YEAR 8 - ALGEBRAIC TECHNIQUES...

@whisto_maths

Brackets, Equations & Inequalities

What do I need to be able to do?

By the end of this unit you should be able to:

- Form Expressions
- Expand and factorise single brackets
- Form and solve equations
- Solve equations with brackets
- Represent inequalities
- Form and solve inequalities

Keywords

Simplify: grouping and combining similar terms
Substitute: replace a variable with a numerical value
Equivalent: something of equal value
Coefficient: a number used to multiply a variable
Product: multiply terms
Highest Common Factor (HCF): the biggest factor (or number that multiplies to give a term)
Inequality: an inequality compares who values showing if one is greater than, less than or equal to another

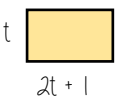
Form expressions

For unknown variables, a letter is normally used in its place

More than – ADD
Less than/ difference – SUBTRACT

e.g. 4 more than t → t + 4
8 less than k → k - 8

Only similar terms can be grouped together



e.g. Find the perimeter of this shape (Perimeter = length around outside of shape)

t + 2t + 1 + t + 2t + 1 → 6t + 2

Directed numbers

+ + → +

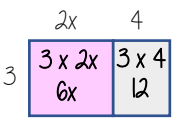
- - → +

+ - → -

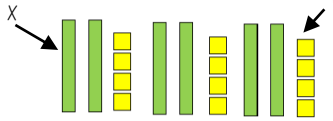
- + → -

e.g. a = -5 and b = 2
a^2 = a x a = -5 x – 5 = 25
b + a = 2 + - 5 = -3

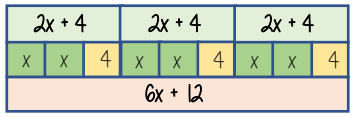
Multiply single brackets 3 (2x + 4)



6x + 12

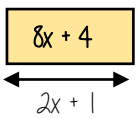


6x + 12



Different representations of 3(2x+4) = 6x + 12

Factorise into a single bracket 8x + 4



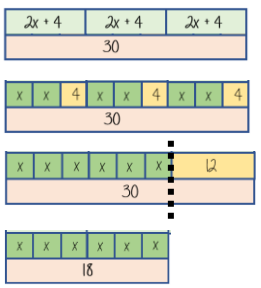
Try and make this the **highest common factor**

The two values **multiply** together (also the area) of the rectangle

8x + 4 ≡ 4 (2x + 1)

Note:
8x + 4 ≡ 2(4x + 2)
This is factorised but the HCF has not been used

Solve equations with brackets 3 (2x + 4) = 30



3 (2x + 4) = 30

Expand the brackets

6x + 12 = 30

-12 -12

6x = 18

÷ 6 ÷ 6

x = 3

Substitute to check your answer. This could be negative or a fraction or decimal

Simple Inequalities

< less than
≤ Less than or equal to
> More than
≥ More than or equal to

x < 10
Say this out loud
"x is a value less than 10"

10 > x
Say this out loud
" 10 is more than the value"

Note:
x< 10 and 10>x represent the same values

x + 2 ≤ 20
"my value + 2 is less than or equal to 20"
x ≤ 18
The biggest the value can be is 18

Form and solve inequalities

Two more than treble my number is greater than 11

Find the possible range of values

Form

x → x3 → +2 → 11

3x + 2 > 11

Solve

x ← -3 ← -2 ← 11

x > 3

Check

This would suggest any value bigger than 3 satisfies the statement
3 x 3 + 2 = 11 ✓ 10 x 3 + 2 = 32 ✓

Algebraic constructs

Expression
A sentence with a minimum of two numbers and one maths operation

Equation
A statement that two things are equal

Term
A single number or variable

Identity
An equation where both sides have variables that cause the same answer includes ≡

Formula
A rule written with all mathematical symbols
e.g. area of a rectangle A = b x h

YEAR 8 - ALGEBRAIC TECHNIQUES...

Sequences

@whisto_maths

What do I need to be able to do?

By the end of this unit you should be able to:

- Generate a sequence from term to term or position to term rules
- Recognise arithmetic sequences and find the nth term
- Recognise geometric sequences and other sequences that arise

Keywords

Sequence: items or numbers put in a pre-decided order
Term: a single number or variable
Position: the place something is located
Linear: the difference between terms increases or decreases (+ or -) by a constant value each time
Non-linear: the difference between terms increases or decreases in different amounts, or by x or ÷
Difference: the gap between two terms
Arithmetic: a sequence where the difference between the terms is constant
Geometric: a sequence where each term is found by multiplying the previous one by a fixed non zero number

Linear and Non Linear Sequences

Linear Sequences – increase by addition or subtraction and the same amount each time
Non-linear Sequences – do not increase by a constant amount – quadratic, geometric and Fibonacci

- Do not plot as straight lines when modelled graphically
- The differences between terms can be found by addition, subtraction, multiplication or division

Fibonacci Sequence – look out for this type of sequence

0 1 1 2 3 5 8 ...

Each term is the sum of the previous two terms.

Sequences from algebraic rules

This is substitution!

$3n + 7$ — This will be linear - note the single power of n. The values increase at a constant rate

$3n^2 + 7$ — This is not linear as there is a power for n

$2n - 5$ → Substitute the number of the term you are looking for in place of 'n'

eg
1st term = 2 (1) – 5 = -3
2nd term = 2 (2) – 5 = -1
100th term = 2 (100) – 5 = 195

Checking for a term in a sequence

Form an equation

Is 201 in the sequence 3n – 4?

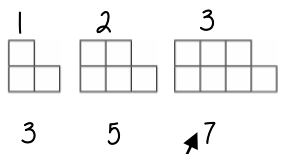
$3n - 4 = 201$ ← Term to check

Algebraic rule

Solving this will find the position of the term in the sequence. ONLY an integer solution can be in the sequence.

Sequence in a table and graphically

Position: the place in the sequence



"The term in position 3 has 7 squares"

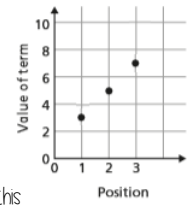
Term: the number or variable (the number of squares in each image)

In a table

Position	1	2	3
Term	3	5	7

+2 +2

Graphically



Because the terms increase by the same addition each time this is **linear** – as seen in the graph

Complex algebraic rules

Misconceptions and comparisons

$2n^2$ — 2 times whatever n squared is

eg
1st term = 2 x 1^2 = 2
2nd term = 2 x 2^2 = 8
100th term = 2 x 100^2 = 2000

$(2n)^2$ — 2 times n then square the answer

eg
1st term = $(2 \times 1)^2$ = 4
2nd term = $(2 \times 2)^2$ = 16
100th term = $(2 \times 100)^2$ = 40000

$n(n + 5)$ ←

eg
1st term = 1 (1 + 5) = 6
2nd term = 2 (2 + 5) = 14
100th term = 100 (100 + 5) = 10500

You don't need to expand the expression

H Finding the algebraic rule

This is the 4 times table → 4, 8, 12, 16, 20....

4n

7, 11, 15, 19, 22 ← This has the same constant difference – but is 3 more than the original sequence

4n + 3

$4n + 3$

This is the constant difference between the terms in the sequence

This is the comparison (difference) between the original and new sequence

Year 8 Science Summer Term Knowledge Organiser – Earth

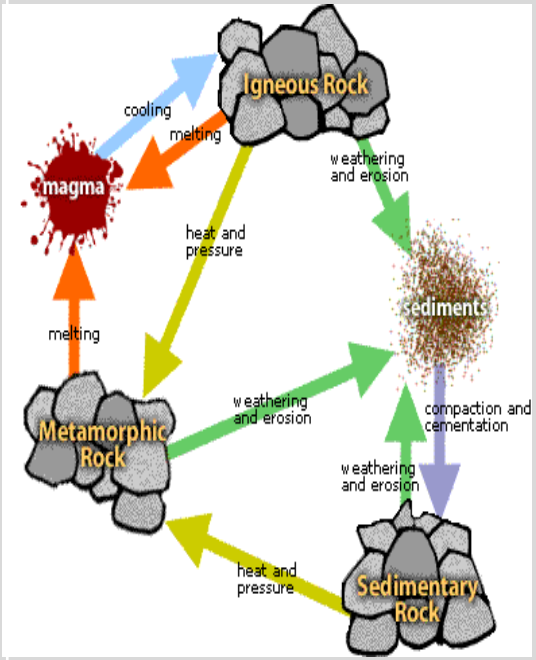
Key Vocabulary

1	Magma	Molten rock underground
2	Lava	Molten rock above ground
3	Intrusive	Rocks that have cooled slowly and have large crystals
4	Extrusive	Rocks that have cooled quickly and have small crystals
5	Weathering	Breaks down rocks on the surface of the Earth; Biological, Chemical or Physical
6	Erosion	Movement of pieces of rock away from where they started
7	Sedimentation	Layers of sediment build in layers and the bottom layer becomes compressed
8	Cementation	Dissolved minerals fill any spaces and bind rock particles together
9	Precipitation	Where droplets in clouds are heavy, they fall back to earth as hail, rain, sleet or snow
10	Transpiration	Plants take water from the ground and move it to their leaves where it evaporates into the atmosphere

11	Magma and lava are molten (melted, very hot liquid) rock
12	When molten rock cools it solidifies to form igneous rocks
13	Igneous rocks formed from magma underground are intrusive rocks

The Rock Cycle

14



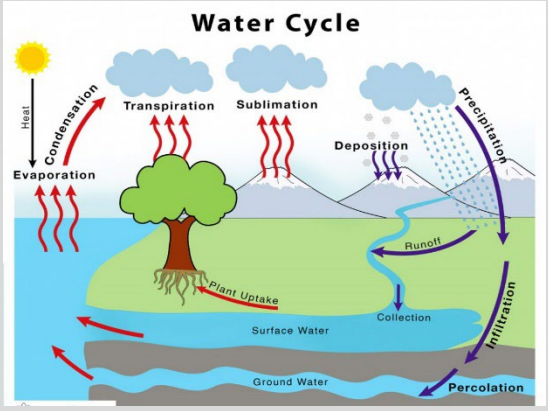
15 **1.Sedimentary** rocks can change into **metamorphic** rocks due to heat and pressure from the movements of the Earth.
2.Those metamorphic rocks can be weathered, eroded, and the pieces transported away.
3.The pieces of rock could be deposited in a lake or sea, eventually forming new **sedimentary** rock.

16	If rocks are pushed deep underground they experience tremendous heat and pressure
17	Heat and pressure change the structure of igneous and sedimentary rocks to form metamorphic rocks (E.g. marble formed from chalk)
18	The formation of rocks is related to each other in the rock cycle
19	Sedimentation, compression, and cementation form sedimentary rocks. E.g., chalk or sandstone.

Water Cycle

21	Water constantly evaporates from land surface, rivers and the sea
22	As water vapour rises it condenses into droplets. Clouds are formed from **condensed** water droplets.
23	When droplets in clouds are heavy, they fall back to earth as **precipitation**. Precipitation is hail, rain, sleet, and snow.
24	Water that falls over the sea goes back into the sea.Water that falls over land goes into rivers or groundwater and makes its way back to the sea. This cycle is called the water cycle

20



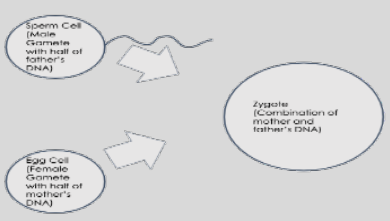
Year 8 Science Summer Term Knowledge Organiser Life Diversity

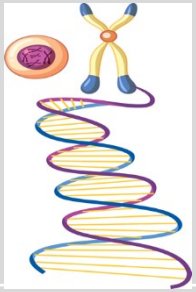
Key Vocabulary:

1	**Abiotic**	Something that is not to do with a living thing. *Light, temperature and water availability are all **abiotic** factors.*
2	**Adaptation**	**A characteristic that allows an organism to survive and reproduce in its habitat.** *Some prey animals camouflage to their surroundings, which is an **adaptation**.*
3	**Biotic**	**Something to do with a living thing.** *Food availability, disease and predators are all **biotic** factors.*
4	**DNA**	The molecule that contains all the genetic information (code) for each organism. *We inherit half our **DNA** from each parent.*
5	**Evolution**	**The change in inherited characteristics of a population over time caused by natural selection.** *Charles Darwin proposed the theory of **Evolution**.*
6	**Extinction**	**When there are no living individuals of a species left in the wild and/or in captivity.** *Global warming is putting many different species at risk of **extinction**.*
7	**Extremophile**	**Organisms that live in extreme conditions of temperature, pH, salt or pressure.** *Some **extremophile** fish are able to live under great pressure deep in the sea.*
8.	**Genotype**	**The DNA inherited that causes a characteristic.** *The girl's genotype is having DNA that codes for brown hair.*

9. Variation

Variation is the different characteristics between individual organisms.
There is variation between populations of different species.
There is also variation within a species.
Examples of variation within humans include hair colour, eye colour, height, weight, skin colour, nose shape and finger length.
Variation can be caused by inherited (genetic) factors, environmental factors or a combination of the two.
Characteristics can be physical, behavioural, and physiological.
Characteristics are inherited from parents through reproduction.
Inherited variation is caused by the fusing of gametes in sexual reproduction and by random mutations in DNA.
The DNA inherited that causes a characteristic is called the genotype.
The phenotype is the physical characteristic resulting from the genotype.
DNA that is passed to offspring can be randomly mutated and result in new phenotypes that were not present in previous generations.





10. Artificial Selection

Crops and domesticated animals are the result of artificial selection (selective breeding).
Selective breeding is when humans choose plants or animals with particular characteristics to breed.
Selective breeding is continued over many generations until the desired characteristic in the offspring are present.
These characteristics are chosen for appearance or for their usefulness to humans.
Examples of selective breeding are pet dogs, crops resistance to disease, cows that make a lot of milk.
Selective breeding can cause inbreeding if closely related individuals are used so that offspring have inherited disease

11. Natural Selection

Within a community, organisms compete for biotic and abiotic factors to survive and reproduce.
Adaptations are characteristics that allow an organism to survive and reproduce in its habitat.
Adaptations can be physical structures, behavioural or functional.
Natural selection is when variation in the population makes some organisms better suited to live and reproduce in a particular environment.

12. Evolution.

Evolution is a change in the inherited characteristics of a population over time, caused by natural selection.
Evolution can cause the formation of a new species.
If two populations cannot interbreed to form fertile offspring, then they are different species.
The Theory of Evolution by Natural Selection states that all life has evolved from simple organisms more than three billion years ago.

13. Extinction and Human Impact

Extinction is when there are no living individuals of a species left in the wild and in captivity.
Extinction can be caused by changes to habitats, new predators or competitors, or new diseases.
Extremophiles are organisms that live in extreme conditions of temperature, pH, salt or pressure.
This is an extreme example of how environmental pressures result in species specifically suited to thriving in that environment.
An ecosystem is made up of populations of different species interacting with each other and the abiotic environment.
Each species competes with other species for natural resources.
A variety of species helps to maintain the cycling of nutrients and population control.
The more species and the more variation in the ecosystem, the more resilient it can be to environmental disturbance.

19th Century Anthology - Knowledge Organiser

Simple sentence: Contains only one main clause. It must have a subject and a verb, and may have an object.

Compound sentence: Has two main clauses, joined by a co-ordinating conjunction.

Complex sentence: consists of a main clause plus one or more subordinate clauses.

Periodical sentence: placing the main clause at the very end.

Cumulative sentence: are long sentences which place the main clause at the start of the sentence with the modifiers following after.

Minor sentence: An incomplete sentence. It may lack a **subject** or a **main verb** but nevertheless we understand what is meant.

Exclamatory sentence: making an exclamation of shock, horror, anger, delight, excitement… using an exclamation mark!

Imperative sentence: Featuring an imperative verb, an imperative sentence gives an instruction or a command

Interrogative sentence: A sentence which interrogates, or questions, ending in a question mark. Remember that a rhetorical question is a different kind of question.

Declarative sentence: The most commonly used sentence type, simply stating or declaring information.

Authorial intent: What the writer's purpose is and why they wanted to write the piece.

Thesis statement: An argument to introduce and outline the main points of an essay.

Appositive: An appositive is a noun or a noun phrase that sits next to another noun to rename it or to describe it in another way.

Personification: Describing a non-living thing with living qualities.

Juxtaposition: Two or more things being seen or placed close together with contrasting effect.

Alliteration: The same letter or sound at the beginning of words next to one another or closely connected words.

Oxymoron: Two words next to each other that are opposite and contradict one another.

In medias res: Starting in the action.

Pathetic fallacy: Where the mood and emotions are attributed to non-human things.

Syntax: The way in which such as words are put together to form clauses in sentences.

Analysing an Extract

- Write as **succinctly** as you can, without letting your **point** get lost in lots of wasteful words.
- Try to **embed** your **quotations**, choose the shortest, most **precise** phrase from the text as you can and try to let it flow naturally in the paragraph you're writing.
- Zoom in to **key words**, particularly explaining **connotations** and the **semantic field.**
- Don't rely on knowing what the text means, focus instead on **working out** what the writer is **implying**.
- Refer to the **structure** of the **sentences** and why the writer has used that **type of sentence**.

Analysing using a Thesis Statement

- Use the **text** to convey your understanding of **authorial intent.**
- Use an **appositive** to detail knowledge on the **author.**
- Refer to an **argument** based on the question and the **ideas** you want to explore in your essay.
- Try to **explore connection** to the **time** the writer has based their piece on and how this reflects their **intentions.**
- Use **evidence** from the text to prove your ideas.

Creative Writing

- You can control the mood and tone of your writing by choosing **vocabulary** with the right **connotations.**
- Use of imagery, pathetic fallacy, alliteration and personification creates a visual image for the reader.
- Write a piece to match the **purpose, audience and format.**
- Create **pathos, ethos and logos** within your piece through the use of **language and structure**.
- Use a variety of **sentence types** to emulate 19th century writing.
- **Proof reading** is a key skill; no writer publishes their first draft of anything! Check your **punctuation**, particularly **capital letters** and that your **sentences** are complete.

Year 8 ART HT3 & HT4 Knowledge Organiser

KEYWORDS

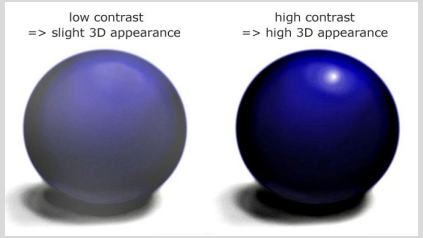
Graffiti - Graffiti art refers to images or text painted usually onto buildings, typically using spray paint.

Stencilling - A technique for reproducing designs by passing ink or paint over holes cut in cardboard or metal onto the surface to be decorated.

Three-dimensional - A picture that has or appears to have height, width and depth is three-dimensional (or 3-D).

Anonymous – A person who is not identified by name, the state of being unknown.

Political – This relates to the governing and public affairs of a country.



BANKSY – ARTIST INFORMATION

BACKGROUND

Banksy is a street artist known for his controversial, and often politically themed, stencilled pieces. Banksy, whose identity remains unknown, is believed to have been born in Bristol, England, around 1974. From a recorded voice interview, it is believed Banksy started doing graffiti arts when he was 14 and reported that he struggled at school but graffiti made him feel better about himself and gave him a voice. He started off by cutting stencils for his early work as he struggled with a spray cans to produce the work free hand.

CRIMINAL?

Many people question Banksy's art pieces. He is described as one of Britain's most important working artists and one of the world's elusive criminals. As graffiti is illegal, Banksy competes his work undercover but yet does not seem to have a criminal offence on his record!

WHERE?

Although Banksy's work is spread across the UK his works can mainly be seen on the streets of Bristol, Brighton and London.

SUBJECT MATTER

- Rats & apes
- His opinions
- People, including policemen, children, royal family
- Political themes
- War
- Capitalism
- Hypocrisy
- Greed

TIPS FOR CREATING THREE-DIMENSIONAL ART

- Identify the areas of light and dark.
- Add both clear shadow and highlights so that certain areas stand out.
- Include a variety of tones.
- Make sure you have a strong contrast between your colours, and tones.
- Remember colour theory.

Year 8 HT3 & 4 Drama Knowledge Organiser

Key characters

Mrs Johnstone	Mickey , Edward and Sammy's mother. She gives up Edward so he'll have a better life.
Mrs Lyons	A middle-class woman who longs for a child. She manipulates Mrs Johnstone into giving Edward to her.
Mickey Johnstone	The twin Mrs Johnstone keeps. He's a friendly child but ends up unemployed and in trouble with the law.
Edward Lyons	The twin Mrs Lyons takes. He's well- educated and grows up to be a successful local councillor.
Linda	Mickey and Edward's friend. Both boys fall in love with her. She marries Mickey.
Sammy Johnstone	Mickey's older brother. He's always n trouble as a child and ends up as a criminal.
Mr Lyons	A wealthy businessman who spends more time at work than with his family. He makes Mickey redundant.
The Narrator	Helps to tell the story. He also plays several minor characters throughout the play.

Aims of the topic

To explore the set text in detail to complete a performance and written exam.

Blood Brothers Y8

Knowledge Organiser

Summary of topic

To explore key extracts from the iconic musical 'Blood Brothers' by Willy Russell with the aim to understand the Thatcher era and consider the difficulties within society during the 1960-1980s in Liverpool.

After exploring the play-text, develop a section to performance standard making key decisions about character and artistic intentions.

Skills & Definitions

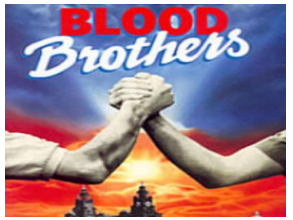
HOT SEATING – Asking interesting questions and answering them in character to discover more about your character

FREEZE FRAMES – Frozen images that represent a story/message

MIME – Planned movement involving no speech or vocals

IMPROVISATION – Drama/Performance made up on the spot with no time to plan

NATURALISM – Acting that is true to real life and natural. Uses real emotions.



Key Words

1. Antagonist
2. Protagonist
3. Working Class
4. Superstition
5. Scouse Accent
6. Thatcher
7. Themes
8. Musical Theatre

KEY THEMES

Money
Social Class
Fate
Superstition
Friendship
Coming of age
Identity Gender

Assessment & Performance Tips

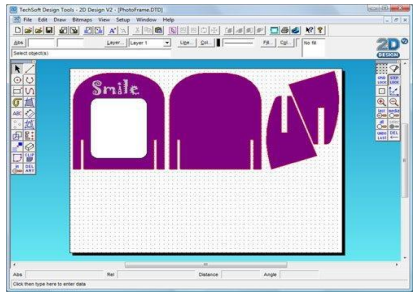
- Face the audience at all times
- Speak loud and clear so everyone can hear you
- Remember its naturalism
- Try not to laugh and stay focused
- Bring props and costume in to enhance your character
- Use an accent or voice to differentiate your character from yourself
- Try your best
- Use the Liverpudlian accent

Year 8 Design Knowledge Organiser

Longdendale HIGH SCHOOL

CAD / CAM

CAD and CAM are a really important part of designing products and manufacturing them. They're used in lots of different industries from food packing to component manufacture.



CAD stands for computer aided design. It involves designing products on a computer rather than using a pencil or paper. CAD software packages allow you to make 2D or 3D designs.

CAM stands for computer aided manufacture. It's the process of manufacturing products with the help of computers.

Health and Safety

Sustainability & The 6 R's

Recycle
Products converted back into their basic materials and then remade into new products.

Reuse
Think of another use for a product before throwing it away.

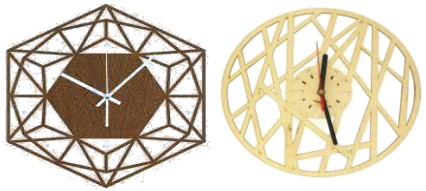
Repair
Fix broken products instead of throwing them away.

Refuse
We should decide not to buy products that harm the environment.

Rethink
Decide whether you actually need that product before you buy it.

Reduce
We should decrease the amount of finite materials that we use

Symmetry



Symmetrical design, or symmetrical balance, is a concept where both sides of something mirror one another.

If you cut a symmetrical design in half, one side would be identical to the other side.

When you create symmetrical art, all areas attract an equal amount of attention.

Cardboard

Cardboard is a specially engineered material made from paper pulp. It can be strong, lightweight and versatile.

You might recognise the wavy shape of its distinctive fluting (or corrugation). This is often sandwiched between two layers of board.

Eco-friendly

It consists of integrating environmental protection criteria over a service or a product's lifecycle.

The main goal of eco design is to anticipate and minimize negative environmental impacts (of manufacturing, using and disposing of products)

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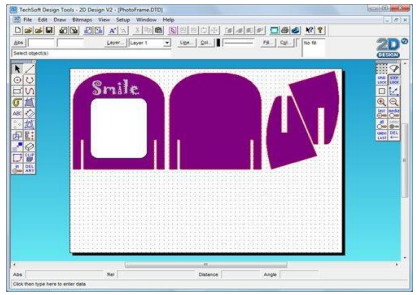


CAD stands for computer aided design. It involves designing products on a computer rather than using a pencil or paper. CAD software packages allow you to make 2D or 3D designs.

CAM stands for computer aided manufacture. It's the process of manufacturing products with the help of computers.

Health and Safety

Sustainability & The 6 R's

Recycle
Products converted back into their basic materials and then remade into new products.

Reuse
Think of another use for a product before throwing it away.

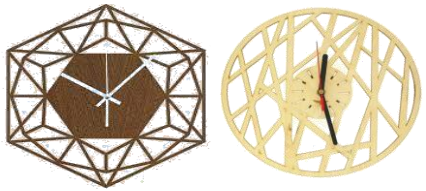
Repair
Fix broken products instead of throwing them away.

Refuse
We should decide not to buy products that harm the environment.

Rethink
Decide whether you actually need that product before you buy it.

Reduce
We should decrease the amount of finite materials that we use

Symmetry



Symmetrical design, or symmetrical balance, is a concept where both sides of something mirror one another.

If you cut a symmetrical design in half, one side would be identical to the other side.

When you create symmetrical art, all areas attract an equal amount of attention.

Cardboard

Cardboard is a specially engineered material made from paper pulp. It can be strong, lightweight and versatile.

You might recognise the wavy shape of its distinctive fluting (or corrugation). This is often sandwiched between two layers of board.

Eco-friendly

It consists of integrating environmental protection criteria over a service or a product's lifecycle.

The main goal of eco design is to anticipate and minimize negative environmental impacts (of manufacturing, using and disposing of products)

KS3

Get it Together Again
[Four chords ensemble playing]

Longdendale HIGH SCHOOL

Year 8 Music Topic Overview

Topic – Get it Together Again.	HT4
Students will develop their knowledge of the four chords sequence and how it is fundamental to pop music. They must also have a knowledge of how instrumentals combine. Singing is an available option for this unit.	

Students know	1. How to read and play the four chords
	2. Why this sequence of chords is useful to learn
	3. How to set up for a rehearsal
	4. How to perform in an ensemble

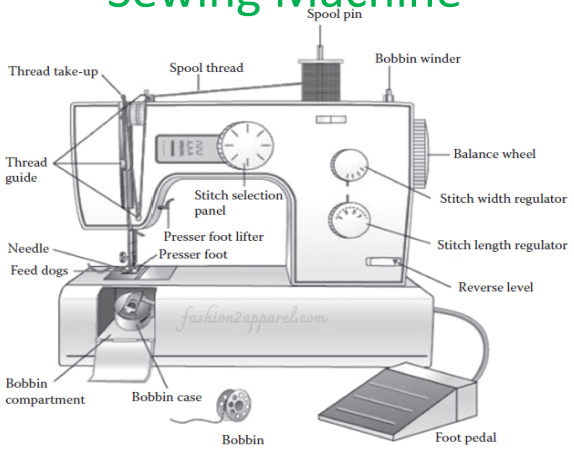
Students can spell and define	1. Bass	2. Guitar
	3. Keyboard	4. Rehearsal
	5. Performance	6. Chords
	7. Practice	8. Practise

Students can	• Perform the four chords with at least one other musician
	• Read appropriate notation for their instrument.

Year 8 Textiles Knowledge Organiser

Longdendale High School

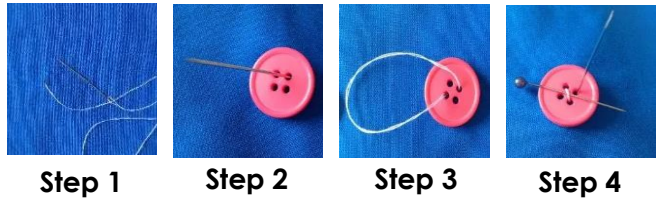
Sewing Machine



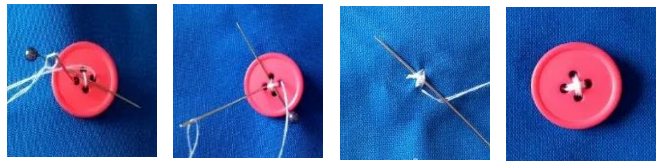
Health & Safety

1. Needles are sharp. Keep fingers away.
2. Avoid distractions.
3. Switch off your sewing machine when you're away from it.
4. Be cautious of cords and foot pedal.
5. Avoid sewing over pins – they can fly out and hurt you if the needle sews over them.
6. Don't make your machine sew through thick or tough materials.

Sewing a Button



Step 1 | Step 2 | Step 3 | Step 4



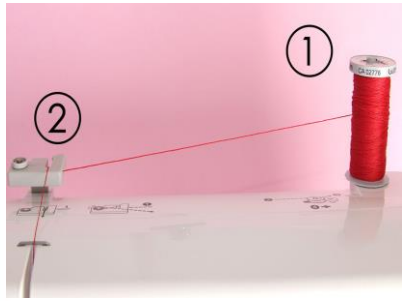
Step 5 | Step 6 | Step 7 | Step 8

Velcro

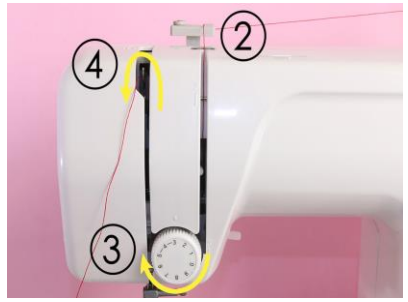
Velcro is a material consisting of two strips of nylon fabric which you press together to close things such as pockets and bags.

It is a type of hook and loop fastening.

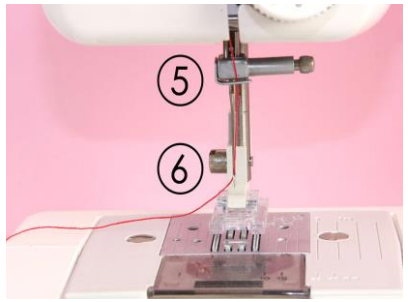
Threading a Sewing Machine



Step 1
Put the cotton on the spool at the top of the machine at (1). Pull the thread through the thread guide on the top at (2).



Step 2
Pull the thread down towards you and loop it around the tension discs below at (3). Then pull the thread back up again into the second thread guide (4).



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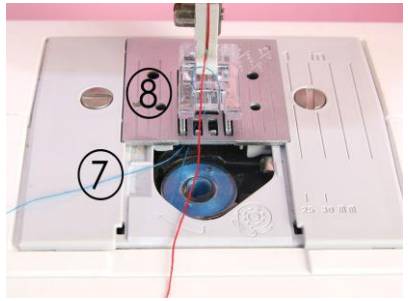


Step 4
Check that your bobbin is inserted correctly (7). Turn the flywheel towards you so the needle hooks up the top thread with the bottom thread. The Sewing machine is now ready.

Marbling

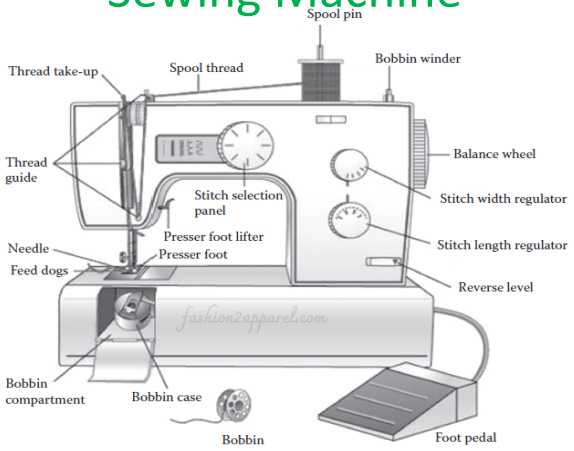
Marbling is a centuries-old technique that involves paint, adhesives or any dispersant and water to create unique patterns on fabric, paper or any object.

Paint is added to thickened water and allowed to float for some time. It is then swirled into designs and then transferred to the object.

Year 8 Textiles Knowledge Organiser

Longdendale High School

Sewing Machine



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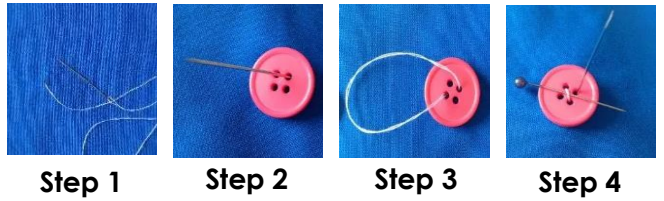

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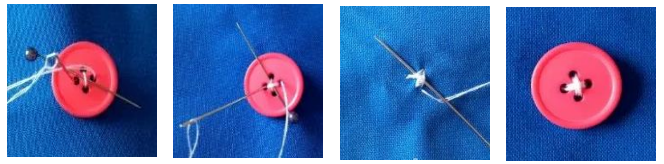

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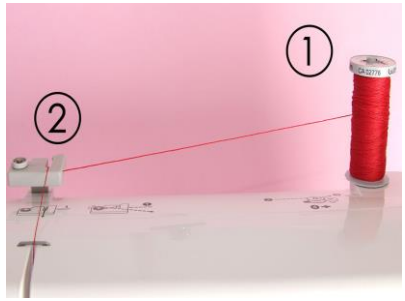

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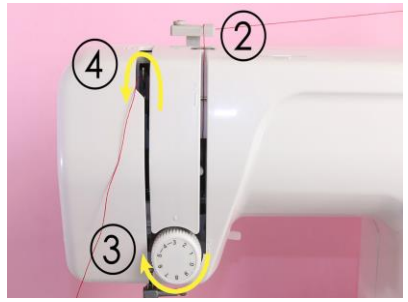

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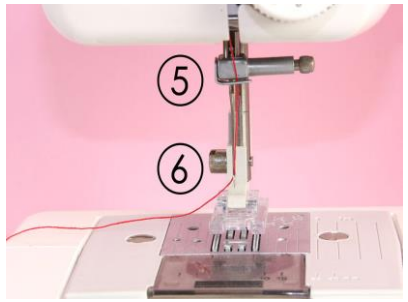

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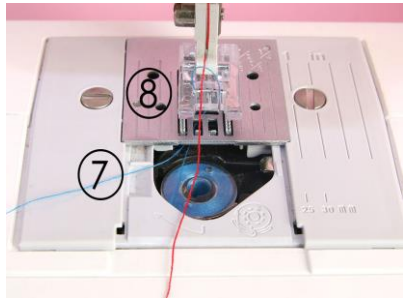

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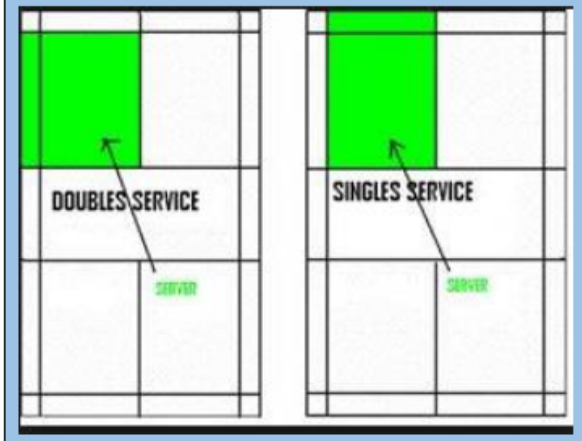
Year 8 PE Knowledge Organiser- Badminton

Rules:	• Serve Diagonal and land across the service line • Play to 21 points (2 clear points to win) • Whoever wins the point, their team serve. • When the score is even you serve from the right, when it is odd you serve from left • Long and thin for doubles, short and fat for singles • You cannot touch the net • Serve must be underarm/below lowest rib.	
Skills and tactics 	Clear	Shot played high to the back of the opponent's court, typically a defensive shot but can be played as an attacking shot.
	Dropshot	Delicate shot played just over the net into the space. Gets your opposition out of position to attempts a smash or clear.
	Smash	Most attacking shot. Hitting the shuttle cock at its highest point with power, trying to get the shuttlecock to hit the floor on the opponent's side as quickly as possible.
	Flick serve	Short serve which is played typically in doubles. Aim is to get the shuttlecock to stay low over the net and land just over the service line. Means you opposition has to hit the shuttlecock upwards.
	Grip	V shape down the handle. (Shake its hand)
	Underarm serve	Serve typically played in singles. Aim is to get the shuttles as high as you can towards the backline. Gets you opposition to the back of the court from the start so you can dictate the rally.
	Tactics	Doubles – front/back or side to side Hitting into space Targeting opponents weakness Shot selection

KEYWORDS		
Let	sideline	Rally
Drop shot	tramlines	
Back boundary line	Long service line (for doubles)	
Long service line (for singles)	Scoring	
Centre line	Umpire	

Year 8 PE Knowledge Organiser- Orienteering

The main aim of orienteering is to complete the set course by finding control markers in the correct order in the shortest time.

Skills and Techniques

Orienteering is a sport that require **navigational skills** using a **map and compass** to **navigate** from point to point in **diverse** and often unfamiliar **terrain** whilst moving at **speed.** Participants are given a **topographical map**, usually a specially prepared orienteering map, which they use to find **control points**.

Running activities: All lessons start with running activities to encourage pace and speed. Cardiovascular fitness is required over different types of terrain.

Observing surroundings: Look at your surroundings (playground/ cage/ grass areas/ tree) and identify key features that help you find your precise location. You need to observe your surroundings before looking for markings on a map.

Orientating a Map. You need to orientate your map (move it) to line up with the key features on the ground and check it is the correct way round to the direction you are facing.

Directions: - understand the Cardinal Markers – North, South, East and West and their relation to features on the ground and to places beyond the school site.

Map Reading – Recognise symbols on a map, be able to use a key to recognise symbols and colours on an orienteering map.

Human features: Know that a human feature is influenced by man (buildings, benches, fences, walls)

Physical Features: Know that a physical feature is natural (rivers, beaches, hills, forests)

Tactics

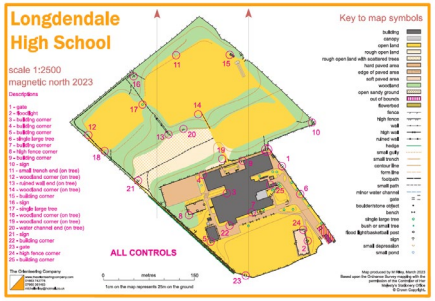
A key tactic to use is pace. You must make sure that you don't sprint off too quickly without orientating yourself and your map. You need to be able to keep a steady pace up all the way round the course.

You need to be able to orientate your map quickly by finding key features on the ground and then lining yourself and your map up to face the same direction

Each time you change direction whilst you are running you should change your grip on the map so that the map is re-orientated and remains facing the same direction as the features on the ground.

Star exercises: In a start exercise you have to run out from a central start point to a control and remember the answer on the control marker, if you are in a team you should each remember a different answer if you have to run to more than on control marker.

Courses, sometimes you will be given more than one control to find at a time which makes up a course. You may do a different course to another team and as it's a race you should not shout out your answers.



Year 8 History Term 2 Knowledge Organiser: Fighting For Rights

The Chartists
Aim: A list of demands to reform the political system.
Location: London
Years Active: 1832 - 1848

Luddites
Aim: Protest the use of new machines in factories by destroying them.
Location: Lancashire and UK
Years Active: 1779 - 1813

Peterloo Massacre
Aim: To protest the need for reform. Leading to a Massacre.
Location: St Peter's Field, Manchester
Years Active: 16th August 1819

DEMOCRACY	A system of government where people vote in order to choose the government.
REFORM	The changing of wrong or bad conditions to make them better.
PROTEST	Disagree strongly and publicly with something.
REVOLUTION	A sudden, radical, or complete change.
VOTE	To make an official choice for or against someone or something by casting a ballot.
CLASS	A group within a society who have similar status and wealth.
RIGHTS	Freedoms we have that are protected by our laws,
CHARTER	A document stating organization's aims, rights, or principle.
ACT OF PARLIAMENT	A new law which has been approved by Parliament
SIGNIFICANCE	How important an event or person was.

How do we judge significance?

- **G** roundbreaking
- **R** emembered
- **E** ffects that are wide-reaching
- **A** ffecting the future
- **T** errifying

TIMELINE FOR THE FIGHT FOR RIGHTS

- **Luddites** 1779 - 1813
- **French Revolution** 1789 - 1799
- **The Peterloo Massacre** 1819
- **The Great Reform Act** 1832
- **The Chartists** 1832 - 1848
- **Second Reform Act** 1867

Year 8 Subject Term 2 Knowledge Organiser: The World Wide Web

The Internet:
The internet is a worldwide network of computers. It is the physical hardware, i.e. the cables, the routers, and other pieces of hardware used to connect devices together.

Packets:
Networks send and receive messages in small units of data known as 'packets'.
A single message may be too large to fit in one packet. It is often split into many packets.
Each packet contains a part of the message, an address of where it came from, and an address of where it is going. These addresses are known as 'IP addresses', and they are unique.

IP Address:
An IP address is made up of 4 groups of numbers between 0 and 255, each separated by a full stop.
These are unique for every device on the internet.

Protocol:
A set of rules that must be followed.

Transmission Control Protocol:
Splits the messages sent across the internet into smaller pieces called 'packets'
Assembles the packets in the correct order at the receiver end

IP:
A protocol to route the packets. Each device on the internet has an IP address that uniquely identifies it from all other devices

The World Wide Web:
A collection of webpages found on the internet

Web Browser:
A piece of software (code) used to view information on the World Wide Web

Search Engine
A website that allows you to look up information on the World Wide Web.

HTML:
HTML stands for **H**yper **T**ext **M**arkup **L**anguage
and is the **standard markup** language for Web pages

HTML Tags:

Opening Tag	Closing Tag	Structure Specified
		Paragraph Text
<h1>	</h1>	Main heading
<h2>	</h2>	Sub heading
		Hyperlink
		List item
		Bulleted (unordered) list
		Numbered (ordered) list
	None	Image

MFL Knowledge Organiser

KO. Yr 8 La Nourriture

Tenses

Le présent

VERBES RÉGULIERS

	-ER	-IR	-RE
	-e -es -e -ons -ez -ent	-is -is -it -issons -issez -issent	-s -s - -ons -ez -ent
	Parler	**Finir**	**Vendre**
Je	parle	finis	vends
Tu	parles	finis	vends
Il/elle/on	parle	finit	vend
Nous	parlons	finissons	vendons
Vous	parlez	finissez	vendez
Ils/elles	parlent	finissent	vendent

	-ER (parler)	-RE (perdre)	-IR (finir)
je	ai parlé	ai perdu	ai fini
tu	as parlé	as perdu	as fini
il / elle	a parlé	a perdu	a fini
nous	avons parlé	avons perdu	avons fini
vous	avez parlé	avez perdu	avez fini
ils / elles	ont parlé	ont perdu	ont fini

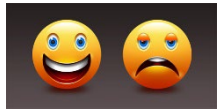
Opinions & Pronouns

Je préfère

J'aime beaucoup

Il/elle aime

Il/elle adore



Connectives

Car = because

Pour tant = therefore

Aussi = also

Cependant = however

Bien que = although

Translate it!

Adjectives

Savoureux/se	*tasty*
degoutant	*digusting*
Delicieux/se	*tasty*
grassé	*greasy*
Sain	*healthy*
Malsain	*unhealthy*
Picante	*Spicy*
Sucré	*Sweet*

Souvant	Often
Quelquefois	Sometimes
De temps en temps	From time to time
Rarement	Rarely
Tous les jours	Every day
Pendant la semaine	During the week
Le weekend	At the weekends

Definitions

Development gap – the difference between the richest and poorest in a society.

Global shift – the movement of economic activity to different parts of the world.

Glocalisation – changing the design of products to meet local tastes and laws.

Localism – movement which suggests food and goods should be grown and made locally.

Off-shoring – manufacture or assembly of a product in an LIC to reduce costs.

Shrinking world – perception that the world is feeling smaller due to improvements in travel.

TNC – transnational company; a company that produces, sells and operates in different countries around the world.

Westernisation – the promotion of European and North American cultural values.

Drivers of globalisation

Improvements in transport

- Containerisation, jet aircraft

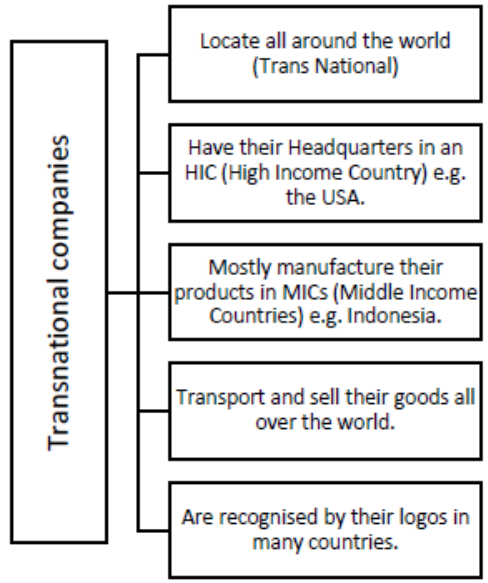
Free-trade agreements

- Making businesses easier to operate across international boundaries

Improvements in communications

- Internet and phone communications including news, TV shows and social media

Characteristics of TNCs



Positives and negatives from globalisation

- Consumers get cheaper goods and services
- TNCs make large profits
- Global culture becomes more equal

- Workers are exploited with poor conditions and low pay
- Environment is damaged due to poor production methods

Globally there have been massive benefits brought to people due to globalisation but there are starting to be political movements away from a purely global economic structure into one that restricts some trade patterns and protects jobs in certain countries.

Characteristics of Westernisation

Westernisation is the process whereby societies adopt Western culture in areas such as industry, technology, politics, clothes and many other aspects.

TNCs are successful in influencing local and national governments and in changing the culture of people around the world.

Also known as: Americanisation or McDonaldisation

Characteristics of sustainable living

No lasting damage to the environment.

Environment

All individuals should enjoy a good quality of life now and in the future.

Society

Individuals and community should have reliable income over time

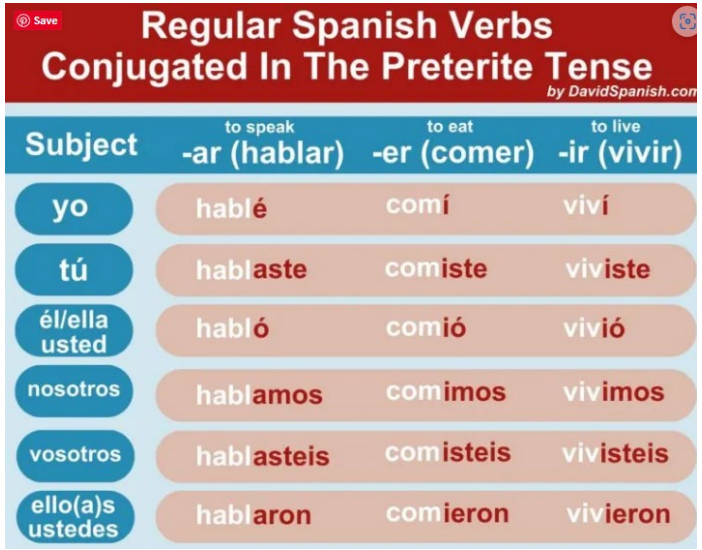
Economy

MFL Knowledge Organiser

KO. Yr 9 La Comida

Tenses

Verbos Regulares	VERBOS -AR	VERBOS -ER	VERBOS -IR
	HABLAR	COMER	VIVIR
yo	hablo	como	vivo
tú	hablas	comes	vives
él / ella	habla	come	vive
usted	habla	come	vive
nosotros / as	hablamos	comemos	vivimos
vosotros / as	habláis	coméis	vivís
ellos / ellas	hablan	comen	viven
ustedes	hablan	comen	viven



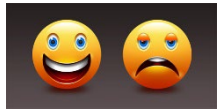
Opinions & Pronouns

Prefiero

Me flipa

Le gusta

Le encanta



Connectives

Dado que = because

Por eso = therefore

También = also

Sin embargo = however

Aunque = although

Translate it!

Adjectives

Rico/a	*tasty*
Asqueroso/a	*digusting*
Sabroso/a	*tasty*
Graso/a	*greasy*
Sano/a	*healthy*
Malsano/a	*unhealthy*
Picante	*Spicy*
Dulce	*Sweet*

A menudo	Often
A veces	Sometimes
De vez en cuando	From time to time
Raramente	Rarely
Todos los días	Every day
Durante la semana	During the week
Los fines de semana	At the weekends

RE 8.2 Christianity

Key terms

1. **Christianity**- The religion based on the person and teachings of Jesus Christ, or its beliefs and practices.
2. **Monotheistic** - The belief that there is only one God.
3. **Holy Trinity** - The three persons of the Trinity teach Christians better about the nature of God and the roles he plays (The Father, The Son, The Holy Spirit).
4. **Heaven** - The place or state of sanctuary, peace and happiness after death for those who were 'good' on Earth.
5. **Hell** - The place or state of punishment of people who have done wrong after death.
6. **Denomination** - A particular religious group which has slightly different beliefs from other groups within the same faith.
7. **Miracles** - An event that appears unexplainable by the laws of nature and so is thought to be an act of God.
8. **Evangelism** - The spreading of the Christian gospel by public preaching in an effort to convert people to Christianity.
9. **Sacrifice** - Making an offering to God.

Crucial Commands:

Describe:Say in detail what something or someone is like, and the impact it has. E.g. Describe Hajj.

Explain: Say why something or someone is important, and the impact it has. E.g. Explain why Zakat is important...

Discuss: Write about at least two points of view and explain why these points of view are valuable or not. E.g. ""Zakat is the most beneficial of the Five Pillars of Islam" Discuss.

Nature of Christianity

Christianity is focussed on the life and teachings of Jesus Christ, who Christians believe to be the Son of God. Jesus was born in Bethlehem in the Middle East over 2,000 years ago.

Christians model themselves on the life and teachings of Jesus Christ. Jesus taught people to love God and love their neighbour.

Christians believe that God sent Jesus to live as a human being in order to save humanity from the consequences of its sins - the bad things humanity had chosen to do which had separated them from God.

Jesus

Christians believe that Jesus is God made flesh. (A third of the HOLY Trinity). Christians believe that Jesus sacrificed himself so that humankind can be freed from their sins and have a special relationship with God. Jesus is also a role model to Christians and taught many moral lessons in his lifetime, through telling Parables, like the Parable of the Good Samaritan and the Parable of the Lost Son, and through his actions such as the performance of miracles.

<u>Jesus was actually Jewish.</u>

Christmas

Christmas is a Christian holy day that marks the birth of Jesus, who Christians believe to be the Son of God.

Christmas is celebrated each year on 25 December. Christian church services at Christmas include carol singing and a service called a midnight mass).

There is a discussion surrounding Christmas as it is debated that the Christian foundations in Christmas are clouded by societies' influence.

The Bible

The Bible is the holy book for Christians. It has two parts: The Old Testament and the New Testament. The Old Testament was written before Jesus was born and comes from Jewish scriptures. The New Testament was written after Jesus died and contains stories of Jesus' life and accounts of Jesus' friends and followers in the early years of Christianity. There are many books in the Bible, and word Bible comes from the Greek word 'biblia' which means 'books'.

Evangelism

Evangelism involves converting people to Christianity. (Activities of missionaries). Some Christians feel that they should take on this role as they believe that they can help people to discover their real purpose in life.

While some evangelists tell people directly about God, others try to show God's love through their actions. For example, Gideons International, an association of evangelical Christians, donates copies of the Bible to hotels and hospitals in the UK and around the world.

The Good Samaritan

The parable of the Good Samaritan is told by Jesus in the Gospel of Luke. It is about a Jewish traveller who is stripped of clothing, beaten, and left to die. First a Jewish priest and then a Levite (judge) comes by, but both avoid the man. Finally, a Samaritan happens upon the traveller. Although Samaritans and Jews despised each other, the Samaritan helps the injured man. The message of this Parable is as relevant today as it was more than two thousand years ago.