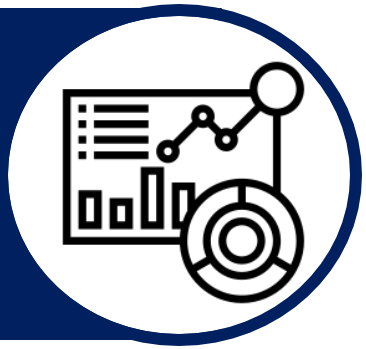
WINTERSTOKE HUNDRED ACADEMY

Knowledge Organisers



Term 3 and 4

Year 8

Contents

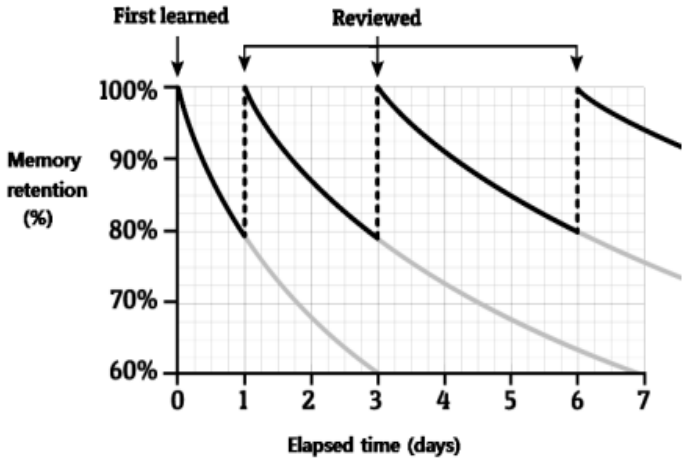
How to revise

Successful Learning Takes Place Over Time

It's rare for anyone to be completely comfortable with something they learn for the first time. This could be a new piece of music, dance move, language or chemistry. We all have to practice. In most instances, the aim is to be at your optimum on the day it matters, e.g. the performance, race or exam. Everything leading up to this point is part of the process of improving. It's about the long-term rather than the short-term, which also means there are no quick fixes. During this period, it's okay to make mistakes; it's okay to feel frustrated. What matters is what you do about it.

Space out your learning on a subject

Spacing out your learning over time is far more effective than last-minute cramming. This is based on research into how we forget and how we remember. The speed at which we forget something will depend on many factors such as the difficulty of the material, how meaningful it was to us, how we learned it and how frequently we relearn or remember it. The last factor tells us that when we learn something for the first time, we need to review it quickly afterwards. The more times we force ourselves to remember something, the longer the gap between reviews, which the diagram below illustrates nicely. The Leitner system and Cornell Notes mentioned earlier provides a wonderful way of achieving this, but the principle applies to all of the learning strategies mentioned in this booklet



Revision strategies

List It

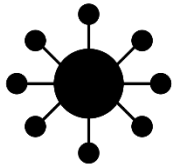
This is a simple free recall task that is very versatile. It can feel challenging, but this is a good thing, and it provides clear feedback on what you do and don't know. Choose a topic, set yourself a time limit and…

- List as many keywords as you can
- List as many facts as you can
- List as many key events/quotes/individuals as you can
- List as many causes of X as you can
- List as many consequences of Y as you can

Flashcards

Flashcards have the potential to be a powerful learning aid. However, how successful this is will depend on the thought you put into making them in the first place and then how they're used. It's very important to remember that they're for testing, not summarising

Mapping



Mapping is a brilliant way of organising and learning information, demonstrated on various pages in this booklet. It helps you break down complex information, memorise it, and see the connections between different ideas.

Self-testing

Research has shown that every time you bring a memory to mind, you strengthen it. And the more challenging you make this retrieval, the greater the benefit. Self-testing improves the recall of information, transfer of knowledge and making inferences between information. Equally, there are many indirect effects, such as a greater appreciation of what you do and don't know, which helps you plan your next steps.

Flashcards

Flashcards are small sheets of paper or card with matching pieces of information on either side. They are a useful tool for learning facts and allow you to quickly check whether you have remembered something correctly.

When making and using flashcards:

Do:

- ✓ …make flashcards quickly.
- ✓ …put a single piece of information of each flashcard.
- ✓ …sort your flashcards according to your confidence with them (see below).
- ✓ …test yourself on the flashcards from memory.

Don't:

- X …spend more time making flashcards than actually using them.
- X …put lots of information onto each flashcard.
- X …revise the flashcards in the same order every time that you use them.
- X …only read through flashcards.

1861	groynes	osmosis	Where is the pharmacy?
Pasteur published his paper about germ theory.	A low wall on the coastline which slows longshore drift	Net movement of water from a high concentration to low concentration across a partially permeable membrane	Où est la pharmacie?

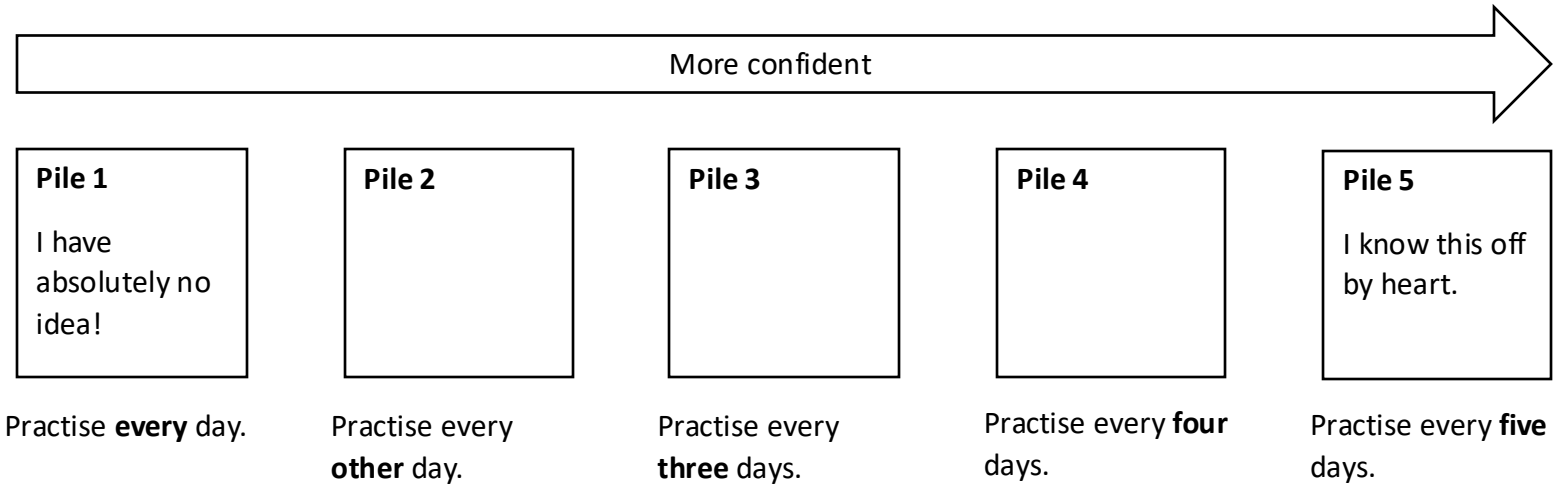
How to make flashcards:

- You can by a set of flashcards or use a free website such as Quizlet.
- Find the information you want to put onto flashcards using your existing revision resources (e.g. a knowledge organiser).
- Fold a piece of A4 paper into 10.
- Write the questions on the top half of the paper.
- Write the answers on the bottom half of the paper.
- Cut the paper along the dotted lines shown here.
- Fold the strips of paper so that the writing is on either side.

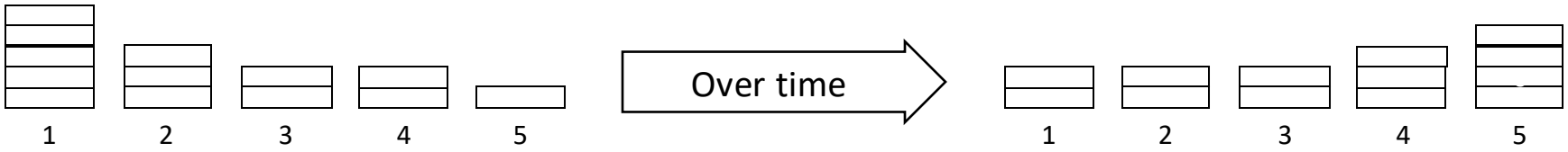
Definition 1	Definition 2	Definition 3	Definition 4	Definition 5
Answer 1	Answer 2	Answer 3	Answer 4	Answer 5

How to use flashcards:

1. Test yourself using the flashcards.
2. As you test yourself, sort the flashcards into up to five piles according to how confident you are with the content.
3. Put the piles into numbered envelopes (1-5).
4. Test yourself on the different piles on different days (see below):



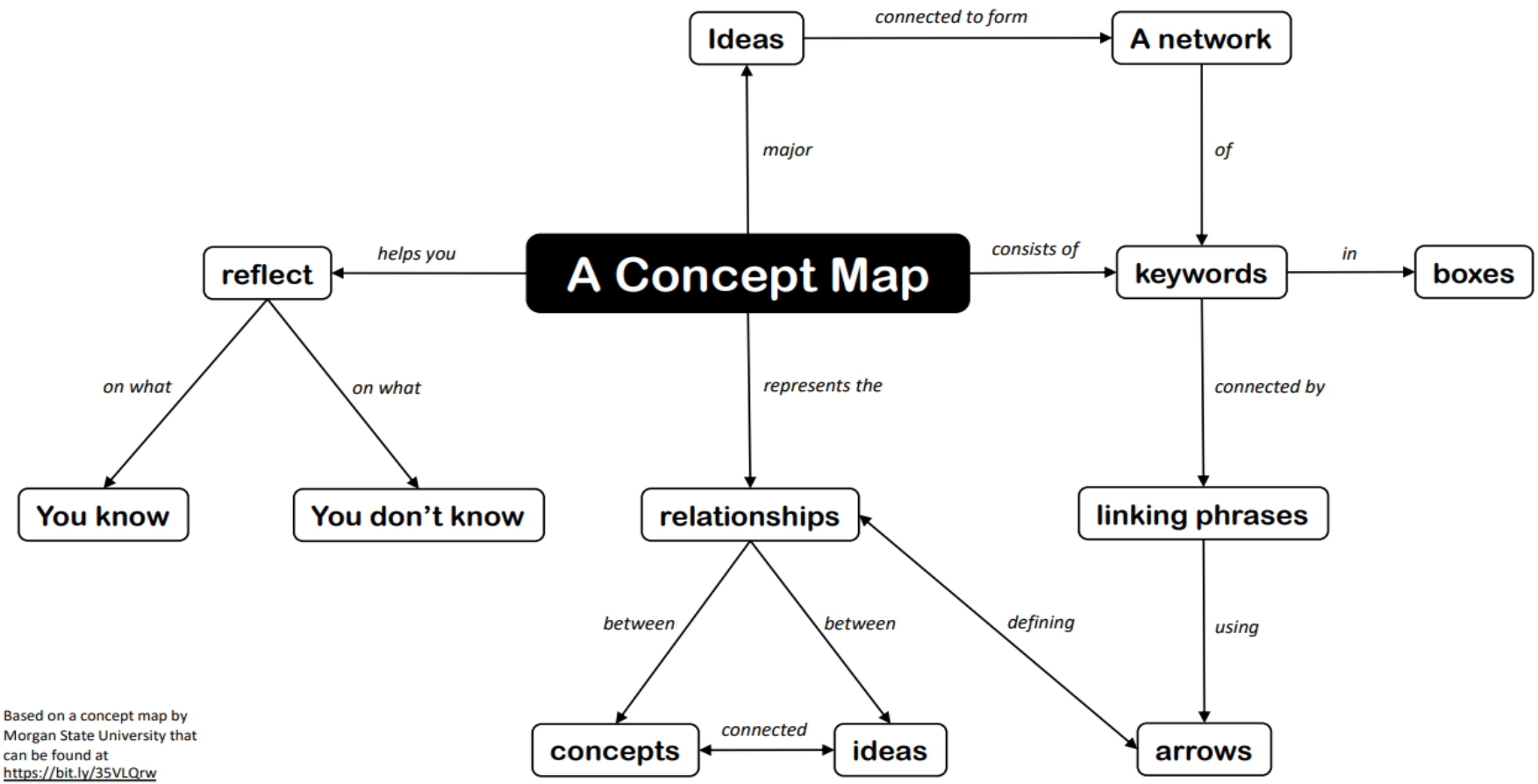
5. As you test yourself on the different piles, move the cards into different piles as you become more confident



Useful resources:

www.quizlet.com – This free website allows you to quickly create flashcards which you can print, use on a computer, or use on your phone.

Mapping



Based on a concept map by Morgan State University that can be found at https://bit.ly/35VLQrw

English

Gothic Horror

Origins of Gothic Horror

- Gothic literature is a genre of fiction which first became popular during the 18th century.
- Although many of the most famous Gothic novels were written during the Victorian times, conventions of the Gothic genre are still featured in popular culture today.
- The term 'Gothic' originates from the name of an ancient Germanic Tribe (The Goths) who are thought to have contributed to the fall of the Roman Empire.
- The term Gothic first became linked to literature with Horace Walpole's 1764 novel *The Castle of Otranto*.
- This term was probably given because of the book's medieval Gothic architecture and setting.
- Unlike horror stories, Gothic stories tend to create an atmosphere of tension and suspense for the reader .
- For example, the novel *The Castle of Otranto* is set in a castle with mysterious, supernatural events and an innocent female victim.

Conventions of Gothic Horror

Subterranean passageways	Secret tunnels and passages can often act as a means of escape or secret entry to buildings.
Abandoned buildings	Houses which no-one lives n and may be in ruins are often settings for gothic stories
Gloom and horror	Characters are often in a depressed emotional state -gloomy
Isolated bleak settings	Events take place in areas where there are not many people or dwellings
Sublime	Of great beauty- usually used to describe landscapes
Supernatural	A vision/apparition which cannot be accounted for scientifically
Women in distress	Female characters are often passive so they rely on other characters to rescue them or to give them information
Dominant, tyrannical male	Male characters are often powerful and take charge of situations and people.
Unreliable narrator	The character who tells the story may not have all the information needed
Outsiders	A character who does not belong with others; they remain apart and separate.

English

Gothic Horror

Key Words	
Supernatural	A vision/apparition which cannot be accounted for scientifically
Ominous	The sense that something awful or threatening is going to happen
Foreboding	The impression that something terrible will happen in the future.
Submissive	Someone weak or quiet; without authority
Isolation	Being kept apart or alone from others
Dominance	Having power and influence over others
Tyrannical	Using power in a cruel way; by making others scared
Archetype	A typical exam of someone or something
Convention	A way in which something is usually done
Atavistic	Characteristic of something ancestral or primitive
Palpable	A feeling or atmosphere so intense it is as if you can touch it
Confine	To keep something within its limits
Subterranean	Occurring or existing under the ground

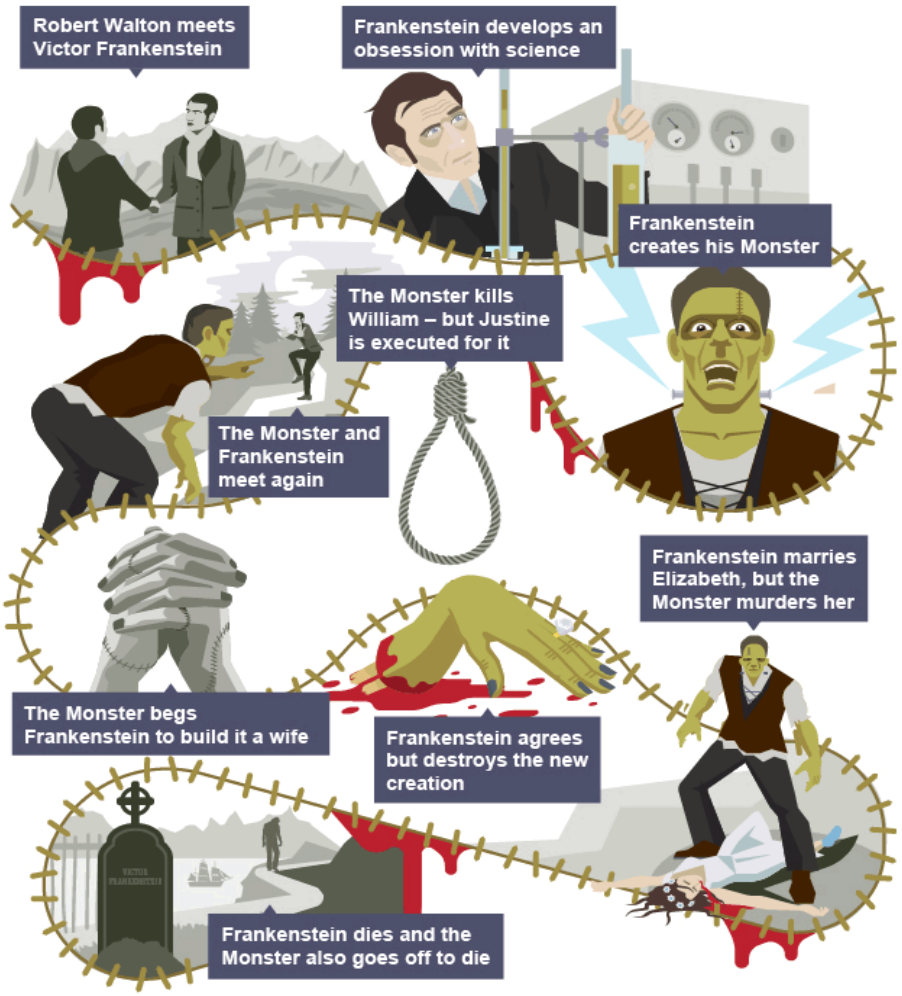
Techniques	
Symbolism The use of an image to represent an idea	**Pathetic fallacy** The idea that the weather reflects emotions
Motif A repeated image in a text	**Imagery** Words or phrases create pictures in the imagination
Personification Inanimate object described as having human characteristics	**Juxtaposition** Opposite ideas placed side-by-side

English

Gothic Horror

Frankenstein: The Modern Prometheus by Mary Shelley

Key plot details



Context

- The novel was first published in 1818.
- It was inspired by a dream that Mary Shelley had.
- She produced it in response to a challenge by Lord Byron.

- Frankenstein was set at the end of the enlightenment and romanticism period.
- Rather than following religious teachings, enlightenment thinkers turned to scientific study.
- In the 18th century, people were very religious so the idea of a character playing God was scary to them, so Shelley used this idea to create Frankenstein.
- Frankenstein deals with loss, which Shelley knows a lot about since many people in her life died

English

Gothic Horror

The Woman in Black by Susan Hill

- On Christmas Eve Arthur Kipps' stepchildren invite him to tell a ghost story. He has one but is too disturbed to tell it, so he writes it down.
- In the story, a young Arthur Kipps is sent by his employer to settle the affairs of Mrs Alice Drablow, of Eel Marsh House. The house is cut off from the mainland at high tide. At her funeral, Arthur sees a sickly-looking young woman dressed in black. No one else sees her.
- Keckwick, the caretaker, drives Arthur to Eel Marsh House where he sees the woman again. He finds piles of Mrs Drablow's papers to sort and is haunted by the sound of a pony and trap.
- He stays overnight at the house and is persuaded by Samuel Daily, a local landowner, to take his dog, Spider, for company. The dog and Arthur are spooked by rumblings, cries and bumps in the night.
- A locked door becomes mysteriously unlocked and Arthur finds a nursery filled with toys and a rocking chair in motion.
- Samuel Daily rescues Arthur from the house and eventually tells him how a child dies by accident each time the woman in black is seen.
- Arthur returns to London with his fiancée Stella. They are soon married and have a child together.
- Arthur sees the woman in black again in London and moments later his wife and child die.

Context

- Although Susan Hill wrote *The Woman in Black* in 1983, the novella is set in the Edwardian era.
- In Edwardian society, the ideal woman was one whose moral values were strong.
- It was not considered 'proper' for a woman to have a child outside of marriage.
- A woman who did so, risked being cut-off by her family.

The Red Room by H.G. Wells

- A main character chooses to spend the night in an allegedly haunted room, coloured bright red in Lorraine Castle.
- He intends to disprove the legends surrounding it.
- Despite warnings from the three caretakers who live in the castle, the narrator walks to "the Red Room" to begin his night's watch.
- At first, he is confident, but the narrator becomes increasingly uneasy in the room.
- He attempts to conquer his fear by lighting candles, but keeping the candles lit in the draughty room becomes an ongoing battle. Each time a candle is snuffed out, the narrator's fear and paranoia increases.
- He begins to imagine that the drafts are guided by an evil intelligence.
- As the narrator's fear intensifies, he stumbles onto a large piece of furniture (possibly the bed), and bounces off the walls in a blind panic, hitting his head and eventually falling unconscious.
- The caretakers, who find him in the morning, feel vindicated when the narrator agrees that the room is haunted.
- They are eager to hear a description of the phantom, but he surprises them by explaining that there is no ghost residing in the roo[illegible]. The room is haunted by fea[illegible]

Context

H.G. Wells, in full **Herbert George Wells**

He was a scientific rationalist and author.

He was famous for the novels *The War of the Worlds, The Invisible Man, The Time Machine* and many other works.

In 1894 he wrote the gothic horror story, popular during the Victorian era, 'The Red Room'.

English

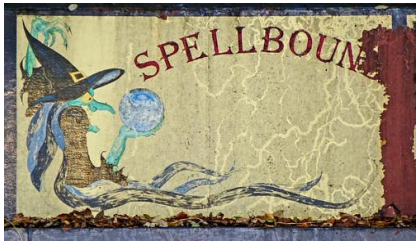
Gothic Horror

The Tell Tale Heart by Edgar Allen Poe

- "The Tell-Tale Heart" is told by an unnamed narrator.
- The old man, with whom the narrator lives, has a clouded, pale, blue "vulture-like" eye, which distresses the narrator so much that they plot to murder the old man
- For seven nights, the narrator opens the door of the old man's room to shine a sliver of light onto the "evil eye."
- On the eighth night, the old man awakens after the narrator's hand slips and makes a noise. The narrator, after some time, decides to open the lantern. A single thin ray of light shines out and lands precisely on the "evil eye," revealing that it is wide open.
- The narrator hears the old man's heart beating. This increases the narrator's anxiety. He jumps into the room and the old man shrieks before he is killed.
- The narrator then dismembers the body and conceals the pieces under the floorboards.
- The old man's scream during the night causes a neighbour to report it to the police, who the narrator invites in to look around. The narrator claims that the scream heard was their own in a nightmare and that the old man is absent.
- Confident that they will not find evidence of the murder, the narrator brings chairs for them and they sit in the old man's room. The chairs are placed on the very spot where the body is concealed; the narrator has a pleasant and easy manner.
- The narrator begins to feel uncomfortable and notices a ringing in his ears. As the ringing grows louder, the narrator concludes that it is the heartbeat of the old man coming from under the floorboards.
- The sound increases steadily to the narrator, though the officers do not seem to hear it. Terrified by the violent beating of the heart, the narrator breaks down and confesses.
- The narrator tells them to tear up the floorboards to reveal the remains of the old man's body.

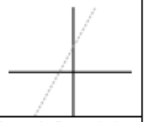
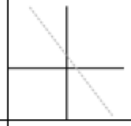
Context	
1809	Poe was born and his father disappears. His mother dies shortly afterwards. Poe is fostered.
1826	Poe attended school in England and then enrolled at the University of Virginia in 1826, but he was forced to leave after two terms.
1830s	He was a magazine editor, a poet, a short story writer, a critic, and a lecturer. He introduced the British horror story, or the Gothic genre, to American literature
1845	He writes and publishes The Raven – a poem that made him famous
1849	Poe dies at the age of 40

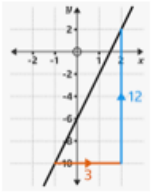
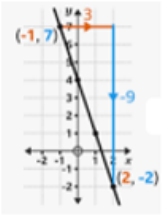
Poetry

The Raven 	• "The Raven" is a poem by 19th century American poet Edgar Allan Poe. • **"The Raven"** begins with the poem's narrator, an unnamed man, working in his study late at night. • The narrator reveals that he is reading to distract himself from the loss of his lover, Lenore. • He hears knocking at his door, which leads him to open and whisper for Lenore. • Instead of Lenore, he hears a bird tap on the window and opens it. • A raven flies in and perches on the bust of Pallas, sitting just above the door. • The man asks for the bird's name, and it responds with "Nevermore." • The man feels the presence of what he describes to be an angel. • Thinking of Lenore, he asks the raven if he will be forgiven his sins and allowed to see Lenore again in Heaven, and the bird responds, "Nevermore." • The man panics and tells the bird to go back to the night's "Plutonian shore," and the poem ends with the narrator telling the reader that the bird still sits above his door, casting a constant shadow on him.
Spellbound 	• In this brief, mysterious poem, a speaker gazes out over a bleak, icy, forbidding landscape. • They can see only "wastes beyond wastes" around them, and a storm is coming fast—but, trapped by a "tyrant spell," the speaker can't move from this dangerous spot. • Through its vision of paralysis in a dreadful wilderness, the poem conjures a mood of utter despair. • Titled "Spellbound" by an editor (Brontë only dated it), the poem was printed in a 1902 volume, *Poems*, which appeared more than 50 years after its author's death.
The Cold Earth Slept Below 	• The poem begins with the speaker describing a walk he took on a chilly night. • Everything seems completely empty of life as if the end times have come and the planet has been covered with darkness, death, and ice. • The moon is going down as well, increasing the darkness with each passing second. • The speaker is eventually drawn to a light in a bog or swamp. • It turns out to be the glare from his dead lover's eyes. • She too was drawn to this place but was unable to make it back and died there.

Maths

Equation of a Straight Line

Linear graphs are	Straight lines
The general equation for a straight line is	$y = mx + c$
M is the	Gradient (steepness)
C is the	y-intercept (where it crosses the y-axis)
y-intercept co-ordinates always start with	0 e.g (0, 4)
To plot a straight-line graph from x=-2 to x=2	Draw a table of values x | -2 | -1 | 0 | 1 | 2 y | | | | |
y=3x + 2 means	Multiply the x by 3 then add 2
What will the graph of $y = 6x + 5$ look like?	A straight line, going up from left to right Gradient of 6 Y-intercept of (0, 5) 
What will the graph of $y = -6x + 5$ look like?	 A straight line, going down from left to right Gradient of -6 Y-intercept of (0, 5)
$y = 3x + 2$ $Gradient =$ $y - intercept =$	Gradient = 3 y-intercept = (0, 2)
$y = 2 + 3x$ $Gradient =$ $y - intercept =$	Gradient = 3 y-intercept = (0, 2)
$y = 2 - 3x$ $Gradient =$ $y - intercept =$	Gradient = – 3 y-intercept = (0, 2)

To find the gradient from a plotted graph with a positive gradient	Draw a triangle joining 2 points - up is positive  $\frac{difference\ in\ y}{difference\ in\ x} = \frac{12}{3} = 4$ (positive slopes up)
To find the gradient of a plotted graph with a negative gradient	Draw a triangle joining 2 points – down is negative  $\frac{difference\ in\ y}{difference\ in\ x} = \frac{-9}{3} = -3$ (negative slopes down)
Parallel lines have the same _____	gradient

WHA Maths

Percentages

To find 10%	Divide by 10
To find 1%	Divide by 100
To find 50%	Half it
To find 25%	Half it and half it again (divide by 4)
To find 75%	Add together 50% and 25% (or divide by 4 x by 3)
How can I find 35%?	Find 30% - Calculate 10%, x by 3 Find 5% - Calculate 10% and half it 35% = 30% + 5%
How could I find 90%?	Find 10% and x by 9 OR find 10% and subtract it from the original number (100%)
What about 160%?	Find 10%, x by 6 then add it on to the original number (100%)
Increase by 10%	Find 10% and add it on
Decrease by 20%	Find 10%, double it then subtract it
Write 35 out of 50 as a percentage	Make the denominator 100 $\frac{35}{50} = \frac{70}{100} = 70\%$
What about when the denominator is not a factor of 100?	Simplify it Make the denominator out of 100
Write 18 out of 30 as a percentage	Simplify $\frac{18}{30}$ to $\frac{6}{10}$ Make the denominator 100 $\frac{6}{10} = \frac{60}{100} = 60\%$

Profit means	Money you earn is more than money you spend
Loss means	Money you earn is less than the money you spend
To calculate percentage change	$\frac{new\ value - original\ value}{original\ value} \times 100$
Calculate the percentage profit if I buy a TV for £150 and sell it for £180	$\frac{180-150}{150} \times 100 = 0.2 = 20\%$ profit
Calculate the percentage loss if I buy a TV for £150 and sell it for £112.50	$\frac{112.50 - 150}{150} \times 100 = -0.25 = 25\%\ loss$

To calculate a percentage of an amount you…	Divide it by 100 and write as a decimal Multiply by it by the number
Calculate 23% of 520	0.23 x 520
Calculate 6% of 520	0.06 x 520
Calculate 6.5% of 520	0.065 x 520
Calculate 18.9% of 520	0.189 x 520
To **increase** an amount by a percentage, you…	Add the percentage to 100 Divide by 100 and write as a decimal Multiply it by the number
Increase 520 by 23%	100% + 23% = 123% 1.23 x 520
Increase 520 by 6%	100% + 6% = 106% 1.06 x 520
Increase 520 by 6.5%	100% + 6.5% = 106.5% 1.065 x 520
Increase 520 by 18.9%	100% + 18.9% = 118.9% 1.189 x 520
To **decrease** an amount by a percentage, you…	Subtract the percentage from 100 Divide by 100 and write as a decimal Multiply by the number
Decrease 520 by 23%	100% – 23% = 77% 0.77 x 520
Decrease 520 by 6%	100% – 6% = 94% 0.94 x 520
Decrease 520 by 6.5%	100% – 6.5% = 93.5% 0.935 x 520
Decrease 520 by 18.9%	100% – 18.9% = 81.1% 0.811 x 520

To reverse a percentage change, you…	Find the decimal used to increase/decrease Divide by the decimal
A price has increased by 20% to £72. What was the price before the increase?	Decimal used to increase by 20% 1.20 72 ÷ 1.20 = £60
In a sale the price has decrease by 20% to £64 (sale price). What was the price before the decrease? (normal price)	Decimal used to decrease by 20% 0.80 64 ÷ 0.80 = £80

Maths

Fractions, Decimals and Percentages

Fraction	Decimal	Percentage
$\frac{1}{2}$	0.5	50%
$\frac{1}{4}$	0.25	25%
$\frac{3}{4}$	0.75	75%
$\frac{1}{10}$	0.1	10%
$\frac{3}{10}$	0.3	30%
$\frac{1}{3}$	0.333…	$33.\dot{3}\ldots\%$
$\frac{2}{3}$	0.666…	$66.\dot{6}\%$
$\frac{1}{5}$	0.2	20%
$\frac{2}{5}$	0.4	40%
$\frac{3}{5}$	0.6	60%
$\frac{1}{20}$	0.05	5%
$\frac{3}{20}$	0.15	15%
$\frac{1}{8}$	0.125	12.5%

Percentage	Decimal	Fraction
1%	0.01	$\frac{1}{100}$
3%	0.03	$\frac{3}{100}$
10%	0.1	$\frac{1}{10}$
20%	0.2	$\frac{2}{10}=\frac{1}{5}$
50%	0.5	$\frac{5}{10}=\frac{1}{2}$
75%	0.75	$\frac{75}{100}$
150%	1.5	$\frac{15}{10}=\frac{3}{2}$
200%	2	$\frac{2}{1}=2$

Convert 0.125 into a percentage

	100s	10s	1s	$\frac{1}{10}$s	$\frac{1}{100}$s	$\frac{1}{1000}$s
number			0.	1	2	5
percentage				1	2.	5

× 100

$0.125 = \frac{12.5}{100}$

$= 12.5\%$

÷ 100

Convert 5.05 into a fraction

	100s	10s	1s	$\frac{1}{10}$s	$\frac{1}{100}$s	$\frac{1}{1000}$s
			5.	0	5	

$\frac{505}{100}$

$5.05 = \frac{505}{100} = \frac{101}{20}$

Convert 2.8 into a fraction

	100s	10s	1s	$\frac{1}{10}$s	$\frac{1}{100}$s	$\frac{1}{1000}$s
			2.	8		

$\frac{28}{10}$

$2.8 = \frac{28}{10} = \frac{14}{5}$

Convert $\frac{1}{8}$ into a decimal

$\frac{1}{8} = 1. \div 8 = 0.125$

$8\overline{)1.000}$ → 0.125

Convert $\frac{7}{4}$ into a decimal

$\frac{7}{4} = 7. \div 4 = 1.75$

$4\overline{)7.00}$ → 1.75

Convert $\frac{2}{3}$ into a decimal

$\frac{2}{3} = 2. \div 3 = 0.\dot{6}$

$3\overline{)2.000\ldots}$ → $0.666\ldots$

Convert $\frac{5}{6}$ into a decimal

$\frac{5}{6} = 5. \div 6 = 0.8\dot{3}$

$6\overline{)5.000\ldots}$ → $0.833\ldots$

Science

Evolution

Key words

Species
Characteristics
Variation
Continuous variation
Discontinuous variation
Genes
Inherited characteristic
Environmental characteristic
Evolution
Survival of the fittest
Extinction
Endangered species
Biodiversity
Conservation
Gene bank

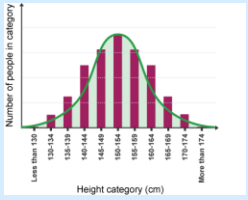
1. Variation

Humans, dogs and goldfish are examples of **species**.
Different species have very different **characteristics** from each other. For example, dogs have tails and humans do not. Dogs have fur, but goldfish have scales.
The individual members of a species also have differences in **characteristics**. For example, humans have different coloured eyes, and dogs have different length tails.
This means that **no** two members of a species are identical.

The differences in **characteristics** between individuals of the same species is called **variation**.

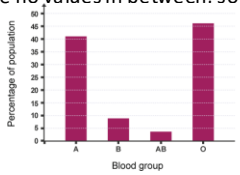
2. Continuous Variation

Human height is an example of continuous variation. It ranges from that of the shortest person in the world to that of the tallest person. Any height is possible between these values. So it is continuous variation.
For any species a characteristic that changes gradually over a range of values shows continuous variation. Examples of such characteristics are height and weight. This shape of graph is typical of a feature with continuous variation.



3. Discontinuous Variation

A characteristic of any species with only a limited number of possible values shows **discontinuous variation**. Human blood group is an example of discontinuous variation. In the ABO blood group system, only four blood groups are possible (A, B, AB or O). There are no values in between. so this is discontinuous variation.
Here are some examples blood group, sex (male or female) and eye colour.
A bar chart can be used to represent discontinuous data.



4. Evolution of Species

Some variation is passed on from parents to offspring, via **genes**, during reproduction. This is **inherited** variation and examples include eye colour, sex and ability to roll your tongue.
Some variation is the result of differences in the surroundings, or what an individual does such as lifestyle, culture and climate you live in. This is called **environmental** variation and examples include your language and religion.
Some variation is caused by a mixture of both genes and environmental factors and examples include your weight and height.

5. Natural Selection

If all the individuals of a species were genetically identical they would be vulnerable to the same diseases or environmental change.
As a result of their genes, some individuals of a species might have better camouflage, or be able to run faster.
These individuals are more likely to survive. This is called the **survival of the fittest**.
The members of a species that survive may reproduce. Their offspring are likely to have the desirable characteristics of their parents. This is how species change in **evolution**.

6. Extinction

Changes in the environment may leave individuals less well adapted to compete successfully for resources such as food, water and mates. Sometimes an entire species may become unable to compete successfully and reproduce. These problems can lead to extinction. Examples of some of the changes in the environment that can cause a species to become extinct are a new disease, new predator, climate change or competition from another species for the resources.
Examples of species that have become extinct include the dodo, dinosaurs and the West African Black Rhinoceros.

7. Biodiversity

An **endangered species** is at risk of becoming extinct. For example, the panda and gorilla are endangered and may become extinct. A species can become endangered for several reasons, including: the number of available habitats falls below a critical level or if the population of the species falls below a critical level.
Biodiversity means having as wide a range of different species in an ecosystem as possible. It is important to conserve the variety of living organisms on Earth. Not only do we have moral and cultural reasons for conserving endangered species, but it also reduces impact on food chains and webs and protects our future food supply.

8. Conservation Measures

Some species in Britain are endangered, including the skylark, red squirrel and grass snake. They could be helped by conservation measures such as:

- education programmes
- captive breeding programmes
- legal protection and protection of their habitats
- making artificial ecosystems for them to live in.

Plant species can also be endangered. Seed banks are a conservation measure for plants. Seeds are carefully stored so that new plants may be grown in the future.
Seed banks are an example of a **gene bank**. Gene banks are increasingly being used to preserve genetic material for use in the future.

Science

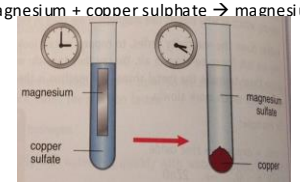
Metals and reactivity

1. Displacement reactions

Displacement reactions are used to help establish the order of reactivity for metals.

In these reactions a more reactive metal replaces a less reactive metal to form a salt.

Eg magnesium + copper sulphate → magnesium sulphate + copper



2. The Reactivity Series

The reactivity series is the order of metal based on how much they react with water, air and acid. We can use this to predict what is made in a reaction. Carbon and hydrogen are included as carbon is sometimes used to extract metals from their ores using reduction.

Potassium	most reactive
Sodium	
Calcium	
Magnesium	
Aluminium	
Carbon	
Zinc	
Iron	
Tin	
Lead	
Hydrogen	
Copper	
Silver	
Gold	
Platinum	least reactive

3. Acid and Alkali Reactions

An acid and an alkali can be reacted together in a neutralisation reaction. This produces salt and water.

The general equation for this is:
Acid + alkali → salt + water

Eg
Hydrochloric acid + sodium hydroxide → sodium chloride + water

Metal oxides are examples of alkalis and non-metal oxides are examples of acids.

4. Acid and Metal Reactions

Acids can react with metals.
These reactions produce a metal salt and hydrogen gas.
Metals that are higher up the reactivity series react vigorously with acid, whereas metals lower down have a much slower reaction.

The general equation for this is:
Acid + metal → salt + hydrogen

Eg
Hydrochloric acid + magnesium → magnesium chloride + hydrogen

5. Acid and Metal Carbonate Reactions

In an acid and metal carbonate reaction a metal salt, carbon dioxide and water are produced.

The general equation for this is:

Acid + metal carbonate → metal salt + carbon dioxide + water

Eg

Hydrochloric acid + copper carbonate → copper chloride + carbon dioxide + water

6. Naming Salts

When a salt is named in an acid reaction it has two parts to it's name. The first part is the metal and the second part is from the acid.
Depending on the acid used the second part of the name will be different.

Hydrochloric acid → chloride salts
Nitric acid → nitrate salts
Sulphuric acid → sulphate salts

Eg.
Hydrochloric acid + sodium hydroxide → sodium chloride + water
Hydrochloric acid + magnesium → magnesium chloride + hydrogen

7. Tests for Carbon Dioxide and Hydrogen

In these reactions we can make some gases that we need to test and be able to identify. The tests for hydrogen and carbon dioxide are as follows:

CO_2 – Carbon Dioxide

1. Lit splint is extinguished (goes out) in the presence of CO_2 gas.
2. lime water turns from colourless to cloudy.

H_2 – Hydrogen

Squeaky pop test - a lit splint, in the presence of hydrogen makes a squeak pop sound.

8. Group 1 Metals

In group 1 metals the reactivity increases down the group.

Element	Observations
Lithium, Li	Fizzes steadily, slowly becomes smaller until it disappears
Sodium, Na	Melts to form a ball, fizzes rapidly, quickly becomes smaller until it disappears
Potassium, K	Quickly melts to form a ball, burns violently with sparks and a lilac flame, disappears rapidly, often with a small explosion

KS3 Science

Photosynthesis and Ecosystems

1. Photosynthesis in Plants

Animals need to eat food to get their energy. But green plants and algae do not. Instead they make their own food in a process called **photosynthesis**. Almost all life on Earth depends upon this process. Photosynthesis is also important in maintaining the levels of oxygen and carbon dioxide in the atmosphere.

Word equation

carbon dioxide + water → glucose + oxygen

from the air — from the ground — their food — released into the air

Symbol equation:

$6CO_2 + 6H_2O \rightarrow C_6H_{12}O_6 + 6O_2$

2. Location of photosynthesis in plants

Photosynthesis takes place inside the **chloroplasts** of the plant cells, these contain a green pigment, **chlorophyll**. This absorbs the light energy needed to make photosynthesis happen. The leaf is a plant organ adapted to carry out photosynthesis. The table describes some of its adaptations:

Thin	a short distance for CO2 to move by diffusion
Chlorophyll	Absorbs light
Stomata	Allows CO2 to move in by diffusion
Guard cells	open and close the stomata depending on the conditions
Tubes	To transport water (xylem) and glucose (phloem)

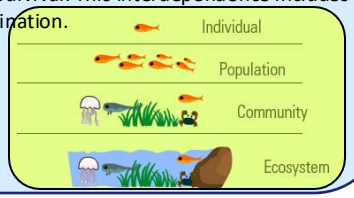
3. Measuring the effect of light intensity on photosynthesis

Method:

1. Leave for five minutes for the pondweed to acclimatise to the new
2. Count the number of bubbles given off in one minute.
3. Move the light 10 cm further back.
4. Leave for five minutes for the pondweed to acclimatise again.
5. Count the number of bubbles given off in one minute.
6. Repeat by moving the lamp away by 10 cm intervals until 50 cm is reached.

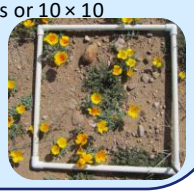
4. Habitats and Ecosystems

An **ecosystem** consists of **communities** of different living things, in single species **populations** living in their habitats. Examples of these include habitats include coral reefs, marshes and lakes. All the living things (**biotic factors**) and non-living things (**abiotic factors**) in an ecosystem depend upon each other for survival. This interdependence includes through feeding, pollination.



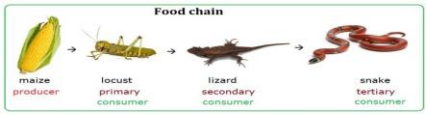
5. Sampling Techniques

Sampling is done to look at the organisms in a population within an ecosystem in a practical way as counting each one individually is not always feasible. This is usually done using quadrats which marks off small areas to then use to estimate the population. A quadrat is usually a square made of wire. It may contain further wires to mark off smaller areas inside, such as 5 × 5 squares or 10 × 10 squares. The organisms underneath, usually plants, can be identified and counted. Quadrats may also be used for slow-moving animals, eg slugs and snails.



6. Food Chains/Biomass

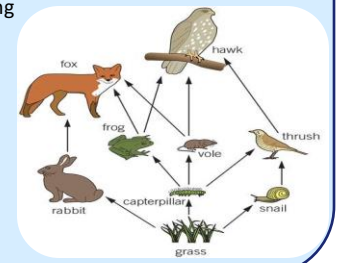
A food chain shows the different species of an organism in an ecosystem, and what eats what. Organisms at each level have different terms:



The population of each organism in a food chain can be shown in a bar chart called a pyramid of numbers or a pyramid of biomass where the bars are drawn to scale. Energy is lost to the surroundings as we go from one level to the next, so there are usually fewer organisms at each level in this food chain.

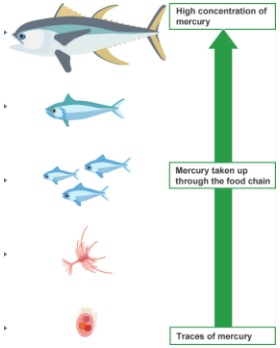
7. Food Webs

When all the food chains in an ecosystem are joined up together, they form a **food web.** Although it looks complex, it is just several food chains joined together. This leads to some interesting effects if the population in the food web decreases. Some animals can just eat more of another organism if food is in short supply, while others may starve and die. This in turn can affect the populations of other organisms in the food web.



8. Pollution and Pesticides

Some pollutants (including pesticides) quickly break down in the environment whilst others do not. These bio-accumulate in the food chain and damage the organisms in it. The predators at the end of the chain are most effected because compounds cannot be excreted and travel up the food chain.



Languages

Spanish - Home and town

¿Dónde vives? *(Where do you live?)*

Vivo ... *(I live)*

en una casa *(in a house)*

en un apartamento *(in a flat)*

- **en el campo** (in the countryside)
- **en las montañas** (in the mountains)
- **en la costa** (on the coast)
- **en la ciudad** (in the city/town)
- **en las afueras** (in the suburbs)
- **en un pueblo** (in a village)
- **en el norte** (in the north)
- **en el sur** (in the south)
- **en el oeste** (in the west)
- **en el este** (in the east)

OPINION	NOUN	JUSTIFICATION	INTENSIFIERS	ADJECTIVES
Prefiero I prefer **Me encanta** I love **Me gusta** I like **No me gusta** I don't like **Odio** I hate **En mi opinion** In my opinion **Pienso que** I think that	**la playa** (the beach) **la piscina** (the swimming pool) **la pista de hielo** (the ice rink) **la mezquita** (the mosque) **la iglesia** (the church) **la librería** (the library) **el centro** (the town centre) **el cine** (the cinema) **el museo** (the museum) **el teatro** (the theatre) **el centro comercial** (the shopping centre) **el polideportivo** (the leisure centre) **el mercado** (the market) **el supermercado** (the supermarket) **el estadio** (the stadium) **el parque de atracciones** (the theme park) **el hospital** (the hospital) **los monumentos** (the monuments) **las tiendas** (the shops) **los restaurantes** (the restaurants) **la oficina de turismo** (the tourist office)	**porque es** because it is **ya que es** because it is **es** it is **son** they are	**muy** very **bastante** quite **un poco** a bit **demasiado** too	Pequeño/a (small) Grande (big) Histórico/a (historic) Tranquilo/a (peaceful) Turístico/a (touristy) Industrial (industrial) Cultural (cultural) Importante (important) Animado/a (lively) Ruidoso/a (noisy) Contaminado/a (polluted) Moderno/a (modern) Bonito/a (pretty)

Describe donde vives

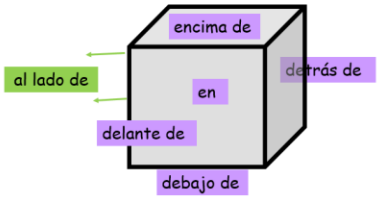
- **En mi casa** In my house
- **En mi apartamento** In my flat
- **En el primer piso** On the first floor
- **En el segundo piso** On the second floor
- **En la planta baja** On the ground floor

Describe where you live

tengo I have	un jardin (a garden)
	una buardilla (a loft)
	un despacho (an office/a study)
no tengo I don't have	un garaje (a garage)
	un salón (a lounge)
	una entrada (a hallway)
	una cocina (a kitchen)
hay There is	un dormitorio (a bedroom)
	un comedor (a dining room)
	un baño (a bathroom)
no hay There isn't	una terraza (a terrace)
	unos aseos (some toilets)
	el dormitorio de mis padres (my parent's bedroom)

¿Qué hay en tu habitación? *(What is there in your bedroom?*

- **Una cama** (a bed)
- **Una pared** (a wall)
- **Un escritorio** (a desk)
- **Un ordenador** (a computer)
- **Un armario** (a wardrobe)
- una alfombra (a carpet)
- **Una estanteria** (a shelf/shelves)
- **Una lampara** (a lamp)
- **Una puerta** (a door)
- **Una silla** (a chair)
- **Una ventana** (a window)
- **Una comoda** (a chest of drawers)
- **unos poster** (some posters)



Un ordenador esta **encima de** una mesa (a computer is on the table)

Languages

Spanish - Home and town

Where I live geographically, Places in town, Phrases that use infinitives.

Opinion starters:

Pienso que	I think that
Creo que	I believe that
En mi opinión	In my opinion
Para mí	For me
Me parece que	It seems to me
Encuentro	I find

Pienso que Bristol es histórico - I think that Bristol is historic
Encuentro Londres bastante industrial – I find London quite industrial.
Prefiero Bath porque es menos turístico que Liverpool – I prefer Bath because it is less touristy than Liverpool.

Phrases that use **infinitives**.
An infinitive is the basic form of the verb. In English it starts with to_ to run, to jump, to swim.
In Spanish the verb ends in –ar, -er , -ir.
e.g. I like to run – Me gusta correr.

Se puede – One can
Voy a - I am going to
Me gusta - I like

These are followed by an infinitive.

Se puede ir al centro – One can go to the city centre.
Voy a comer en un restaurante – I am going to eat in a restaurant.
Me gusta jugar al fútbol en el parque - I like to play football in the park.

	Ir – to go
I	Voy – I go / I am going
you	Vas – You go / you are going
he/she/it	Va – he goes / he is going
we	Vamos – we go / we are going
you (pl)	Vais – you (pl) go / are going
they	Van – they go / are going

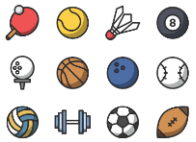
Hay (there is) and no hay (there is not) – these phrases are very important to allow us to say what is in our town or city.
Remember! When using no hay there is no un/una
e.g. **Hay un** parque <u>but</u> **no hay** parque

It is important to use the correct **article** in front of a noun. This will depend on if we want to say '**a**' (indefinite article) or '**the**' (definite article), and also in Spanish if the noun is **masculine**, **feminine**, **singular** or **plural**.

Articles	**A/some**	**The**
Masculine	Un	El
Feminine	Una	La
Masc Plural	Unos	Los
Fem Plurl	Unas	Las

Languages

Spanish – Free time



¿ Qué te gusta hacer?	What do you like to do?
Ver la televisión	To watch TV
Escuchar música	To listen to music
Ir al cine	To go to the cinema
Leer un libro	To read a book
Ir de compras	To go shopping
Ir al parque	To go to the park
Ir al gimnasio	To go to the gym
Ir al polideportivo	To go to the sports centre
Salir con mis amigos	To go out with my friends
Tocar el piano	To play the piano
Visitar mi familia	To visit family
Ir al centro	To go to town
Hacer la cocina	To cook
Cantar	To sing
Nadar	To swim
Hacer mis deberes	To do my homework
Descargar música	To download music
Navegar por Internet	To surf the Internet
Jugar a los videojuegos	To play video games
Chatear con mis amigos	To chat with my friends
Sacar fotos	To take photos
Ver los videos divertidos	To watch funny videos
Mandar mensajes	To send texts
Comprar en línea	To buy online
Ver los videos de youtube	To watch Youtube videos
Escribir un correo electrónico	To write an email
Usar mi móvil	To use my mobile phone

¿ Qué deporte te gusta?	What sport do you like?
Jugar al fútbol	To play football
Jugar al rugby	To play rugby
Jugar al tenis	To play tennis
Jugar al golf	To play golf
Jugar al voleibol	To play volleyball
Jugar al baloncesto	To play basketball
Hacer ciclismo	To do some cycling
Hacer esquí	To do some skiing
Hacer patinaje	To do some ice skating
Hacer natación	To do some swimming
Hacer gimnasia	To do some gymnastics
Hacer equitación	To do some horse-riding
Hacer atletismo	To do some athletics

¿ Qué te gusta ver?	What do you like to watch?
Me gusta ver	I like to watch
Las noticias	The news
Comedias	Comedies
Dibujos animados	Cartoons
Documentales	Documentaries
Programas	Programmes
Telenovelas	Soap operas
Películas románticas	Romantic films
Películas de acción	Action films
Películas de terror	Horror films
Películas policíacas	Detective films
Concursos	Game shows
Series	Series

¿Cúando?	When?
Normalmente	Normally
Generalmente	Generally
Todos los días	Every day
Dos veces a la semana	Twice a week
De vez en cuando	From time to time
Rara vez	Rarely
Cuando puedo	When I can
Jamás/nunca	Never
A veces	Sometimes

¿Qúe tiempo hace?	What is the weather like?
Hace buen tiempo	It is good weather
Hace calor	It is hot
Hace sol	It is sunny
Hace frío	It is cold
Hace 25 grados	It is 25 degrees
Hace mal tiempo	It is bad weather
Llueve	It is raining
Nieva	It is snowing
Hay viento	It is windy
Hay nubes	There are clouds
Hay tormenta	There are storms

Languages

Spanish – Free time

Sports and other hobbies with opinions + inf. including. jugar and hacer
Weather.

Llevar, vivir & comer are a regular verbs which follow the pattern below. The verbs "jugar" and "hacer" are irregular but important verbs, especially for this topic on sports.

Pronouns	**llevar**– to wear 	**vivir**– to live 	**comer**– to eat 
Yo (I)	Llev**o** – I wear	Viv**o**– I live	Com**o** – I eat
tú (you)	Llev**as** – you wear	Viv**es** – you live	Com**es** – you eat
él (he), **ella** (she),	Llev**a** - He/she wears	Viv**e** - He/she lives	Com**e** – he/she eats
nosotros (we)	Llev**amos** – we wear	Viv**imos** – we live	Com**emos** – we eat
vosotros (you) (pl. or formal)	Llev**áis** – you wear(pl. or formal)	Viv**is** – you live (pl. or formal)	Com**éis** – you eat (pl. or formal)
Ellos/ellas (they)	LLev**an** – they wear	Viv**en** – they live	Com**en** – they eat

Hacer– to do

Yo hago - I do
Tu haces – you do
Él/ella hace – he/she does
Nosotros hacemos –we do
Vosotros hacéis – you (pl) do
Ellos hacen – they do

Jugar– to play

Yo juego- I play
Tu juegas – you play
Él/ella juega – he/she plays
Nosotros jugamos –we play
Vosotros jugáis – you (pl) play
Ellos/ellas juegan – they play

How to improve your writing?
When writing in Spanish, you can make your sentences better by adding the following:

- Range of opinions and reasons
- Connectives to extend your sentences
- Qualifiers e.g. muy, bastante
- Comparisons
- Rather than just using 'yo', write verbs using other pronouns

Now you should be able to create some of your own questions using the question words below. Don't forget the upside down question mark at the beginning of a question.

¿Cuándo? – When?
¿Quién? – Who?
¿Dónde? – Where?
¿Cuántos? – How many?
¿Qué? What?
¿Cómo? – How?
¿Por qué? – Why?
¿Cuál? – Which?

Languages

French - Home and town

dans le *(in the)*

Où habites-tu? *(Where do you live?)*

J'habite *(I live)*

- **dans une maison** *(in a house)*
  - **à la campagne** (in the countryside)
  - **à la montagne** (in the mountains)
- **dans un appartement** *(in a flat)*
  - **au bord de la mer** (by the sea)
  - **en ville** (in the city/town)
  - **en banlieue** (in the suburbs)
  - **dans un village** (in a village)

OPINION	NOUN	JUSTIFICATION	INTENSIFIERS	ADJECTIVES
Je préfère I prefer	**La plage** (beach)	**parce que c'est** because it is	**très** very	petit(e) (small)
J'adore I love	**La jetée** (pier)			grand(e) (big)
J'aime I like	**La piscine** (swimming pool)		**assez** quite	historique (historic)
Je n'aime pas I don't like	**La patinoire** (ice rink)	**car c'est** because it is		tranquille (peaceful)
Je déteste I hate	**La boucherie** (butcher)		**un peu** a bit	touristique (touristy)
A mon avis In my opinion	**La boulangerie** (bakery)			industriel(le) (industrial)
Je pense que I think that	**La gare (routière)** (station)		**trop** too	culturel(le) (cultural)
	La librairie (book shop)			important(e) (important)
	La pâtisserie (pastry shop)			animé(e) (lively)
	Le centre-ville (town centre)			bruyant(e) (noisy)
	Le musée (museum)			pollué(e) (polluted)
	Le centre commercial (shopping centre)			moderne (modern)
	Le supermarché (supermarket)			joli(e) (pretty)
	Le stade (stadium)			
	Le parc d'attractions (theme park)			
	L'hôpital (hospital)			
	Les monuments (monuments)			
	Les magasins (shops)			

Décris où tu habites
Describe where you live

Dans ma maison
In my house

Dans mon appartement
In my flat

Au premier étage
On the first floor

Au deuxième étage
On the second floor

Au rez-de-chaussée
On the ground floor

J'ai
I have

Je n'ai pas de
I don't have

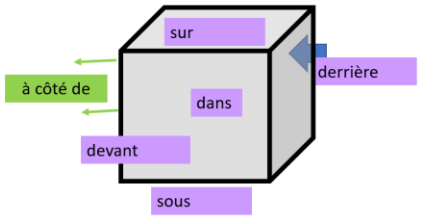
Il y a
There is

Il n'y a pas de
There isn't

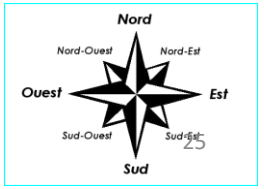
- un jardin (a garden)
- un grenier (a loft)
- un bureau (an office/a study)
- un garage (a garage)
- un salon (a lounge)
- une entrée (a hallway)
- une cuisine (a kitchen)
- une chambre (a bedroom)
- une salle à manger (a dining room)
- une salle de bains (a bathroom)
- une terrasse (a terrace)
- des toilettes (some toilets)
- la chambre de mes parents (my parent's bedroom)

Qu'est-ce qu'il y a dans ta chambre ?
(What is there in your bedroom?

- **Un lit** (a bed)
- **Un mur** (a wall)
- **Un bureau** (a desk)
- **Un ordinateur** (a computer)
- **Une armoire** (a wardrobe)
- **De la moquette** (some carpet)
- **Une étagère** (a shelf/shelves)
- **Une lampe** (a lamp)
- **Une porte** (a door)
- **Une chaise** (a chair)
- **Une fenêtre** (a window)
- **Une commode** (a chest of drawers)
- **Des posters** (some posters)



Un ordinateur est **sur** un bureau (a computer is on the desk)



Languages

French - Home and town

Where I live geographically, Places in town, Phrases that use infinitives.

Opinion starters:

Je pense que	I think that
Je crois que	I believe that
À mon avis	In my opinion
Pour moi	For me
Il me semble	It seems to me

Je pense que Bristol est historique - I think that Bristol is historic
Je crois que Londres est assez industriel – I think that London is quite industrial
Je préfère Bath parce que c'est moins touristique que Liverpool – I prefer Bath because it is less touristy than Liverpool.

Phrases that use infinitives.

An infinitive is the basic form of the verb. In English it starts with to_ to run, to jump, to swim.
In French the verb ends in –re, -er , -ir.
e.g. I like to run – J'aime courir.

On peut – One can
Je vais - I am going to
J'aime - I like

} These are followed by an infinitive.

On peut **aller** au centre-ville – One can go to the city centre.
Je vais **manger** dans un restaurant – I am going to eat in a restaurant.
J'aime **jouer** dans le parc - I like to play football in the park.

	Aller – to go
I	Je vais – I go / I am going
you	Tu vas – You go / you are going
he/she/it	Il/elle/on va – he goes / he is going
we	Nous allons – we go / we are going
you (pl)	Vou allez – you (pl) go / are going
they	Ils/ells vont – they go / are going

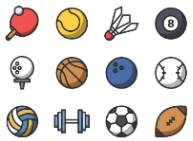
Il y a (there is) and il n'y a pas (there is not) – these phrases are very important to allow us to say what is in our town or city. Remember! When using il y a, we use a 'de', but no article
e.g. **Il y a** un parc <u>but</u> **il n'y a pas de** parc

It is important to use the correct **article** in front of a noun. This will depend on if we want to say '**a**' (indefinite article) or '**the**' (definite article), and also in French if the noun is **masculine**, **feminine**, **singular** or **plural**.

Articles	A/some	The
Masculine	Un	Le
Feminine	Une	La
Plural	Des	Les

Languages

French – Free time



Qu'est-ce que tu aimes faire?	What do you like to do?
Regarder la télévision	To watch TV
Écouter de la musique	To listen to music
Aller au cinéma	To go to the cinema
Lire un livre	To read a book
Faire du shopping	To go shopping
Aller au parc	To go to the park
Aller au gymnase	To go to the gym
Rencontrer des amis/copains	To go out with my friends
Jouer du piano	To play the piano
Visiter ma famille	To visit family
Aller en ville	To go to town
Faire de la cuisine	To cook
Chanter	To sing
Nager	To swim
Faire mes devoirs	To do my homework
Télécharger de la musique	To download music
Surfer sur Internet	To surf the Internet
Jouer aux jeux-vidéos	To play video games
Tchatter avec mes amis	To chat with my friends
Prendre des photos	To take photos
Regarder des vidéos marrantes	To watch funny videos
Envoyer des textos	To send texts
Acheter en ligne	To buy online
Regarder des clips YouTube	To watch YouTube videos
Écrire un email	To write an email
Utiliser mon portable	To use my mobile phone

Quel sport aimes-tu?	What sport do you like?
Jouer au foot	To play football
Jouer au rugby	To play rugby
Jouer au tennis	To play tennis
Jouer au golf	To play golf
Jouer au volley	To play volleyball
Jouer au basket	To play basketball
Faire du vélo	To do some cycling
Faire du ski	To do some skiing
Faire du patin à glace	To do some ice skating
Faire de la natation	To do some swimming
Faire de la gymnastique	To do some gymnastics
Faire de l'équitation	To do some horse-riding
Faire de l'athlétisme	To do some athletics

Quand ?	When?
Normalement	Normally
D'habitude	Usually
Tous les jours	Every day
Deux fois par semaine	Twice a week
De temps en temps	From time to time
Rarement	Rarely
Souvent	Often
Quelquefois / parfois	Sometimes

Qu'est-ce que tu aimes regarder?	What do you like to watch?
J'aime regarder	I like to watch
Les actualités	The news
La comédie	Comedies
Le dessin animé	Cartoons
Le documentaire	Documentaries
L'émission (f)	Programmes
Le feuilleton	Soap operas
Le film d'amour	Romantic films
Le film d'action	Action films
Le film d'horreur	Horror films
Le film policier	Detective films
Le jeu télévisé	Game shows
La série	Series

Quel temps fait-il?	What is the weather like?
Il fait beau	It is good weather
Il fait chaud	It is hot
Il fait froid	It is cold
Il fait 25 degrés	It is 25 degrees
Il fait mauvais	It is bad weather
Il pleut	It is raining
Il neige	It is snowing
Il y a du vent	It is windy
Il y a des nuages	There are clouds
Il y a des orages	There are storms
Il y a du brouillard	It is foggy
Il y a du soleil	It is sunny

Languages

French – Free time

Sports and other hobbies with opinions + inf. including jouer and faire
Weather.

Finir, jouer & vendre are regular verbs which follows the patterns below; which we have seen before. The verb "faire" is irregular but important, especially for this topic with sports.

Pronouns	**Finir**– to finish	**Jouer** – to play	**Vendre**– to sell
je (I)	Je fin**is**– I finish	Je jou**e** – I play	Je vend**s**– I sell
tu (you)	Tu fin**is**– you finish	Tu jou**es** – you play	Tu vend**s**– you sell
il (he), **elle** (she), **on** (we)	il/elle/on fin**it** - He/she/we finishes	il/elle/on jou**e** - He/she/we play	il/elle/on vend– he/she/we sell
nous (we)	Nous fin**issons**– we finish	Nous jou**ons** – we play	Nous vend**ons**– we sell
vous (you) (pl. or formal)	Vous fin**issez**– you finish (pl. or formal)	Vous jou**ez** – you play (pl. or formal)	Vous vend**ez**– you sell (pl. or formal)
ils/elles (they)	ils/ elles fin**issent**– they finish	ils/ elles jou**ent** – they play	ils/elles vend**ent**– they sell

Faire – to do

Je fais - I do
Tu fais – you do
Il/elle/on fait – he/she does/we do
Nous faisons –we do
Vous faites – you (pl) do
Ils/elles font – they do

Now you should be able to create some of your own questions using the question words below.

Quand? – When?
Qui? – Who?
Où? – Where?
Combien? – How many?
Qu'est-ce que…? What?
Comment? – How?
Pourquoi? – Why?
Que? – What?
Quel(le)? – Which?

How to improve your writing?

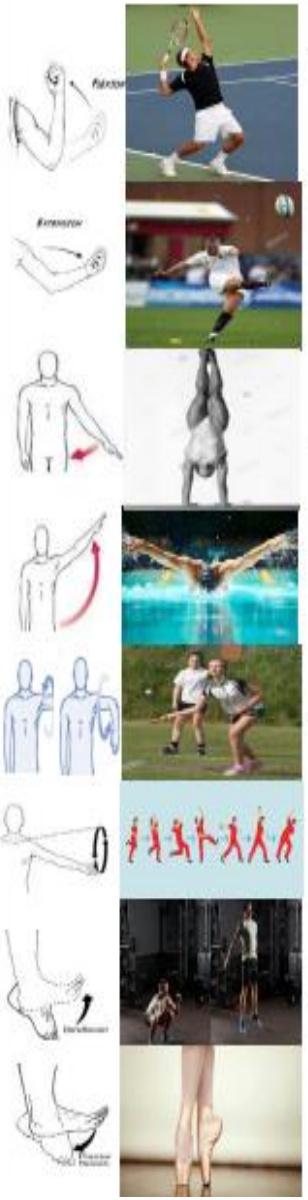
When writing in French, you can make your sentences better by adding the following:

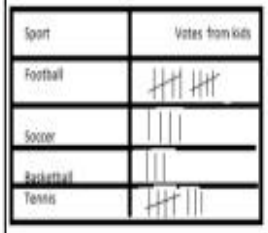
- Range of opinions and reasons
- Connectives to extend your sentences
- Qualifiers e.g. très, assez
- Comparisons
- Rather than just using 'je', write verbs using other pronouns

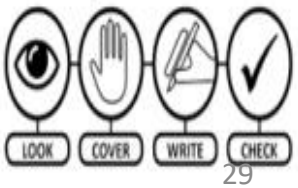
PE

Analysis of Performance (Term 3)

Anatomical Movements		
1	**Flexion**	**Decreasing** the **angle** at the joint.
2	**Extension**	**Increasing** the **angle** at the joint.
3	**Adduction**	Limb moves **towards** the mid-line of **the body.**
4	**Abduction**	Limb moves **away from** the mid-line of **the body.**
5	**Rotation**	A **circular movement** around a **fixed joint.**
6	**Circumduction**	When the limb moves in a **circle.**
7	**Dorsi Flexion**	**Bending** the **foot up** towards the shin.
8	**Plantar Flexion**	**Bending** the **foot downward** towards the ground.



Methods of Performance Analysis			
	Method of analysis	**Explanation**	**Example**
9	**Verbal feedback**	Spoken feedback used to improve performance levels.	
10	**Tally chart**	Visual information on the number of items or happenings.	
11	**Peer observation**	When someone else in the class watches you perform and feeds back to you.	

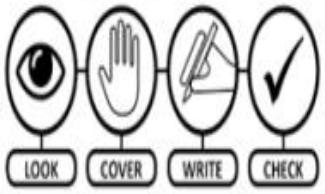


WHA PE

Components of Fitness (Term 4)

	Physical Components	Definition	Sporting example
1	Aerobic Endurance	The ability to exercise your cardio respiratory system for a long period of time.	
2	Muscular Endurance	The ability to exercise your muscular system for a long period of time.	
3	Muscular Strength	The maximum force that a muscle or muscle group can produce.	
4	Flexibility	The range of movement around a joint.	
5	Speed	The distance covered over time (metres per second	
6	Body Composition	The ratio of fat mass to fat free mass in the body.	

	Skill Components	Definition	Sporting example
7	Balance	The ability to maintain a centre of mass above a base of support.	
8	Coordination	Being able to use two or more body parts at once to complete a motor task efficiently.	
9	Reaction Time	The time taken to respond to a stimulus.	
10	Power (Explosive Strength)	The combination of speed and strength.	
11	Agility	The ability to change direction at speed without losing balance.	



WHA DT

Food Tech

Health and Safety

Carry knives pointing down.

Wash up with hot water and washing liquid.

Clean surfaces and equipment to kill bacteria.

Wash hands with soap after touching raw meat.

Wipe up spills straight away to avoid slips.

Chopping board colour coding

- Red - Raw meat
- Blue - Raw fish
- Yellow - Cooked meat
- Green - Salad and fruit
- Brown - Vegetables
- White - Bakery and dairy

Knife Skills

- Always carry knives pointing downwards
- Always pass knives by the handle
- Never run or fight with knives
- Keep the knife blade away from your fingers when cutting
- Never cut towards yourself
- Never leave a knife in the sink
- Never try and catch a knife if it falls

When using a knife there are TWO techniques we can use to ensure knife safety when cutting ingredients.

Claw grip

Arch grip

Nutrient	Use in the body	Sources
Carbohydrates	To provide energy.	Potatoes, pasta, bread, rice, lentils, noodles, flour.
Protein	For growth, repair and some energy.	Eggs, milk, yoghurt, cheese, fish and seafood, nuts, seeds, soya, meat.
Fat	To provide energy. Also to store energy in the body and insulate it against the cold.	Animal fats: Lard, butter, fish. Plant based: Olive oil, sunflower oil.
Minerals	Needed in small amounts to maintain health e.g. calcium for bone health.	Calcium: Milk, cheese, dairy , green leafy vegetables. Iron: Clams, liver, sunflower seeds, nuts, beef, lamb, beans, whole grains, dark leafy greens.
Vitamins	Needed in small amounts to maintain health.	Vitamin D: Fish oils, fatty fish, mushrooms, beef. Vitamin B: Cereals.
Fibre	Helps to keep the food moving through the gut.	Cereals, bread, beans, lentils, fruit & vegetables.

Food Tech

Common Food Poisoning Pathogens

Pathogen	Sources	Symptoms
E coli	Raw meat, untreated milk and water.	Vomiting, blood in diarrhoea, kidney damage or failure.
Listeria	Soft cheese, pate, unpasteurised milk, under cooked meat.	Mild flu, meningitis and pneumonia.
Clostridium perfringens	Dirt from soil containing animal faeces.	Diarrhoea, stomach cramps.
Salmonella	Raw meat, eggs, seafood, dairy products.	Diarrhoea, vomiting, fever.
Bacillus cereus	Cooked rice, pasta, cereal foods.	Nausea, vomiting, diarrhoea.
Staphylococcus Aureus	Anything touched by hand, dairy products.	Nausea, vomiting, diarrhoea.

Common Food Allergies

A food allergy is when the body's immune system reacts unusually to specific foods. Although allergic reactions are often mild, they can be very serious.

A food intolerance is difficulty digesting certain foods and having an unpleasant physical reaction to them. These include coeliac disease (allergic to gluten) and lactose intolerance (allergic to a type of sugar mainly found in milk and dairy).

Cooking Processes

Radiation
Heat from an oven or grill.

Denaturation
When the protein in cheese unravels (melting).

Gelatinisation
When starch granules swell.

Mis-en-place
A French word to describe preparing Ingredients and getting everything ready for cooking.

Convection
The scientific process that occurs when liquids boil in a pan.

Stock
The juice from cooked meats, fish, and vegetables.

Enzymic Browning
A reaction that occurs in some fruit and vegetables when left to react with air.

Gluten
The protein particles contained in flour.

Shortening
Rubbing flour and fat together to make a crumbly mixture.

Dextrinisation
A chemical process that turns food brown/black when cooking.

Resistant Materials

Workshop Tools

Coping saw

Tenon saw

Woodwork file

Pillar drill

Belt sander

Bench hook

Timbers

Timber comes from trees. Trees have to grow to full maturity (between 25 and 100 years) before they can be cut down for wood.
Timber is grouped into three categories; hardwood, softwood and manufactured boards.

Hardwoods

Hardwoods come from deciduous trees, which have large flat leaves that fall in the autumn.
Hardwoods take longer to grow, are not easily sourced and are expensive to buy.

A tree has a ring for every year it grows, the darker part of the ring is strong.
Hardwoods have closely packed rings because they grow slower. This makes them hard.

Ash, Beech, Mahogany, Oak and Balsa are examples of hardwoods.

Softwoods

Softwoods come from coniferous trees. These often have pines or needles, and they stay evergreen all year round - they do not lose leaves in the autumn.
They are faster growing than hardwoods, making them cheaper to buy, and are considered a sustainable material.

A tree has a ring for every year it grows, the darker part of the ring is strong.
Softwoods have big growth gaps between the rings making them softer.

Larch, Pine and Spruce are examples of softwoods.

Manufactured boards

Manufactured boards are usually made from timber waste and adhesive.

To make them more aesthetically pleasing they are often veneered (a thin layer of wood, applied to give a nice surface). They are cheap to buy.

Medium-density fibreboard (MDF), Plywood and Chipboard are examples of manufactured boards.

Resistant Materials

ACCESS FM - Helpsheet

We use **ACCESS FM** to help us write a **specification** - a list of requirements for a design - and to help us **analyse and describe** an already existing product.

A is for **Aesthetics**

Aesthetics means **what does the product look like?**
What is the: Colour? Shape? Texture? Pattern? Appearance? Feel? Weight? Style?

C is for **Cost**

Cost means **how much does the product cost to buy?**
How much does it: Cost to buy? Cost to make?
How much do the different materials cost? Is it good value?

C is for **Customer**

Customer means **who will buy or use your product?**
Who will buy your product? Who will use your product?
What is their: Age? Gender?
What are their: Likes? Dislikes? Needs? Preferences?

E is for **Environment**

Environment means **will the product affect the environment?**
Is the product: Recyclable? Reuseable? Repairable? Sustainable? Environmentally friendly? Bad for the environment?
6R's of Design: Recycle / Reuse / Repair / Rethink / Reduce / Refuse

S is for **Size**

Size means **how big or small is the product?**
What is the size of the product in millimeters (mm)? Is this the same size as similar products? Is it comfortable to use? Does it fit? Would it be improved if it was bigger or smaller?

S is for **Safety**

Safety means **how safe is the product when it is used?**
Will it be safe for the customer to use? Could they hurt themselves? What's the correct and safest way to use the product? What are the risks?

F is for **Function**

Function means **how does the product work?**
What is the products job and role? What is it needed for? How well does it work? How could it be improved? Why is it used this way?

M is for **Material**

Material means **what is the product made out of?**
What materials is the product made from? Why were these materials used? Would a different material be better? How was the product made? What manufacturing techniques were used?

Key Vocabulary

ACCESS FM
ACCESS FM is a method used in Design and Technology to effectively analyse a product.

Design Brief
A paragraph outlining what you intend to design, using as much detail as possible.

Design Specification
A specification is a list of bullet points that tells the designer exactly what the product has to do and what the requirements are. You can use ACCESS FM to help you write it. This needs to be very detailed..

Product analysis
Product analysis can take different forms but in general it means asking questions about a product and forming answers. It can mean experts analysing a product or members of the general public or potential customers/groups of people. Product analysis can take place at almost any stage of the design process.

Sustainability
Causing little or no damage to the environment and therefore, able to continue for a long time.

Textiles

Fibres are small hair like structures that are used to make fabrics.

On their own they are very weak but when twisted to make yarn they become stronger.

TYPES OF MATERIAL

There are two main groups of fibres Natural and Manmade, these are also divided into sections.

Natural Polymers/Fibres:
These are from animals or plants and are all **biodegradable** (rot away) and are **sustainable** as they will grow again so are environmentally friendly if they are produced **organically**.

Plant	Cotton	Flax (linen)	Hemp	Jute	Bamboo	Soya
Animal	Wool (sheep)	Mohair (goat)	Cashmere	Angora (rabbit)	Alpaca	Llama
Insect	Silk (worm)					

Cotton is produced from plants. To be totally environmentally friendly plant fibres must be produced **organically**. Most cotton is produced using pesticides which as well as killing the insects or diseases is also bad for the environment and makes the workers ill.

Manmade (Manufactured) Polymers/Fibres:
Synthetic: These are made from chemicals which come from oil or coal. These fibres are not environmentally friendly.
Regenerated fibres: These are made from a combination of chemicals and cellulose (tree products).

Synthetic	Acrylic	Polyester	Nylon	Lycra	Elastane	Polypropylene
Regenerated	Viscose	Rayon	Acetate	Lyocell (Tencel)		
Smart Fibres	Materials that's change when exposed to change in temperature, pressure or light.					

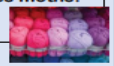
Cotton (natural, plant based fibre)
Properties/Characteristics:

① Absorbent	② Soft	③ Cool	④ Good resistance to heat
⑤ Fine	⑥ Strong	⑦ Highly flammable	⑧ Poor elasticity

Used in everyday clothing items, coffee filters, fishing nets and book binding.

Wool (natural, plant based fibre)
Properties/Characteristics:

① Warm	②Very absorbent	③ Medium strength	④ Good elasticity
⑤Does not burn easily	⑥ Susceptible to being attacked by pests, such as clothes moths.		



Used in everyday clothing, blankets, horse rugs, carpets and upholstery.

Silk (natural, animal based fibre)
Properties/Characteristics:

① Very absorbent	② Soft	③ Fine	④ Lustrous
⑤ Very good resilience	⑥ Good elasticity	⑦ Can be damaged by deodorants and perfumes	

Used in luxury clothing and bedding, rugs and wall hangings.

Polyester (synthetic fibre)
Properties/Characteristics:

① Extremely strong	② Flame resistant	③ Thermoplastic	④ Poor absorbency
⑤ Good elasticity and resilience	⑥ Damaged by acids	⑦ Resistant to solvents and alkalis	

Used in ropes, belts, upholstery padding and low-cost clothing.

Elastane (synthetic fibre)
Properties/Characteristics:

① Lightweight	② Fairly strong	③ Very poor absorption	④ Medium-to-coarse filaments
⑤ Extremely elastic	⑥ When stretched it returns to original shape		⑦ Not damaged by sunlight or sea water

Used in sportswear, swimwear, tights.

Felted Fabric (non-woven fabric)
Properties/Characteristics:

① Does not fray	② Warm	③ Matted together using moisture, heat and pressure
④ Little strength	⑤ No elasticity	⑥ Made from wool fibres/ animal hair

An expensive fabric. Used in hats, slippers, handicrafts and embellishing.

Polycotton (blended fibre)
Properties/Characteristics:

① Non-iron / easy to iron	② Moisture absorbing	③ Polyester and cotton blend
④ Strong	⑤ Durable	

Used in bedding and clothing.

WINTERSTOKE HUNDRED ACADEMY

What was the impact of the Transatlantic Trade in enslaved people?

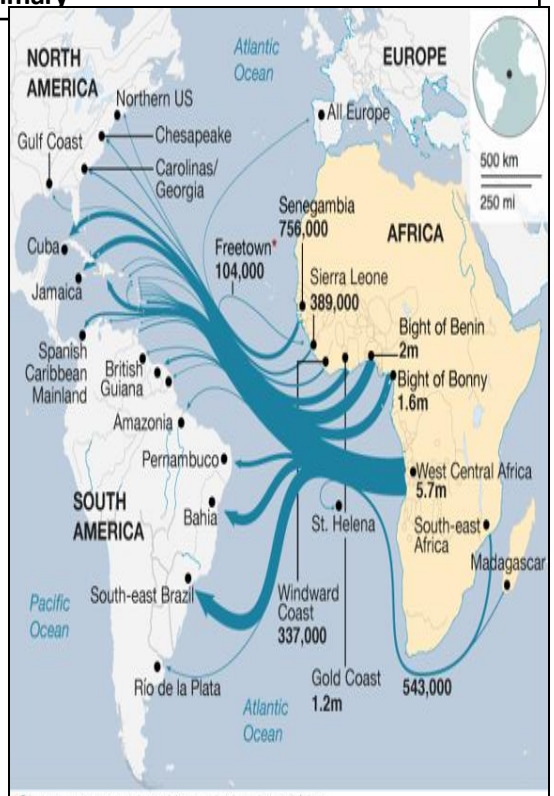
Summary

The Transatlantic Slave Trade involved the enforced enslavement of millions of Africans and their transport to the Americas.

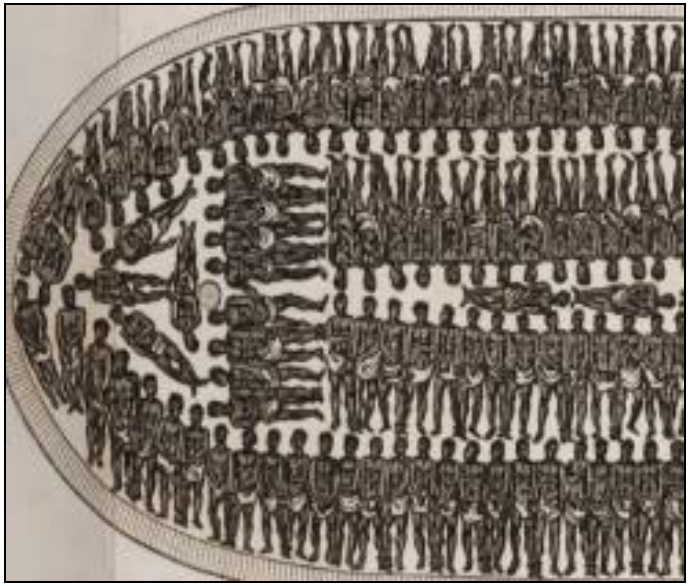
Slaves were often made to work in inhumane conditions with no wages. Many were beaten or killed by brutal owners, and had no rights in their new countries. Many didn't survive the journey.

The trade had its roots as early as the 1500s, but was at its height in the 18th Century, under the operation of the imperial European nations (e.g. Britain, Portugal and Spain).

Countless African communities were decimated, whilst many European nations became extremely wealthy from the profits of the slave trade.



*Slaves recaptured and brought back to Africa
Boundaries as of 1750 shown



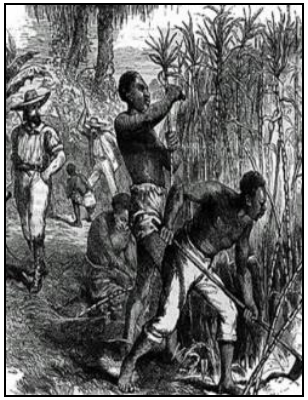
Example of tight packing on a slave ship

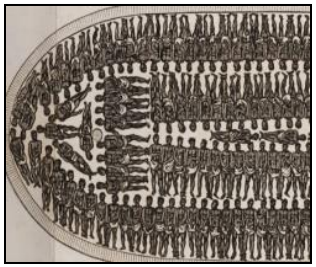
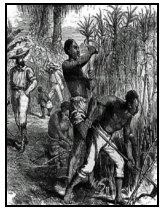
WINTERSTOKE HUNDRED ACADEMY

What was the impact of the Transatlantic Trade in enslaved people?

Keyword	Definition
Branding	Form of torture where a hot iron is placed on the bare skin
Underground railroad	System of escape routes and safe houses that helped slaves to escape
Plantation	A large farm that grows one product such as coffee, sugar or tobacco.
Auction	The place that the Enslaved Africans went once they reached the Americas to be sold.
Brutality	Extreme cruelty often involving violence or harsh treatment
Tight packing	Slave owners would fill slave ships with as many enslaved Africans as possible, but this increased risk of disease
Loose packing	Slave owners put less slaves in their ships to stop disease spreading
Middle passage	The journey from West Africa to the West Indies. Used for the transportation of enslaved Africans
Triangle Trade	The 3 stages of the transatlantic slave movement

Trading triangle



Features of the Slave Trade	
THE TRIANGULAR TRADE 	The trade in slaves was called the triangular trade, because it had trade in three stages, marking a rough triangle between Europe, Africa and the Americas: 1. Manufactured goods from Europe, e.g. textiles and weapons, were taken to Africa where they were exchanged for slaves; 2. The transport of slaves from Africa to the Americas was known as the 'Middle Passage.' 3. Materials produced as a result of slave labour in the Americas, e.g. sugar, cotton were brought back to Europe.
SLAVE SHIP CONDITIONS 	-Enslaved people were captured in many different ways, including in battles, raids and kidnappings. -Others were sold into slavery in order to pay debts. -Once captured, slaves were often shackled together and made to walk to the coast in journeys that could last months, where they would be put aboard slave ships. -Slave ships were deliberately designed to fit as many slaves on board as possible (see bottom image on left). -Conditions were truly inhuman. Men, women and children were crammed on board with very little food or hygiene facilities. The average time to sail the Atlantic took 60-90 days, during which many died of illness, disease, hunger or injury. Of 12.5 million sent by slave ships between 1526 and 1867, only about 10.7 million arrived.
PLANTATIONS 	-Upon arrival, most slaves were placed into forts owned by Europeans, where they could be bought by owners. -Many went to work in plantations, where conditions were exceptionally harsh. Slaves worked from dawn until dusk, with very little food, and were whipped for lack of effort. -Slaves who disobeyed even in small ways were severely punished. In some countries slaves could be killed legally. -Runaways could be hanged or maimed, whilst they could receive a set number of lashes for particular 'crimes.'

Reasons for the Abolition of Slavery

Below are the **main reasons** for the British government's abolition of slavery that you will be able to explain in detail today:

R	**Rebellions:** Slave rebellions became more common and disrupted the smooth running and profits of the slave trade.
A	**Attitudes:** The extreme racist attitudes held by many British people began to change. Enslaves Africans were now seen as equals.
C	**Campaigns:** The anti-slavery campaigners made the British public more aware of what was happening in their name.
E	**Economy:** It was argued that the slave trade was becoming less profitable and making less money by the early 1800s.

Understanding sources or extracts

Provenance is the information
Which tells you about a source
Think N- nature O –Origin and P- Purpose

Adapted from a book by a famous economist, Adam Smith. Smith wrote about slavery in 1776 in his book 'The Wealth of Nations'.

'A slave who cannot gain any property or any reward for their work will have no other interest but to eat as much as they can and to work as little as possible. Whatever work they do, it can only be squeezed out of him by violence alone as there is no happiness or motivation to work. Pay will increase happiness, motivate and result in far better work and profit.'

Content the information or the image
What can you work out from it?

WINTERSTOKE HUNDRED ACADEMY

What was the impact of the Transatlantic Trade in enslaved people?

Major Events
The Zong Massacre (1781) -The slave ship Zong was carrying 470 enslaved people – more than it could handle. Many began to get sick. -The sickness was spreading to the crew. So, to save themselves, the remaining crew threw 132 sick or dying people into the ocean. Another 10 jumped in with them. No one was ever charged with murder.
The Fall of the Atlantic Slave Trade -Throughout the 18th Century, opposition began to gather against the slave trade in Britain, America and parts of Europe. -The Committee for the Abolition of the Slave trade was led by William Wilberforce, Granville Sharp and Thomas Clarkson. Whilst Britain became a leading force in abolishing slave trade, it cannot be forgotten that Britain had been one of the most active slave-trading nations of all. -Denmark was the first country to ban the slave trade, in 1792, which took effect in 1803. Britain banned the slave trade in 1807. Slavery to the Spanish colonies continued until much later in the 19th Century.

WHA History

What was the impact of the Transatlantic Trade in enslaved people?

WHA History

What was the impact of the Transatlantic Trade in enslaved people?

WHA History

We need to talk about the British Empire

Between 1815 and 1914, the **British Empire** covered 10 million square miles of territory (quarter of the world's land surface) and 450 million people. At the time of the British Empire Exhibition of 1924 Britain was the 'Mother Country' of a worldwide empire and Britannia 'ruled the waves'. But should we be proud of the British Empire?

History Knowledge Organiser 8.3
The British Empire

Key Events

1612 – East India Company began a small empire of trading posts in India.
1757 – victories by Robert Clive drive out the French and established British control in India
1788-1868 – Convicts transported to Australia
1807 - Slave trade outlawed (but does not outlaw slavery itself)
1833 - Slavery abolished in British Empire
1839-1842 First Opium War
1857 - rebellion in India (Indian Mutiny). British government took over India from the East India Company.
1877 - Queen Victoria declared 'Empress of India'.
1881-1919 - The 'Scramble for Africa' – Britain acquired colonies in Africa stretching from Cairo to Cape Town.
1919 - British government massacred a peaceful gathering at Amritsar, India.
1947 - India and Pakistan given independence.
1997 Hong Kong is given back to China

Key People

Queen Victoria	Reigning monarch of Britain from 1837 - 1901
Gandhi	Indian activist who was the leader of the Indian independence movement against British colonial rule. Used non-violent methods

Modern Context

The First and Second World Wars left Britain weakened and less dominant of its **empire**. Many parts of the **empire had contributed** troops and resources to the war effort, some with the promise of more independence in the future. This led to a steady **decline** of the **empire** after 1945. Some of the empire evolved into the British Commonwealth & Britain is still sovereign in many parts of the world.

Key Terms

empire	Group of countries, people or land ruled by one single country referred to as "mother" country.
imperialism	The act of building an empire.
Colony	Country that is part of an empire.
Legacy	What someone or something leaves behind, is remembered for, has an impact
Nationalism	Wanting your country to be the best or to be free from someone's empire
Britannia	female figure used to symbolise British Empire
The Raj	Period of British rule in India after 1857. From the Hindi word for reign.
Commonwealth	A group of countries that were once part of Britain's Empire
Opium	A drug made from poppies
Transportation	The punishment for convicts who were sent to Australia.

India

- Invested in infrastructure
- Destroyed parts of Indian culture.
- Taken over by the East India Company.
- Partitioned after religious tensions between Muslims and Hindus.

Australia

- Settled by convicts.
- Sheep farming established.
- Gold found which led to the gold rush.
- Destruction of Aboriginal culture.

Hong Kong

- Leased to Great Britain after the First Opium War.
- Tensions after the return to China.
- Hongkongers treated as inferior.
- Adopted many aspects of British culture.

Geography

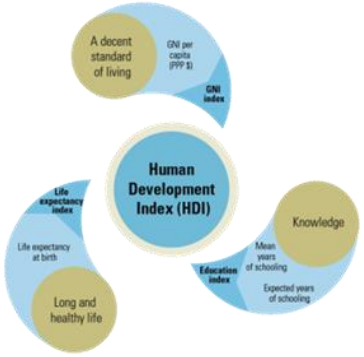
Will Asia ever be on top?

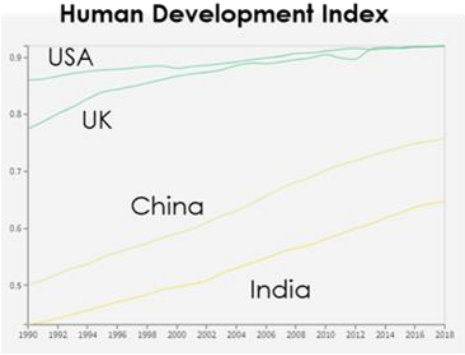
Keyword	Definition
Primary sector	Includes jobs in which people extract raw materials
Secondary sector	Includes jobs in which people make products out of raw materials
Manufacturing	The making of a product, usually in a factory
TNC – Transnational Corporation	A company that locates in multiple countries
Industrialisation	The process of moving from mainly primary sector jobs (farming) to secondary sector jobs (factories)
Rural	The countryside
Urban	Built up areas like towns and cities
Rural to Urban migration	The movement of people from the countryside to towns and cities
Urbanisation	An increasing number of people living in towns and cities compared to the countryside
Tertiary employment	Includes jobs in which people provide a service to others
Quaternary employment	Includes jobs in which people research and develop things
Natural Increase	When the number of births is higher than the number of deaths the population grows
Megacities	A city with a population of more than 10 million
Slums	A densely populated urban area with poor quality housing
Poverty	When someone cannot afford basic needs such as food, housing, water and healthcare

Push factors are reasons that push people to leave where they live

Pull factors are reasons that pull people to a new area

Human Development Index: created to emphasise people and their capabilities rather than measuring economic growth alone. It is a value between 0-1 which combines life expectancy, GNI and expected years of schooling.





Examples of job types

Primary	Secondary	Tertiary
Rice Farmer Coal Mining Pig Farmer	iPhone manufacturing Clothes manufacturing MG motor industry	Teaching Banking Working in a restaurant Retail

The largest slum in India is Dharavi in Mumbai

Dharavi is a locality in Mumbai, Maharashtra, India, considered to be one of Asia's largest slums. Dharavi has an area of just over 2.1 square km. It has a population of about 1,000,000. With a population density of over 277,136/km², Dharavi is one of the most densely populated areas in the world. The Dharavi slum was founded in 1884 during the British colonial era.

ART Term 3 Creatures and Characters

Year 8 Creatures and Characters

Content: In this project you will develop knowledge- of mythological creatures.

Understand-what inspired artists to create their work and how to write about the work

Develop skills- drawing, shading, painting, using materials to create 3 dimensional shapes and showing the influence of other artists in your own work and presentation

Outcome- An original creature inspired by one or some of the characters you have studied.

Salvador Dali…
Was one of the leading artists of the Surrealist Art movement.
He described his work as hand painted dream photographs.

A R T I S T S

Paride Bertolin

Emma Larsson

Buff Monster

Tim Burton

Keywords:

Mythological- something that is fictitious (made up) or imaginary. Often found in mythology and fables.

Typography - arranging letters and text in a way that makes the copy legible, clear, and visually appealing to the reader.

Surrealism-is an art style that focuses on imagination and dream like images.

Anthropomorphism- is giving human characteristics to animals or objects

Assessment:
(D) Demonstrate a deepening- knowledge, understanding and skills
(O+)On Track- Demonstrate some- knowledge, understanding and skills
(O-)On Track- Demonstrate some- knowledge, understanding and skills
(Y)Yet to be on Track- developing some- knowledge, understanding and skills
(A)Earlier Stage-minimal knowledge, understanding and skills

Analysis

All artist research pages should be annotated

Artwork-

Artist name

- Describe the work-what does it look like? Use the formal elements i.e. colour, line etc.
- What techniques/materials were used?
- What is your opinion of the work? How is it relevant to your own idea?

Sentence starters
I like/dislike the way the artist has used…because
I think the colour scheme used is effective because…
I think the artist has been inspired by…because

Evaluation of Your Artwork-
What inspired you to create the piece?
What techniques did you use and why?
What does it mean to you?
How is it relevant to your idea?

Sentence starters
The technique I have used is…
The skill/technique I found most difficult was…because…
I think my work is successful because…

Year 8 The Environment

Content: In this project you will develop knowledge- of environmental issues that impact our planet and how this can be used to create artistic responses.

Understand- how art can be used to convey powerful messages

Develop skills- drawing, shading, painting, using materials to create 3 dimensional shapes and showing the influence of other artists in your own work and presentation

Outcome- Use everyday materials to create a sculpture of an animal.

Mind Map...

Mind Maps in art are used to help you explore as much about the topic you are researching as possible! Well planned mind maps can help to generate great ideas!

A R T I S T S

Ben Van Wong

Martyna Zoltaszek

Dean Russo

Analogous Colours

Rose Sanderson

Margaret Mee

Keywords:

Habitat - the natural home or environment of an animal, plant, or other organism.

Society - large social grouping sharing the same geographical or social territory

Elements of Art: Line, shape, form, value, space, colour, texture.

Tone – how light or dark something is

Colour (hue, tint, shade, primary, secondary tertiary, contrasting, complementary, warm, cool)

Texture, pattern, natural/ manmade,

Composition – how things sit in relation to each other

Abstract - does not attempt to represent an accurate depiction of a visual reality

Figurative – modern art that has strong references to the real world and particularly to the human figure / body

Still- life - an arrangement of inanimate objects as the subject of the drawing E.g. fruit or flowers

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Religion & World Views

Christianity is the world's largest religion, with about 2.5 billion followers.
It is an Abrahamic, monotheistic religion based on the life and teachings of Jesus of Nazareth.
One of the most important concepts in Christianity is that of **Jesus giving his life on the Cross (the Crucifixion) and rising from the dead on the third day (the Resurrection).**

Year 8 –
Religion and World Views –
Christian Practices

A Christian denomination is a **distinct religious body within Christianity**. The difference between denominations is that they practice Christianity in different ways.

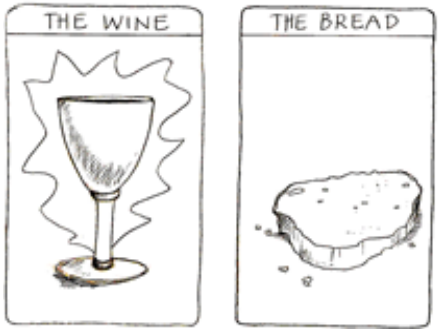
Baptism is used to welcome and initiate someone into the Christian faith and it means 'to dip in water'.

Communion is when you can then take bread and wine for the first time.

Confirmation confirms your faith in God at an age when you can choose for yourself.

Worship – To express love and devotion to God.

The Font – A feature of a church. A bowl like object that contains holy water and is used for baptism. It is placed at the entrance to symbolise the welcoming into the Church

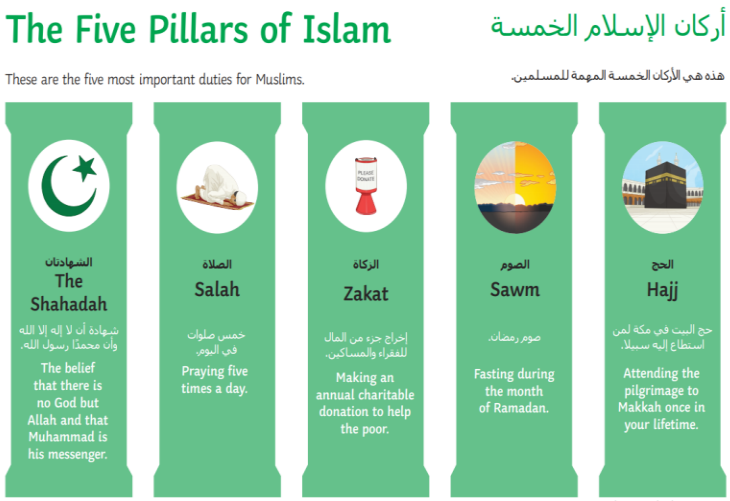


During communion, people take the bread to represent Jesus' body (flesh) and wine to represent his blood. They both represent the death of Jesus.

The meaning of the symbols used in Baptisms:
- Water symbolising new life and cleansing from sin
- Candles represent Jesus being the light of the world
- Holy oils represent healing and strength
- White garment represents dignity and Jesus' resurrection which gives new life

Religion & World Views

Year 8 –
Religion and World Views –
Islamic Practices



Features of a Mosque	
Minaret	They used to call for prayer from here – in modern day they use speakers.
Qibla	Muslims pray facing the direction of Mecca - called the Qibla.
Minbar	Used for Friday prayers – Imam (leader of prayers) would go to perform a talk or sermon related to Islam.
Mihrab	Archway in the wall – helps people know they're facing the way of Mecca. It also helps reflect voice.
Wash Area	Before prayer they perform a special wash called Wudhu which involves cleaning the face, hands and feet a number of times.

Halal	Actions or things that are *permitted* or allowed within Islam, such as eating permitted food
Haram	Actions or things that are *forbidden* or not allowed within Islam, such as eating forbidden food
Ibadah	Acts of worship, any permissible action performed with the intention to obey God
Zakat	A pillar of Islam-the compulsory payment of money (2.5% of savings to help other people)
Ramadan	A month of fasting, prayer and reflection to celebrate the revelation of the Qu'ran to the Prophet Mohammad
Salah	Bowing or worship
Ummah	The world wide community of Muslims, who share a common religious identity
Muezzin	the person who calls for the daily prayer five times a day at a mosque (from the minaret)

Drama

Block 6 – Scripted Extracts including Shakespeare

Developing your knowledge, skills and understanding of scripts.

Exposure to texts and scenes, including Shakespeare.

Exposure to Shakespearean language.

Understanding of contemporary theatre roles with a historical context.

Key Skills		
1	Pitch	This is how high or low a performer makes their voice when playing different roles. Pitch can show the age, gender and mood of the character.
2	Accent	This informs the audience what country you are from e.g. England.
3	Diction	This is how clearly you speak using enunciation and pronunciation.
4	Volume	This is how loud you speak, this could be from a stage whisper to shouting.
5	Emphasis	This is when a performer puts extra focus on a word or words within a sentence to make a point, this can be done by elongating, speaking louder or changing the tone of your voice.
6	Intonation	This is varying your voice so that it goes up and done, this help the fluency of your speech and helps the audience stay engaged with your dialogue.
7	Projection	This is speaking with strength. Opening your mouth wider creates a bigger projection.
8	Dialect	This is similar to speaking with an accent except it is more specific i.e. it tells the audience what region you are from e.g. London.
9	Tone	This is showing the mood that your character is feeling e.g. happy, sad, excited, frustrated etc.
10	Received Pronunciation	This is when you speak with a posh accent, taking care to enunciate each letter in every word. Performers use the front of their mouths when they are delivering their dialogue to give a nasal sound.
11	Cockney	This is speaking with an East End (London) dialect.
12	Enunciation	This is how well a performer speaks e.g. good enunciation means sounding out every letter in every word.
13	Pronunciation	This is the accent or mood you speak a line of dialogue with e.g. speaking English with a French accent.
14	Pace	This is how fast or slow a performer speaks. A character who is tired or bored may speak with a slow pace compared with a happy, excited character who will speak with a fast pace.

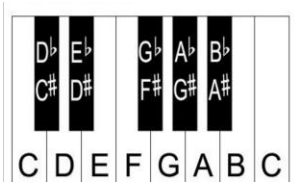
	Key Words	Definition
15	Scene	A section of a play/act
16	Dialogue	Speech
17	Duologue	Two people speaking
18	Performance	A showcase
19	Improvise	Creating a piece of unscripted work
20	Script	Written dialogue
21	Audience	Spectators
22	Character	A person who you play in role
23	Rehearsal	Practicing a scene/performance

Music

What makes a great composer?

Key Words

Major
Minor
Key Signature
Chromaticism
Composer
Ground Bass
Sequence
Motif
Harpsichord
Chord
Sharp
Flat
Solo
Duet
Trio
Orchestra



Year 8 Terms 3 & 4: What makes a great composer?
Shaping my musical toolkit

Musical Elements

Dynamics *(volume)*
Rhythm *(duration of notes)*
Tempo *(speed)*
Context *(background info)*
Structure *(sections)*
Melody *(organisation of pitches)*
Instrumentation *(instruments & voices)*
Texture *(layers)*
Harmony *(chords & key)*

Note Durations

Minim (2beats)
Crotchet (1 beat)
Quaver (½ beat)
Semiquaver (¼ beat)

Composers & Pieces

- Pachelbel (1653-1706) Canon in D
- Bach (1685-1750) Toccata & Fugue
- Mozart (1756-1791) Eine Kleine Nachtmusik
- Beethoven(1770-1827) Moonlight Sonata
- Chopin (1810-1849) Funeral March
- Tchaikovsky (1840-1893) Dance of the Sugar Plum Fairy

Periods of musical History

- Baroque Era – 1650-1725.
- Classical Era – 1725-1810.
- Romantic Era – 1810-1900.
- 20th Century Era – 1900 onwards.

Instruments & Techniques

Strings (Violin, Viola, Cello, Double Bass)
Woodwind (Flute, oboe, clarinet, bassoon)
Brass (Trumpet, French Horn, Trombone, Tuba)
Percussion (Timpani, Bass drum, Snare drum, triangle, maracas, bells)
Harpsichord (keyboard instrument from the Baroque era, before piano)
Pizzicato (plucking strings)


'Toccata and Fugue' Johann Sebastian Bach (baroque)

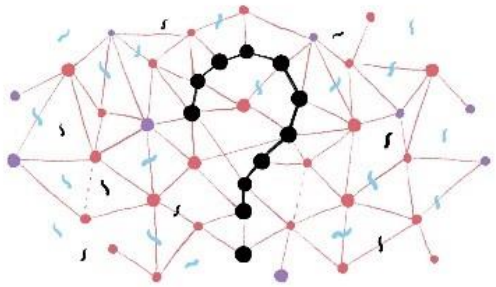

'Eine Kleine Nachtmusik' Wolfgang Amadeus Mozart (classical)


'Nocturne in Eb major Op.9 No.2' Frédérik Chopin (romantic)


'Peter Grimes' Benjamin Britten (20th century)

Computer Science

Problem Solving

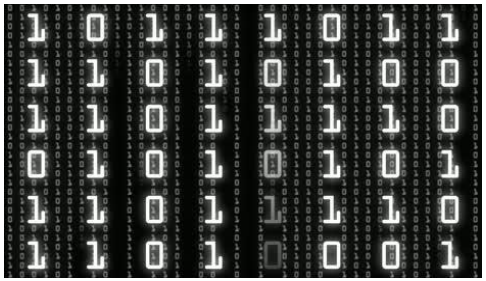


Symbol	Name
	Start/end
	Arrows
	Input/Output
	Process
	Decision

	Key vocabulary	Definition
1	Computational thinking	The steps you take to find the best solution to a complex problem.
2	Decomposition	Breaking a complex problem down into smaller, easier to solve problems
3	Abstraction	Focusing on the important information in a problem and ignoring the irrelevant details
4	Pattern recognition	Finding similarities and patterns in order to solve complex problems more efficiently.
5	Algorithm	A sequence of logical instructions for carrying out a task.
6	Program	Sequences of instructions for a computer written in programming language (e.g. Python).
7	Programming	The process of writing computer software.
8	Sequence	The specific order in which instructions are performed in an algorithm.
9	Selection	Allows for more than one path through an algorithm (IF and ELSE).
10	Iteration	The process of repeating steps. Loops (WHILE and FOR).
11	Flowcharts	Show the flow of an algorithm without lots of detail.
12	Variable	A memory location within a computer program where values are stored.
13	Data types	The format in which a variable or constant holds data, such as ‘integer’ or ‘string’.
14	String	Used for a combination of any characters that appear on a keyboard, such as letters, numbers and symbols.
15	Integer	Used for whole numbers.

Computer Science

Data representation



	Key vocabulary	Definition
1	CPU/processor	Central processing unit - the brain of the computer that processes program instructions.
2	Data	Units of information. In computing there can be different data types, including integers, characters and Boolean.
3	Denary/ base 10	The number system most commonly used by people. It contains 10 unique digits 0 to 9. Also known as decimal or base 10.
4	Binary/ base 2	A number system that contains two symbols, 0 and 1. Also known as base 2.
5	Bit	The smallest unit of data in computing represented by a 1 in binary.
6	1 byte (B)	8 bits
7	1 kilobyte (KB)	1,000 bytes (1,000 B)
8	1 megabyte (MB)	1,000 kilobytes (1,000 KB)
9	1 gigabyte (GB)	1,000 megabytes (1,000 MB)
10	1 terabyte (TB)	1,000 gigabytes (1,000 GB)
11	1 petabyte (PB)	1,000 terabytes (1,000 TB)
12	Jpeg	JPEG is a digital image format which uses lossy compression.
13	Lossy	A form of compression that reduces digital file sizes by removing data.
14	Gif	An 8-bit digital image format which uses lossless compression. Also used for short animations.
15	Lossless	A form of compression that encodes digital files without losing detail. Files can also be restored to their uncompressed quality.
16	ASCII	ASCII character set is a 7-bit set of codes that allows 128 different characters
17	UNICODE	Can represent characters from languages from all around the world. It is commonly used across the internet. As it is larger than ASCII
18	Pixel	One of the individual units (often called dots) that make up an image.
19	Resolution	The fineness of detail that can be seen in an image - resolution is measured in dots per inch (dpi).
20	Colour depth	The amount of bits available for colours in an image.
21	Compression	A method of reducing file sizes, particularly in digital media such as photos, audio and video.
22	Bit depth	The number of bits available to store an audio sample.