headlands can be vulnerable to erosion because they stand out from the rest of the coast. Over time, other features may develop on a headland:

Cave, arch, stack and stump



1. Waves cause weaknesses to form cracks at the base of the headland



2. Over time the cracks become larger to form a cave



3. The cave gets bigger, and cracks appear above the cave to the top of the headland



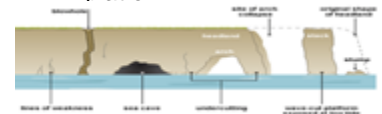
4. The arch grows larger and eventually collapses leaving a stack separated from the mainland



5. The stack erodes and becomes a stump

Wave cut platforms

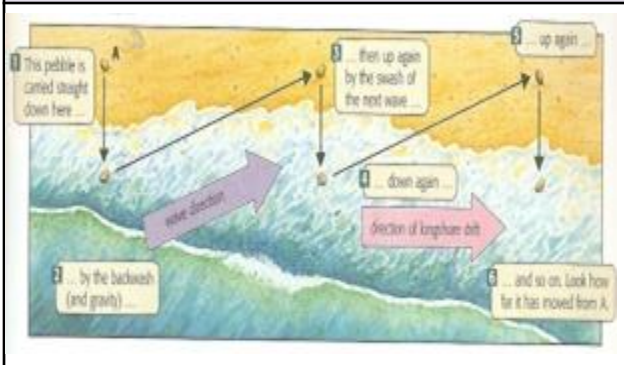
1. Waves attack the bottom of the cliff, particularly during storms and at high tide.
2. Eventually a wave-cut notch is formed.
3. At the same time weathering attacks and weakens the top of the cliff.
4. The weakened cliff is left unsupported and eventually collapses.
5. Once the sea has removed the fallen rocks it can start the process again.
6. The cliff will move back and leave a rocky platform at the base called a wave-cut platform.



Landscapes of the UK: Coasts

Longshore Drift

Longshore drift— Waves approach the sea at an angle, swash pushes material up the beach at the same angle as the prevailing wind. Backwash carries the sediment back down the beach at a right angle due to gravity. This moves material along the coasts



Concordant and discordant coasts—
 Concordant coasts are made up of the same rock type, parallel to the sea.
 discordant coasts have alternating rock types perpendicular to the sea forming headlands and bays.

Headlands and bays: Bays form due to rapid erosion of soft rock. Once formed bays are sheltered by headlands. Headlands are left sticking out where the hard rock has resisted erosion.

Transportation Types

1. Traction	Large rocks are rolled along the seabed.
2. Saltation	Smaller rocks are bounced along the seabed.
3. Suspension	Smaller material/sediment is held in the water.
4. Solution	The smallest silt and sediment is dissolved into the water.

Landscapes of the UK: Coasts




Managing the Coast

It is not possible to completely stop the power of natural forces from changing the coast. People try to protect some areas from erosion but this can have negative impacts as well as positive.



The way the coast is managed can cause conflict. There are two types of coastal management:

- **Hard engineering** - this involves building structures to protect the coast.
- **Soft engineering** - this involves working with nature by using natural materials or allowing nature to take back areas.

Hard engineering

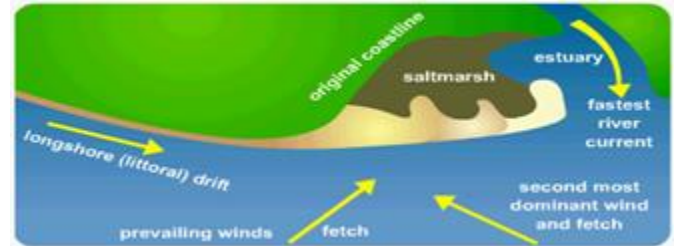
Engineering Type	Advantages	Disadvantages
Sea Wall 	<ul style="list-style-type: none"> • Protects the areas behind the wall • Prevents flooding 	<ul style="list-style-type: none"> • Very Expensive • Waves bounce off the wall and scour the beach removing material • Can look ugly
Groynes 	<ul style="list-style-type: none"> • Helps to stop longshore drift moving material along the coast • Traps sediment and builds up beaches 	<ul style="list-style-type: none"> • May create problems elsewhere because they starve other beaches of sediment
Rip-Rap Or Rock Armour 	<ul style="list-style-type: none"> • Large boulders absorb wave energy and reduce the power of the waves 	<ul style="list-style-type: none"> • Strong waves can move or undermine the boulders • Can look ugly

Soft Engineering

Engineering Type	Advantages	Disadvantages
Beach Nourishment 	<ul style="list-style-type: none"> • Adding more sand and shingle widens the beach and waves lose power travelling across it • Looks natural 	<ul style="list-style-type: none"> • Doesn't last very long
Managed Retreat 	<ul style="list-style-type: none"> • Land becomes marsh, slowing waves and reducing erosion • Creates new habitats 	<ul style="list-style-type: none"> • Land is lost

Coastal Features Spits (Depositional)

Spits are formed by the deposition of material that have been eroded by the sea. The process of **longshore drift** helps to create these features.



The Challenges of Managing the Coast

Coastal areas are very difficult to manage as it is all connected. This means when you do something to one area it will have an impact somewhere else.

The key issues with coastal management

- Coastal defences are very expensive.
- They do not last forever and can get worn and washed away.
- The defences can do harm further along the coast. Such as stopping the movement of sand along the coastline.
- The climate is changing and sea levels are expected to rise, storms may become worse and some of the defences that we have may fail.

Coastal Management is important because...

- People and businesses are by the coast.
- We need to protect special places, such as those of historical importance.
- We don't protect all places.

Landscapes of the UK: Coasts

The Holderness Coast

The Holderness coastline is located on the east coast of England. It is the fastest eroding coastline in Europe.

Reasons for management

The coastline is rapidly eroding at an average of 1.8 metres a year. There are several reasons why the coast at Holderness is eroding so quickly:

- **Rock type** - the cliffs are made from less-resistant boulder clay (made from sands and clays) which slumps when wet.
- **Naturally narrow beaches** - these beaches give less protection to the coast as it doesn't reduce the power of the waves.
- **Man-made structures** - groynes have been installed to stop long-shore drift. This narrows unprotected beaches elsewhere even more.
- **Powerful waves** - waves at Holderness travel long distances over the North Sea (so have a long fetch) which means they will increase in energy.

Management Strategies

- Bridlington is protected by a 4.7 km long sea wall.
- Hornsea is protected by a sea wall, groynes and rock armour.
- Coastal management at Witherssea has tried to make the beach wider by using groynes, and also uses a seawall to protect the coast.
- Mableton is protected by rock groynes.
- Spurn Head is protected with groynes and rock armour.
- Rock type - the cliffs are made from less-resistant boulder clay (made from sands and clays) which slumps when wet.
- Naturally narrow beaches - these beaches give less protection to the coast as it doesn't reduce the power of the waves.
- Man-made structures - groynes have been installed to stop long-shore drift. This narrows unprotected beaches elsewhere even more.
- Powerful waves - waves at Holderness travel long distances over the North Sea (so have a long fetch) which means they will increase in energy

Conflicts

- There has been an increase in erosion at Great Cowden because of the groynes used in Mableton. This has led to farms being destroyed by the erosion and the loss of 100 chalets at the Golden Sands Holiday Park.
- Some people disagree with where the sea defences are located, especially if it means the land in their community is not protected.
- Some sea defences negatively impact tourism and reduce the amount of money coming in to the area.



Application: Holderness Coastal Management Scheme

Reasons to protect	Coastal Management Strategies	Successes and Failures
<ol style="list-style-type: none"> 1. Rocks are made of soft rock (boulder clay), eroding at 2m per year. 2. The B1242 runs through Mableton and would be expensive to re-route. 	<ol style="list-style-type: none"> 1. 2 Rock groynes put in place at Mableton to trap sediment being transported by longshore drift, creating a wider beach to absorb the power of the waves. 2. Rock armour has been placed in front of the cliffs to absorb the wave energy. 	<ol style="list-style-type: none"> 1. Good – erosion in front of Mableton has reduced, so the road has been saved. 2. Bad – beaches further south have been starved of sediment, so erosion has increased e.g. at Great Cowden.

Landscapes of the UK: Rivers



• What is a River?






- A river is a path that water takes as it flows downhill, normally towards another river, a lake, sea or ocean.
- Rivers come in many different shapes and sizes, and often join together to make larger rivers.
- As rivers a ready source of water, lots of plants/ animals often live near or in them.
- Most inland human settlements were originally formed around rivers. In addition to drinking and bathing, rivers were also important waterways for trade.
- Rivers can flood, at which point they can become exceptionally dangerous.

Key Terns

Abrasion	Rocks grinding on the riverbed	Lower Course	The lower part of a river where it flattens out.
Attrition	Where rocks bash against each other in a river.	Middle course	Where the river starts to flatten and become wider.
Confluence	Where two rivers meet.	Mouth	The point where a river flows into the sea.
Deposition	Putting down of material	River profile	A cross section of a river so you can see its shape from source to mouth
Drainage Basin	The area of land that is drained by a river.	Solution	Materials dissolved and carried in the river
Erosion	The down of material	Source	The start of a river.
Estuary	A tidal areas where a river meets the sea.	Storm Hydrograph	A graph of a river in flood.
Flooding	When an area is covered in water that is normally dry.	Tributary	A river that flows into a larger one.
Hydraulic Action	The pressure of water in gaps on a riverbank.	Upper course	The upper part of a river where the gradient is steeper.
Meander	A large bend in a river.	Water Shed	A drainage basins boundary.

Landscapes of the UK: Rivers

The Course of a River

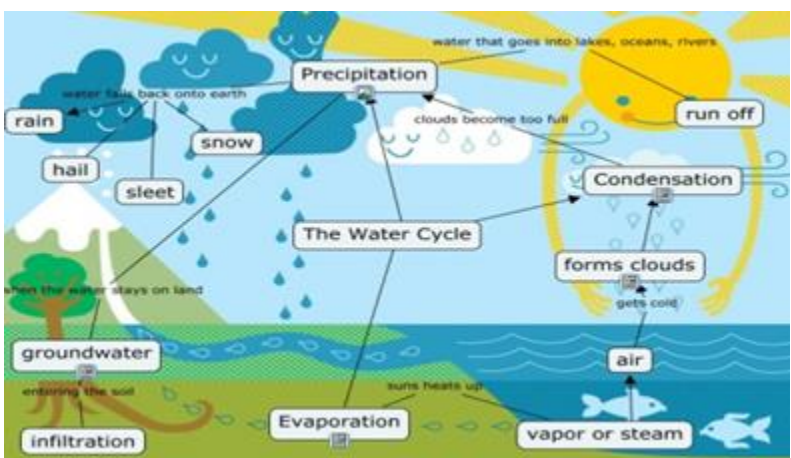
	The source this is the very start of a river. This is the source of the River Severn. It is a place called Plymlimon
	The water from the source and other areas start to join to form streams.
	In the upper course you can find waterfalls and rapids. This is The Severn-Breaks-its-Neck.
	As the river moves into its middle course it starts to flatten out and features such as meanders are found.
	As the river gets closer to the sea it widens. The where it reaches the sea is called the river mouth or estuary.
	The River Severn is 354 km long and flows from Plymlimon to Bristol Channel



Long profile of a River



The Water Cycle



Landscapes of the UK: Rivers

Erosion



Erosion is the process that wears away the riverbed and banks. Erosion also breaks up the rocks that are carried by the river.

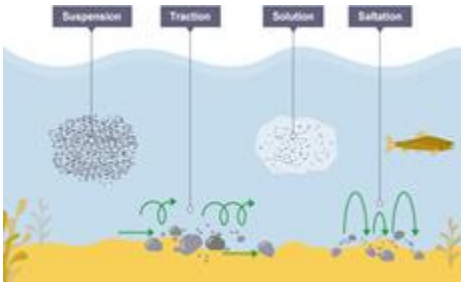
- **Hydraulic action** - This is the sheer power of the water as it smashes against the riverbanks. Air becomes trapped in the cracks of the riverbank and bed and causes the rock to break apart.
- **Abrasion** - When pebbles grind along the riverbank and bed in a sand-papering effect.
- **Attrition** - When rocks that the river is carrying knock against each other. They break apart to become smaller and more rounded.
- **Solution** - When the water dissolves certain types of rocks, e.g. limestone.

Deposition

When the river loses energy, it drops any of the material it has been carrying. This is known as **deposition**. Factors leading to deposition:

- **shallow water**
- at the end of the river's journey, at the river's **mouth**
- **when the volume** of the water decreases

Transportation

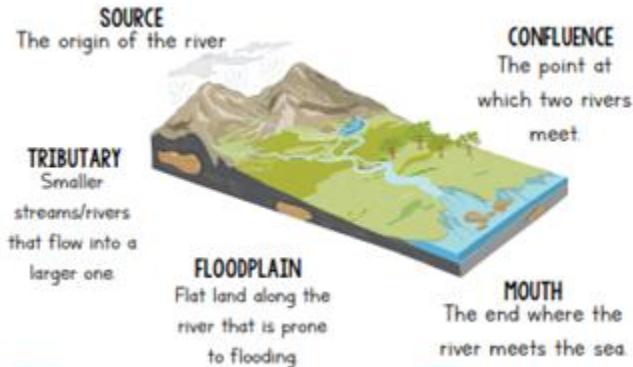


The river picks up sediment and carries it downstream in different ways.

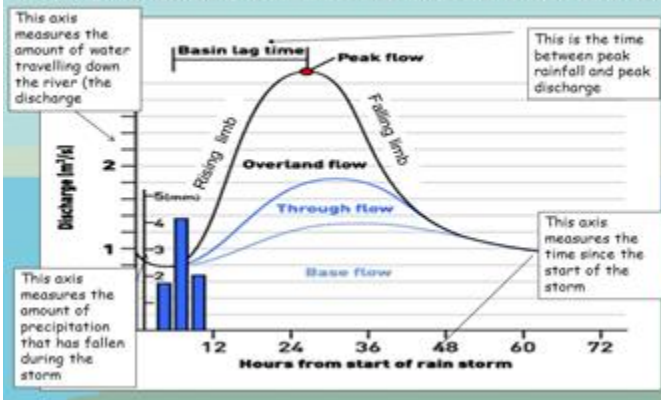
- **Traction** - large, heavy pebbles are rolled along the riverbed. This is most common near the source of a river, as here the load is larger.
- **Saltation** - pebbles are bounced along the riverbed, most commonly near the source.
- **Suspension** - lighter sediment is suspended (carried) within the water, most commonly near the mouth of the river.
- **Solution** - the transport of dissolved chemicals. This varies along the river depending on the presence of soluble rocks.

Landscapes of the UK: Rivers

Drainage Basin



A hydrograph is used to show how a river responds to a period of rain.



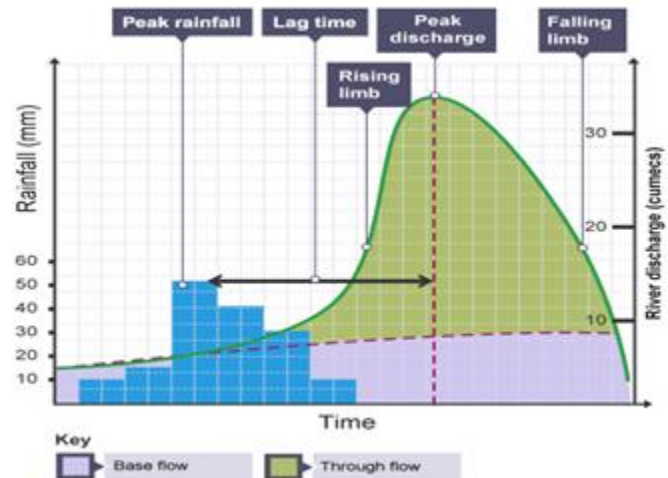
Hydrographs

- **Peak discharge** - maximum amount of water held in the channel.
- **Peak rainfall** – maximum amount of rainfall (millimetres).
- **Lag time** - the time taken between peak rainfall and peak discharge.
- **Rising limb** - shows the increase in discharge on a hydrograph.
- **Falling limb** - shows the return of discharge to normal/base flow on a hydrograph.
- **Base flow** - the normal discharge of the river.

The lag time can be short or long depending on different factors. For example, if there is no vegetation in an area, the water runs off into the river quicker, therefore it would have a short lag time. Alternatively, if there is plenty of vegetation in the area, the lag time would be longer as the plants would intercept the rainfall. A short lag time means water is reaching the river quickly, so there is a greater chance of a flood.

Factors influencing **lag time** include:

- Size of drainage basin
- Vegetation
- Valley side steepness
- Soil type



Landscapes of the UK: Rivers

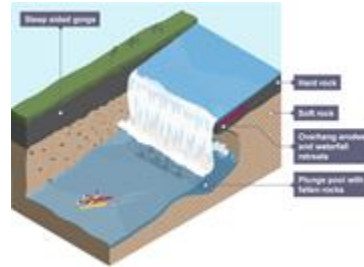
Erosional Landforms

The erosional features are often found in the upper course of the river.



Interlocking Spurs

In the upper course there is more vertical erosion. The river cuts down into the valley. If there are areas of hard rock which are harder to erode, the river will bend around it. This creates interlocking spurs of land which link together like the teeth of a zip.

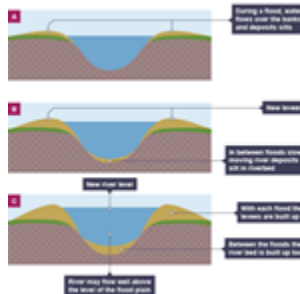
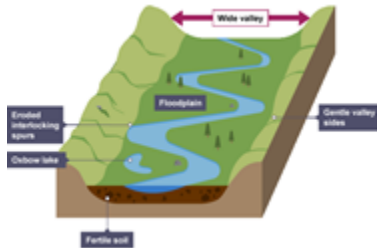


Landforms

A **waterfall** is a sudden drop along the river course. It forms when there are horizontal bands of resistant rock (hard rock) positioned over exposed, less resistant rock (soft rock).

- The soft rock is eroded quicker than the hard rock and this creates a step.
- As erosion continues, the hard rock is undercut forming an overhang.
- Abrasion and hydraulic action erode to create a plunge pool.
- Over time this gets bigger, increasing the size of the overhang until the hard rock is no longer supported and it collapses.
- This process continues and the waterfall retreats upstream.
- A steep-sided valley is left where the waterfall once was. This is called a gorge.

Depositional Landforms



A **floodplain** is an area of land which is covered in water when a river bursts its banks.

Floodplains form due to both erosion and deposition. Erosion removes any interlocking spurs, creating a wide, flat area on either side of the river. During a flood, material being carried by the river is deposited (as the river loses its speed and energy to transport material). Over time, the height of the floodplain increases as material is deposited on either side of the river. Floodplains are often agricultural land, as the area is very fertile because it's made up of alluvium (deposited silt from a river flood). The floodplain is often a wide, flat area caused by meanders shifting along the valley.

An **estuary** is where the river meets the sea. The river here is tidal and when the sea retreats the volume of the water in the estuary is less reduced. When there is less water, the river deposits silt to form mudflats which are an important habitat for wildlife.

Levees occur in the lower course of a river when there is an increase in the volume of water flowing downstream and flooding occurs.

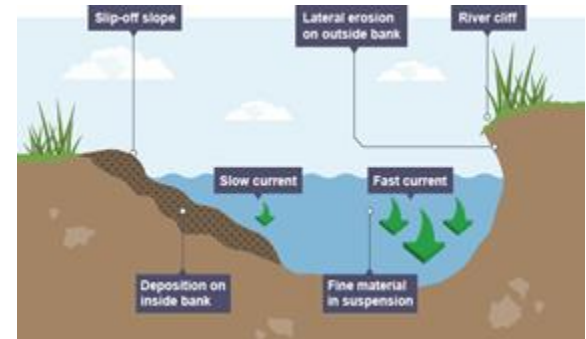
- Sediment that has been eroded further upstream is transported downstream.
- When the river floods, the sediment spreads out across the floodplain.
- When a flood occurs, the river loses energy. The largest material is deposited first on the sides of the riverbanks and smaller material further away.
- After many floods, the sediment builds up to increase the height of the river banks, meaning that the channel can carry more water (a greater discharge) and flooding is less likely to occur in the future.

Landscapes of the UK: Rivers

Erosional & Depositional Landforms

As the river makes its way to the middle course, it gains more water and therefore more energy. Lateral erosion starts to widen the river. When the river flows over flatter land they develop large bends called **meanders**.

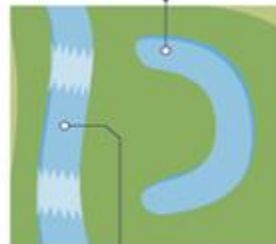
- As a river goes around a bend, most of the water is pushed towards the outside. This causes increased speed and therefore increased erosion (through hydraulic action and abrasion).
- The lateral erosion on the outside bend causes undercutting of the bank to form a river cliff.
- Water on the inner bend is slower, causing the water to slow down and deposit the eroded material, creating a gentle slope of sand and shingle.
- The build-up of deposited sediment is known as a slip-off slope (or sometimes river beach).



Erosion makes the neck narrow



During floods river takes shortest course through the neck



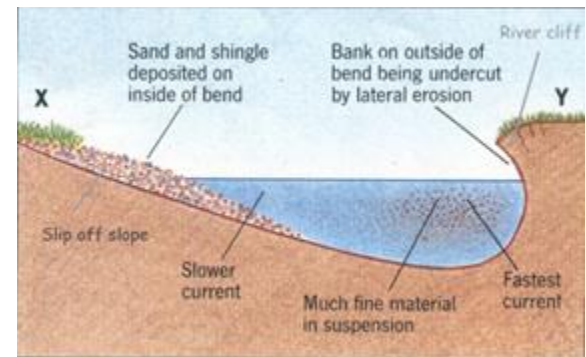
New straighter river course

Cut off / abandoned meander or oxbow lake

Areas of deposition
 Areas of erosion

Oxbow lakes

Due to erosion on the outside of a bend and deposition on the inside, the shape of a meander will change over a period of time. Erosion narrows the neck of the land within the meander and as the process continues, the meanders move closer together. When there is a very high discharge (usually during a flood), the river cuts across the neck, taking a new, straighter and shorter route. Deposition will occur to cut off the original meander, leaving a horseshoe-shaped oxbow lake.



Landscapes of the UK: Rivers

Flood Risk

Flooding occurs when a river **bursts its banks** and overflows onto the surrounding land.

Causes of flooding:

- **Prolonged rainfall** - if it rains for a long time, the land around a river can become saturated (it's holding as much water or moisture as can be absorbed). If there is more rainfall it cannot be soaked up, so it runs along the surface - this is known as surface run-off.
- **Heavy rainfall** - if there is heavy rainfall there is less chance of it being soaked up by the soil (infiltration) so it runs off into the river. The faster the water reaches the river, the more likely it will flood.
- **Relief** - a steep valley is more likely to flood than a flatter valley because the rainfall will run off into the river more quickly.
- **Geology** - permeable rocks allow water to pass through pores and cracks, whereas impermeable rocks do not. If a valley is made up of impermeable rocks, there is a higher chance of flooding as there is an increase in surface run-off.
- **Vegetation** - trees and plants absorb water, this is known as interception. Lots of vegetation reduces flood risk. Sometimes people cut down trees (deforestation). This will increase the flood risk, as the water will not be intercepted and flow into the river.
- **Urban land use** - when an area surrounding a river is built on, there is an increase in the amount of tarmac and concrete, which are impermeable surfaces. Drains and sewers take water directly to the river which increases flood risk.

Hard Engineering

Hard engineering involves building artificial structures which try to control rivers. They tend to be more expensive.

- **Dams and reservoirs:** The dam traps water, which builds up behind it, forming a reservoir. Water can be released in a controlled way.
- **River straightening and dredging:** Straightening the river speeds up the water so high volumes of water can pass through an area quickly. Dredging makes the river deeper so it can hold more water.
- **Embankments:** Raising the banks of a river means that it can hold more water.
- **Flood relief channels:** The floodwater flows into the relief channel and is taken either to an area where it can be absorbed or re-enters the river further down its course.



Soft Engineering

Soft engineering does not involve building artificial structures but takes a more sustainable and natural approach to managing the potential for river flooding.

Flood warnings and preparation

- The environmental agency monitors rivers and issues warnings via newspapers, TV, radio and the internet when they are likely to flood so people can prepare.

Floodplain zoning

- Allowing only certain land uses on the floodplain reduces the risk of flooding to houses and important buildings.

Planting trees

- Afforestation in the drainage basin both slows down and reduces the amount of rainfall that reaches the river.

River restoration

- This is where a river that has previously undergone hard engineering is restored back to its natural capacity to increase water storage and reduce flood risk further downstream.

History | Year 8 – The British Empire and New World Slavery | September to October

The British Empire			New World Slavery			Vocabulary					
1	1750 - 1900	<p>Between 1750-1900 Britain conquered many foreign lands. By the beginning of 20th Century approximately 13 million square miles of territory across the globe was ruled by Britain.</p> <p>British explorers and settlers travelled to different regions of the world and claimed the land for Britain. These new lands were known as colonies and an 'empire' was a collection of colonies all ruled by one country.</p>	1	West Africa before the slave trade	Early Modern West Africa was not a very peaceful place. The Akan kingdoms were consistently at war with each other. They had a common language and culture	1	Empire	Several territories ruled by one powerful country			
2	Colonisation	To the British, it didn't matter that people already lived in these lands. The British had far better weapons and showed no mercy to local populations, killing thousands to gain new territory across Africa, Australia, India and New Zealand.	2	British involvement	British upper society had become increasingly addicted to the consumption of sugar. British plantations owners in the Caribbean made a huge amount of money from the business of exporting produce to Britain from their plantations.	2	Colony	A territory controlled by an Empire			
			3	The slave trade in West Africa	British merchants exchanged guns and metal goods for enslaved Africans who they transported to the Caribbean to work on plantations	3	Colonisation	The process of taking control and building an Empire			
			New World Slavery – the Slave Trade						4	Colonists	People from Britain who went to live in the colonies.
			1	The Middle Passage	The part of the Transatlantic slave trade where enslaved people were transported from West Africa to the Caribbean plantations. The conditions aboard these ships were horrendous with enslaved men and women treated very badly by ship captains and their crew	5	Independent	No longer part of an Empire.			
			2	Societies of the Caribbean plantations	The Caribbean plantations followed a strict social hierarchy. At the top level of the hierarchy were the rich white plantation owners. At the bottom were the field slaves who were watched by a field overseer. A domestic slave was seen as the highest ranking for enslaved Africans living on plantations	6	Dispossession	The action of taking away someone's land or property			
3	17th & 18th Century The Lenape story	<p>In the 17th century, the 1600s, the Lenape - a Native American people experienced colonisation by the British</p> <p>William Penn and his sons tricked the Lenape and took land from them with the 1737 Walking Purchase.</p>	3	Slave Resistance	There were numerous examples of active slave resistance by enslaved Africans on plantations. For example, the Maroons were former enslaved people who had successfully escaped their white owner and created their own territories in the hills and forestry areas of Jamaica	7	Conversion	Changing someone's religion.			
4	19th century The Maori story	In the 1800s The Maori - people who lived in New Zealand before the Europeans arrived - faced colonisation by the British who converted people to Christianity and forcibly took their land	4			8	Collaboration	Working together 'to collaborate' - working with someone			
5	20th century The Hausa story	In the 1900s The Hausa - a West African ethnic group collaborated with the British to increase their power and wealth	5			9	Subjugation	Forcing someone to obey you.			
						10	Akan Kingdoms	30 different regions within West Africa			
						11	West Africa	Region of Africa that the majority of enslaved people were taken from			
						12	Field Overseer	In charge of Field Slaves working on the plantation			
						13	Field Slaves	Enslaved African Americans who held the lowest ranked position in the social hierarchy			
						14	Resistance	The act of fighting back			
						15	To sabotage	Deliberately and secretly destroy something (for example a machine)			
						16	The Maroons	Former enslaved people who had run away			
						17	Nanny	The Akan woman who led the Maroons			
						18	Guerrilla Warfare	Using ambushes and traps to fight stronger enemies			

History | Year 8 – The Industrial Revolution and the Development of Democracy | Nov - Dec

The Industrial Revolution		
1	Industrial Revolution	A dramatic change in Britain's economy and society in the 18 th & 19 th century Before 1750 Britain was a rural and agricultural society. By 1900 Britain had become an urban society with factories attracting workers to the cities.
2	The causes of the Industrial Revolution in Britain	<ul style="list-style-type: none"> - Natural resources such as coal provided new forms of energy - New technology and machinery increased production - The profits and money made from slavery provided wealth to stimulate the industry
3	Francis Trollope	An author who wrote the novel 'Factory boy' by Trollope which described the lives of children who worked in the factories
4	Thomas Annan	A photographer from Glasgow who photographed the slums illustrating how poor living conditions could be for urban workers.
5	Emma Griffin	A historian who used autobiographies to illustrate the lives of ordinary working class people in the Industrial Revolution and how horrible it could be.

The Development of Democracy		
1	The English Civil War	Parliament challenged the power of the monarchy (King Charles 1 st) in the 17 th century.
2	The UK parliament	Before the arrival of King Charles 1 st to the throne parliament had been formed for a place where nobles, bishops and other dignitaries would write laws.
3	Execution of Charles 1	Charles was found guilty of treason and he was captured, put on trial and executed in 1649
4	Oliver Cromwell & the Protectorate	The leader of the parliamentarians who defeated the monarchists now led England as 'Lord Protector'

The Development of Democracy		
1	The Age of Revolution	Dramatic revolutions inspired protests across the globe including in Britain. There were revolutions in America, France and Haiti. All populations were demanding equality and the right to vote
2	The Peterloo Massacre 1819	Protests for democratic reform were met with brutal repression in Britain. In Manchester at St Peter's field thousands had gathered to protest for the right to vote. They protestors were attacked by the authorities and arrested the speakers. 18 people were killed
3	Chartists	Under pressure from groups such as the Chartists, Parliament passed a series of acts that gradually reformed British democracy and expanded the franchise
4	Women	Despite the 19th century reforms, women were still denied the right to vote as Britain remained a patriarchal society

Vocabulary		
1	Urban	Focuses on Cities and Towns
2	Rural	To do with countryside
3	Agricultural	To do with farming
4	Middle-class	Wealthier people who could be lawyers or doctors
5	Slums	Poor quality, overcrowded housing conditions
6	Liberty	Freedom
7	Working-class	The poorest people, who work in factories
8	interpretation	a historians' answer to a question about the past
9	To exaggerate	To make something seem better, worse or more important than it really was
10	Parliament	Part of the government that votes on new laws
11	Democracy	A system of government where leaders are elected by the people
12	Reform	To change something
13	Protest	A public action to oppose something
14	Equality	The state of being equal and treated the same
15	The franchise	The right to vote
16	Patriarchal	Society is ruled and dominated by men

Year 8 History| The Industrial Revolution & The Development of Democracy| Jan-Feb |

Political Power in Britain before 1750			Protests for democratic reform in UK		Key Vocabulary			
1	Medieval Parliaments	1215 – English Barons force King John to sign the Magna Carta Late 13 th century – Parliament created by barons 14 th century – Parliament now included the commons: knights and burgesses Burgesses were elected but only by other wealth and powerful men	1	The Peterloo Massacre	6 th August 1819 - 60,000 people gathered in Manchester to protest for democratic reform. There was fears of an uprising so the authorities demanded that the crowds leave. The protestors refused and after lining arms the Manchester Yeomanry (Police force/security) charged. 18 protestors were killed with 700 injured	1	Parliament	Part of the government that votes on laws
						2	Revolution	A dramatic change
						3	Authorities	The people in charge (government /police)
2	The English Civil War 1642-51	King Charles I ruled as an absolute monarch. Led to the Civil War and Charles being executed in 1649. The new government was led by the Lord Protector – Oliver Cromwell. Cromwell ignored Parliament and ruled as ‘king in all but name’ The English monarchy was restored under Charles II in 1660	2	Reasons for the protest	In 1819 only 5% of the adult population could vote. Women were banned from voting. Trade unions were illegal and corruption amongst social elites was common.	4	Democracy	A system of government where leaders are elected
						5	Reform	Change to an idea, law or policy
			3	The response	The brutal response from the authorities reveals the corrupt and repressive nature of the British government in this era. They had feared a revolution and democratic reform.	6	Protest	A public action to oppose something
The Industrial Revolution								
3	Bill of rights	1688 – Parliament invited William of Orange (Dutch ruler) to seize the English throne to protect Protestantism 1689 – Bill of rights introduced It declared that: - The monarch had to obey the law at all times - Parliaments consent was required for new taxes	1	Industrial Revolution	A dramatic change in Britain’s economy and society in the 18 th & 19 th century. Before 1750 Britain was a rural and agricultural society. By 1900 Britain had become an urban society with factories attracting workers to the cities.	7	Corruption	Dishonest behaviour, commonly involves bribes/threats
						8	The Franchise	The right to vote in elections
						9	Radical	Wanting significant changes
4	The Power of Parliament	Parliament became increasingly powerful during Early Modern Period but franchise was very limited	2	Causes of the Industrial Revolution	- Natural resources such as coal provided new forms of energy - New technology and machinery increased production - The profits made from slavery provided wealth to stimulate the industry	10	Equality	The state of being treated the same
						11	To restore	To bring something back

Year 8 History | The Development of Democracy | Feb-April |

Chartists					Key Vocabulary			
	A protest group	Under pressure from groups such as the Chartists, Parliament passed a series of acts that gradually reformed British democracy and expanded the franchise (right to vote)	1	19th Century Britain was a patriarchal society	During this era Women were legally the property of their husbands and could be physically abused. There would be no criminal charges against the husband. Women were not allowed to own property. Even by 1900 women were still unable to vote	1	MP	Member of parliament
1	1832 Reform Act	All men with land worth over £10 a year could now vote – about 6% of national population MPs for industrial towns like Manchester first introduced				2	Consent	Agreement
2	1838 The Chartist's 'Peoples Charter'	The Peoples Charter demanded: <ul style="list-style-type: none"> - Votes for all men - Elections every year - Equal representation for regions - Secret ballots - All men can be MPs - Pay for MPs 	2	Ideas about Gender from 19th century	These laws were based on the ideas that men and women belonged in 'separate spheres' -The belief was that women were well suited to the domestic sphere of housework and childcare -Whilst men were far more suited to the public sphere of work and politics. -People also believed that women were hysterical (controlled by emotions) and therefore could not cope with political ideas and voting.	3	Elected	Chosen by voting
3	1867 Reform Act	Expanded the franchise to include 15% of the population				4	Patriarchal	Ruled and dominated by men
4	1872 Ballot Act	Introduced secret ballots allowing people to vote in secret				5	To protest	To publicly oppose something
5	1884 Reform acts	Expanded the franchise to include 30% of the population – this included half of all men	3	Actions by women to disprove these ideas	1888 Women and girls working at a match factory in London went on strike (refusing to work) for higher wages and better working conditions. This event became known as the Match Girls Strike In the late 19 th century the Suffragists and Suffragettes movement had been founded 1897 – The National Union of womens suffrage societies (NUWSS) 1903 – The women's social and political union (WSPU)	6	To reform	To change something
						7	Democratic	Democracy is a system of government in which power is with the people
The Age of Revolution								
			1	American Revolution 1775-1783	Colonists in America rose up against British rule. The declaration of independence (1776) introduced ideas of equality			
			2	French Revolution 1789	Revolution in France led to execution of the King and a democratic government			
			3	Haitian Revolution 1791	Slave revolution in Haiti defeated French imperial rule			
			4	The Rights of Man 1791	Thomas Paine wrote a book focusing on civil and natural rights of man			

World War One Causes & Conflict | Year 8 | Summer 1 May-June

The reasons for increased tension pre 1914			General information			Key Vocabulary		
1	German Nationalism	Kaiser Wilhelm II wanted to turn Germany into a great power to rival Britain	1	The Triple Alliance	An agreement between Germany, Austria-Hungary and Italy to defend each other from attack	1	Nationalism	<i>Passionate belief that your country is better than all others</i>
2	British Nationalism	Britain was a very proud nation with its nationalism based on 200 years of imperial and naval dominance thanks to their Empire.	2	The Triple Entente	An agreement between France, Britain and Russia to protect each other from attack	2	Imperialism	<i>The policy of colonising other parts of the world</i>
3	Imperial Rivalry	During the 19 th Century, European countries developed empires to increase their level of power and wealth. The competition between Empires created tension.	3	Impact of assassination	Austria-Hungary blamed Serbia for the assassination of their heir	3	Imperial Rivalry	<i>Rivalry between empires trying to colonise the same part of the world</i>
4	Flashpoints	France and Germany competed for control of Morocco in 1905 and 1911 Russia and Austria-Hungary competed for control of the Balkans and Bosnia in 1908.	4	German alliance with Austria	Germany agreed to support Austria-Hungary no matter what	4	Long Term cause Short Term cause Trigger cause	<i>Events from long ago</i> <i>Recent events that contribute</i> <i>A dramatic event with consequences</i>
5	The Schlieffen Plan	Germany's secret plan for war. They would defeat France within six weeks before Russia could mobilise.	5	Germany attacks France	Germany attacked France, Britain declared war on 3 rd August 1914 to protect her allies.	5	Flashpoints	An event where tension turns to conflict
6	Miliarism/The Arms race	Countries began to rapidly expand their armed forces and the likelihood of war increased.	7	First World War	The conflict began in August 1914 and lasted until 11 th November 1918	6	Militarism	The belief in having a strong army/navy
7	The Alliance System	Two great alliances, the Triple Entente and the Triple Alliance created tension	8	New weapons	The conflict saw new weapons such as machine guns, artillery guns, fighter planes, battle ships, submarines and poison gas change how war was fought	7	Alliance	An agreement between nations to protect each other
8	The Assassination of the Archduke Franz Ferdinand	The heir to the throne of the Austro-Hungarian Empire was assassinated in June 1914 by a gang of Bosnian nationalists led by Gavrilo Princip	9	Trench warfare	These new weapons resulted in all sides wanting to hold positions before advancing so trenches were dug to protect themselves	8	The Schlieffen Plan	The German plan to secure victory in European war
			10	Impact of War	10 million died in battle with 20 million wounded physically or mentally. The damage the conflict caused was extensive	9	Dreadnought	A large naval battleship
						10	To mobilise	To get an army ready to fight
						11	Western Front	Area of fighting between Germany and Britain/France

Jim Crow (Racial America)|Year 8| Summer 2 June-July

Why were African Americans not free after Slavery was abolished in America?			Key individuals and events		Key Vocabulary			
1	Slavery abolished in 1865	After the North won the American Civil War vs the South slavery was abolished	1	The Ku Klux Klan	This white racist terrorist organisation had over 2 million members by the 1920s	1	Segregation	<i>The separation of black and white people</i>
2	The Southern States	The south regained control of regional governments in the South in 1877 and introduced a system of racism known as Jim Crow	2	President Woodrow Wilson	The president from 1912-1920 introduced segregation in the White House	2	Congress	<i>The American Parliament</i>
3	Segregation Laws	The Jim Crow laws introduced mean African Americans were forced to use separate Railway carriages, Schools, Restaurants and Toilets	3	The Thibodaux Sugar Massacre	In 1887 35 sharecroppers were killed by plantation owners after the sharecroppers had gone on strike	3	Supreme Court	<i>The most powerful court in the USA</i>
4	Plessy vs Ferguson (1896)	Homer Plessy sued a railway company for removing him from a white carriage. The US Supreme court ruled that segregation was legal, as long as facilities were equal.	4	Resistance	African Americans resisted Jim Crow laws but often disagreed about the best way to fight back and faced violence if they did.	4	Disenfranchisement	<i>Not being allowed to vote</i>
5	Education	Black schools were underfunded which led to illiteracy and limited opportunities	5	Ida B. Wells	She was a teacher who was sacked for complaining about pay. When her friend was lynched in 1889 she became a journalist and campaigned to Congress for lynching to be made illegal	5	Ideology	<i>Set of ideas of beliefs that people follow</i>
6	Scientific Racism	Racism had merged with Science to claim that African Americans were less evolved (not true humans share 99.9% of DNA).	6	The National Association of Coloured Women (NACW)	An organisation created in 1896 by middle class African American women. They believed African Americans could win equality by 'living cleanly'	6	Lynching	<i>A public, unpunished murder</i>
7	White supremacy in Popular Culture	Films, music and news reports repeatedly presented black men as attacking white women, with white men as the heroes	7	Jack Johnson	Heavyweight Boxing Champion of the world in 1909. His success challenged the ideology of white supremacy. However, his flamboyant lifestyle did not reflect well on African Americans and didn't fit with the NACW's idea of 'living cleanly.'	7	Jim Crow	<i>The system of racial oppression in the Southern states of America between 1877 and 1960s</i>
8	White southerners prevented African Americans from voting	They used intimidation (violence), literacy tests and a poll tax (have to pay to vote) to limit the opportunities for African Americans to vote in elections.	7	Jack Johnson	Heavyweight Boxing Champion of the world in 1909. His success challenged the ideology of white supremacy. However, his flamboyant lifestyle did not reflect well on African Americans and didn't fit with the NACW's idea of 'living cleanly.'	6	White Supremacy	<i>An ideology that white people are naturally superior to black people</i>
						7	Literacy tests	<i>A test of your ability to read and write</i>
						8	Sharecropper	<i>A sharecropper is someone who works on a farm for a share of the profits at the end of year, rather than wages</i>

Percentages

1	Finding percentages of an amount without a calculator	<p>Work out 15% of 25</p> $15\% = 10\% + 5\%$ $10\% \text{ of } 25 = 25 \div 10 = 2.5$ $5\% \text{ of } 25 = 2.5 \div 2 = 1.25$ $15\% \text{ of } 25 = (10\% + 5\%) \text{ of } 25 = 2.5 + 1.25 = 3.75$
2	Finding percentages of an amount without a calculator	<p>Work out 1.3% of 900</p> $1.3\% = 1\% + 0.3\%$ $1\% \text{ of } 900 = 9$ $0.1\% = 1\% \div 10$ $0.1\% \text{ of } 900 = 0.9$ $0.3\% \text{ of } 900 = 3 \times 0.9 = 2.7$ $1.3\% \text{ of } 900 = (1\% + 0.3\%) \text{ of } 900 = 9 + 2.7 = 11.7$
3	Percentages of amounts with a calculator	<p>Work out a) 17% of 300</p> $17 \div 100 = 0.17$ $17\% \text{ of } 300 = 0.17 \times 300 = 51$
4	Percentages of amounts with a calculator	<p>Work out 148% of 99</p> $148 \div 100 = 1.48$ $148\% \text{ of } 99 = 1.48 \times 99 = 146.52$
5	Percentage increase without a calculator	<p>Increase 400 by 5%</p> $5\% = 10\% \div 2$ $10\% \text{ of } 400 = 400 \div 10 = 40$ $5\% \text{ of } 400 = 40 \div 2 = 20$ $400 + 20 = 420$

Percentages

6	Percentage increase with a calculator	<p>Increase 21 by 46%</p> $100\% + 46\% = 146\%$ $146 \div 100 = 1.46$ $146\% \text{ of } 21 = 1.46 \times 21 = 30.66$
7	Percentage decrease with a calculator	<p>What number is 4% smaller than 31?</p> $100\% - 4\% = 96\%$ $96 \div 100 = 0.96$ $96\% \text{ of } 31 = 0.96 \times 31 = 29.76$
8	Calculate percentage change	<p>Calculate the percentage increase when 80 is increased to 96</p> $\text{percentage change} = \frac{\text{difference}}{\text{original value}} \times 100$ $= \frac{96 - 80}{80} \times 100$ $= \frac{16}{80} \times 100$ $= 0.2 \times 100 = 20\%$

Money

1	Value for money	<p>12 kg of plant fertiliser costs £45. How much does 23 kg cost?</p> <table border="0"> <tr> <td colspan="2">kilograms</td> <td>:</td> <td colspan="2">cost (£)</td> </tr> <tr> <td>12</td> <td>:</td> <td>45</td> <td>÷12</td> <td></td> </tr> <tr> <td>+12</td> <td></td> <td>:</td> <td>3.75</td> <td></td> </tr> <tr> <td>23</td> <td>:</td> <td>86.25</td> <td>×23</td> <td>£86.25</td> </tr> </table>	kilograms		:	cost (£)		12	:	45	÷12		+12		:	3.75		23	:	86.25	×23	£86.25
kilograms		:	cost (£)																			
12	:	45	÷12																			
+12		:	3.75																			
23	:	86.25	×23	£86.25																		
2	Value for money	<p>Andy wants to buy mangoes from either shop A or shop B. What is the cost of 35 mangoes at the cheaper shop?</p> <table border="0"> <tr> <td>Shop A</td> <td>Shop B</td> </tr> <tr> <td>7 mangoes = £3.50</td> <td>5 mangoes = £3</td> </tr> <tr> <td>Shop A mangoes : cost (£)</td> <td>Shop B mangoes : cost (£)</td> </tr> <tr> <td> $\begin{array}{l} \times 5 \\ 7 : 3.5 \\ \hline 35 : 17.5 \end{array}$ </td> <td> $\begin{array}{l} \times 7 \\ 5 : 3 \\ \hline 35 : 21 \end{array}$ </td> </tr> <tr> <td colspan="2" style="text-align: center;">Shop A £17.50</td> </tr> </table>	Shop A	Shop B	7 mangoes = £3.50	5 mangoes = £3	Shop A mangoes : cost (£)	Shop B mangoes : cost (£)	$\begin{array}{l} \times 5 \\ 7 : 3.5 \\ \hline 35 : 17.5 \end{array}$	$\begin{array}{l} \times 7 \\ 5 : 3 \\ \hline 35 : 21 \end{array}$	Shop A £17.50											
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Indices		
1	$a^1 = a$ and $a^0 = 1$	$23^4 \times 23 = 23^5$ $W^0 = 1$
2	Index rules with positive indices	$x^a \times x^b = x^{(a+b)}$ $22^6 \times 22^4 = 22^y$ $W^3 \times W^4 = W^{3+4}$ $22^{(6+4)} = 22^y$ $= W^7$ $22^{10} = 22^y$ $10 = y$
3		$8^9 \times 8^6 \times 8^{14} = 8^{\square}$ $24^{19} \times 24^r = 24^{42}$ $8^9 \times 8^6 \times 8^{14}$ $24^{(19+r)} = 24^{42}$ $= 8^{(9+6)} \times 8^{14}$ $(19+r) = 42$ $= 8^{15} \times 8^{14}$ $(19+r) = 42$ $= 8^{(15+14)}$ $-19 \quad \quad 19+r = 42 \quad \quad -19$ $= 8^{29}$ $r = 23$
4	Index rules with positive indices	$\frac{x^a}{x^b} = x^{(a-b)}$ $\frac{E^{35}}{E^7}$ $= E^{(35-7)}$ $= E^{28}$
5		$\frac{11^{19}}{11^5} = 11^{14}$ $\frac{8^6 \times 8}{8^3} = \frac{8^6 \times 8^1}{8^3}$ $\frac{11^{19}}{11^5} = 11^{19-5}$ $= \frac{8^{6+1}}{8^3}$ $= 11^{14}$ $= \frac{8^7}{8^3}$ $= 8^{7-3}$ $= 8^4$
6	With brackets, multiply the powers	$(x^a)^b = x^{(a \times b)}$ $(W^3)^2 = W^6$

Indices		
7	Negative indices	$x^{-b} = \frac{1}{x^b}$ $20^{-11} = \frac{1}{20^{11}}$
8	Negative indices	$\frac{1}{\underbrace{12 \times 12 \times 12 \times 12 \times 12 \times 12 \times 12}_7} = \frac{1}{12^7}$ $7^{-3} = \frac{1}{7^3}$ $= 12^{-7}$ $= \frac{1}{7 \times 7 \times 7}$ $12^7 \times 12^{-23} = 12^c$ $= \frac{1}{49 \times 7}$ $12^{(7-23)} = 12^c$ $= \frac{1}{343}$ $(7-23) = c$ $-16 = c$
9	Simplify algebraic fractions by cancelling common factors	<p>Fully simplify $\frac{16h}{18hy}$</p> $\frac{16h}{18hy} \xrightarrow{\div 2} \frac{8h}{9hy} \xrightarrow{\div h} \frac{8}{9y}$ <p>Fully simplify $\frac{w^{11}}{w^3y^{12}}$</p> $\frac{w^{11}}{w^3y^{12}} = \frac{w^{(11-3)}}{1 \times y^{12}} = \frac{w^8}{y^{12}}$

Equations		
1	Solve equations in form $(x+a)/b$	<p>Solve $\frac{x+8}{4} = 7$</p> $\begin{array}{l} \frac{x+8}{4} = 7 \\ \times 4 \quad \frac{x+8}{4} \times 4 = 7 \times 4 \\ x+8 = 28 \\ -8 \quad x+8-8 = 28-8 \\ x = 20 \end{array}$ <p>Solve $16 = \frac{5x-8}{2}$</p> $\begin{array}{l} 16 = \frac{5x-8}{2} \\ \times 2 \quad 16 \times 2 = \frac{5x-8}{2} \times 2 \\ 32 = 5x-8 \\ +8 \quad 32+8 = 5x-8+8 \\ 40 = 5x \\ \div 5 \quad 40 \div 5 = 5x \div 5 \\ 8 = x \end{array}$

Equations

2 Solve equations in form $(x/b)+a$

Solve $\frac{x}{5} + 3 = 11$

$$\begin{array}{l} \frac{x+3}{5} = 11 \\ \times 5 \quad \frac{x+3}{5} \times 5 = 11 \times 5 \\ \frac{x+3}{5} \times 5 = 11 \times 5 \\ x+3 = 55 \\ -3 \quad x+3-3 = 55-3 \\ x+3-3 = 55-3 \\ x = 52 \end{array}$$

3 Solve equations involving brackets

Solve $3(v+4) = 24$

$$\begin{array}{l} 3(v+4) = 24 \\ 3v+12 = 24 \\ -12 \quad 3v+12-12 = 24-12 \\ 3v+12-12 = 24-12 \\ 3v = 12 \\ +3 \quad 3v+3 = 12+3 \\ 3v+3 = 12+3 \\ v = 4 \end{array}$$

Solve $23 = 5 + 2(4w+3)$

$$\begin{array}{l} 23 = 5 + 2(4w+3) \\ 23 = 5 + 8w + 6 \\ 23 = 11 + 8w \\ -11 \quad 23 = 11 + 8w \\ 23 = 11 + 8w \\ 12 = 8w \\ \div 8 \quad 12 = 8w \\ 1.5 = w \end{array}$$

4 Solve equations with unknowns on both sides

Solve $9x - 30 = 3x$

$$\begin{array}{l} 9x - 30 = 3x \\ -3x \quad 9x - 30 - 3x = 3x - 3x \\ 9x - 30 - 3x = 3x - 3x \\ 6x - 30 = 0 \\ +30 \quad 6x - 30 + 30 = 0 + 30 \\ 6x - 30 + 30 = 0 + 30 \\ 6x = 30 \\ \div 6 \quad 6x \div 6 = 30 \div 6 \\ 6x \div 6 = 30 \div 6 \\ x = 5 \end{array}$$

5 Solve equations with unknowns on both sides

Solve $31 - 4x = 2x + 7$

$$\begin{array}{l} 31 - 4x = 2x + 7 \\ +4x \quad 31 - 4x + 4x = 2x + 7 + 4x \\ 31 - 4x + 4x = 2x + 7 + 4x \\ 31 = 6x + 7 \\ -7 \quad 31 - 7 = 6x + 7 - 7 \\ 31 - 7 = 6x + 7 - 7 \\ 24 = 6x \\ \div 6 \quad 24 \div 6 = 6x \div 6 \\ 24 \div 6 = 6x \div 6 \\ 4 = x \\ x = 4 \end{array}$$

Equations

6 Solving equations with the unknown in the denominator

Solve $\frac{32}{2y} = 2$

$$\begin{array}{l} \frac{32}{2y} = 2 \\ \times 2y \quad \frac{32}{2y} \times 2y = 2 \times 2y \\ \frac{32}{2y} \times 2y = 2 \times 2y \\ 32 = 4y \\ \div 4 \quad 32 \div 4 = 4y \div 4 \\ 32 \div 4 = 4y \div 4 \\ 8 = y \end{array}$$

7 Solving equations with the unknown in the denominator

Calculate the value of y , giving your answer as a decimal.

$\frac{103}{y-5} = 2$

$$\begin{array}{l} \frac{103}{y-5} = 2 \\ \times (y-5) \quad \frac{103}{y-5} \times (y-5) = 2 \times (y-5) \\ \frac{103}{y-5} \times (y-5) = 2 \times (y-5) \\ 103 = 2(y-5) \\ 103 = 2y - 10 \\ +10 \quad 103 = 2y - 10 \\ 113 = 2y \\ \div 2 \quad 113 = 2y \\ 56.5 = y \end{array}$$

8 Constructing & solving equations


Tom is k years old. His sister is 8 years old and his brother is 3 times Tom's age. All three siblings have a total age of 32.

a) Write an equation to represent this.
b) Solve the equation to find out Tom's age.

$$\begin{array}{l} k + 8 + 3k = 32 \\ 4k + 8 = 32 \\ -8 \quad 4k + 8 = 32 \\ 4k + 8 - 8 = 32 - 8 \\ 4k = 24 \\ \div 4 \quad 4k \div 4 = 24 \div 4 \\ 4k \div 4 = 24 \div 4 \\ k = 6 \end{array}$$

9 Constructing & solving equations

Write an equation for the sum of the angles in this triangle. Use your equation to find the value of x .



$$\begin{array}{l} 6x + 40 + x = 180 \\ -40 \quad 7x + 40 = 180 \\ 7x + 40 - 40 = 180 - 40 \\ 7x = 140 \\ \div 7 \quad 7x \div 7 = 140 \div 7 \\ 7x \div 7 = 140 \div 7 \\ x = 20 \end{array}$$

Sequences

1 Term-to-term rules for numerical sequences

The term-to-term rule tells us how to get from one term to the next

2 Term-to-term rules for numerical sequences

The term-to-term rule for a sequence is to subtract 6 each time. The 12th term is 58. What is the 14th term?

12th term: 58
 13th term: 52
 14th term: 46

-6 -6

3 Term-to-term rules for sequence of patterns

Jacob is making a sequence of patterns using beads and sticks. He starts with 3 beads and 2 sticks and adds the same number of beads and the same number of sticks each time.

a) How many beads are there in the 4th pattern?
 b) How many sticks are there in the 4th pattern?

Pattern number	1	2	3	...
Pattern				...

Beads: 3 → 7 → 11

+4 +4

$11 + 4 = 15$ **15 ans**

Sticks: 2 → 6 → 10

+4 +4

$10 + 4 = 14$ **14, ans**

4 Substituting into position-to term rules

The expression for the n^{th} term of a sequence is $9n + 22$. What are the first three terms in the sequence?

position 1	position 2	position 3
$9 \times 1 + 22$	$9 \times 2 + 22$	$9 \times 3 + 22$
$= 9 + 22$	$= 18 + 22$	$= 27 + 22$
$= 31$	$= 40$	$= 49$

31, 40, 49

5 Arithmetic Sequences

Arithmetic sequences have a common difference between the terms

Sequences

6 Nth term for arithmetic sequences

The start of an arithmetic sequence is shown below.

a) What is the n^{th} term rule for this sequence?
 b) Work out the 16th term of this sequence.

rule: $7n + ?$

n	1	2	3	4
sequence	15	22	29	36
$7n$	7	14	21	28

sequence - $7n$ 8 8 8 8 rule: $7n + 8$

$7 \times 6 + 8 = 42 + 8$
 $= 50$

7 Nth term for sequences of patterns

The start of a sequence of patterns made from dots is shown below. The same number of dots is added each time.

a) Write an expression for the number of dots in the n^{th} pattern.
 b) How many dots are there in the 16th pattern?

Pattern number, n	1	2	3	...
Pattern				...

dots: 5 → 10 → 15

+5 +5

$5n$ 5 10 15

dots - $5n$ 3 3 3

dots in n^{th} pattern = $5n + ?$
 dots in n^{th} pattern = $5n + 3$

b) Substitute 16 for n in the rule

dots in 16th pattern = $5 \times 16 + 3$
 $= 80 + 3$
 $= 83$

Ratio		
1	Simplify ratios	<p>Whatever you do to one side of the ratio, you must do the same to the other. To simplify, find the highest factor of both sides and divide both sides by that factor.</p> <p>Fully simplify the ratio 2 : 14</p> $\begin{array}{c} 2 : 14 \\ \div 2 \quad \div 2 \\ \hline 1 : 7 \end{array}$
2	Writing in ratios	<p>There are 28 boys and 12 girls at a youth club. What is the ratio of boys to girls in its simplest form?</p> $\begin{array}{c} \text{boys} : \text{girls} \\ 28 : 12 \\ \div 4 \quad \div 4 \\ \hline 7 : 3 \end{array}$
3	Writing ratios in form 1:n	<p>Rewrite the ratio 16 : 72 as an equivalent ratio of the form 1 : n</p> $\begin{array}{c} 16 : 72 \\ \div 16 \quad \div 16 \\ \hline 1 : 4.5 \end{array}$
4	Converting between ratios & fractions	<p>Cyclotubene is made up of hydrogen and carbon atoms. The ratio of hydrogen to carbon atoms in cyclotubene is 3:2. What fraction of the atoms in cyclotubene are hydrogen atoms?</p> <p>fraction of atoms that are hydrogen = $\frac{\text{parts of the ratio corresponding to hydrogen}}{\text{total parts in the ratio}}$</p> <p>Find the total number of parts $3 + 2 = 5$</p> <p>Find the parts corresponding to hydrogen 3</p> <p>Find the fraction of atoms that are hydrogen $\frac{3}{5}$</p>

Scale Diagrams		
1	Using a map to calculate real life distance	Use a ruler to calculate the distance on map and multiply that by your scale


Ratio																		
5	Converting between ratios & percentages	<p>Riley and Alicja shared a whole pizza. Their shares were in the ratio 4:1. What percentage of the pizza did Riley eat?</p> <p>Find the parts of the ratio corresponding to Riley 4</p> <p>Find the total parts in the ratio $4 + 1 = 5$</p> <p>Find the fraction that Riley ate $\frac{4}{5}$</p> <p>Find the percentage that Riley ate</p> <p>Percent means "out of 100"</p> <p>Convert to an equivalent fraction with a denominator of 100</p> <p>The percentage is the numerator</p> $\frac{4}{5} = \frac{80}{100}$																
6	Using equivalent ratios to find amounts	<p>Milkshake syrup is mixed with milk in the ratio 1:9. If you use 360 ml of milk, how much syrup do you need?</p> $\begin{array}{c} \text{syrup} : \text{milk} \\ 1 : 9 \\ \times 40 \quad \times 40 \\ \hline 40 : 360 \end{array}$																
7	Sharing amounts in a given ratio	<p>Emma makes 600 ml of strawberry jam by heating sugar syrup and strawberry pulp in the ratio 5:7. How much sugar syrup does Emma use?</p> $5 + 7 = 12$ <table border="0"> <tr> <td>Sugar</td> <td>:</td> <td>Strawberry</td> <td>Total</td> </tr> <tr> <td>5</td> <td>:</td> <td>7</td> <td>12</td> </tr> <tr> <td>$\times 50$</td> <td></td> <td>$\times 50$</td> <td>$\times 50$</td> </tr> <tr> <td>150</td> <td>:</td> <td>350</td> <td>250ml</td> </tr> </table>	Sugar	:	Strawberry	Total	5	:	7	12	$\times 50$		$\times 50$	$\times 50$	150	:	350	250ml
Sugar	:	Strawberry	Total															
5	:	7	12															
$\times 50$		$\times 50$	$\times 50$															
150	:	350	250ml															

Scale Diagrams		
2	Use the real distance to work out map scale distance	Take the real life distance and divide it by your scale to find the distance on the map


Rounding

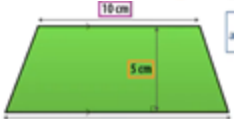
1	Significant figures	The first significant figure is the first non-zero digit
2	Significant figures	Zero counts as a significant figure when it is after another non-zero digit
3	Round to "x" significant figures	"X" digits and the rest zeros to hold the place value. If the number next door is 5 or more, round up. If not, the number stays the same
4	Round to significant figures	<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p>a) Round 294 to 1 significant figure.</p> $\begin{array}{r} \downarrow \\ 2 \cdot 94 \\ \hline = 300 \\ \text{to 1 s.f.} \end{array}$ </div> <div style="text-align: center;"> <p>b) Round 249 to 1 significant figure.</p> $\begin{array}{r} \downarrow \\ 2 \cdot 49 \\ \hline = 200 \\ \text{to 1 s.f.} \end{array}$ </div> </div>
5	Round to significant figures	<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p>Round £292,897 to</p> <p>a) 2 significant figures.</p> <p>b) 3 significant figures.</p> $\begin{array}{r} \downarrow \quad \downarrow \quad \downarrow \quad \downarrow \quad \downarrow \\ 2 \cdot 9 \cdot 2 \cdot 8 \cdot 9 \cdot 7 \\ \hline = 290000 \\ \text{to 2 s.f.} \end{array}$ $\begin{array}{r} \downarrow \quad \downarrow \quad \downarrow \quad \downarrow \quad \downarrow \\ 2 \cdot 9 \cdot 2 \cdot 8 \cdot 9 \cdot 7 \\ \hline = 293000 \\ \text{to 3 s.f.} \end{array}$ </div> <div style="text-align: center;"> <p>a) Round 0.182 to 1 significant figure.</p> <p>b) Round 0.021 to 1 significant figure.</p> $\begin{array}{r} \downarrow \quad \downarrow \quad \downarrow \\ 0 \cdot 1 \cdot 8 \cdot 2 \\ \hline = 0.2 \\ \text{to 1 s.f.} \end{array}$ $\begin{array}{r} \downarrow \quad \downarrow \quad \downarrow \\ 0 \cdot 0 \cdot 2 \cdot 1 \\ \hline = 0.02 \\ \text{to 1 s.f.} \end{array}$ </div> </div>
6	Estimating calculations	<p>To estimate, round each value in the calculation to 1 significant figure</p> <p>\approx means "approximately equal to"</p>
7	Estimating calculations	<p>Estimate $\frac{78.6}{4.1} \approx \frac{80}{4} = 20$</p> <p>Estimate the value of $816 - 651$</p> <p>$800 - 700 = 100$</p>





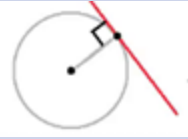
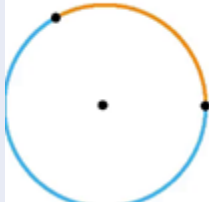
Coordinates and Midpoints

1	Midpoints	The midpoint is halfway between two points
2	Midpoints	coordinates of midpoint of (x_1, y_1) and $(x_2, y_2) = \left(\frac{x_1+x_2}{2}, \frac{y_1+y_2}{2}\right)$
3	Calculating midpoints	<p>Point M is the midpoint of line AB, shown below. What are the coordinates of point M?</p>  <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div style="text-align: center;"> $(x_1, y_1) = (0, 26)$ </div> <div style="text-align: center;"> $(x_2, y_2) = (32, 0)$ </div> </div> <p>Calculate the x-coordinate of the midpoint</p> $\frac{0 + 32}{2} = 16$ <p>Calculate the y-coordinate of the midpoint</p> $\frac{26 + 0}{2} = 13$ <p style="text-align: center; font-size: 1.2em;">(16, 13)</p>

Area

1	Area of Parallelogram	area of a parallelogram = $\text{base} \times \text{perpendicular height}$
2	Area of Parallelogram	<p>Work out the area of this parallelogram.</p> <p>area of a parallelogram = $\text{base} \times \text{perpendicular height}$</p>  <div style="margin-left: 20px;"> $= 5 \times 3$ $= 15$ 15cm^2 </div>

Area	
1	<p>Area of Trapezium</p> <p>area of a trapezium = $\frac{\text{sum of parallel sides}}{2} \times \text{perpendicular height}$</p>
2	<p>Area of Trapezium</p> <p>Work out the area of the trapezium below.</p>  $= \frac{10 + 16}{2} \times 5$ $= \frac{26}{2} \times 5$ $= 13 \times 5$ $= 65$ <p style="text-align: center;">65 cm²</p>
3	<p>Converting units of area</p> <div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> <p>km $\xrightarrow{\times 1000}$ m $\xrightarrow{\times 100}$ cm $\xrightarrow{\times 10}$ mm</p> <p>mm $\xrightarrow{\div 10}$ cm $\xrightarrow{\div 100}$ m $\xrightarrow{\div 1000}$ km</p> </div> <div style="border: 1px solid black; padding: 5px;"> <p>km² $\xrightarrow{\times 1000^2}$ m² $\xrightarrow{\times 100^2}$ cm² $\xrightarrow{\times 10^2}$ mm²</p> <p>mm² $\xrightarrow{\div 10^2}$ cm² $\xrightarrow{\div 100^2}$ m² $\xrightarrow{\div 1000^2}$ km²</p> </div>
4	<p>Converting units of area</p> <p>What is 12.8 mm² in cm²?</p> <p>12.8 mm² $\div 10^2$ = ? cm²</p> <p>12.8 $\div 10 \div 10$ = ?</p>

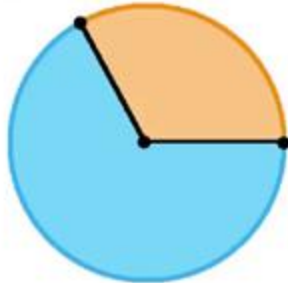
Circles				
1	Radius	<p>A radius is a straight line from the centre of a circle to a point on the edge of the circle.</p> 	Chord	<p>A chord is a straight line between two points on the edge of a circle.</p> 
2	Circumference	The edge of the circle	Arc	<p>An arc is a section of the circumference of a circle.</p> 
3	Diameter	<p>A diameter is a straight line between two points on the edge of the circle that goes through the centre of the circle.</p> 	Tangent	<p>A tangent is a line that touches the circumference of a circle at a single point and is perpendicular to the radius at that point.</p> 
4	Minor & major Arcs	<p>An arc is a section of the circumference of a circle.</p> 	<p>For a circle split into two arcs, the smaller one is the minor arc and the larger one is the major arc.</p>	

Circles

5

Sectors

A **sector** is the region of a circle enclosed by two radii and an arc between them



For a circle split into two sectors, the smaller one is the **minor sector** and the larger one is the **major sector**

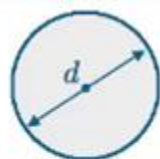
A **segment** is the region of a circle enclosed by a chord and an arc between the two ends of the chord



For a circle split into two segments, the smaller one is the **minor segment** and the larger one is the **major segment**

7

Calculating the circumference of a circle



circumference = πd



circumference = $2\pi r$

Circles

8

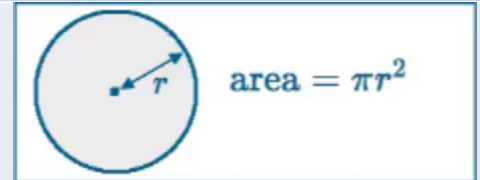
Calculating the circumference of a circle

The **diameter** of the circle below is **40** cm.
What is the **circumference** of the circle? Give your answer to 1 d.p.

$$\begin{aligned} \text{Circumference} &= \pi d \\ &= \pi \times 40 \\ &= 125.663... \\ &= 125.7 \text{ to 1 d.p.} \\ &125.7 \text{ cm} \end{aligned}$$

9

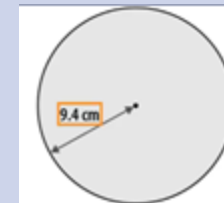
Calculating the area of a circle



10

Calculating the area of a circle

Calculate the **area** of the circle shown. Give your answer to 1 d.p.



$$\begin{aligned} \text{area} &= \pi r^2 \\ &= \pi \times 9.4^2 \\ &= 277.591... \\ &= 277.6 \text{ to 1 d.p.} \\ &277.6 \text{ cm}^2 \end{aligned}$$

Standard form	
1	<p>Writing numbers in standard form with positive indices</p> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p>Standard form: $a \times 10^n$ a is a number between 1 and 10 n is a whole number</p> </div>
2	<p>Writing numbers in standard form with positive indices</p> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p>Convert 4,720,000 to standard form.</p> $4\,720\,000 = 4.72 \times 1000\,000$ $= 4.72 \times 10^6$ 4.72×10^6 </div>
3	<p>Writing numbers in standard form with negative indices</p> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p>Convert 0.000 002 78 to standard form.</p> $0.000\,002\,78 = 2.78 \times 10^{-6}$ <math display="block">2.78 \times 10^{-6}, \text{ <u>ans</u>}</math> </div>
4	<p>Write 0.000 001 025 4 in standard index form to 3 significant figures. Round the number to 3 significant figures Split the number after the third significant figure</p> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> $0.000\,001\,025\,4$ $= 0.000\,001\,03 \text{ to } 3 \text{ s.f.}$ $0.000\,001\,03 = 1.03 \times 10^{-6}$ 1.03×10^{-6} </div>

Venn diagrams	
1	<p>Venn Diagrams</p> <div style="margin-top: 10px;"> <p>Corey asked 30 people whether they play squash and whether they play rounders. The Venn diagram below shows the numbers of people who play squash, rounders, both or neither.</p> <p>a) How many people play squash? b) How many people play rounders?</p> <div style="display: flex; justify-content: space-around;"> <div style="border: 1px solid black; padding: 5px;"> <p style="text-align: center;">Squash Rounders</p> </div> <div style="text-align: right;"> <p>a) Add up the number of people who are in the <u>squash</u> circle</p> $11 + 3 = 14 \text{ people } \underline{\underline{\text{ans}}}$ <p>b) Add up the number of people who are in the <u>rounders</u> circle</p> $3 + 9 = 12 \text{ people } \underline{\underline{\text{ans}}}$ </div> </div> </div>
2	<p>Venn Diagrams</p> <div style="margin-top: 10px;"> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p style="text-align: center;">Wearing a scarf Wearing a hat</p> </div> </div>
3	<p>Probability from venn diagrams</p> <div style="margin-top: 10px;"> <p>The Venn diagram below shows the number of hotels in a town that have a swimming pool and a gym. What is the probability that a hotel picked at random <u>has a swimming pool</u>?</p> <p>Give your answer as a fraction in its simplest form.</p> <div style="display: flex; justify-content: space-around;"> <div style="border: 1px solid black; padding: 5px;"> <p style="text-align: center;">Has a swimming pool Has a gym</p> </div> <div style="text-align: right;"> <p>$P(\text{has a swimming pool}) = \frac{\text{number of hotels that have a swimming pool}}{\text{total number of hotels}}$</p> <p>How many hotels have swimming pools? $6 + 12 = 18$</p> <p>How many hotels are there in total? $6 + 12 + 9 = 27$</p> <p>Work out the probability Simplify if possible</p> $\frac{18}{27}$ $\frac{18}{27} \underline{\underline{\text{ans}}}$ </div> </div> </div>

HCF & LCM

1	HCF	Highest common factor
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2	LCM	Lowest common multiple
---	-----	------------------------

3	HCF	<p>What is the highest common factor (HCF) of 78 and 130?</p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p>78</p> <p>$78 = 2 \times 3 \times 13$</p> </div> <div style="text-align: center;"> <p>130</p> <p>$130 = 2 \times 5 \times 13$</p> </div> </div> <p>Draw a Venn diagram showing the prime factors of each number Keep dividing by prime numbers until every branch ends in a prime number</p> <div style="display: flex; justify-content: center; align-items: center;"> <div style="text-align: center;"> <p>Prime Factors of 78</p> </div> <div style="margin-left: 20px;"> <p>HCF = 2×13 = 26</p> </div> </div> <p>The HCF is equal to the product of the numbers in the overlapping section</p>
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4	LCM	<p>What is the lowest common multiple (LCM) of 42 and 63?</p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p>42</p> <p>$42 = 2 \times 3 \times 7$</p> </div> <div style="text-align: center;"> <p>63</p> <p>$63 = 7 \times 3 \times 3$</p> </div> </div> <p>Draw a Venn diagram showing the prime factors of each number</p> <div style="display: flex; justify-content: center; align-items: center;"> <div style="text-align: center;"> <p>Prime Factors of 42</p> </div> <div style="margin-left: 20px;"> <p>LCM = $2 \times 3 \times 7 \times 3$ = 126</p> </div> </div> <p>The LCM is equal to the product of all the numbers in the Venn diagram</p>
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3D Shapes

1	Edge	An edge is a line where two surfaces meet
---	------	---

2	Vertex	A vertex is a single point where edges or surfaces form a corner
---	--------	--

3	Face	A face is a flat surface
---	------	--------------------------

4	Cross-Section	A cross-section is the face formed when you cut through a 3D shape
---	---------------	--

5	Prism	A 3D shape with a constant cross section and flat faces
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6		<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;"> <p>Cube</p> </div> <div style="text-align: center;"> <p>Cuboid</p> </div> <div style="text-align: center;"> <p>Triangular prism</p> </div> </div> <div style="display: flex; justify-content: space-around; align-items: center; margin-top: 20px;"> <div style="text-align: center;"> <p>Triangular prism</p> </div> <div style="text-align: center;"> <p>Square-based pyramid</p> </div> <div style="text-align: center;"> <p>Triangular-based pyramid</p> </div> </div> <div style="display: flex; justify-content: space-around; align-items: center; margin-top: 20px;"> <div style="text-align: center;"> <p>Sphere</p> </div> <div style="text-align: center;"> <p>Cylinder</p> </div> <div style="text-align: center;"> <p>Cone</p> </div> </div>
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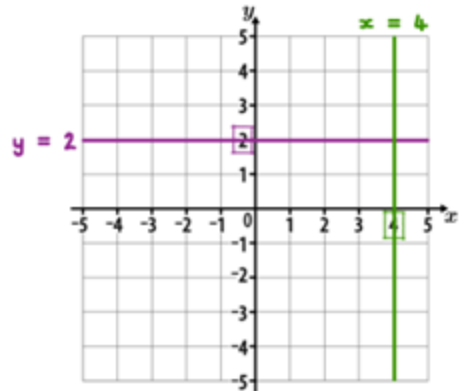
3D shapes

7	Nets	<p>A net is a 2D shape that can be folded into a 3D shape without any gaps or overlaps</p>
<p>Which of these nets make a cuboid?</p> <div style="display: flex; justify-content: space-around; align-items: flex-start;"> <div style="text-align: center;"> <p>A</p> <p>↓</p> <p>X</p> </div> <div style="text-align: center;"> <p>B</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> <p>↓</p> </div></div>		

Linear graphs

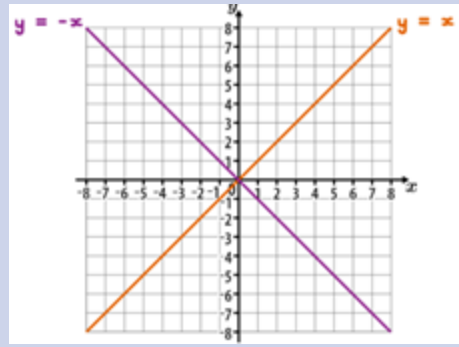
1	Horizontal Line	Y = a is the horizontal line through a on the y axis
2	Vertical Line	X = a is the vertical line through a on the x axis.

Plot each of these lines.
a) $y = 2$
b) $x = 4$



3		
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y=x is the diagonal line from bottom left to top right
y=-x is the diagonal line from top left to bottom right

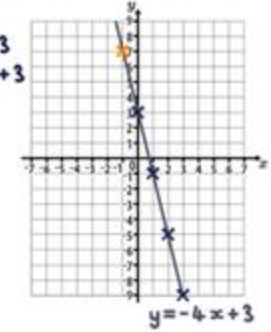


Linear Graphs

By first completing the table of values for $y = -4x + 3$, draw the graph of $y = -4x + 3$ on a set of axes.

x	-1	0	1	2	3
y	7	3	-1	-5	-9

e.g.
 $y = -4x + 3$
 $y = -4 \times -1 + 3$
 $y = 4 + 3$
 $y = 7$
(-1, 7)



6 Plotting a straight line

7 Equation of a straight line

The equation of a straight line can be written as $y = mx + c$

- m is the gradient
- c is the y-intercept

8 Gradient

The gradient is the steepness of the line

$$\text{gradient} = \frac{\text{change in } y}{\text{change in } x}$$

9 Y intercept

The y-intercept is where the line crosses the y-axis

10 Equation of a straight line

The equation of line W below can be written in the form $y = mx + c$. What are the values of m and c?

The equation of a straight line can be written as $y = mx + c$

- m is the gradient
- c is the y-intercept

Work out the gradient, m

$$\text{gradient} = \frac{\text{change in } y}{\text{change in } x}$$

$$m = \frac{3 - -5}{1 - -1}$$

$$m = \frac{3 + 5}{1 + 1}$$

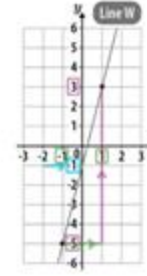
$$m = \frac{8}{2}$$

$$m = 4$$

Work out the y-intercept, c

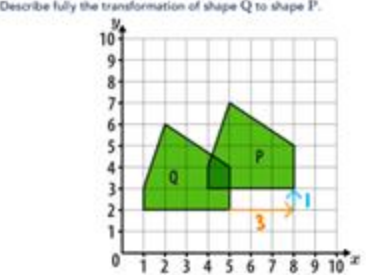
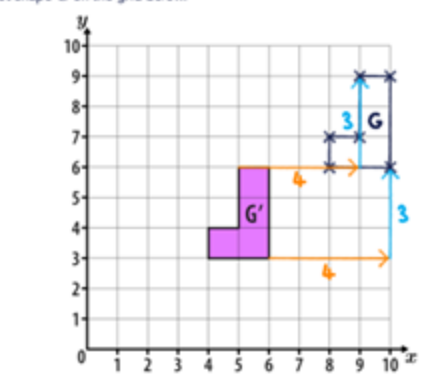
The y-intercept is where the line crosses the y-axis

$$c = -1$$

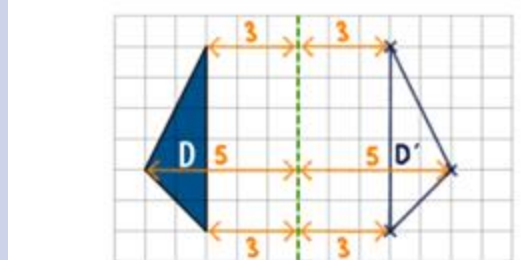
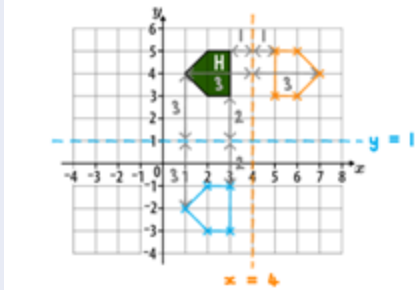
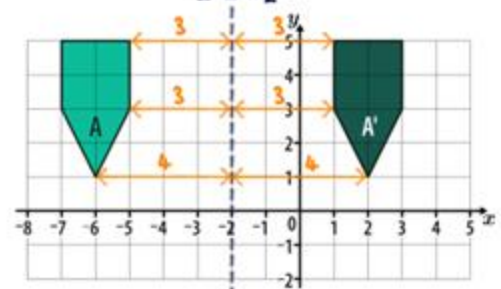




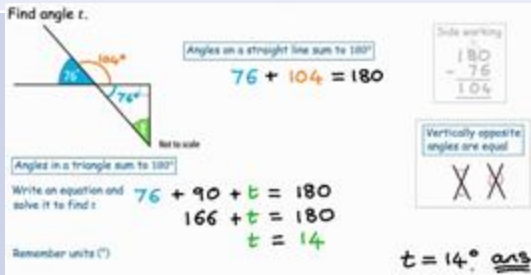
m = 4, c = -1


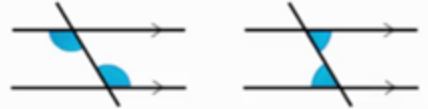
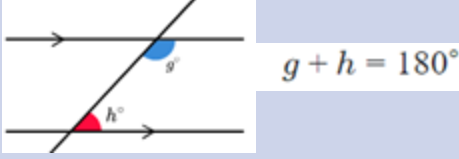

Transformations

1	Translation	Translating a shape involves moving the shape but keeping the original size and orientation of the shape
2	Describe a translation	<p>Describe fully the transformation of shape Q to shape P.</p>  <p style="text-align: center;">A translation of 3 units to the right 1 unit up</p> <p><i>Answer:</i> A translation of 3 units to the right and 1 unit up</p>
3	Perform a translation	<p>Shape G' is a translation of shape G by 4 units to the left and 3 units down. Plot shape G on the grid below.</p> 
4	Reflection	Corresponding vertices of reflected shapes are the same distance away from the line of reflection, but are on the opposite side

Transformations

6	Performing a reflection	<p>Reflect shape D in the dashed line below.</p> 
7	Performing a reflection	<p>Reflect shape H in the line a) $y = 1$ b) $x = 4$</p> 
8	Describing a reflection	<p>Describe fully the transformation from shape A to shape A'.</p>  <p style="text-align: center;">reflection in the line $x = -2$</p>

Angles		
1	Angles in quadrilaterals	Internal angles of a quadrilateral sum to 360 degrees
2	Angles in quadrilaterals	<p>Find the size of angle p. Give your answer in degrees ($^{\circ}$).</p>  <p style="text-align: center;">$P + 145 + 43 + 126 = 360$</p> <p style="text-align: center;">$P + 314 = 360$</p> <p style="text-align: center;">$P = 360 - 314$</p> <p style="text-align: center;">$P = 46$</p>
3	Angle Facts	Angles around a point add to 360° Angles in a triangle sum to 180° Angles on a straight line add to 180°
4	Vertically opposite angles are equal	<p style="text-align: center;">Vertically opposite angles are equal</p> 
5	Congruency	Two shapes are congruent if all their sides and angles match
6	Isosceles triangles	Isosceles triangles have 2 sides and 2 angles the same
7	Combining angle facts	<p>Find angle z.</p>  <p style="text-align: center;">$76 + 104 = 180$</p> <p style="text-align: center;">$76 + 90 + z = 180$</p> <p style="text-align: center;">$166 + z = 180$</p> <p style="text-align: center;">$z = 14$</p> <p style="text-align: right;">$z = 14^{\circ}$ ans</p>

Angles	
8	<p><u>Angles in parallel lines:</u> Corresponding angles are equal</p> <p>Corresponding angles Same side of the crossing line Same side of the parallel lines</p> 
9	<p><u>Angles in parallel lines:</u> Alternate angles are equal</p> <p>Alternate angles Opposite sides of the crossing line Between the parallel lines</p> 
10	<p><u>Angles in parallel lines:</u> Co-interior angles add to 180 degrees</p> 
11	<p>Work out the size of angle p. Give a reason for each stage of your working.</p>  <p style="text-align: center;"><small>Not drawn accurately</small></p> <p style="text-align: center;">angles which make a straight line sum to 180°</p> $-132 \quad \quad q + 132 = 180 \quad -132$ $q = 48$ <p style="text-align: center;">alternate angles are equal</p> <p style="text-align: center;">$p = 48^{\circ}$</p>


Angles

12

Using quadrilateral properties to find angles

A kite is shown below. Work out the size of angle y .

Work out the other missing angle in the kite

Two of the angles in a kite are equal  124°

Work out the value of y


Angles in a kite sum to 360°

$$124 + 29 + 124 + y = 360$$

$$277 + y = 360$$

$$y = 83$$

Remember units ($^\circ$) Answer: 83°



13

Sum of interior angles of a polygon

The sum of the interior angles of a polygon with n sides is given by: $180^\circ \times (n-2)$

14

Angles in a polygon

Work out the sum of the interior angles of a polygon with 6 sides.

Find the value of n $n = 6$

Make the substitution $180 \times (n - 2)$

$$= 180 \times (6 - 2)$$

Find the value inside the brackets $= 180 \times 4$

Do the multiplication $= 720$

15

Here is a regular decagon. Calculate the size of an interior angle.

A decagon has 10 sides

Find the sum of the interior angles

The interior angles of a polygon with n sides sum to $180 \times (n - 2)$

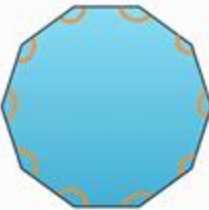
$$180 \times (10 - 2) = 180 \times 8$$

$$= 1440$$

Divide the total by the number of sides

$$1440 \div 10 = 144$$

Remember units ($^\circ$)



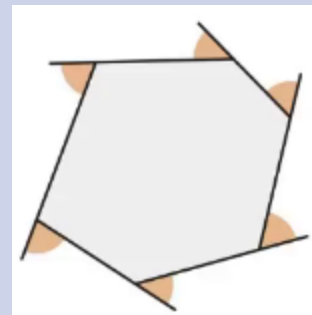
144° ans

Angles

16

Exterior Angles

Exterior angles of a polygon add up to 360°



17

What is the size of each of the exterior angles in a regular 15 -sided polygon?

Exterior angles add up to 360°

Polygons have the same number of exterior angles as sides

A 15 -sided polygon has 15 exterior angles

The exterior angles of a regular polygon are all equal

$$15 \times \text{exterior angle} = 360$$

$$\text{exterior angle} = 360 \div 15$$

$$\text{exterior angle} = 24$$

Side working

$$\begin{array}{r} 0 \ 2 \ 4 \\ 15 \overline{) 360} \\ \underline{30} \\ 60 \\ \underline{60} \\ 0 \end{array}$$


Remember units ($^\circ$) 24° ans

Statistical Diagrams

1 Pie Chart Each section of the pie chart is proportional to the total frequency for that category

2 Pie Chart example The table shows information about some people's favourite exercises. Use the table to complete the pie chart.

Exercise	Frequency	Central Angle
Walking	7	$\frac{7}{30} \cdot 360 = 84^\circ$
Jogging	18	$\frac{18}{30} \cdot 360 = 216^\circ$
Gym	5	$\frac{5}{30} \cdot 360 = 60^\circ$
Total	30	



3 Interpreting pie charts The pie chart shows information about the favourite toys of students in a year. 18 students said games console. How many students said their favourite toy was a scooter? Count how many sections represent students who said games console. Work out the frequency of 1 section. Count how many sections represent students who said scooter. Work out the number of students who said scooter.

4 sections = 48

1 section = 48 ÷ 4 = 12

2 sections = scooter

2 × 12 = scooter

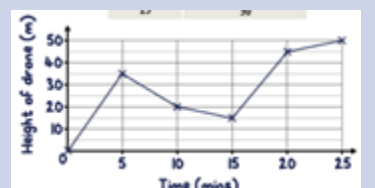
24 = scooter

answer: 24

4 Drawing line graphs The y axis is the variable that you are measuring

5 The table shows the height of a drone during a flight. Use the axes to draw a line graph of this data.

Time (mins)	Height of drone (m)
0	0
5	35
10	20
15	15
20	45
25	50

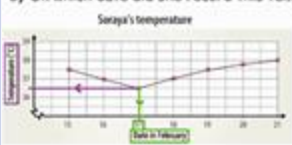


Statistical Diagrams

6 Interpreting Line graphs

Soraya took her temperature every morning while she was ill and displayed it in this line graph.

a) What was the lowest temperature she recorded?
 b) On which date did she record this temperature?



a) Find the lowest temperature. Read across to the Temperature axis. The line is halfway between 36 and 37. Remember units (°C). **36.5°C**

b) Read down to the Date axis. **17 February**

7 Stem & Leaf Diagrams Ordered, have a key, single digits in the leaf, no commas, lined up

8 The heights of some ponies, measured in cm, are listed below. 119 129 125 137 126 140 134 137 141 140 122 117 Draw an ordered stem-and-leaf diagram to represent this information.

Step 1 - Identify the numbers that you will need in the stem

Step 2 - Write down the numbers in the stem and draw a vertical line

Step 3 - Write down the numbers in order in the leaves

Step 4 - Include a key

Heights of ponies

11	7 9
12	2 5 6 9
13	4 7 7
14	0 0 1

Key: 11 | 7 represents 117 cm


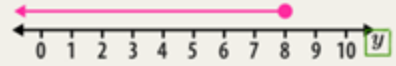
9 Averages from stem & Leaf diagrams

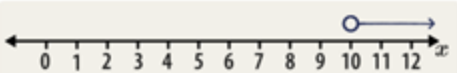
Modal value- the value in the stem & leaf that appears them most
 Median value - middle value, cross off one from the beginning and one from end, until reaching the middle
 Range - largest value minus smallest value

Inequalities

1	Drawing & reading inequalities on number lines	<div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;"> $<$ Less than \leq Less than or equal to </div> <div style="border: 1px solid black; padding: 2px;"> $>$ Greater than \geq Greater than or equal to </div>
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2	Drawing & reading inequalities on number lines	<div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;"> \rightarrow Greater than the marked value \leftarrow Less than the marked value </div> <div style="border: 1px solid black; padding: 2px;"> \circ Cannot be equal to the marked value \bullet Can be equal to the marked value </div>
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3	 <p>x is greater than 2 $x > 2$</p>	 <p>y is less than or equal to 8 $y \leq 8$</p>
---	---	--

4	Solving single inequalities	<p>Solve the following inequalities and draw each result on a number line:</p> <p>a) $x - 4 > 6$</p> $ \begin{array}{l} x - 4 > 6 \\ +4 \quad +4 \\ \hline x - 4 + 4 > 6 + 4 \\ x > 10 \end{array} $ 
---	-----------------------------	--

5	<p>Solve $\frac{x}{5} - 1.3 > 1.9$</p> $ \begin{array}{l} \frac{x}{5} - 1.3 > 1.9 \\ +1.3 \quad +1.3 \\ \hline \frac{x}{5} > 3.2 \\ \times 5 \quad \times 5 \\ \hline x > 16 \end{array} $	<p>Solve the following inequalities:</p> <p>a) $5m < 15$</p> $ \begin{array}{l} 5m < 15 \\ \div 5 \quad \div 5 \\ \hline m < 3 \end{array} $
---	--	---

Brackets

1	Multiplying double brackets	Set up a table to multiply each term by every term in the bracket. Then simplify by collecting like terms
---	-----------------------------	---

2	Example 1	<p>Multiply out this pair of brackets, giving your answer in its simplest form.</p> $ \begin{array}{l} (x+2)(x+10) \\ \begin{array}{cc} x & +10 \\ \times & \\ \hline x^2 & 10x \\ +2 & 2x & 20 \\ \hline x^2 & +12x & +20 \end{array} \end{array} $
---	-----------	---

3	Example 2	<p>Expand and simplify $(2v+5)(7v+3)$</p> $ \begin{array}{l} (2v+5)(7v+3) \\ \begin{array}{cc} 7v & +3 \\ 2v \times & 14v^2 & 6v \\ +5 & 35v & 15 \\ \hline 14v^2 & +41v & +15 \end{array} \end{array} $
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4	Example 3	<p>Expand and simplify $(6u-11)(2u-7)$</p> $ \begin{array}{l} (6u-11)(2u-7) \\ \begin{array}{cc} 2u & -7 \\ 6u \times & 12u^2 & -42u \\ -11 & -22u & 77 \\ \hline 12u^2 & -64u & +77 \end{array} \end{array} $
---	-----------	--

5	Example 4	<p>Expand and simplify $(n+6)^2$</p> $ \begin{array}{l} (n+6)^2 \\ \begin{array}{cc} n & +6 \\ n \times & n^2 & 6n \\ +6 & 6n & 36 \\ \hline n^2 & +12n & +36 \end{array} \end{array} $
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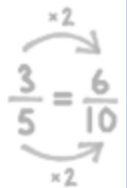
Fractions Review

1 Adding fractions

Work out $\frac{3}{5} + \frac{1}{10}$

$$\frac{3}{5} + \frac{1}{10}$$

$$= \frac{6}{10} + \frac{1}{10}$$

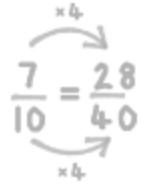
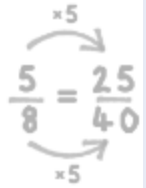
$$= \frac{7}{10}$$


2 Subtracting fractions

Work out $\frac{7}{10} - \frac{5}{8}$

$$\frac{7}{10} - \frac{5}{8}$$

$$= \frac{28}{40} - \frac{25}{40}$$

$$= \frac{3}{40}$$



3 Multiplying fractions

Work out $\frac{4}{7} \times \frac{5}{11}$

Give your answer in its simplest form.

$$\frac{4}{7} \times \frac{5}{11} = \frac{4 \times 5}{7 \times 11}$$

$$= \frac{20}{77}$$

4 Dividing fractions

Work out the following, giving your answers as integers or fractions in their simplest forms:

a) $\frac{4}{13} \div \frac{1}{5}$

$$\frac{4}{13} \div \frac{1}{5} = \frac{4}{13} \times \frac{5}{1}$$

$$= \frac{4 \times 5}{13 \times 1}$$

$$= \frac{20}{13}$$

Algebraic fractions

1 Simplifying algebraic fractions You can simplify algebraic fractions by factorising and cancelling any pair of multiples in the numerator and denominator

Write $\frac{5f-30}{10f-60}$ as a fraction in its simplest form.

Factorise the numerator
Use the highest common factor (HCF) of each term

$$\frac{5f-30}{10f-60} = \frac{5(f-6)}{10f-60}$$

Factorise the denominator

$$\frac{5(f-6)}{10f-60} = \frac{5(f-6)}{10(f-6)}$$

Cancel the **coefficients**

$$\frac{\overset{1}{5} \times (f-6)}{\underset{2}{10} \times (f-6)} = \frac{1 \times (f-6)}{2 \times (f-6)}$$

Cancel any sets of **brackets** that appear in both the numerator and the denominator

$$\frac{1 \times \cancel{(f-6)}}{2 \times \cancel{(f-6)}} = \frac{1 \times 1}{2 \times 1} = \frac{1}{2}$$

3 Adding & Subtracting algebraic fractions When adding and subtracting algebraic fractions, you need to find a common denominator. Then multiply the numerator by the same multiplier as you did the denominator. Then, they can be added.

4 Fully simplify the expression below to give a single fraction.
 $\frac{2x}{3} + \frac{x+4}{8}$
Convert the fractions to equivalent

fractions with the same denominator
Use the lowest common multiple (LCM) of 3 and 8 for the common denominator $LCM(3, 8) = 24$

$$\frac{2x}{3} + \frac{x+4}{8} = \frac{16x}{24} + \frac{3(x+4)}{24}$$

Numerators can be added when they are over the same denominator

$$= \frac{3(x+4) + 16x}{24}$$

Expand the brackets

$$= \frac{3x + 12 + 16x}{24}$$

Simplify the numerator

$$= \frac{19x + 12}{24}$$

Can the fraction be simplified further? **No**

Recurring decimals

1 Recurring Recurring means repeating

Write any digits before the recurring decimal pattern and then one copy of the recurring pattern

If **only one digit** is recurring, write a dot above that recurring digit

$$0.88888... = 0.\dot{8}$$

$$0.44444... = 0.\dot{4}$$

If there is **more than one digit** in the recurring pattern

- write a dot above the **first digit** in the recurring pattern
- write another dot above the **last digit** in the recurring pattern

$$0.67676767... = 0.\dot{6}\dot{7}$$

$$0.245245245... = 0.\dot{2}\dot{4}\dot{5}$$

$$0.101101101... = 0.\dot{1}\dot{0}\dot{1}$$

Any digits before the recurring pattern stay the same

$$0.266666... = 0.2\dot{6}$$

$$0.8919191... = 0.8\dot{9}\dot{1}$$

3 Converting fractions to recurring decimals

What is $\frac{7}{12}$ written as a recurring decimal using dot notation?

Do the division using the bus stop method $\frac{7}{12} = 7 \div 12$
Add extra zeros as needed

$$12 \overline{) 7.000000}$$

Look for a **recurring pattern** in the digits and the remainders

Write using dot notation

Write a dot over the **recurring digit**

$$0.58\dot{3}$$

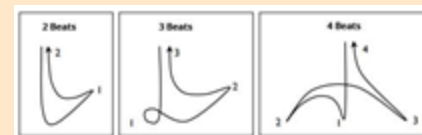
A. Key Words, Terms and Facts about the Orchestra

1	ORCHESTRA	A large ENSEMBLE (group of musicians) of performers on various musical instruments who play music together.
2	SYMPHONY ORCHESTRA	No set numbers of performers although a SYMPHONY ORCHESTRA (a large orchestra) can have between 80-100+ performers.
3	CONDUCTOR	Leads the orchestra with a BATON (white 'stick') and hand signals. Stands at the front so they can be seen by all performers. Sets the TEMPO and BEATS TIME . Brings different instruments 'in and out' when it is their turn to play. Keeps the performers together. Takes charge in rehearsals. In ultimate control of the performance of the music, adjusting DYNAMICS, TEMPO , and mood.
4	FAMILIES SECTIONS	Instruments of the orchestra can be divided into 4 families or sections: STRINGS, WOODWIND, BRASS and PERCUSSION .
5	TUNING UP	Before the orchestra rehearses or plays, all instruments need to be IN TUNE with each other. The OBOE always sounds the note 'A' which all other instruments TUNE to.
6	SONORITY (also called TIMBRE)	Describes the UNIQUE SOUND OR TONE QUALITY of different instruments and the way we can identify orchestral instruments as being distinct from each other –Sonority can be described by many different words including – <i>velvety, screechy, throaty, rattling, mellow, chirpy, brassy, sharp, heavy, buzzing, crisp, metallic, wooden etc.</i> PITCH - The HIGHNESS or LOWNESS of a sound, a musical instrument or musical note (<i>high/low, getting higher/lower, step/leap</i>).

B. The Layout of the Orchestra and Famous Conductors



How to conduct: 2, 3 or 4 beat in a bar.

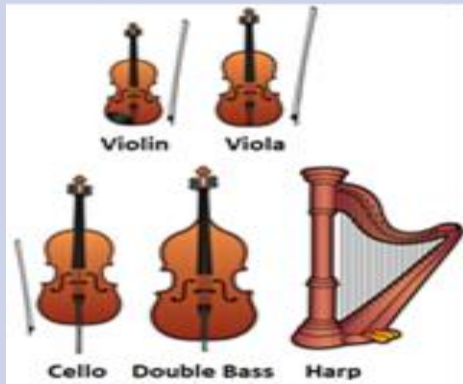


C. Strings Section/Family

Largest section of the orchestra who sit at the front, directly in front of the conductor.

Usually played with a **BOW (ARCO)**, (not the **HARP**) but can be **PLUCKED (PIZZICATO)**.

VIOLINS split into two groups: **1st VIOLINS** (often have the main **MELODY** of the piece of music) and **2nd VIOLINS**.



2 **PLUCKED (PIZZICATO)**. Use finger on the string to create a short sound

F. Percussion Section/Family

UNTUNED PERCUSSION (only able to produce 'sounds').



D. Woodwind Section/Family

Originally (and some still are) made from wood (some now metal and plastic). All are **BLOWN**.

FLUTES: Flute and Piccolo – air blown over hole.

SINGLE REED (small piece of bamboo in the mouthpiece): Clarinet, Bass Clarinet & Saxophone (not traditionally in the orchestra, but some modern composers have used it)

DOUBLE REED (two reeds in the mouthpiece): Oboe, Cor Anglais, Bassoon, Double Bassoon.



F. Percussion Section/Family

Always located at the very back of the orchestra (due to their very loud sounds!). Large number of instruments which produce their sound then **hit, struck, scraped, or shaken**.

TUNED PERCUSSION (able to play different pitches/notes)



Piano Xylophone Glockenspiel Timpani Celesta Tubular Bells

E. Brass Section/Family

Four types of brass instruments in an orchestra – brass are **BLOWN** by the player 'buzzing their lips' into a **MOUTHPIECE**. The **Trumpet**, **French Horn** and **Tuba** all have three **VALVES** which, along with altering the players mouth positions, adjust the length of the tubing allowing for different notes to be played. The **Trombone** has a **SLIDE** which adjusts the length of the tubing. Brass instruments (along with Percussion) have often been used to play **FANFARES**: a short, lively, loud piece of music usually warlike or victorious in character used to mark the arrival of someone important, give a signal *e.g., in battles*, of the opening of something *e.g., a sporting event or ceremony*. **Fanfares** often use notes of the **HARMONIC SERIES** – a limited range of notes played by **BUGLES** (smaller trumpets with no valves) and valveless trumpets.



F. Percussion Section/Family

UNTUNED PERCUSSION (only able to produce 'sounds').




Triangle Gong Tambourine Cabasa Maracas











Elements of Music

1	Pitch	Music is high or low in sound
2	Dynamics	Where the music is loud and Quiet
3	Duration	How long or short the values of the note
4	Tempo	How fast or slow the music is being played.
5	Timbre	The different sounds of the instruments: Wood, metal, string & skin.
6	Texture	How many instruments are playing at one time, lots or not many: Thick or Thin
7	Silence	Allow sounds to die away and give effect to the music
8	Structure	The order of the music Verse, chorus, Bridge and Instrumental

Theory

1	Time signature 4 or 3 4 4	This tells us how many beats in a bar, that you need to count. The top number tells how many beats; Eg. 4 or 3
2		This is a repeat mark. It means you go bar to the beginning and play the music again.
3	Rhythm	Is a pattern of sound which can be repeated to a regular beat.
4	Rests	A rest is a musical sign that indicates a beat of silence. It still counts in the value of the bar .
5	Pulse	A pulse is a steady, regular beat that continues throughout a song.

Rhythm note Values

1		4 beats	Semibreve
2		3 beats	Dotted Minim
3		2 beats	Minim
4		1 beat	Crotchet
5		1/2 beat	Quaver
6		1 beat	2 Quavers
7		1/4 beat	Semiquaver
8		1 beat	4 Semiquavers
9		1 beat	1 beat crotchet rest
10		2 beats	2 beat minim rest

Traditional Notation

Music is written on five lines called staves


Treble Clef (found at the start of the music)

Time Signature (tells you how many beats in a bar)

Bar

Bar Line (splits the music up into little bits called bars)

Double Bar Line (found at the end of the music)





Keyboard layout

A. Question and Answer Phrases

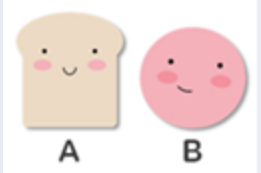
1 **QUESTION/ ANSWER PHRASE**

Two short sections in a piece of music. The first **QUESTION PHRASE** is followed by the **ANSWER PHRASE** which in some way copies or answers the first – like a ‘musical conversation’. the **QUESTION PHRASE** rises in **PITCH** and the **ANSWER PHRASE** descends in **PITCH**.




2 **BINARY FORM (AB)**

Describes music in two sections. The first section can be labelled “A” and the second section “B” (either or both sections may be repeated). The “B” section **contrasts** musically in some way to the first “A” section.




3 **TERNARY FORM (ABA)**

Describes music in three sections. The first section can be labelled “A” and the second section “B” The “B” section **contrasts** in some way to the first “A” section which is then **repeated** after the “B” section again.



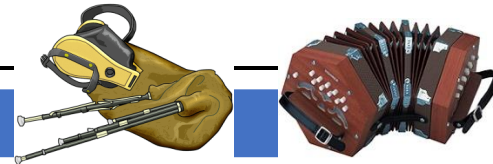
4 **RONDO FORM (ABACADA...)**

Describes music where a main **theme** or **melody** “A” keeps returning between different contrasting sections “B, C, D...” (called **episodes**)



Music Technology

1	FORM STRUCTURE	How a piece of music is organised into different sections or parts.
2	PHRASE	A short section of music, like a “musical sentence”.
3	PITCH	The highness or lowness of a sound or musical note
4	MELODY/ THEME	The main tune of a piece of music. The melody or theme often varies in pitch and “good melodies” have an organised and recognisable shape.
5	HARMONY	Playing two or more notes at the same time. The “harmony part” in music is different to the melody part.
6	DRONE	A repeated note or notes of long duration played through the music. When two notes are used, they are often five notes apart (a fifth).
7	OSTINATO.	A repeated musical pattern. An ostinato can be a repeated rhythm or a repeated melody and are usually short



A. History of Folk Music

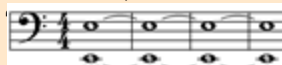


1	Folk Music	TRADITIONAL music of the people performed by the people themselves and played within their own communities.
2	ORAL TRADITION	Folk Music was passed on ORALLY (through speech or song) from one generation to the next – the ORAL TRADITION (passed down by word of mouth), and many Folk Songs were not originally written down.
3	The Industrial Revolution	The 18 th and 19 th Centuries destroyed communities so many of the traditional Folk Songs were lost. Attempts were made to collect these songs and <i>Cecil Sharp</i> published a 'written down' collection of English Folk Music in 1907 which had taken a lifetime to collect.
4	FOLK MUSIC REVIVAL	During the 1950's a great FOLK MUSIC REVIVAL began and bands in the 1970's 'mixed together' Folk and Rock (FOLK ROCK) as a type of musical FUSION e.g., <i>Lindisfarne</i> , <i>Steeleye Span</i> .
5	ARRANGEMENTS	This is where the original music is changed through melody, harmony or instrumentation



B. Types of Folk Music



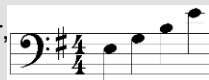

1	WORK SONGS	FOLK SONGS often include WORK SONGS , including SEA SHANTIES : songs sung at sea by sailors, the rhythm of these helped the sailors haul the ropes that hoisted the sails, and songs about EVERYDAY LIFE, THE SEASONS, BATTLES AND WARS, SHEPHERD'S SONGS and LULLABIES (cradle songs).
2	INSTRUMENTAL	Folk Music use music for dancing, entertainment, celebration, and religious ceremonies. Dancing to Folk Music still happens such as MORRIS DANCERS or MAYPOLE DANCING .

C. Folk Song Accompaniments

1	TONIC PEDAL	A (BASS) PEDAL (NOTE) is a note of long duration, often held in the bass part (lower down the keyboard) which uses the TONIC note, over which the melody line and chords will	
2	DRONE	- A form of musical accompaniment consisting of continuous sounding pitched notes, usually a FIFTH apart (5 notes), again, often in the bass part of a song.	
3	OSTINATO	A repeated musical pattern as an accompaniment, often using notes of the chord and rhythm patterns from the song.	



D. Accompaniment

1	CHORDS PRIMARY CHORDS	Folk Songs use (CHORD I, CHORD IV and CHORD V) and sometimes the SECONDARY CHORDS of CHORD III and CHORD VI as a musical accompaniment. The notes of a CHORD can be performed in different ways to create different accompaniments	
2	TRIAD	All three notes (ROOT, THIRD, FIFTH) performed together, the ROOT sometimes in the BASS part acting as BASS LINE .	
3	ARPEGGIO	playing the notes of a chord ascending or descending (ROOT, THIRD, FIFTH) in order, but separately.	
4	BROKEN CHORD	A way of playing the notes (ROOT, THIRD, FIFTH) of a chord separately ('broken' up) in a different order, ascending (going up) or descending (going down).	

Elements of Music

1	Pitch	Music is high or low in sound
2	Dynamic s	Where the music is loud and Quiet
3	Duration	How long or short the values of the note
4	Tempo	How fast or slow the music is being played.
5	Timbre	The different sounds of the instruments: Wood, metal, string & skin.
6	Texture	How many instruments are playing at one time, lots or nots many: Thick or Thin
7	Silence	Allow sounds to die away and give effect to the music

The Treble Clef

Can you remember the notes on a musical staff?

C D E F G A B C D E F G A

Notes on the lines

E G B D F

Notes in the spaces

F A C E

Theory

1	Time signature 4 or 3 4 4	This tells us how many beats in a bar, that you need to count. The top number tells how many beats; Eg. 4 or 3
2		This is a repeat mark. It means you go bar to the beginning and play the music again.
3	ALBERTI BASS	A way of playing the notes of a chord in the order: lowest (ROOT), highest (FIFTH), middle (THIRD), highest (FIFTH), repeated several times as a bass line ACCOMPANIMENT

Rhythm note Values

1		4 beats	Semibreve
2		3 beats	Dotted Minim
3		2 beats	Minim
4		1 beat	Crotchet
5		1/2 beat	Quaver
6		1 beat	2 Quavers
7		1/4 beat	Semiquaver
8		1 beat	4 Semiquavers
9		1 beat	1 beat crotchet rest
10		2 beats	2 beat minim rest

The Bass Clef

Can you remember the notes on a musical staff?

G A B C D E F G A B C

Notes on the lines

G B D F A

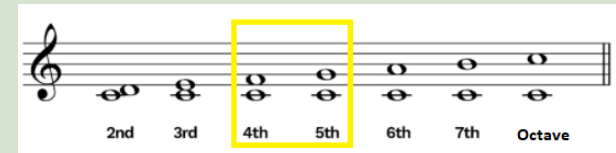
Notes in the spaces

A C E G

A. Key Words

1	HOOK	A 'musical hook' is usually the 'catchy bit' of the song that you will remember. It is often short and used and repeated in different places throughout the piece.
2	MELODIC HOOK	A HOOK based on the instruments and the singers
3	RHYTHMIC HOOK	HOOK based on the patterns in the drums and bass parts
4	VERBAL/ LYRICAL HOOK	HOOK based on the rhyming and/or repeated words of the chorus.
5	RIFF	A repeated musical pattern often used in the introduction and instrumental breaks in a song or piece of music. RIFFS can be rhythmic, melodic or lyrical, short and repeated.
6	OSTINATO	A repeated musical pattern. The same meaning as the word RIFF but used when describing repeated musical patterns in "classical" and some "World" music.
7	BASS LINE	The lowest pitched part of the music often played on bass instruments such as the bass guitar or double bass. RIFFS are often used in BASS LINES.
8	MELODY	The main "tune" of a song or piece of music, played higher in pitch than the BASS LINE and it may also contain RIFFS or HOOKS. In "Classical Music", the melody line is often performed "with"

1	ACCOMPANIMENT	Music that accompanies either a lead singer or melody line. This can be instrumental performed by members of a Folk Band but also vocal often known as the "backing" provided by backing singers
2	HARMONY	The effect produced by two or more pitched notes sounding together at the same time e.g., a chord or triad creates harmony or a lead singer and backing singers singing different melodies or parts 'in harmony' (COUNTER MELODY)
3	INTERVAL	The distance between two musical notes. The intervals of a FOURTH and FIFTH are common in Folk Music.



A. How did Reggae develop?

1 **REGGAE** is one of the traditional musical styles from **JAMAICA**. It developed from:

REGGAE



MENTO

A form of Jamaican **FOLK MUSIC** like **CALYPSO** popular in the 1950's.

SKA

Fast dance music that emerged in the 1950's fusing American R&B with **MENTO** rhythms and featuring **ELECTRIC GUITARS, JAZZY HORN SECTIONS** and characteristic **OFFBEAT RHYTHMS**.

ROCK STEADY

A more vocal style of dance music which used **RIFFS, SIMPLE HARMONIES, OFFBEAT RHYTHMS** and a strong **BASS LINE**.

3 Reggae was first heard in the UK in the 1950's when immigrants began to settle. During the 1960's, people began importing singles from Jamaica to sell in UK shops. Now, Reggae is known as the national music

Who was Bob Marley?

1 His career flourished and he became a cultural icon. He was the first international superstar to have been born in poverty in a Third-World country.

Where is Jamaica?



What are Reggae Songs About?

1 Reggae The **LYRICS** of Reggae songs are strongly influenced by Rastafarianism and are often political including themes such as **LOVE, BROTHERHOOD, PEACE, POVERTY,**



Who was Bob Marley?

1 Famous reggae singer, **SONGWRITER**, and musician who first became famous in his band The Wailers

Offbeat Rhythms & Syncopation

1	OFF BEAT RHYTHMS	Rhythms that emphasise or stress the WEAK BEATS OF A BAR.
2	4/4 In Reggae	First beat of the bar is the strongest, the third the next strongest and the second and fourth are weaker.
3	OFFBEAT	Emphasising the second and fourth beats of the bar gives a “missing beat feel” to the rhythm and makes the music sound OFFBEAT , often emphasised by the BASS DRUM or a RIM SHOT (hitting the edge of a SNARE DRUM) in much Reggae music.
4	SYNCOPATION	A way of changing a rhythm by making some notes a bit early, often so they cross over the main beat of the music giving the music a further OFFBEAT feel – another common feature of Reggae music

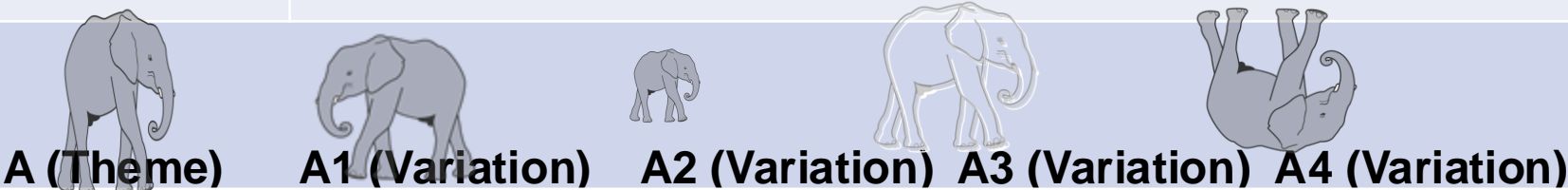
Reggae Key Words

1	SIMPLE HARMONIES	Using a limited number of CHORDS , mainly PRIMARY TRIADS such as the TONIC , DOMINANT and SUBDOMINANT chords.
2	RIFF	A repeated musical pattern. Often the BASS GUITAR plays repeated MELODIC BASS RIFFS in Reggae songs.


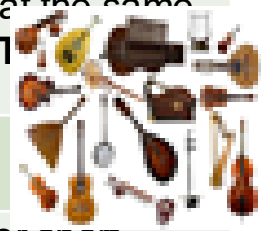
Musical Features of Reggae

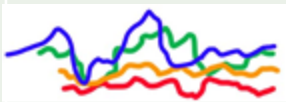
1	OFFBEAT RHYTHMS AND CHORDS SYNCOPATED RHYTHMS AND MELODIES SONG LYRICS LEAD SINGER often with BACKING SINGERS sometimes singing in CALL AND RESPONSE accompanied by a Reggae band which often features: BRASS INSTRUMENTS and SAXOPHONES, ELECTRIC GUITARS, BASS GUITAR, KEYBOARDS, DRUMS AND PERCUSSION INSTRUMENTS. VOCAL AND INSTRUMENTAL IMPROVISATIONS	
1	MELODY	The main tune of a piece of music, often sung by the LEAD SINGER.
2	IMPROVISATION	Previously unprepared performance.
3	CALL AND RESPONSE	Similar to a “Question and Answer” often the call sung by the lead singer and answered by the backing singers or instruments (the response) – musical dialogue.
4	BASS/BASS LINE	The lowest pitched part of a piece of music often played by the BASS GUITAR in Reggae which plays an important role.

A. Theme and Variations Key Words

1	MELODY	A tune or succession of notes, varying in pitch, that have an organised and recognizable shape. Often called the main TUNE or THEME of a piece of music or song and easily remembered
2	VARIATION	VARIATION – Where a THEME is altered or changed musically, while retaining some of the primary elements, notes and structure of the original. VARIATION FORM:
3		A (Theme) A1 (Variation) A2 (Variation) A3 (Variation) A4 (Variation)

Variation Techniques

1	PITCH	Change the highness or lowness of the theme – play the same notes, but at different pitches <i>e.g. in different OCTAVES</i> .
2	TEMPO	Change the speed of the theme – play it faster or slower.
3	DYNAMICS	Change the volume of the theme – play it louder or softer 
4	TEXTURE	Change the amount of sound we hear – play as a SOLO , add an ACCOMPANIMENT or CHORDS , add a COUNTER-MELODY (an ‘extra’ melody that is played or sung at the same time as the main melody, often higher in pitch and sometimes called a DESCANT) 
5	TIMBRE AND SONORITY	Change the SOUND of the theme – play it on a different instrument.
6	ARTICULATION	Change the way the theme is played – smoothly (LEGATO -shown by a SLUR) or snort, detached and spiky (STACCATO – shown by a dot).
10	PEDAL	A long (often very long!) note in the bass line of the music over which other parts, including the theme or a variation of the theme can be played. Also called a PEDAL NOTE or PEDAL POINT and often the TONIC note (but can be the DOMINANT or other notes).



Augmentation and Diminution – Note Values and Duration

1 AUGMENTATION

The process of **DOUBLING** the note values (**DURATION**) of a theme as a means of variation.



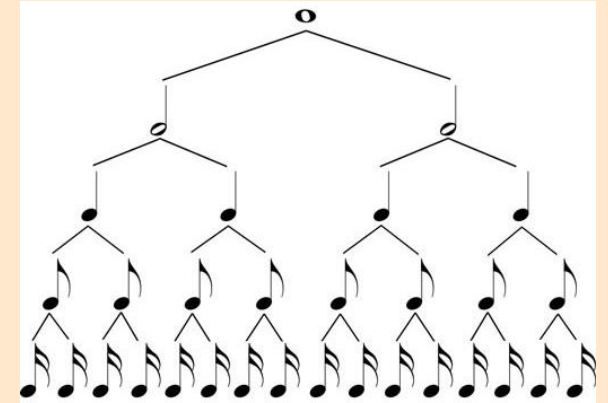
SEMIBREVE = 4 beats

MINIM = 2 beats

CROTCHET = 1 beat

QUAVER = ½ beat

SEMIQUAVER = ¼ beat



2 DIMINUTION

DIMINUTION – the process of **HALVING** the note values (**DURATION**) of a theme as a means of variation

Variation Techniques

1 DRONE

DRONE – A long or series of repeated (often long) notes using the **TONIC** and **DOMINANT** notes together (a **FIFTH**

2 MELODIC DECORATION

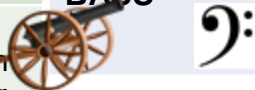
Adding extra notes or embellishments to the theme such as trills, turns, mordents (**ORNAMENTS**) or **PASSING NOTES** (extra notes between the main melody notes).

3 OSTINATO

Adding a repeated musical pattern (rhythmic or melodic) to the main theme as a form of variation.

4 CANON ROUND

A song/ piece of music which different performers sing or perform the same **THEME** starting one after



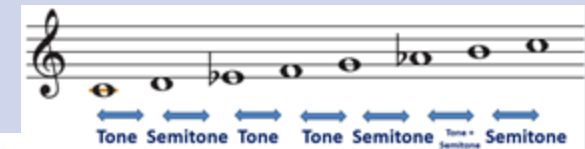
TONALITY

Refers to whether a **THEME** or **MELODY** is in a **MAJOR** or **MINOR** key. Changing the tonality from major to minor or minor to major is one way of providing a variation on the theme of melody. Major and minor scales follow a certain pattern of tones and semitones

Major Scale



Minor SCALE



GROUND BASS

A repeated musical pattern in the bass part upon which chords, and melodies can be performed and varied “over the top” of.

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Write down one or more examples of magnetic materials.	Iron, steel, cobalt, nickel
True or false: the force between a magnet and a magnetic material is always attractive.	True: the force between a magnet and a magnetic material is always attractive.
What do like poles of magnets do: attract or repel?	Repel
What do opposite poles of magnets do: attract or repel?	Magnetic field
Magnetic field lines always point from _____ to _____. What two words are missing?	North to South
What does the direction of the magnetic field lines tell us?	The direction of the magnetic force at that point.
True or false: the magnetic force is a contact force.	False: the magnetic force is a non-contact force.
Where on a magnet is the magnetic field strongest?	Close to the poles
How do we show a stronger magnetic field on a magnetic field diagram?	Field lines more densely packed
As distance from the magnet increases, does magnetic field strength increase, decrease or stay the same?	Magnetic field strength decreases
What name is given to a magnet that always has a field associated with it?	Permanent magnet
What name is given to a magnet that only becomes magnetic when placed in a magnetic field?	Induced magnet
True or false: the force applied by an induced magnet is always attractive.	True: the force applied by an induced magnet is always attractive.

True or false: the Earth has a magnetic field associated with it.	True: the Earth has a magnetic field associated with it.
What name is given to a coil of wire that becomes magnetic when a current is passed through?	Electromagnet
True or false: a bar magnet has a very different field shape to an electromagnet made from a coil of wire.	False: they have similarly shaped magnetic fields.
As distance from a current-carrying wire increases, does the strength of the magnetic field associated with it increase, decrease or stay the same?	Magnetic field strength decreases
If the current through a wire is increased, does the strength of the magnetic field associated with it increase, decrease or stay the same?	Magnetic field strength increases
If a wire is wound into a coil with more turns, does the strength of the magnetic field associated with it increase, decrease or stay the same?	Magnetic field strength increases
What name is given to a wire wound into a coil?	Solenoid
What material is the coil of an electromagnet usually made out of?	Iron
Write down one or more ways you could increase the strength of an electromagnet.	Increase the current through the wire, increase the number of turns on the coil, wind the coil more tightly.
Write down one or more uses of electromagnets.	Door locks, circuit breakers, picking up metals in a scrapyards, electric motors
True or false: charge is a property of materials that can be positive or negative.	True: charge is a property of materials that can be positive or negative.
If you rub a plastic ruler with a cloth, what force acts between the two surfaces?	Friction
Which very tiny particles are transferred from the cloth to the ruler if there is friction between them?	Electrons
Do electrons have a positive, negative or neutral charge?	Negative

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True or false: charge only builds up on the surfaces of conductors.	False	Which electrical component gives out light (+ heats the surroundings)?	Filament lamp (or bulb)
If we walk in shoes on a carpet, what force acts between our shoes and the carpet?	Friction	Which electrical component measures current?	Ammeter
Which very tiny particles build up on our bodies if friction acts between our shoes and a carpet?	Electrons	Which electrical component measures potential difference?	Voltmeter
If electrons build up on our bodies because of friction, do we become positively or negatively charged?	Negatively charged	Which electrical component reduces the current in a circuit?	Resistor
Electrons build up on our bodies because of friction. We approach a door handle. Is the handle likely to be positively charged, negatively charged, or neutral?	Neutral	Which electrical component is a resistor whose resistance can be changed?	Variable resistor
Electrons build up on our bodies because of friction. We approach a door handle. What are we likely to experience when our fingers approach the handle?	A static electric shock	Which electrical component only allows current to flow in one direction?	Diode
Which natural event is caused by a build up of charge: earthquake, rainbow, lightning?	Lightning	Which electrical component is a diode that emits light?	Light emitting diode (LED)
What word is used to describe a movement of electrical charge?	Current	Which electrical component is a resistor whose resistance depends on light intensity?	Light dependent resistor (LDR)
What word is used to describe a difference in charge between two points?	Potential difference	Which electrical component is a resistor whose resistance depends on temperature?	Thermistor
What word is used to describe any part of a circuit that has a specific function?	Component	Which electrical component is a thin piece of wire which breaks if the current is too high?	Fuse
Which electrical component provides a potential difference to a circuit?	Cell (or battery / power supply)	At room temperature, are most metals solids, liquids or gases?	Solids
True or false: charge only builds up on the surfaces of conductors.	False: charge only builds up on the surfaces of insulators.	True or false: metals contain positively charged particles in a fixed lattice along with electrons that are free to move.	True: metals contain positively charged particles + free electrons
Which electrical component provides a potential difference to a circuit?	Cell (or battery / power supply)	What name is given to the positive and negative ends of a battery or cell?	Terminals
What name is given to a series of cells joined together?	Battery	True or false: there is no difference in charge between the two terminals of a battery.	False: one terminal is always positive and the other is always negative
Which electrical component allows current to be turned on and off?	Switch	When a cell is placed into a circuit, are electrons attracted to or repelled by the positive terminal?	Electrons are attracted to the positive terminal

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When a cell is placed into a circuit, are electrons attracted to or repelled by the negative terminal?	Electrons are repelled by the negative terminal
When a cell is placed into a circuit, there is an overall movement of electrons. What name is given to this movement of electrons?	Current
When a cell is placed into a circuit, there is a difference in charge between the two terminals. What name is given to this difference in charge?	Potential difference
If the potential difference of a cell is increased, does current typically increase, decrease or stay the same?	Current increases
What are the units of current?	Amperes (A)
What are the units of potential difference?	Volts (V)
How would we measure the current at a point in a circuit in the lab?	Using an ammeter
How would we measure the potential difference between two points in a circuit in the lab?	Using a voltmeter
True or false: ammeters are always connected in series.	True: ammeters are always connected in series.
True or false: voltmeters are always connected in series.	False: voltmeters are always connected in parallel.
Which of the following words can be used instead of potential difference: power, resistance, voltage?	Voltage
What word is used to describe how much potential difference is required to generate a certain current: power, resistance, voltage?	Resistance
What are the units of resistance?	Ohms (Ω)
True or false: series circuits contain junctions / branches.	False: series circuits do not contain junctions / branches.

True or false: parallel circuits contain junctions / branches.	True: parallel circuits contain junctions / branches.
True or false: if a bulb is added to a circuit in series, the other bulbs get dimmer.	True: the other bulbs would get dimmer.
True or false: if a bulb is added to a circuit in parallel, the other bulbs get dimmer.	False: the brightness of the other bulbs would not be affected.
A series circuit contains a cell + two identical bulbs. You measure current at different points using an ammeter. Would all readings be the same?	Yes - current should be approximately the same everywhere in a series circuit.
A series circuit contains a cell + two identical bulbs. If you measured p.d. across each bulb, would you expect the readings to be the same as across the cell?	No - potential difference is shared in series circuits so readings across each bulb would be approximately half the reading across the cell.
A series circuit contains a cell + two identical bulbs. If you measured p.d. across each bulb, would you expect the readings to be approximately the same?	Yes - bulbs are identical so potential difference should be shared equally.
A circuit contains a cell + two identical bulbs, each in parallel. You measure current at different points using an ammeter. Would all readings be the same?	No - current splits in parallel so readings on branches should be lower than readings close to cell.
A circuit contains a cell + two identical bulbs, each in parallel. If you measured p.d. across each bulb, would you expect readings to be the same as across cell?	Yes - potential difference across each branch of a parallel circuit should be approximately the same.
A circuit contains a cell + two identical bulbs, each in parallel. If you measured p.d. across each bulb, would you expect readings to be approximately same?	Yes - potential difference across each branch of a parallel circuit should be approximately the same.
Write down one or more examples of a component that acts as a sensor.	Thermistor, LDR
As the temperature of a thermistor increases, does its resistance increase, decrease or stay the same?	Resistance decreases

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As the temperature of an LDR increases, does its resistance increase, decrease or stay the same?	Resistance decreases
Write down one or more uses of thermistors.	Thermostats - central heating system, oven, fridge, etc
Write down one or more uses of LDRs.	Streetlamps, automatic car headlights.
A person wants a light that switches on when someone approaches their front door. Which sensor should they use: LDR, motion sensor, thermistor?	Motion sensor (NOT an LDR - this detects changes in light intensity, not motion)
Which wire of a plug is brown: live, earth, neutral?	Live wire
Which wire of a plug is connected to the bottom left pin: live, earth, neutral?	Neutral wire
Which wire of a plug is green / yellow: live, earth, neutral?	Earth wire
Which wire of a plug is connected to the bottom right pin: live, earth, neutral?	Live wire
Which wire of a plug is blue: live, earth, neutral?	Neutral wire
Which wire of a plug is connected to the top pin: live, earth, neutral?	Earth wire
Which wire of a plug is connected to the fuse: live, earth, neutral?	Live wire
Which wire of a plug helps prevent electric shocks: live, earth, neutral?	Earth wire
What happens to the fuse in a plug if the current gets too high?	It melts / breaks
True or false: appliances made of metal should always have an earth wire.	True: appliances made of metal should always have an earth wire.

What is the potential difference supplied by sockets in your home?	230V
What do we call a potential difference that continuously changes direction from forward to backwards and back again?	Alternating potential difference
True or false: in a plug, there is an alternating potential difference between the neutral wire and the earth wire.	False: there is an alternating potential difference between the live wire and the neutral wire.
True or false: the earth wire of a plug is always at 0V.	True: the earth wire is always at 0V.
True or false: the neutral wire of a plug is always at 0V.	True: the neutral wire is always at 0V.
What gas must be present for combustion (or burning) to occur?	Oxygen
Before the discovery of oxygen, what invisible substance did scientists think was given off during burning?	Phlogiston
If phlogiston was given off during burning, what would we expect to happen to the mass of magnesium after it has been burned in air?	We would expect the mass to decrease (because phlogiston was given off)
What piece of equipment do we use to measure mass in the lab?	Balance
True or false: the mass of substances in all states of matter can be measured directly using a balance.	False: liquids and gases must be held in a container in order for their masses to be measured.
When magnesium is burned in air, does the mass measured on a balance appear to increase, decrease or stay the same?	The mass appears to increase
True or false: in a chemical reaction, the total mass of reactants is always the same as the total mass of products.	True: the total mass is always the same

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Which of the following is used to test for carbon dioxide: splint, litmus paper, lime water?	Lime water	List the following metals from most reactive to least reactive: sodium, lithium, potassium.	Potassium, sodium, lithium
Which of the following is used to test for hydrogen: splint, litmus paper, lime water?	Splint	Iron reacts with hydrochloric acid. What are the products of this reaction?	Iron chloride + hydrogen
Which of the following is used to test for oxygen: splint, litmus paper, lime water?	Splint	Iron reacts with hydrochloric acid. If universal indicator had been added to the acid before the reaction, what colour would it have changed to?	Red (strong acid, pH1)
What happens when carbon dioxide comes into contact with lime water?	The lime water turns white/cloudy/milky.	Iron chloride is a compound. What name do we give to compounds like this, which are made up of a metal bonded to a non metal?	Salts
What happens when a glowing splint is placed into oxygen gas?	It relights and begins to burn more brightly.	What is the chemical name for the salt we eat with our food?	Sodium chloride
What happens when a glowing splint is placed into hydrogen gas?	It burns with a squeaky pop.	Magnesium reacts with sulphuric acid. What is the name of the salt formed?	Magnesium sulphate
When measuring the mass of a substance using a balance, what must we always do first?	Press the zero / tare button; ensure the reading is 0.0	Zinc reacts with nitric acid. What is the name of the salt formed?	Zinc nitrate
What does the word vigorous mean when used to describe a chemical reaction?	Reaction takes place with high energy	Iron sulphate is formed by a reaction between iron and _____ acid. What's the missing word?	Sulphuric
Two metals react with water. One is more reactive than the other. What is observed when the more reactive metal reacts?	A more vigorous reaction, e.g. more bubbles, more motion, flames, explosion.	Aluminium nitrate is formed by a reaction between aluminium and _____ acid. What's the missing word?	Nitric
Sodium reacts with water. What are the products of this reaction?	Sodium hydroxide + hydrogen	Zinc chloride is formed by a reaction between zinc and _____ acid. What's the missing word?	Hydrochloric
Sodium reacts with water. If universal indicator had been added to the water before the reaction, what colour would it have changed to?	Green (neutral, pH7)	Which of the following metals does not react with water or acids: iron, potassium, copper?	Copper
Sodium reacts with water. If universal indicator is added to the solution after the reaction, what colour would it change to?	Blue (strong alkali, pH12-14)	Magnesium is burned in air. What is the product called?	Magnesium oxide
Sodium reacts with water. If universal indicator is added to the solution after the reaction, why does the colour become blue?	Sodium hydroxide is a strong alkali	Sodium is a shiny metal but if it is left out in air it forms a dull layer on the outside. What is the name of the compound making up this dull layer?	Sodium oxide
Sodium reacts with water. Fizzing is observed. What gas is this?	Hydrogen	Why does a silver spoon stay shiny much longer than a piece of sodium?	Silver is much less reactive than sodium
Sodium reacts with water. Fizzing is observed. What test could be carried out to determine which gas has been produced?	Squeaky pop test.		

SENTENCE BUILDER 1

<p>Mi mejor amigo/amiga <i>My best friend</i></p> <p>Mi novio/novia <i>My boyfriend/girlfriend</i></p> <p>Mi hermano/hermana menor <i>my younger brother/sister</i></p> <p>Mi hermano/hermana mayor <i>my older brother/sister</i></p>	<p>se llama (Miguel) <i>is called ...</i></p> <p>se llama (Sofía) <i>is called ...</i></p>	<p>tiene <i>he/she has (is)</i></p>	<p>once (11) doce (12) trece (13) catorce (14) quince (15) dieciséis (16) diecisiete (17) dieciocho (18) diecinueve (19)</p>	<p>años <i>years</i> <i>(old)</i></p>
<p>(Él) tiene <i>he has</i></p> <p>(Ella) tiene <i>she has</i></p>	<p>los ojos azules <i>blue eyes</i> los ojos verdes <i>green eyes</i> los ojos marrones <i>brown eyes</i></p>	<p>el pelo rubio <i>blond hair</i> el pelo rojo <i>red hair</i> el pelo gris <i>grey hair</i> el pelo blanco <i>white hair</i> el pelo negro <i>black hair</i> el pelo castaño <i>brown hair</i> el pelo moreno <i>dark hair</i></p> <p>el pelo corto <i>short hair</i> el pelo largo <i>long hair</i></p>	<p>un animal <i>an animal</i> un gato <i>a cat</i> un perro <i>a dog</i> un caballo <i>a horse</i> un conejo <i>a rabbit</i> un pez <i>a fish</i> un pájaro <i>a bird</i></p>	
<p>(Él) es <i>he is</i></p> <p>(Ella) es <i>she is</i></p>	<p>bajo/a <i>short</i> alto/a <i>tall</i> pelirrojo/a <i>ginger</i> castaño/a <i>brunette</i> religioso/a <i>religious</i> hijo único <i>only child (m)</i> hija única <i>only child (f)</i></p> <p>muy <i>very</i> demasiado <i>too</i> bastante <i>quite</i> un poco <i>a bit</i></p> <p>más <i>more</i> menos <i>less</i> <i>(tan as)</i></p>	<p>realmente / verdaderamente <i>really / truly</i> simplemente <i>simply</i> absolutamente <i>absolutely</i> completamente <i>completely</i> perfectamente <i>perfectly</i> totalmente <i>totally</i> especialmente <i>especially</i></p>	<p>contento/a <i>happy</i> divertido/a <i>fun</i> simpático/a <i>kind</i> bonito/a <i>beautiful</i> activo/a <i>active</i> único/a <i>unique</i> monótono/a <i>boring</i> enfadado/a <i>angry</i> bello/a <i>beautiful</i></p> <p>alegre <i>happy</i> fuerte <i>strong</i> triste <i>sad</i> responsable <i>responsible</i> socialable <i>social</i></p> <p>feliz <i>happy</i></p> <p>individual <i>individual</i> trabajador(a) <i>hardworking</i> hablador(a) <i>chatty</i></p>	<p>que (como) yo <i>than (as) me</i></p> <p>que (como) mi papá <i>than (as) my dad</i></p> <p>que (como) mi hermana <i>than (as) my sister</i></p> <p>que (como) mis otros amigos <i>than (as) my other friends</i></p>

SENTENCE BUILDER 2

<p>Por lo general <i>In general</i></p> <p>A veces <i>Sometimes</i></p> <p>De vez en cuando <i>From time to time</i></p> <p>Generalmente <i>Usually</i></p> <p>Normalmente <i>Normally</i></p>	<p>me llevo bien con <i>I get on well with</i></p> <p>no me llevo bien con <i>I don't get on well with</i></p> <p>me peleo con <i>I argue with</i></p> <p>me enfado con <i>I get angry with</i></p> <p>me divierto con <i>I have a good time with</i></p> <p>me apoya <i>he/she supports me</i></p> <p>confío en <i>I confide in</i></p>	<p>mi padre <i>my father</i></p> <p>mi papá <i>my dad</i></p> <p>mi padrastro <i>my step dad</i></p> <p>mi hermano <i>my brother</i></p> <p>mi abuelo <i>my grandad</i></p> <p>mi primo <i>my cousin (m)</i></p> <p>mi tío <i>my uncle</i></p> <p>mi hijo <i>my son</i></p> <p>mi marido <i>my husband</i></p> <p>mi vecino <i>my neighbour</i></p>	<p>(él) es <i>he is</i></p> <p>(ella) es <i>she is</i></p> <p>(nosotros) somos <i>we are</i></p> <p>(ellos) son <i>they are</i></p> <p>(ellas) son <i>they are (all female)</i></p>	<p>contento/a(s) <i>happy</i></p> <p>divertido/a(s) <i>fun</i></p> <p>simpático/a(s) <i>kind</i></p> <p>bonito/a(s) <i>beautiful</i></p> <p>activo/a(s) <i>active</i></p> <p>único/a(s) <i>unique</i></p> <p>monótono/a(s) <i>boring</i></p> <p>enfadado/a(s) <i>angry</i></p> <p>bello/a(s) <i>beautiful</i></p> <p>alegre(s) <i>happy</i></p> <p>fuerte(s) <i>strong</i></p> <p>triste(s) <i>sad</i></p> <p>responsable(s) <i>responsible</i></p> <p>sociable(s) <i>social</i></p>	
<p>Mi modelo (a seguir) es <i>My role model is</i></p> <p>La persona que admiro es <i>The person that I admire is</i></p> <p>Admiro a <i>I admire</i></p> <p>me gusta <i>I like</i></p> <p>me encanta <i>I love</i></p> <p>(yo) prefiero a <i>I prefer</i></p> <p>no me gusta <i>I don't like</i></p> <p>(yo) odio <i>I hate</i></p> <p>no soporto a <i>I can't bear</i></p> <p>no aguanto a <i>I can't stand</i></p>	<p>mi madre <i>my mother</i></p> <p>mi mamá <i>my mum</i></p> <p>mi madrastra <i>my step mum</i></p> <p>mi hermana <i>my sister</i></p> <p>mi abuela <i>my grandmother</i></p> <p>mi prima <i>my cousin (f)</i></p> <p>mi tía <i>my aunt</i></p> <p>mi hija <i>my daughter</i></p> <p>mi mujer <i>my wife</i></p> <p>mi vecina <i>my neighbour</i></p>	<p>porque <i>because</i></p> <p>dado que <i>because</i></p> <p>puesto que <i>since</i></p>	<p>feliz/felices <i>happy</i></p> <p>individual(es) <i>individual</i></p> <p>trabajador(a)(es/as) <i>hardworking</i></p> <p>hablador(a)(es/as) <i>chatty</i></p>	<p>(no) <i>does not / do not</i></p> <p>(nunca) <i>never</i></p> <p>siempre <i>always</i></p>	<p>me hace(n) reír <i>he/she makes me laugh (they make me laugh)</i></p> <p>me hace(n) sonreír <i>he/she makes me smile (they make me smile)</i></p> <p>me ama(n) mucho <i>he/she loves me a lot (they love me a lot)</i></p> <p>me llama(n) por teléfono <i>he/she calls me on the phone (they call me on the phone)</i></p> <p>me da(n) miedo <i>he/she scares me (they scare me)</i></p> <p>me ayuda(n) <i>he/she helps me (they help me)</i></p>
	<p>mis padres <i>my parents</i></p> <p>mis abuelos <i>my grandparents</i></p> <p>mis dos hermanos <i>my two brothers</i></p> <p>mis tres hermanas <i>my three sisters</i></p>				

SENTENCE BUILDER 3

Normalmente <i>Normally</i>	para el desayuno <i>for breakfast</i>	como <i>I eat</i>	(el) pan <i>bread</i> (el) jamón <i>ham</i> (el) queso <i>cheese</i> (el) pescado <i>fish</i> un bocadillo <i>a sandwich</i> un pastel <i>a cake</i> (el) chocolate <i>chocolate</i> (el) arroz <i>rice</i> (el) helado <i>ice cream</i>
Generalmente <i>Usually</i>	para el almuerzo <i>for lunch</i>	tomo <i>i have (take)</i>	(la) carne <i>meat</i> (la) paella <i>paella</i> (la) pasta <i>pasta</i> (la) fruta <i>fruit</i> (la) tortilla <i>Spanish omelette</i> una hamburguesa <i>a burger</i>
A veces <i>Sometimes</i>	para la cena <i>for dinner</i>	cocino <i>I cook</i>	(los) churros <i>churros</i> (los) huevos <i>eggs</i>
De vez en cuando <i>From time to time</i>	para la merienda <i>for a snack</i>	bebo <i>I drink</i>	(las) tapas <i>tapas (small snack plates)</i> (las) empanadas <i>Spanish pastries (savoury)</i> (las) patatas fritas <i>chips/crisps</i> (las) verduras <i>vegetables</i>
A menudo <i>Often</i>	después del insti <i>after school</i>		(la) leche <i>milk</i>
En mi casa <i>At home</i>	por la noche <i>In the evening</i>	comemos <i>we eat</i>	(el) té <i>tea</i> (el) café <i>coffee</i> (el) zumo de naranja <i>orange juice</i> (el) agua (con gas) <i>water (sparkling)</i>
Para empezar <i>To start</i>		tomamos <i>we have (take)</i>	
De primer plato <i>As a starter</i>		cocinamos <i>we cook</i>	
De segundo plato <i>For the main course</i>		bebemos <i>we drink</i>	
De postre <i>For dessert</i>			
Para llevar una vida sana <i>(In order) to lead a healthy lifestyle</i>			
Additional useful vocabulary			
Tengo hambre <i>I am hungry (I have hunger)</i>			
Tengo sed <i>I am thirsty (I have thirst)</i>			
La cuenta por favor <i>the bill please</i>			
¿Dónde está el baño? <i>Where are the toilets?</i>			
Una mesa para dos por favor <i>A table for two please</i>			
La carta <i>the menu</i>			
Soy alérgico/a <i>I am allergic</i>			
Soy vegetariano/a <i>I am vegetarian</i>			
Soy vegano/a <i>I am vegan</i>			

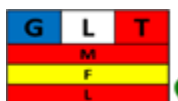
SENTENCE BUILDER 4

<p>Para llevar una vida sana <i>(In order) to lead a healthy lifestyle</i></p> <p>Para estar en forma <i>(In order) to stay in shape</i></p>	<p>suelo <i>I tend</i></p>	<p>comer <i>to eat</i></p>	<p>(el) pan <i>bread</i> (el) jamón <i>ham</i> (el) queso <i>cheese</i> (el) pescado <i>fish</i> un bocadillo <i>a sandwich</i> (el) arroz <i>rice</i> (la) carne <i>meat</i> (la) paella <i>paella</i> (la) pasta <i>pasta</i> (la) fruta <i>fruit</i> (la) tortilla <i>Spanish omelette</i> (los) huevos <i>eggs</i> (las) verduras <i>vegetables</i> (la) leche <i>milk</i> (el) zumo de naranja <i>orange juice</i> (el) agua (con gas) <i>water (sparkling)</i></p>
	<p>intento <i>I try</i></p>	<p>beber <i>to drink</i></p>	
	<p>trato de <i>I try to</i></p>	<p>comprar <i>to buy</i></p>	
	<p>voy a <i>I'm going to</i></p>	<p>pedir <i>to order</i></p>	
		<p>cocinar <i>to cook</i></p>	
		<p>dormir bien <i>sleep well</i> beber mucha agua <i>drink lots of water</i> jugar al fútbol <i>play football</i> practicar deporte <i>to practice sport</i> ir al gimnasio <i>go to the gym</i> hacer ejercicio <i>do exercise</i> correr <i>run</i> caminar/pasear <i>walk</i> montar en bici <i>ride a bike</i> descansar <i>to rest</i> ser activo/a <i>be active</i> estar al aire libre <i>be outside</i> moverme más <i>move more</i></p>	
		<p>evitar <i>to avoid</i></p>	<p>el estrés <i>stress</i> comida con mucho azúcar <i>sugary food</i> bebidas azucaradas <i>sugary drinks</i> una dieta malsana <i>an unhealthy diet</i> estar cansado/a <i>being tired</i> estar enfermo/a <i>being ill</i> fumar <i>smoking</i> beber alcohol <i>drinking alcohol</i></p>



SENTENCE BUILDER 5

<p>Normalmente <i>Normally</i></p> <p>Generalmente <i>Usually</i></p> <p>A veces <i>Sometimes</i></p> <p>De vez en cuando <i>From time to time</i></p> <p>A menudo <i>Often</i></p>	<p>voy de compras <i>I go shopping</i></p>	<p>en el supermercado <i>in the supermarket</i></p> <p>en el mercado <i>in the market</i></p> <p>en el centro comercial <i>in the shopping centre</i></p> <p>en tiendas de segundo mano <i>in second hand shops</i></p> <p>en tiendas de diseño <i>in designer shops</i></p> <p>en la ciudad <i>in the city</i></p> <p>en línea <i>online</i></p>	<p>porque <i>because</i></p> <p>ya que <i>since</i></p>	<p>es caro <i>it's expensive</i></p> <p>es barato <i>it's cheap</i></p> <p>está de moda <i>it's in fashion</i></p> <p>hay ofertas <i>there are offers</i></p> <p>hay gangas <i>there are bargains</i></p> <p>hay muchas tallas <i>there are lots of sizes</i></p> <p>hay más variedad <i>there is more variety</i></p>
	<p>compro <i>I buy</i></p>	<p>un regalo <i>a gift</i> un sombrero <i>a hat</i> un libro <i>a book</i> un móvil <i>a mobile phone</i> un ordenador <i>a computer</i> un vestido <i>a dress</i></p>	<p>nuevo/a(s) <i>new</i></p> <p>negro/a(s) <i>black</i> blanco/a(s) <i>white</i> rojo/a(s) <i>red</i> amarillo/a(s) <i>yellow</i></p>	
<p>Recientemente <i>Recently</i></p>	<p>compré <i>I bought</i></p>	<p>una revista <i>a magazine</i> una videoconsola <i>a console</i> una tableta <i>a tablet</i> una cámara <i>a camera</i> una camiseta <i>a t shirt</i></p> <p>unas zapatillas de deporte <i>some trainers</i></p> <p>ropa (de marca) <i>(designer) clothes</i> comida <i>food</i></p>	<p>azul(es) <i>blue</i> gris(es) <i>grey</i> marron(es) <i>brown</i> verde(s) <i>green</i> rosa(s) <i>pink</i> naranja(s) <i>orange</i></p>	



SENTENCE BUILDER 6

<p>Mañana <i>Tomorrow</i></p> <p>El fin de semana próximo <i>Next weekend</i></p> <p>El mes próximo <i>Next month</i></p> <p>El año próximo <i>Next year</i></p> <p>La semana próxima <i>Next week</i></p>	<p>voy a comprar <i>I am going to buy</i></p>	<p>una botella de <i>a bottle of</i></p> <p>una caja de <i>a box of</i></p> <p>un paquete de <i>a packet of</i></p> <p>media porción de <i>half a portion of</i></p> <p>un kilo de <i>a kilo of</i></p>	<p>pan <i>bread</i> jamón <i>ham</i> queso <i>cheese</i> pescado <i>fish</i> bocadillo <i>a sandwich</i> arroz <i>rice</i> azúcar <i>sugar</i> chocolate <i>chocolate</i> helado <i>ice cream</i> pastel <i>cake</i></p> <p>carne <i>meat</i> paella <i>paella</i> pasta <i>pasta</i> fruta <i>fruit</i> tortilla <i>Spanish omelette</i> hamburguesa <i>hamburger</i></p> <p>huevos <i>eggs</i> churros <i>churros</i> verduras <i>vegetables</i> patatas fritas <i>chips/crisps</i></p> <p>leche <i>milk</i></p> <p>zumo de naranja <i>orange juice</i> agua (con gas) <i>water (sparkling)</i> café <i>coffee</i> té <i>tea</i></p>
<p>Voy a pagar <i>I am going to pay</i></p>		<p>con tarjeta <i>with card</i></p> <p>con moneda <i>with cash/coins</i></p> <p>en euros <i>in euros</i></p> <p>en libras <i>in pounds</i></p> <p>en dólares <i>in dollars</i></p>	

SENTENCE BUILDER 7

<p>Siempre escucho <i>I always listen to</i></p>	<p>la música pop <i>pop music</i></p> <p>la música clásica <i>classical music</i></p> <p>la música electrónica <i>electronic music</i></p> <p>la música latina <i>Latin music</i></p> <p>el jazz <i>jazz</i></p> <p>el rap <i>rap</i></p> <p>el rock <i>rock</i></p> <p>el reggaetón <i>reggaeton</i></p>	<p>porque <i>because</i></p> <p>ya que <i>since</i></p>	<p>admiro <i>I admire</i></p> <p>me gusta(n) <i>I like</i></p> <p>me encanta(n) <i>I love</i></p> <p>(yo) prefiero <i>I prefer</i></p> <p>no me gusta(n) <i>I don't like</i></p> <p>(yo) odio <i>I hate</i></p> <p>no soporto <i>I can't bear</i></p> <p>no aguanto <i>I can't stand</i></p>	<p>sus canciones <i>their songs</i></p> <p>sus conciertos <i>their concerts</i></p> <p>sus letras <i>their lyrics</i></p> <p>su música <i>their music</i></p> <p>su voz <i>their voice</i></p> <p>su ritmo <i>their rhythm</i></p> <p>su sonido <i>their sound</i></p>
<p>Mi madre escucha <i>My mum listens to</i></p> <p>Mi hermano escucha <i>My brother listens to</i></p> <p>Mi amigo/a mejor escucha <i>My best friend listens to</i></p> <p>Mis padres escuchan <i>My parents listen to</i></p>	<p>el/la artista... <i>the artist...</i></p> <p>la banda... <i>the band...</i></p> <p>el grupo... <i>the group...</i></p> <p>el cantante... <i>the singer...</i></p>		<p>a <u>mi madre</u> le gusta <i>my mum likes</i></p> <p>a <u>mi madre</u> le encanta <i>my mum loves</i></p> <p><u>mi madre</u> admira <i>my mum admires</i></p> <p><u>mi madre</u> prefiere <i>my mum prefers</i></p>	

SENTENCE BUILDER 8

<p>El fin de semana pasado <i>Last weekend</i></p> <p>El mes pasado <i>Last month</i></p> <p>El año pasado <i>Last year</i></p> <p>La semana pasada <i>Last week</i></p>	<p>fui a un festival de música <i>I went to a music festival</i></p>	<p>con <i>with</i></p>	<p>mis amigos <i>my friends</i></p> <p>mis padres <i>my parents</i></p> <p>mi familia <i>my family</i></p> <p>mi mejor amigo/a <i>my best friend</i></p>
<p>Durante el festival <i>During the festival</i></p> <p>El primer día <i>The first day</i></p> <p>El segundo día <i>The second day</i></p> <p>El último día <i>The last day</i></p> <p>Lo mejor fue cuando <i>The best thing was when</i></p>	<p>Cantamos <i>we sang</i></p> <p>Bailamos <i>we danced</i></p> <p>Comimos <i>we ate</i></p> <p>Bebimos <i>we drank</i></p> <p>vimos nuestras banda favoritas <i>we saw our favourite bands</i></p> <p>disfrutamos de la música <i>we enjoyed the music</i></p> <p>tocamos instrumentos <i>we played instruments</i></p>		
<p>En mi opinión el festival era <i>In my opinion the festival was</i></p>	<p>divertido <i>fun</i></p> <p>especial <i>special</i></p> <p>interesante <i>interesting</i></p> <p>diverso <i>diverse</i></p> <p>positivo <i>positive</i></p> <p>perfecto <i>perfect</i></p> <p>tradicional <i>traditional</i></p> <p>extraordinario <i>extraordinary</i></p> <p>diferente <i>different</i></p> <p>maravilloso <i>marvellous</i></p> <p>increíble <i>incredible</i></p> <p>emocionante <i>exciting</i></p> <p>guay <i>cool</i></p> <p>relajante <i>relaxing</i></p> <p>alegre <i>cheerful</i></p>	<p>monótono <i>boring</i></p> <p>aburrido <i>boring</i></p> <p>terrible <i>terrible</i></p> <p>cansado <i>tiring</i></p> <p>caro <i>expensive</i></p> <p>peligroso <i>dangerous</i></p>	

SENTENCE BUILDER 9

<p>El año próximo <i>Next year</i></p> <p>Después de mis exámenes <i>After my exams</i></p> <p>Si voy a la universidad <i>If I go to university</i></p>	<p>estudiaré <i>I will study</i></p> <p>aprenderé <i>I will learn</i></p> <p>iré al bachillerato para estudiar <i>I will go to sixth form to study</i></p>	<p>arte <i>art</i> dibujo <i>drawing</i></p> <p>historia <i>history</i> geografía <i>geography</i></p> <p>matemáticas <i>maths</i> ciencias <i>science</i></p>	<p>que será(n) <i>which will be</i></p> <p>será(n) <i>it will be</i></p>	<p>divertido/a(s) <i>Fun</i></p> <p>emocionante(s) <i>Exciting</i></p> <p>interesante(s) <i>Interesting</i></p> <p>útil(es) <i>Useful</i></p> <p>increíble(s) <i>Incredible</i></p> <p>fácil(es) <i>Easy</i></p> <p>útil(es) <i>Useful</i></p> <p>educativo/a <i>educational</i></p> <p>cansado/a(s) <i>Tiring</i></p> <p>inútil(es) <i>Useless</i></p> <p>aburrido/a(s) <i>Boring</i></p> <p>terrible(s) <i>Terrible</i></p> <p>difícil(es) <i>difficult</i></p>
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SENTENCE BUILDER 10

<p>El año próximo <i>Next year</i></p> <p>Después de mis exámenes <i>After my exams</i></p> <p>Si voy a la universidad <i>If I go to university</i></p>	<p>espero <i>I hope</i></p>	<p>tener <i>to have</i></p>	<p>una buena carrera <i>a good career</i></p> <p>una buena educación <i>a good education</i></p> <p>un buen salario <i>a good salary</i></p> <p>un buen trabajo <i>a good job</i></p> <p>un bebé <i>a baby</i></p> <p>una familia <i>a family</i></p>	
	<p>quiero <i>I want</i></p>	<p>ser <i>to be</i></p>	<p>director(a) de un compañía / una empresa <i>manager of a company / business</i></p> <p>jefe/a <i>boss</i></p> <p>rico/a <i>rich</i></p>	
	<p>tengo ganas de <i>I fancy</i></p>		<p>doctor(a) <i>doctor</i></p> <p>escritor(a) <i>writer</i></p> <p>policía <i>police officer</i></p> <p>presidenta <i>president</i></p>	
	<p>intento <i>I intend</i></p>		<p>estudiar <i>to study</i></p>	<p>lenguas <i>languages</i></p> <p>medicina <i>medicine</i></p> <p>en la universidad <i>at university</i></p>
	<p>voy a <i>I am going</i></p>		<p>ganar <i>to earn</i></p>	<p>mucho dinero <i>lots of money</i></p>
<p>me gustaría <i>I would like</i></p>				



SENTENCE BUILDER 11

<p>El fin de semana pasado <i>Last weekend</i></p> <p>El mes pasado <i>Last month</i></p> <p>El verano pasado <i>Last summer</i></p> <p>La semana pasada <i>Last week</i></p>	<p>fui a <i>I went to</i></p>	<p>Barcelona <i>Barcelona</i> Buenos Aires <i>Buenos Aires</i> Madrid <i>Madrid</i> Medellín <i>Medellín</i> Bolivia <i>Bolivia</i> Ecuador <i>Ecuador</i> España <i>Spain</i> Francia <i>France</i> Alemania <i>Germany</i> Venezuela <i>Venezuela</i> Reino Unido <i>United Kingdom</i> las Islas Baleares <i>The Balearic Islands</i> las Islas Canarias <i>The Canary Islands</i></p>		<p>con mi familia <i>with my family</i> con mis hermanos <i>with my siblings</i> con mis padres <i>with my parents</i> con mis amigos <i>with my friends</i> con mi colegio <i>with my school</i></p> <p>solo / sola <i>alone</i></p>
<p>El año pasado <i>Last year</i></p> <p>Recientemente <i>Recently</i></p> <p>Hace dos años <i>(2 years) ago</i></p>	<p>viajé <i>I travelled</i></p> <p>viajamos <i>we travelled</i></p>	<p>en coche <i>by car</i> en metro <i>by tube</i> en avión <i>by plane</i> en autobús <i>by bus</i></p>	<p>en tren <i>by train</i> en barco <i>by boat</i> en bicicleta <i>by bike</i> a pie <i>on foot</i></p>	<p>fue <i>it was</i></p> <p>rápido <i>fast</i> lento <i>slow</i> cómodo <i>comfortable</i> incómodo <i>uncomfortable</i> divertido <i>fun</i> aburrido <i>boring</i></p>
	<p>me alojé <i>I stayed</i></p> <p>nos alojamos <i>we stayed</i></p>	<p>en un hotel <i>in a hotel</i> en un camping <i>in a campsite</i> en un piso <i>in a flat</i> en una caravana <i>in a caravan</i> en una villa <i>in a villa</i></p>		<p>en el centro <i>in the town centre</i> en el campo <i>in the countryside</i> en la capital <i>in the capital</i> en la costa <i>on the coast</i> en las montañas <i>in the mountains</i></p>
<p>Todos los días <i>Every day</i></p> <p>Todas las noches <i>Every evening</i></p> <p>Cada día <i>Every day</i></p> <p>Cada noche <i>Every evening</i></p>	<p>visité <i>I visited</i></p> <p>visitamos <i>we visited</i></p>	<p>el barrio <i>the neighbourhood</i> el café <i>the cafe</i> el castillo <i>the castle</i> el centro comercial <i>the shopping centre</i> el estadio <i>the stadium</i> el jardín <i>the garden</i> el mercado <i>the market</i> el museo <i>the museum</i> el parque <i>the park</i> el pueblo <i>the town</i> el puente <i>the bridge</i> el restaurant <i>the restaurant</i> el teatro <i>the theatre</i></p> <p>la ciudad <i>the city</i> la piscina <i>the pool</i> la playa <i>the beach</i> la plaza <i>the square</i></p> <p>los edificios <i>the buildings</i> los monumentos <i>the monuments</i> las tiendas <i>the shops</i></p>		<p>era... <i>it was...</i> histórico/a <i>historic</i> moderno/a <i>modern</i> antiguo/a <i>old</i> pequeno/a <i>small</i> bonito/a <i>beautiful</i> individual <i>individual</i> grande <i>big</i> enorme <i>huge</i></p> <p>estaba... <i>it was...</i> limpio/a <i>clean</i> sucio/a <i>dirty</i> cercano/a <i>nearby</i> central <i>central</i></p> <p>había... <i>there was/were...</i> mucha gente <i>lots of people</i> mucho ruido <i>lots of noise</i></p>

SENTENCE BUILDER 12

¿Dónde está... <i>where is...</i> el aeropuerto <i>the airport</i> el banco <i>the bank</i> el castillo <i>the castle</i> el centro comercial <i>the shopping centre</i> el cine <i>the cinema</i> el estadio <i>the stadium</i> el hospital <i>the hospital</i> el jardín <i>the garden</i> el mercado <i>the market</i> el museo <i>the museum</i> el parque <i>the park</i> el puerto <i>the port</i> el puente <i>the bridge</i> el restaurant <i>the restaurant</i> el supermercado <i>the supermarket</i> el teatro <i>the theatre</i> la biblioteca la escuela <i>the school</i> la estación <i>the station</i> la farmacia <i>the pharmacy</i> la piscina <i>the pool</i> la playa <i>the beach</i> la plaza <i>the square</i>	Sigue todo recto <i>go straight</i> Gira a la derecha <i>turn right</i> Gira a la izquierda <i>turn left</i>		
	Pasa <i>Pass</i>	el puente <i>the bridge</i> los semáforos <i>the traffic lights</i>	
	Cruza <i>Cross</i>	la plaza <i>the square</i> la calle <i>the street</i> la carretera <i>the road</i>	
	Toma la <i>Take the</i>	primera <i>1st</i> segunda <i>2nd</i> tercera <i>3rd</i>	calle a la derecha <i>street to the right</i> calle a la izquierda <i>street to the left</i>
	Está <i>It's</i>	delante de <i>in front of</i> enfrente de <i>opposite</i> detrás de <i>behind</i> al lado de <i>next to</i> a la izquierda de <i>to the left of</i> a la derecha de <i>to the right of</i> entre <i>between</i>	el ayuntamiento <i>the town hall</i> la iglesia <i>the church</i> la plaza mayor <i>the main square</i> la mezquita <i>the mosque</i> la oficina de correos <i>the post office</i>
	cerca <i>close</i> lejos <i>far</i> en la esquina <i>on the corner</i> al final de la calle <i>at the end of the road</i>		



BENEATH THE BLUE | YEAR 8 | TEXTILES | AUTUMN TERM

TEXTILES EQUIPMENT

Pins	A device, with a head, shaft and point, used for fastening objects or fabrics together.
Fabric Scissors	Scissors (blue and black handle in textiles) used to cut thread, fabric and other types of cloth.
Paper Scissors	Scissors (red, green/yellow handle in textiles) used to cut card, paper, plastic and anything that ISN'T fabric.
Embroidery Thread	A yarn that is manufactured or hand-spun specifically for embroidery and other forms of needlework. Thicker than machine thread and able to be split.
Iron	A handheld electrical tool with a heated flat steel base, used to smooth out creases and remove wrinkles from fabric.
Pinking Shears	Scissors with a serrated blade, used to cut zigzag edges onto fabric to prevent fraying.
Fabric Crayons	A wax like crayon that is designed to be used on fabric. Gives a smooth, matte finish with no lumps on fabric – unlike traditional wax crayons. Can be heat fixed with an iron.
Bondaweb	A soft adhesive web attached to transfer paper. Makes bonding or attaching two fabric layers together quick & easy. Peel when cold only.
Ironing Board	A stable and solid fabric covered and heat resistant surface to iron fabric on.
Greaseproof Paper	A non-stick paper that is used in textiles to reduce damage, staining and destruction to work when ironing.
Sewing Machine	A machine used to sew fabric and materials together with thread.
Machine Thread	Thread that is thin and fine and designed to be used to be used on a sewing machine.
Fabric Paint	Paint that is designed to be used on fabric. Can be applied by brush, sponge or thinned to a spray.
Sewing Needle	A long slender tool with a pointed tip at one end and a hole (or eye) to hold the sewing thread.
Fabric	Any thin, flexible material made from yarn, directly from fibres, plastic film or foam.

KEY TERMS

Pattern	A pattern is a design in which lines, shapes, forms or colours are repeated. The part that is repeated is called a motif. Patterns can be regular or irregular.
Shape	Shapes are two-dimensional. Positive shapes represent solid objects and negative shapes show the surrounding space. Geometric shapes are perfect and regular. Organic shapes are irregular and natural.
Texture	Texture means how something feels. There are two types of texture: actual texture and visual texture.
Colour	A reaction to light bouncing and reflecting differently off an object into the eye.
Machine Embroidery	The process of using a sewing machine or specialist embroidery machine to create a pattern on a textile of your choice.
Hand Embroidery	The art of decorative stitching on fabric with needle and thread by hand.
Line	A mark made on a surface that joins different points. Lines can vary in length, width, direction and shape.
Tone	Tone means how light or dark something is. The tones artists and designers use and the contrast between them can create very different moods and visual effects.
Space	Space refers to objects and to the area around them. Space relates to volume, so a space has width, depth and height.

SHARPIE AND ALCOHOL PROCESS STEPS

Equipment	Fabric, newspaper, sketchbook, sharpies, alcohol gel, paintbrush, biro, needle, black thread and fabric scissors.
Shapes and Patterns	Cover the fabric with colourful sharpie lines, shapes and patterns.
Alcohol Gel	Paint the alcohol gel onto the fabric above the page with newspaper underneath it.
Drying	Up to 24 hours to dry completely.
Biro	On the page with stains, draw a coral reef in biro with shape and line details.
Embroidery	Using a back stitch – embroider into the fabric some black lines – similar to the biro to add stitched details.

BONDAWEB SCALES PROCESS STEPS

H&S	Iron gets very hot – don't touch the metal plate. Unplug when not using it.
Cut shapes	Using fabric scissors, cut out a selection of shapes to use in the process.
Iron Bondaweb	Iron Bondaweb onto backing fabric with gritty side down.
Peel Bondaweb	When completely cool to the touch, peel paper off Bondaweb.
Layout	Place cut fabric onto cooled Bondaweb and iron down between layers of greaseproof paper until attached.

BENEATH THE BLUE | YEAR 8 | TEXTILES | WINTER TERM

HAND SEWING PROCESS STEPS

Tying a Knot



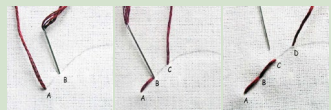
1. Place the needle and longer end of the thread together.
2. Pinch them between your thumb and index finger.
3. Take the thread (NOT the one closer to the needle), and wind it twice or thrice around it.
4. Clump it down to the bottom by pulling the thread downwards.
5. Now, gently pinching the needle, the end of the thread, and the clumped thread between the fingers, slowly pull out the needle.
6. The wound and clumped thread form a knot at the end of the thread as you finish pulling out the needle completely.

Running Stitch



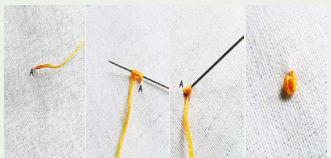
1. Begin the running stitch by poking your threaded needle up through the fabric (A).
2. Poke the needle back down through the fabric next (B) to where you just came up and pull the thread down into your first stitch.
3. Now poke your needle back up through the fabric, leaving a space from the previous stitch. Then poke the needle back down through the fabric again making your second stitch.

Back Stitch



1. Bring the thread through (A) from the back to the front and take it through (B) to the back. This creates one stitch.
2. Bring the thread through (C) and take it in through (B). This way we are creating a stitch by taking the thread backwards.
3. Bring the thread through (D) and take it in through (C). Continue this pattern to finish the design.

French Knots



1. Bring the needle up from the back of the fabric. (A)
2. Place the needle close to the fabric. Wrap the thread that is coming out of the fabric (A) around the needle twice – don't pull too tight or it won't work!
3. Hold the longer end (not the bit coming out of the fabric) of the thread between your fingers.
4. Thread the needle back into the fabric close to the starting point (A) but not in the same hole.
5. Whilst holding the longer end of the thread, pull the needle through the fabric until you see a French Knot form.

Couching



1. You will need two threads – one sits on the top (B) and the other hurdles over it (R).
2. Place your top thread on the fabric. Bring the needle up from the back of the fabric with your hurdle thread.
3. Jump over the placed thread with the needle and thread into the fabric on the other side of the top thread (next to) to fasten the top thread down.
4. Bring the needle out a short distance from the previous stitch. Make sure your top thread is near this.

THREADING THE SEWING MACHINE

- | | |
|---------|--|
| STEP 1 | Turn Off the Sewing Machine: Before you begin threading up TURN OFF your sewing machine! This is for safety, as your hands will be near the needle and moving machinery. |
| STEP 2 | Put the Needle Up: Turn the handwheel on the side of the sewing machine towards you until the needle is fully up. |
| STEP 3 | Positioning the Thread Spool: Begin by putting the thread spool onto the spool holder. You may also have a spool holder that is sitting sideways. |
| STEP 4 | Back Thread Guide: Holding the thread place it through the back thread guide. There should be a small groove or hook. Make sure the thread goes through this otherwise the machine won't sew correctly. |
| STEP 5 | Front Thread Guide: Take the thread down the front channel and around the front tension guide at the bottom. |
| STEP 6 | Through the Take-up Leaver: Take the thread up from the front thread guide and through the take-up lever hook. |
| STEP 7 | Above Needle Hook: Pull the thread down the channel from the take-up lever and through the small hook above the needle. This hook is usually around the same spot the top of the needle sits. |
| STEP 8 | Thread The Needle: Place the thread in the eye of the needle from the front through to the back. Pull the thread under the presser foot and past the back of the machine to create a long thread tail. |
| STEP 9 | Insert the Bobbin: Remove the bottom cover by pulling it towards you and place the bobbin into the bobbin case. Follow the arrow directions on the bobbin cover for the way to position the bobbin correctly. |
| STEP 10 | Pull Up the Bobbin Thread: Hold the top thread tail while turning the handwheel towards you on the sewing machine. You should see the bobbin thread looped around the top thread. Pull until you can grab the bobbin thread. Replace the bobbin cover on the machine. |

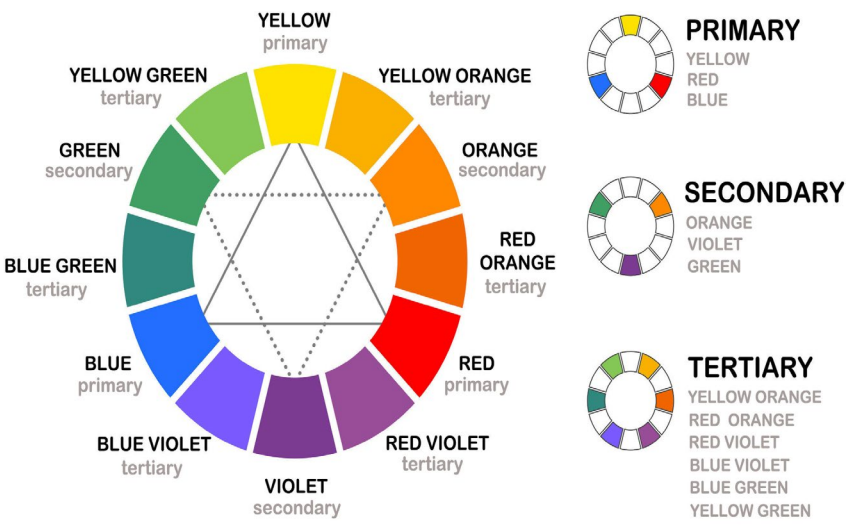
BONDAWEB SCALES PROCESS STEPS

- | | |
|----------------------|---|
| H&S | Iron gets very hot – don't touch the metal plate. Unplug when not using it. |
| Cut shapes | Using fabric scissors, cut out a selection of shapes to use in the process. |
| Iron Bondaweb | Iron Bondaweb onto backing fabric with gritty side down. |
| Peel Bondaweb | When completely cool to the touch, peel paper off Bondaweb. |
| Layout | Place cut fabric onto cooled Bondaweb and iron down between layers of greaseproof paper until attached. |

BENEATH THE BLUE | YEAR 8 | TEXTILES | SUMMER TERM

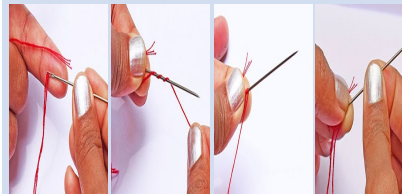
STENCILLING PROCESS STEPS

H&S	Craft knives are sharp and can cut your fingers easily. Always use a cutting mat and cut away from your hand.
EQUIPMENT	Card, pencil, ruler, craft knife, cutting mat, masking tape, sponge, painting card, fabric paint, fabric, newspaper.
FRAME	To ensure that the stencil has stability, you will need to have a frame drawn around the outside of the piece of paper or card to hold the entire work together.
DESIGN	Draw your design onto the surface of the paper or card – within the frame – making sure that there are gaps left to keep the image with linear details and shapes.
CUT	ALWAYS CUTTING AWAY FROM YOUR HAND. Cut each of the sections of the stencil out with the craft knife, leaving bridges safely in between segments to keep the stencil stable. Any repairs can be done with masking tape and recut once stabilised.
PRINT	Using an up and down tapping motion as opposed to a side-to-side swiping motion as this will keep the print cleaner and without much oozing paint. Apply paint through the stencil onto fabric. Make sure that there is newspaper underneath the fabric to reduce mess and damage.
DRYING TIME	Place the printed stencil and the fabric on a flat surface to dry for at least 24 hours until completely dry.



HAND SEWING PROCESS STEPS

TYING A KNOT



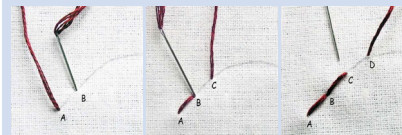
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2. Pinch them between your thumb and index finger.
3. Take the thread (NOT the one closer to the needle), and wind it twice or thrice around it.
4. Clump it down to the bottom by pulling the thread downwards.
5. Now, gently pinching the needle, the end of the thread, and the clumped thread between the fingers, slowly pull out the needle.
6. The wound and clumped thread form a knot at the end of the thread as you finish pulling out the needle completely.

RUNNING STITCH



1. Begin the running stitch by poking your threaded needle up through the fabric (A).
2. Poke the needle back down through the fabric next (B) to where you just came up and pull the thread down into your first stitch.
3. Now poke your needle back up through the fabric, leaving a space from the previous stitch. Then poke the needle back down through the fabric again making your second stitch.

BACK STITCH



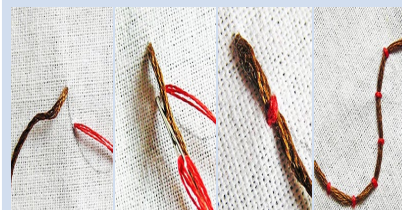
1. Bring the thread through (A) from the back to the front and take it through (B) to the back. This creates one stitch.
2. Bring the thread through (C) and take it in through (B). This way we are creating a stitch by taking the thread backwards.
3. Bring the thread through (D) and take it in through (C). Continue this pattern to finish the design.

FRENCH KNOTS



1. Bring the needle up from the back of the fabric. (A)
2. Place the needle close to the fabric. Wrap the thread that is coming out of the fabric (A) around the needle twice – don't pull too tight or it won't work!
3. Hold the longer end (not the bit coming out of the fabric) of the thread between your fingers.
4. Thread the needle back into the fabric close to the starting point (A) but not in the same hole.
5. Whilst holding the longer end of the thread, pull the needle through the fabric until you see a French Knot form.

COUCHING



1. You will need two threads – one sits on the top (B) and the other hurdles over it (R).
2. Place your top thread on the fabric. Bring the needle up from the back of the fabric with your hurdle thread.
3. Jump over the placed thread with the needle and thread into the fabric on the other side of the top thread (next to) to fasten the top thread down.
4. Bring the needle out a short distance from the previous stitch. Make sure your top thread is near this.