

KNOWLEDGE ORGANISER



Spring Term 2024
Year 10



Name: _____ **Form:** _____

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How to use your Knowledge Organiser for Home Learning

- Knowledge Organisers contain critical **core knowledge** that you must know
- It will help you recap, revisit and revise the **core knowledge** that you have learnt in lessons, so that you remember it in the long term
- You will use your Knowledge Organiser for most of your homework, but you can also do extra self-study to develop your long term memory
- You **MUST** have your book with you every day and in every lesson as it will be used alongside your learning

For homework:

- You will need to use the Knowledge Organiser for some of your Home Learning
- You will be asked to look at a specific section of your Knowledge Organiser
- Your homework from the Knowledge Organiser will be to learn the core knowledge set by your teacher. This will then be tested in your lessons

This should take about 15 mins per subject for Year 7, 8 & 9. Year 10 & 11 will be longer (set by the teacher)

- **You will have a home learning book to use for your home learning**
 - **You must write the subject and date in your homework book**
 - **You need to underline the subject and title as per lessons**
 - **The knowledge learnt will be assessed during your lessons**
- There will be rewards for excellent work and sanctions for work not completed**



HOME LEARNING PLAN:

- Your homework will be set **every Monday** on Class Charts
- Your homework book will be checked by your teacher where it has been asked to be used for your home learning (not all subjects)
- You can use highlighted notes, mind-maps, diagrams, flashcards to learn your **core knowledge**
- The section of homework you need to learn from your Knowledge Organiser will be on Class Charts as normal
- There will be a detention set by your teacher for not completing your home learning. If you fail to attend this detention, you will be in a detention on **Thursday evening** to complete your work
- You will be tested on what you have learnt by your subject teachers in your lessons (date will be on Classcharts)
- Completing your home learning is **YOUR** responsibility





Home Learning – Year 10 & 11 GCSEs Spring Term

SUBJECT	HOME LEARNING TIME	HOME LEARNING ACTIVITIES	WHERE TO COMPLETE e.g. home learning books, google classroom, subject home learning books, Seneca	HOW IT WILL BE MARKED
English	60 mins per week	Students will build on & extend topics currently studied by completing GCSE questions. This will be interspersed with GCSE essay questions enabling students to recall previous material studied.	Students may complete and submit on the Google classroom or if they prefer may complete by hand and submit to the class teacher	General feedback will be given.
Maths	60 mins per week	Retrieval: Pupils will recall work completed that week, plus other work in the year in consolidations tasks Flipped learning: Pupils will build on, extend work currently completed. This will feed into 'insights' given back to the teacher to feed into starter tasks Past Paper will be given close to PPEs and summer exams.	Sparx website On paper for past papers	On the website In class for past papers
Science	1 hour per week	SENECA set by class teacher Revision of year 9/10 topics from revision guide	On SENECA Completed in flash cards	Marked by SENECA and viewed for misconceptions by class teacher for Closing the gap
Geography	45 mins per week - plus exam/assessment revision	Seneca, revision activities, exam question practice, completion of case studies.	Seneca / Google classroom / revision materials produced.	Seneca and Google classroom is self marked. Exam question practice teacher/student marked.

History	30-60 Minutes per week	Seneca assignments for retrieval/consolidation. Research tasks, GCSE questions (4 Marks)	Seneca, Google Classroom, Google Docs	Seneca is self marking, visual checks of assignments completed, teacher marked GCSE questions with feedback.
Art	Weekly - 1 Hour	Home learning will consist of practical tasks focusing on retrieval and flipped knowledge linked to the component of work. Revision strategies will be included in home learning to support assessments.	Art - on chromebooks or on paper to then be added to Art Portfolios.	Checked and marked in line with the component of work. Praise points awarded.
Food	30 mins per week	Year 10 - H&C Personal Review of dishes/retrieval/practical skills development Flipped learning - Research tasks for building knowledge for forthcoming lessons. Pupils to watch videos Year 11 - Food Tech Revision questions and research	Classcharts	Collected, Checked and marked by the class teacher. Praise Points awarded
French & Spanish	20 minutes per week	Vocab learning based on a particular section of their Knowledge Organiser Additional tasks such as Speaking question revision, listening/reading paper practise may also be requested as and when the teacher deems appropriate	Knowledge of learned vocab assessed in class	Corrected in class and PP added during the week

Drama	45 mins - 1 hour per week	essay questions, keywords, research, line learning, live performance analysis, character work, technical and design planning , devising logs, exam revision	Complete on Google classroom and Word Wall Work will be set on Class Charts	Teacher/self/peer assessment. Exam style questions marked.
Music	30 mins per week	Practice on instrument/composition/production skill sets.	On instruments/DAWs whilst completing rehearsal/production/composition logs.	Self-reflection of rehearsal effectiveness/composition development/production development.
Ethics	30 min P/w	Seneca, Making retrieval quizzes, Cornell notes .	Seneca and Google classroom	Teacher/ online
Social Sciences	45 minutes per week	Revision activities. Retrieval activities. Making online revision resources. Yr11 - practice exam questions on paper	Google Classroom. Yr11 - printed exam questions.	Self marked or checked via Google Classroom. Yr11 will have teacher marked practice exam questions.
Computer Science	30 minutes per week	Year 10 - pre-reading and questions for future topics. Retrieval of previously learnt topics. Year 11 - up until half term - pre-reading and questions for future topics. Retrieval of previously learnt topics. After half term - revision of previously learnt topics.	Seneca and Smart Revise.	Self marked and checked by the teacher. Praise points awarded for completed work.
Business and Enterprise	30 minutes a fortnight plus end of topic revision	Revision activities and exam practice	Seneca	Seneca is self marking
Sports Studies	45 minutes	Revision activities and Retrieval quizzes set to challenge weekly exam content retention	Google Classroom via use of Google Forms	Self marked or checked via Google Classroom.
Construction				
Engineering				

ENGLISH

Macbeth Knowledge Organiser (GCSE English Literature – AQA)

Scene	Plot and character	Symbols	Quotations	Vocabulary	Historical context	
A c t 1 : E x p o s i t i o n	1 . 1	Three witches meet and plot against Macbeth, who is currently leading the Scottish army in a battle against the Norwegians.	Storm: the witches’ power over nature. Also foreshadows chaos. Fog: creates an ominous mood, reinforcing the witches’ ambiguous nature. Could represent Macbeth’s inability to see the righteous path.	1. Witches: “Fair is foul and foul is fair: / Hover through the fog and filthy air.”	A. Ambiguous: more than one interpretation B. Enigmatic: mysterious, hard to understand C. Malevolent: evil D. Trochaic tetrameter: an unnatural rhythm, 8 syllables per line (stressed/unstressed) E. Inevitability: an event cannot be prevented	Witchcraft: Most Jacobean (17 th C) believed in witches; witch-hunting and execution was common. King James I wrote a book called <i>Daemonologie</i> in which he supported and encouraged the trials of witches, who he believed were controlled by the devil.
	1 . 2	Duncan learns that Macbeth and Banquo have won the war. Macbeth has decapitated the Scottish traitor, Macdonwald. Another traitor (the Thane of Cawdor) will be executed.	Macdonwald’s decapitated head: this symbolises the consequences of treachery. The fact that Macbeth severs Macdonwald’s head indicates Macbeth’s loyalty to King Duncan.	2. Captain: “Unseamed him from the nave to the chops.” 3. Duncan: “O valiant cousin!”	F. Tragic hero: a noble person of high rank whose error in judgement leads to downfall G. Virtuous: moral; having good qualities H. Patriotic: loyal to one’s country I. Courageous / valiant: brave J. Relentless bloodlust: desire for bloodshed	Hypermasculine Society: exaggerated expectations of “male” behaviour. Men need to show courage on the battlefield: society celebrates violence used in the service of the king. For Macbeth, this mentality is difficult to change in peace-time.
	1 . 3	Macbeth and Banquo meet the witches, who prophesy that Macbeth ☐ Thane of Glamis, Thane of Cawdor, King. Banquo’s son ☐ king	Wasteland setting: the witches exist outside of civilisation; they are wild, dangerous and unknowable.	4. Banquo: “to win us to our harm / The instruments of darkness tell us truths.” 5. M: “This supernatural soliciting / Cannot be ill – cannot be good.”	K. Hubris: excessive pride and arrogance L. Hamartia: a fatal flaw in a protagonist’s character that leads to his/her downfall M. Credulous: believes others easily N. Soliloquy: a speech to the audience – other characters do not hear this	Fate versus Free Will: Jacobean Christians debated whether mankind was fated (pre-destined) to go to heaven or hell, or whether they had free choice. Was Macbeth fated to commit horrific deeds, or did he choose to do it out of free will?
	1 . 4	Malcolm will be Duncan’s heir.		6. M: “my black and deep desires.”		
	1 . 5	Macbeth has sent Lady Macbeth a letter explaining what the witches have said. She calls on the spirits to “fill” her with “direst cruelty”. Macbeth arrives and they plot.	Milk: feminine symbol of compassion. LM rejects this, asking the spirits to replace milk with poison (death and destruction). Flower: innocent, fragile, natural – being “fair”. Serpent: Biblical allusion to the “foul”, malevolent devil.	7. LM: M is “too full o’ the milk of human kindness.” 8. LM: “unsex me here”. 9. LM: “I feel now / The future in the instant.” 10. LM: “Look like the innocent flower, but be the serpent under it.”	O. Power-hungry: desiring control P. Ruthless / callous: having or showing no mercy to others. Q. Unconventional: acting in a way which is different to the stereotype R. Imperative verbs: command verbs S. Blank verse: 10 syllables per line (unstressed/stressed). No rhyme.	Patriarchal societies: Men dominate and women are subservient; they are expected to obey male relatives and are regarded as the weaker, inferior sex. Women are denied the same rights and privileges as men. However, Queen Elizabeth I had been on the throne until her death in 1603, suggesting that in some situations women could hold power.
	1 . 6	Lady Macbeth welcomes Duncan to her castle.		11. Duncan: “Our honoured hostess.”	T. Facade: the appearance of honesty U. Benevolent: kindness and generosity	The Ideal King: kings needed integrity, loyalty to their people, and godliness.
	1 . 7	Macbeth equivocates, doubting whether or not he can commit the murder. Lady Macbeth persuades him by questioning his masculinity.	Spurs: spikes used to push a horse faster. Macbeth needs a “spur” to propel him to realise his ambition to be king; he admits that he would not murder Duncan without another force (LM? The witches?).	12. M: “Vaulting ambition, which overleaps itself.” 13. LM: “Screw your courage to the sticking-place / And we’ll not fail.” 14. LM: “When you durst do it, then you were a man.”	V. Equivocating: to avoid committing yourself, or saying one thing but meaning another W. Doubtful: unsure. X. Emasculated: made to feel weaker / masculinity is threatened	Machiavellianism: writer Niccolò Machiavelli advocated using intelligence and cunning – not brute force – to gain power. Shakespeare explores the consequences of this ideology: what happens when a Machiavellian character gains power?
	2 . 1	Macbeth meets Banquo on the way to Duncan’s chamber. Alone again, he sees a mysterious dagger leading him to the murder.	Diamond: Duncan gave this to LM, emphasising the betrayal. The dagger: it could be the witches leading Macbeth to the murder. Or, it could represent guilt.	15. M: “heat-oppressed brain”. 16. M: Duncan’s “virtues will plead like angels.”	Y. Afflicted: suffering greatly, deeply troubled Z. Phantasmagorical: having a shifting or deceptive appearance, like a dream AA. Regicide: the act of killing a king BB. Usurp: to take a position of power illegally	The Divine Right of Kings: The belief that monarchs were appointed by God and had absolute power over their people, being answerable only to God. The Great Chain of Being: The belief that God had designed an ordered system for everything in the universe within which every creature and person had an allotted place. It was an offence against God for anyone to try to alter their station in life.
	2 . 2	Macbeth meets Lady Macbeth, who becomes angry as he still has the daggers. She plants them on the drugged guards and they go to bed.	Blood: inescapable guilt. Water: connected to Christian baptism: washing away one’s sins. Macbeth thinks he will never cleanse his conscience.	17. M: “Will all great Neptune’s ocean wash this blood / Clean from my hand?” 18. LM: “A little water clears us of this deed.”	CC. Remorse: guilt, regret DD. Dread / apprehension: fear, anxiety, horror EE. Elision: an event is not shown on stage. <i>Duncan’s murder is elided.</i>	

A c t i o n	2 . 3	The Porter answers the gate to Macduff, who discovers the murder. Macbeth kills Duncan's guards, blaming the murder on them, and Macduff becomes suspicious. Duncan's sons flee.	The gate: the gates of Macbeth's castle are like the gates of hell. The opening of the gates symbolises how Scotland has now been plunged into a hellish state of horror and chaos.	19. Macduff: "Horror! Horror! Horror!" 20. M: "His silver skin laced with his golden blood."	FF. Dismayed / distraught: discouraged, upset	Fear of Tyranny: When James became King in 1603, many people feared that he would not be benevolent; many previous kings had been tyrannical. A group of Catholic rebels planned the Gunpowder Plot in an attempt to assassinate James. "Macbeth" has been interpreted as a warning to King James I to avoid becoming a tyrant, as the consequences of this are disastrous.			
	2 . 4	Macduff discusses Macbeth being made King. Macduff doesn't attend the coronation.	Nature: order and righteousness in the world. Yet here, natural chaos reflects moral and political chaos.	21. Old Man: "'Tis unnatural, / Even like the deed that's done."	GG. Tyrannical: a leader who uses power unfairly and for their own purposes. HH. Disorder: chaos				
Scene		Plot and character development		Symbols		Quotations		Vocabulary	
A c t 3 : C l i m a x	3 . 1	Banquo recalls the witches' prophecies. Macbeth invites him to a banquet that night, but secretly ponders the threat Banquo poses to his safety. Macbeth orders Banquo's murder.	Fruitless crown: Macbeth regrets his childlessness; there will be no dynasty of kings.		22. Banquo: "I fear / Thou play'dst most foully for it." 23. M: "a fruitless crown."				
	3 . 2 - 3 . 3	Macbeth discusses his troubles with Lady Macbeth: he is unhappy that others may suspect the truth. He refuses to tell Lady Macbeth that he has arranged Banquo's murder. Outside the castle, the murderers kill Banquo, but Fleance escapes.	Snake: threats to Macbeth's kingship and absolute power. A Biblical allusion to the devil; Macbeth sees these threats as evil.		24. LM: "'Tis safer to be that which we destroy, / Than by destruction dwell in doubtful joy." 25. M: "Full of scorpions is my mind, dear wife." 26. M: "Be innocent of the knowledge."		II. Corrupt: dishonest, deceptive, immoral		
	3 . 4	Macbeth hosts a feast. He discovers Banquo is killed, but Fleance lives. Macbeth sees Banquo's ghost and appears to have a fit. Lady Macbeth tells the guests her husband is unwell, before losing her determination to help Macbeth.	The banquet: should symbolise Macbeth's power, but as it deteriorates into chaos it represents his illegitimate kingship and unbalanced state of mind.		27. M: "I am cabin'd, cribb'd, confined, bound in / To saucy doubts and fears." 28. M: "Never shake / Thy gory locks at me." 29. M: "I am in blood / Stepped in so far"		JJ. Plagued / tormented: worried, haunted, afflicted by an idea		
	3 . 5 - 3 . 6	Hecate, the goddess of witchcraft, promises to give Macbeth a false sense of security. Lords discuss Banquo's death and their suspicions of Macbeth. Macduff goes to England for help.							
A c t 4 : F a l l i n g A c t i o n	4 . 1	Macbeth visits the Witches and is given new prophecies: o armed head: to beware of Macduff o bloody child: no man born of woman can harm Macbeth o crowned child with tree: Macbeth is safe until Birnam Wood moves o line of kings: Banquo's heirs				30. M: "How now, you secret, black and midnight hags!"			
	4 . 2	Macbeth sends murderers to Macduff's castle to kill his family. Macduff has already gone to England to raise an army.	Innocent victims: represent the depths of Macbeth's malevolence.				KK. Pathos: a feeling of pity		
	4 . 3	Macduff discovers his family have been killed. He rounds up the English armies ready to take revenge			31. Macduff: "an untitled tyrant bloody-sceptered." 32. Macduff: "I must also feel it like a man."		LL. Integrity: making right decisions MM. Distraught: extremely upset NN. Vengeance: punishment		
A c t 5	5 . 1	Lady Macbeth sleepwalks, acting out washing her hands.	Hand-washing: a desperate attempt to wash away guilt		33. LM: "Out damned spot! ... Hell is murky!" 34. LM: "All the perfumes of Arabia will not sweeten this little hand." 35. LM: "What's done cannot be undone."		OO. Deranged: mad, irrational PP. Vulnerable: weak, threatened QQ. Prose: speech with no rhyme or rhythm.		7

: D e n o u e m e n t	5 . 2 – 5 . 4	Macbeth boasts that he has nothing to fear. Yet Macduff and Malcolm's army approaches and Macbeth puts on his armour. The army use branches off trees as camouflage	Macbeth's armour: Macbeth's readiness to fight and his belief that he is invincible. It also reminds us of his heroic status in 1.2.		
	5 . 5 – 5 . 7	Macbeth hears that Lady Macbeth is dead – we assume suicide. Macbeth is terrified to learn that the wood is starting to move. The battle commences outside the castle. Macbeth strikes everyone he can see, suddenly afraid of nothing.	Candle blown out: the fragility and vulnerability of life.	36. M: "She should have died hereafter." 37. M: "Tomorrow, and tomorrow, and tomorrow." 38. M: "Out, out, brief candle."	RR. Nihilistic: a profound sense of the meaninglessness of life and morality SS. Defiant: resisting or fighting against another power
	5 . 8	Macbeth fights Macduff, only to find that Macduff was not "born of woman" but through caesarean section. Macduff triumphs, cutting off Macbeth's head. Malcolm is made king.	Macbeth's decapitated head: Macbeth's body is physically distorted to reflect his unnatural and immoral acts. Links to 1.2.	39. Macduff: "Behold the usurper's cursed head." 40. Malcolm: "This dead butcher and his fiend-like queen."	TT. Anagnorisis: a moment of realisation UU. Downfall: the tragic hero's destruction VV. Nemesis: an arch-enemy

Big ideas: characters

The supernatural world: Shakespeare uses these "instruments of darkness" to cast a shadow of malevolence over the play. It is ambiguous whether Macbeth acts of his own free will or whether he is the victim of the supernatural.

Macbeth, the tragic hero: Shakespeare uses Macbeth to show the destructive consequences of unchecked ambition on society, family, and one's own psychological state.

Lady Macbeth: Lady Macbeth's manipulation of her husband positions her as the catalyst of his downfall. Like Macbeth, her death serves as a warning against unchecked ambition.

King Duncan: Whilst Duncan may appear to be the ideal king – he is benevolent, virtuous, and godly – his death serves as a stark warning to King James I: leaders should not be overly trusting, as this can lead to disaster.

Malcolm: Malcolm is a model for the ideal king: he is benevolent, virtuous, courageous in battle, and also cautious in trusting others.

Banquo: A character foil for Macbeth, Banquo represents the righteous path the tragic hero should have taken. Banquo is also tempted by the witches, but he remains loyal to the King; he symbolises integrity.

Macduff: Macduff is the archetype of the avenging hero, who does not want vengeance for its own sake, but wishes to restore order and morality to Scotland.

Big ideas: themes

Power: Shakespeare exposes the corrupting effect of power. He reveals the lengths people will go to in order to obtain power and hold on to it.

Ambition: Shakespeare crafts a cautionary tale about the consequences of unchecked ambition. He implies that it can never be fulfilled and therefore quickly grows into a monster that will destroy any-one who gives into it.

Guilt: Shakespeare conveys the inescapability of guilt. Despite the attempts of some characters to suppress their guilt, Shakespeare shows how it will inevitably take hold and individuals must suffer the consequences of their actions.

Appearances: Shakespeare suggests that often people and events are not truly as they seem. Appearances can be deceptive and the reality behind them is often dark and unpleasant.

Regicide: Shakespeare teaches his audience a moral lesson: kill the king and pay the price. Macbeth's punishment reflects this and sends a message to any potential traitors.

Fate and free will: Shakespeare asks his audience to consider the extent to which we control our own destinies. Is it Macbeth's fate to be a traitor or is he alone responsible for his actions, and did he freely choose his path?

Gender: Shakespeare challenges traditional gender norms surrounding masculinity and femininity. Denied power in a patriarchal society, Lady Macbeth rebels against the submissive role society has assigned her. Shakespeare uses Lady Macbeth to show how restricting women's freedom leads to bitterness and a desire to gain power by whatever means necessary. Alternatively, Shakespeare could use Lady Macbeth to demonstrate women's inability to cope with power.

MATHS

Maths Homework

All maths homework will be set on [Sparx](#). Students can login by pressing “login with google” when they are on their school logins.

The homework will contain the following components:

- **consolidation** of the learning completed in the week;
- **‘flipped learning’**, where student will investigate work to be completed in class later;
- **retrieval** of previous learning, to practise bringing previously learned skill back into working memory;
- and **revision** for in-class tests.

We will use Sparx for revision for termly tests and support at home (using the curriculum maps on the maths section of the website).

Homework is every week. We offer homework help once a week at lunch on a Tuesday. Students can, of course, talk to their teachers any time they like to ensure they complete homework to 100%.

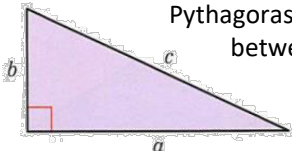
If a student completes all their homework in a year, they will have done the equivalent of 10 weeks of extra maths lessons every year.

Maths Year 10

Spring - Foundation

Right angled triangles

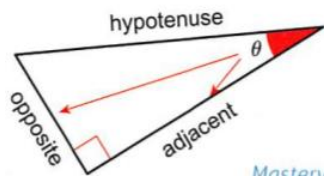
in a right-angled triangle the **hypotenuse** is the longest side and is opposite the right angle



Pythagoras' theorem shows the relationship between lengths of the three sides of a right-angled triangle

A triangle with sides a, b, and c, where c is the longest side is right-angled only if $a^2 + b^2 = c^2$

in a right-angled triangle the side opposite the angle θ is called the **opposite**. The side next to the angle θ is called the **adjacent**.



The **sine** of an angle θ is the ratio of the opposite side to the hypotenuse. The sine of angle is written as $\sin \theta$

The **cosine** of an angle θ is the ratio of the adjacent side to the hypotenuse. The cosine of angle is written as $\cos \theta$

The **tangent** of an angle θ is the ratio of the opposite side to the adjacent side. The tangent of angle is written as $\tan \theta$

You can use \sin^{-1} , \cos^{-1} , \tan^{-1} on your calculator to find an angle when you know its sin, cos or tan

The **angle of elevation** is the angle measured upwards from the horizontal. The **angle of depression** is the angle measured downwards from the horizontal.

The sine, cosine and tangent of some angles may be written exactly

	30°	45°	60°	90°
sin	$\frac{1}{2}$	$\frac{1}{\sqrt{2}}$	$\frac{\sqrt{3}}{2}$	1
cos	$\frac{\sqrt{3}}{2}$	$\frac{1}{\sqrt{2}}$	$\frac{1}{2}$	0
tan	$\frac{1}{\sqrt{3}}$	1	$\sqrt{3}$	

Probability

The **probability** of an event happening is a number between 0 and 1. If an event is **certain**, the **probability** is 1 ($P = 1$). If an event is **impossible**, **probability** is 0, ($P = 0$)

Events are **mutually exclusive** when they cannot happen at the same time. Events are **exhaustive** if they include all possible outcomes. The probabilities of an **exhaustive set of mutually exclusive** events sum to 1

Equally likely outcomes have the same probability of happening. The probability that an **equally likely** event will happen is $P = \frac{\text{number of successful outcomes}}{\text{total number of possible outcomes}}$

If the probability of an event happening is P, the probability of it not happening is $1 - P$

A **sample space diagram** shows all the possible outcomes for one or more events. You can use it to find a **theoretical probability**.

Estimated probability is also called **experimental probability**. You can estimate the probability of an event from the results of an experiment or survey:
 $\text{relative frequency} = \frac{\text{number of successful trials}}{\text{total number of trials}}$

A larger number of trials gives a more accurate estimate of probability.

$\text{Predicted number of outcomes} = \text{probability} \times \text{number of trials}$.

Two events are **independent** when the results of one do not affect the results of the other. When the outcome of one event changes the possible outcomes of the next event, the two events are **not independent**.

A set is a list of things that share certain characteristics

The elements of two (or more) sets can be shown together in a Venn diagram. Curly brackets $\{ \}$ show a set of values.

$A \cap B$ Means A intersection B. This is all the elements that are in A and in B

$A \cup B$ Means A union B. This is all the elements that are in A or B. A' means the elements *not* in A

Multiplicative reasoning

The original amount is always 100%. If the amount is **increased** the new amount will be more than 100%. If the amount is **decreased** the new amount will be less than 100%.

You can calculate a **percentage change** using the formula.

$$\text{percentage change} = \frac{\text{actual change}}{\text{original amount}} \times 100$$

Density is a **compound measure**. It is the **mass** of substance contained in a certain **volume**. It is usually measured in grams per cubic centimetre (g/cm^3)

$$\text{density} = \frac{\text{mass}}{\text{volume}}$$

Pressure is a **compound measure**. It is the **force** applied over an area. It is usually measured in newtons (N) per square metre (N/m^2)

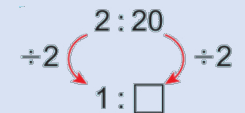
$$\text{pressure} = \frac{\text{force}}{\text{area}}$$

Banks and building societies pay **compound interest**. At the end of the first year, interest is paid on the money in the account. The interest is added to the amount in the account. At the end of the second year, interest is paid on the original amount in the account *and* on the interest earned in the first year, and so on...

$y \propto x$ means 'y' is proportional to x. When $y \propto x$ then $y = kx$, where k is the constant of proportionality

$X \propto \frac{1}{Y}$ means X and Y are in inverse proportion. This means $XY = k$ (constant)

You can make the numbers in a ratio as small as possible by **simplifying**. You **simplify** a ratio by dividing the numbers in the ratio by the **highest common factor** (HCF)



Write the proportion as a fraction.

$$\frac{9}{10} = \frac{\square}{100} = \square\%$$

You can compare **proportions** using **percentages**

Convert the fraction to a percentage.

Maths Year 10

Spring - Higher

Similarity and Congruence

Congruent triangles have exactly the same size and shape. Their angles are the same and **corresponding sides** are the same length

Two triangles are **congruent** when one of these conditions of congruence is true:

SSS: all three sides are equal

SAS: Two sides and the included angle are equal

AAS: Two angles and a corresponding side are equal

RHS: Right angle, hypotenuse and one other side are equal

Shapes are **similar** when one shape is an **enlargement** of the other. **Corresponding angles** are equal and **corresponding sides** are all in the same **ratio**

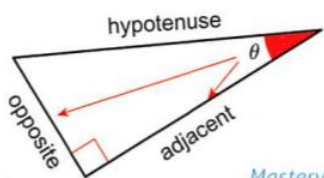
When a shape is **enlarged** by **linear scale factor** k , the area of the shape is enlarged by scale factor k^2

When a shape is **enlarged** by **linear scale factor** k , the volume is enlarged by scale factor k^3

More trigonometry

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The **angle of elevation** is the angle measured upwards from the horizontal. The **angle of depression** is the angle measured downwards from the horizontal.

The sine, cosine and tangent of some angles may be written exactly

	30°	45°	60°	90°
sin	$\frac{1}{2}$	$\frac{1}{\sqrt{2}}$	$\frac{\sqrt{3}}{2}$	1
cos	$\frac{\sqrt{3}}{2}$	$\frac{1}{\sqrt{2}}$	$\frac{1}{2}$	0
tan	$\frac{1}{\sqrt{3}}$	1	$\sqrt{3}$	

The **sine rule** can be used in any triangle to calculate a missing side:

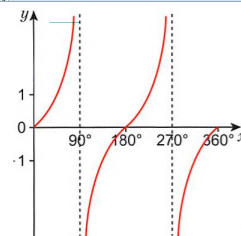
$$\frac{a}{\sin A} = \frac{b}{\sin B} = \frac{c}{\sin C}$$

The **cosine rule** can be used in any triangle to calculate an unknown side: $a^2 = b^2 + c^2 - 2bccosA$

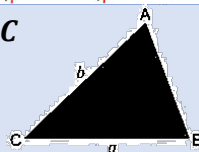
The **sine** graph repeats every 360 degrees in both directions



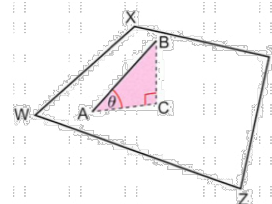
The **tangent** graph repeats every 180 degrees in both directions



The area of this triangle is $\frac{1}{2} ab \sin C$



A **plane** is a flat surface. In the diagram, BC is perpendicular to the plane WXYZ. Triangle ABC is in a plane perpendicular to the plane WXYZ



θ is the angle between the line AB and the plane WXYZ

The graph of $y = -f(-x)$ is a reflection of the graph of $y = f(x)$ in the x -axis and then the y -axis,

or vice versa. These two reflections are equivalent to a rotation of 180° about origin

Further Statistics

A **population** is the set of items that you are interested in. A **census** is a **survey** of the whole **population**. A **sample** is a smaller number of items from the **population**. A **sample** of at least 10% is considered good. In order to reduce **bias**, the **sample** must represent the whole **population**

A **population** may divide into groups such as age range or gender. These groups are called **strata (stratum)**. In a **stratified sample**, the number of people taken from each group is **proportional** to the group size.

A **cumulative frequency table** shows how many data values are less than or equal to the **upper class boundary** of each **data class**. A **cumulative frequency diagram** has data values on the x -axis and **cumulative frequency** on the y -axis

The **median** and **quartiles** can be estimated from the **cumulative frequency diagram**. For a set of n data values: the estimate from the **median** is the $\frac{n}{2}$ value.

The estimate for the **lower quartile (LQ)** is the $\frac{n}{4}$ value

The estimate for the **upper quartile (UP)** is the $\frac{3n}{4}$ value

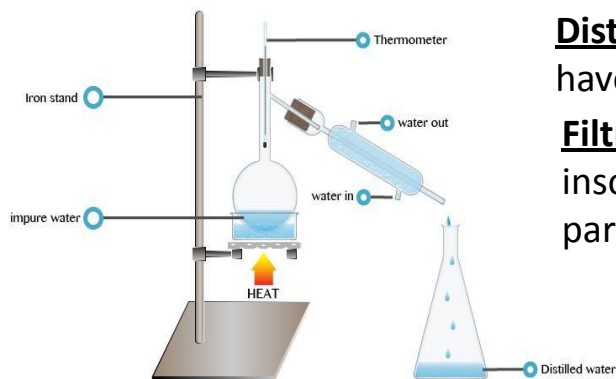
The **interquartile range (IQR)** is $UQ - LQ$

A **box plot** (sometimes called a box – and – whisker diagram, displays a data set to show the **median** and **quartiles**. **Comparative box plots** are **box plots** for two different sets of data drawn on the same scale.

The interquartile range measures the spread of the middle 50% of the data. To describe a data set (or population) give a measure of average and a measure of spread. To compare data sets, compare a measure of average and a measure of spread.

The median and interquartile range are not affected by extreme values of **outliers**. When there are extreme values, the median and interquartile range should be used rather than the mean and range.

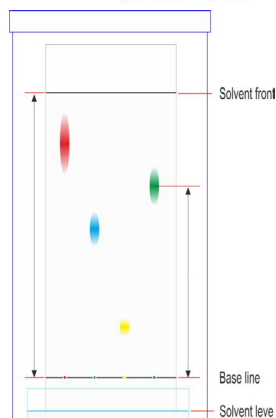
Year 10 - Science Knowledge Bank - Spring Term (Chemistry)



Distillation – Used to separate liquids that have different boiling points.

Filtration - used to separate particles of insoluble solids from a solvent (liquid). The particles get stuck in the filter paper.

Crystallisation – Used to produce solid crystals from a solution. When the solution is warmed, the solvent evaporates leaving behind a more **concentrated solution**



Chromatography – A separation technique used to separate mixtures of soluble substances.

Relies on two phases

Mobile phase – solvent in the liquid phase

Stationary phase – the chromatography paper which is absorbent

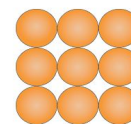
Chromatography – Rf Values

$$R_f = \frac{\text{Distance Travelled by Substance}}{\text{Distance Travelled by Solvent}}$$

Remember there is no units for Rf, and the figure you calculate should not be over 1.

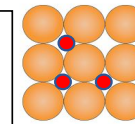
Law of conservation of mass - No atoms are lost or made in a chemical reaction. Instead, the atoms join together in different ways for form products, this is why, in a balanced symbol equation, the number of atoms of each element is the same on both sides.

Pure and Impure Substances – Something ‘pure’ as a chemical that is natural. This is a substance that is made up on one type of atom. If there is more than one type of atom, then that substance is called ‘impure’.



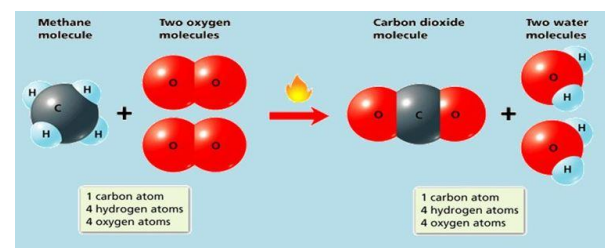
This particle diagrams shows a pure substance.

This particle diagram shows an impure substance.



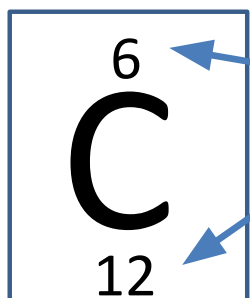
Substances can be tested to find out if they are pure. You can test melting points, boiling points or density. The more impurities that are added to the substance, the more the above will change.

Conservation of mass



Year 10 - Science Knowledge Bank - Spring Term (Chemistry)

Relative formula mass (RFM)



This is the atomic number (number of protons)

This is the atomic mass (number of protons and neutrons)



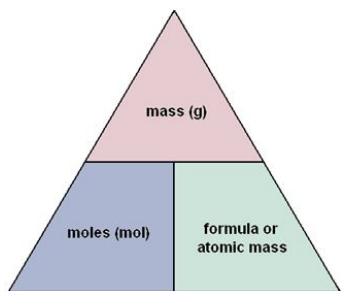
The relative formula mass is the **total mass of the all the atoms in a molecule.**

Avogadro's constant and the mole - The number of units in one mole of any substance is called Avogadro's number or Avogadro's constant. It is equal to 6.02×10^{23}

Mole Calculations

There is a relationship between the **relative formula mass (M_r)**, and the **mass of one mole** of a substance:

The mass of 1 mol of a substance is its RFM in grams (g).



Moles and Concentration

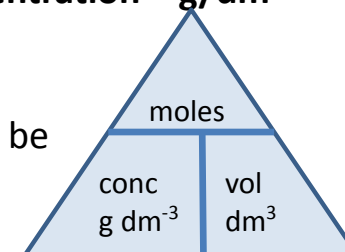
Concentration

"The relative amount of a particular substance contained within a solution or mixture or in a particular volume of space."

$$\text{Concentration} = \frac{\text{Mass of solute}}{\text{Mass of solvent}}$$

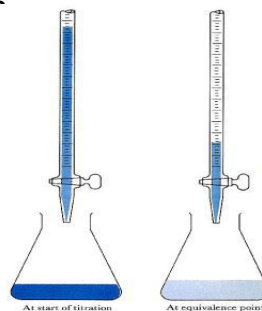
$$\text{Concentration} = \frac{\text{g}}{\text{dm}^3}$$

Concentration in moles/dm³ (molarity, M) can be calculated using the following triangle:



Titration

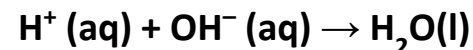
A titration is a laboratory technique used to determine the concentration of a solution by gradually adding a known concentration of another solution until a reaction is complete. You calculate concentration using the equations above.



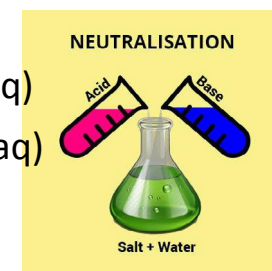
Neutralisation

H⁺ ions formed when acids dissolved in water (aq)

OH⁻ ions formed when alkali dissolved in water (aq)



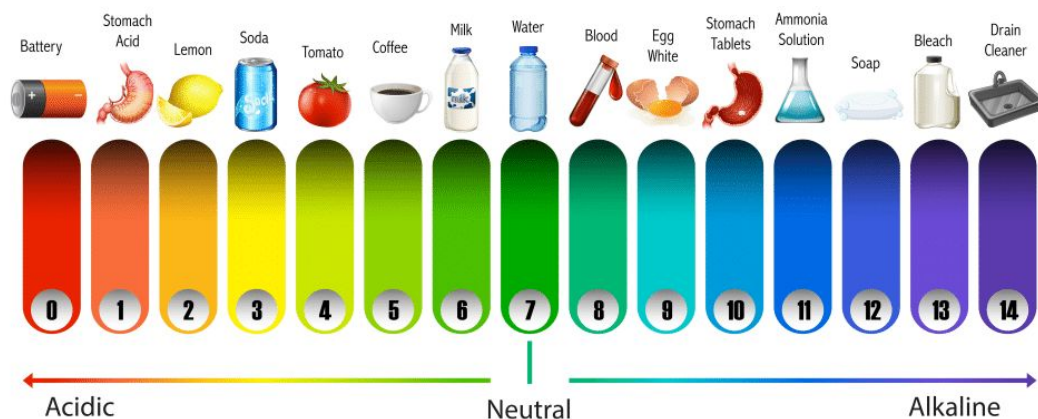
Acid + Alkali Salt + Water



Year 10 - Science Knowledge Bank - Spring Term (Chemistry)

pH Scale

A scale which shows you how acidic or alkaline something is. You can test this with a pH meter, Universal indicator or Litmus. This is a logarithmic scale and each value below pH7 is 10 times more concentrated.



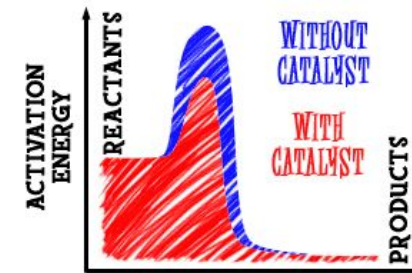
Acid strength and concentration

Strong acids dissociate completely in water producing **higher concentrations of H⁺ ions** **Weak acids do not dissociate completely** producing lower concentrations of **H⁺ ions**.

Factors affecting Rates of Reaction

The rate of reaction tells you how fast reactants turn into products.

Four main factors affecting rates of reaction, **Temperature, Pressure, Surface area and Concentration**



Catalysts also affect rate of reaction by providing an alternative reaction pathway lowering activation energy, they speed up rates of reaction without being used up. Catalysts can be chemical (Potassium Iodide) or biological (enzymes).

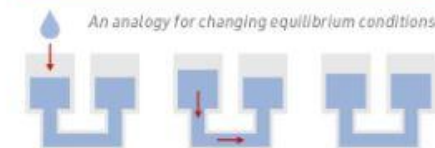
Equilibrium

Equilibrium



In reversible reactions products of the reaction can react to produce the original reactants. At dynamic equilibrium the rates of the forwards and backwards reactions are equal; the concentrations of the reactants and products don't change.

Le Chatelier's principle



Le Chatelier's principle states that when a change is made to the conditions of a dynamic equilibrium, the system moves to counteract the change, causing changes in quantities of reactants and products.

1. Data units	
Bit (b)	The smallest unit of data. 0 or 1
Nibble (N)	4 bits
Byte (B)	8 bits (note the difference between b and B)
Kilobyte (KB)	1000 bytes. Note KB is different from Kb
Megabyte (MB)	1000 KB
Gigabyte (GB)	1000 MB
Terabyte (TB)	1000 GB
Petabyte (PB)	1000 TB

2. Conversions
Binary to Denary
Denary to Binary
Hexadecimal to Denary
Denary to Hexadecimal
Binary to Hexadecimal
Hexadecimal to Binary
Left Binary Shift
Right Binary Shift

4. Characters	
Individual Characters	Each character is assigned an individual binary code to represent it. The number of bits depends on the 'encoding' used
Character Set	The name given to a collection of characters matching to binary codes. There are many examples.
Choice of Character Set	A character set encoded with more bits allows more characters. This is useful for accents, symbols, emojis, other languages (e.g. Chinese)

3. Operations	
Binary addition	You should arrange the two binary numbers above each other so that the columns line up. Start on the rightmost digit and add them. If there are any carries, write them down next to the next left column.
Overflow	If the answer to the left column results in a carry, this is known as an overflow and it causes an overflow error. This can cause problems if a computer program hasn't been written to handle overflows.
Left Binary Shift	Make the number longer, and therefore bigger. Each place it shifts will double the value. A binary left shift of one place ($\ll 1$) will double the value, a binary left shift of two places ($\ll 2$) with quadruple.
Right Binary Shift	Make the number shorter, and smaller. The right most digit is "lost", so we forget about it. A binary right shift of one place (written as $\gg 1$) halves the number, and a binary right shift of two places ($\gg 2$) will quarter it.

5. Examples of Character Sets	
ASCII	7-bits to represent characters allowing 127 characters to be represented
Unicode	16 / 24 / 32 bits. Covers many modern and historic languages, as well as lots of symbols which are used in maths and other specialist areas

7. Sound	
Analogue / Digital	Analogue sound waves must be converted into digital sound waves by taking a sample of the sound at set intervals. This is because computers can only work with digital 'numbers', and not analogue 'sound'
Sample rate	Number of times analogue signal is sampled per second. Measured in Hertz
Bit depth	Number of bits used per sample. Sometimes known as sample resolution
File size	Sample rate x sample resolution x seconds
Factors	Larger sample rate and/or bit depth will make the file size bigger and improve the playback quality; and vice versa. Also, making the duration of the recording longer will make the file size bigger, and vice versa

6. Images	
Pixel	The smallest element of a bitmap image. Pixels desk
Vector vs Bitmap	A vector image describes the lines and shapes. A bitmap image consists of rows of coloured dots.
Colour Depth	The number of bits used to represent each pixel in a bitmap image. An 8 bit image can show 2^8 or 256 colours.
Resolution	In a bitmap image resolution is measured in DPI (dots per inch). The higher the resolution the better the picture quality
Metadata	Data that is saved before and after the image to tell the computer how to decode the image. It includes the size in pixels (width x height), the colour depth, the resolution, the GPS location of where the image was taken, etc.
Image size	The size of an image is width x height x colour depth (+10% for metadata)
Factors	Greater colour depth and/or greater resolution will make the file size bigger, and improve the quality of the image; and vice versa

8. Compression	
Compression	Compression is when a file is encoded so it uses fewer bits than the original file format
Lossless compression	Gets rid of unnecessary data to re-present data without losing any information. This process is reversible
Lossy compression	Gets rid of the least essential data. This is an irreversible process: once data is lost it can't be recovered

Ethics GCSE Religion, Peace and Conflict: Knowledge Organiser

Important Key words to remember		Key beliefs	Key beliefs
War	Fighting between nations to resolve issues between them	1. War as conflict is a way of resolving differences. The intention to fight is often to create peace once the war is over as war is expensive and not sustainable. Islam is Arabic means 'salam' or peace. 'As-salamu alaikum' means 'peace be with you'.	11. Holy Wars are fought in defence or in promotion of a religion. Muslims have rules as to how a Holy War should be fought. In the Old Testament wars were fought to gain the Promised Land where the Jews would eventually live. The teachings of Jesus, however, make it quite clear that the use of violence is not justified.
Justice	Bringing about what is right and fair, according to the law, or making up for a wrong that has been committed.		
Peace	An absence of conflict, which leads to happiness and harmony	2. Justice, forgiveness and reconciliation strongly link to one another. All are needed for peace to occur. 'Just' is one of 99 names of Allah. The Bible speaks of God showing justice and forgiveness, thus Christians should show the same.	12. Pacifism is considered an alternative to conflict. Organisations such as the Muslim Peace Fellowship and the Anglican Pacifist Fellowship all promote pacifism. Islam is a religion of peace, although the duty of jihad makes it difficult for Muslims to identify with it.
Forgiveness	Showing mercy and grace and pardoning someone for what they have done wrong		
Reconciliation	The restoring of harmony after relationships have broken down	3. The UK law considers protest to be a right and part of citizen's democratic freedom. The rules: police must know 6 days in advance, police can alter the route or apply for a ban if possible violence.	13. Both Islam and Christianity work to help the victims of war. Islamic Relief, Muslim Aid, Caritas and Christian Aid are examples of present day organisations. They provide financial help to widows and orphans as well as rehabilitation.
Protest	An expression of disapproval, often in a public group		
Violence	Using actions that threaten or harm someone	4. No religion promotes violence and generally all agree that violence should be avoided. Peaceful protests are often preferred to violence. The work of Dr Martin Luther King Jnr. during the civil rights movement is an example of this.	Key quotes to remember
Terrorism	The unlawful use of violence, usually against innocent civilians, to achieve a political goal		
Greed	Selfish desire for something	5. Terrorism is condemned by main-stream religious groups. This is because the actions often result in the death of innocent people. However, although most religions have extreme groups in their faith.	"The servants of the Lord of Mercy are those who walk humbly on the earth, and who, when aggressive people address them, reply, with words of peace ". Qur'an 25:63
Self-defence	Acting to prevent harm to yourself or others		
Retaliation	Deliberately harming someone as a response to them harming you	6. Greed for land, wealth or power can lead a country to challenge a weaker country, invade and take the resources they were after.	"Do not take life, which God has made sacred " Qur'an 17:33
Just War	A war that meets internationally accepted criteria for fairness; follows traditional Christian rules for a just war, and is now accepted by all other religions.		
Holy War	Fighting for a religious cause or God, probably controlled by a religious leader	7. Self-defence is usually considered to be a morally acceptable reason to go to war e.g. Great Britain defended itself in WWII against Nazi Germany.	"Know the evil of war is swift , and its taste bitter " Hadith
Lesser jihad	The outward struggle to defend one's faith, family and country from threat		
Weapons of mass destruction/ chemical/ biological weapons	Weapons that kill large numbers of people/ weapons that use chemical to poison, burn or paralyse humans and destroy the natural environment/ weapons that contain living organisms or infective material leading to disease or death.	8. Sometimes wars are fought in retaliation against a country which is seen to have done something wrong e.g. the invasion of Afghanistan in response to the attack on the World Trade Centre in NYC.	"Those who have been attacked are permitted to take up arms because they have been wronged" Qur'an 22:39
Greater jihad	The personal inward struggle of all Muslims to live in line with the teachings of their faith		
Pacifism	The belief of people who refuse to take part in war and any other form of violence	9. There are differing types of weapons. Often weapons of mass destruction are held by countries so that they are feared by other countries. In 2015, nine nations possessed around 15,700 nuclear weapons between them. 10. Religions use rules to determine whether they should go to war or not. Muslims call it a just war as part of lesser jihad. Christians have the 4 th Century theory on Just War – 9 ways and reasons to go to war.	"Whoever saved a life, it would be as if they saved the life of all mankind " Qur'an 5: 32
			"But I tell you, do not resist an evil person . If anyone slaps you on the right cheek, turn to them the other cheek also" Matthew 5:39
			"You have heard that it was said to the people long ago. 'You shall not murder, and anyone who murders will be subject to judgment.' But I tell you that anyone who is angry with a brother or sister will be subject to judgement." Matthew 5: 21-22
			"For the love of money is a root of all kinds of evil" 1 Timothy 6:10

MA MAISON - MY HOUSE

FRENCH - KNOWLEDGE ORGANISER YEAR 10



J'habite	I live
dans	in
une maison	a house
un appartement	a flat
un immeuble	a block of flats
une ferme	a farm
une maison individuelle	detached house
une maison jumelle	semi-detached house
une maison en rangée	terraced house
en banlieue	in the suburbs
à la campagne	in the countryside
au centre-ville	in the town centre
au bord de la mer	by the seaside
à la montagne	in the mountains
J'y habite depuis deux ans	I have lived there for 2 years
grand(e)	big
vieux/vieille	old
beau/belle	beautiful
moderne	modern
ancien(ne)	old/ancient
Le salon	lounge
la salle de séjour	living room
la salle à manger	dining room

ma chambre	my bedroom
la cuisine	kitchen
la salle de bains	bathroom
la cave	basement
les escaliers	stairs
le balcon	balcony
la terrasse	patio / decking
un jardin	a garden
nous avons	we have
nous n'avons pas de	we don't have any
Il y a	there is/ there are
Il n'y a pas de	there isn't/aren't any
joli(e)	pretty
petit(e)	small
c'est	it is
est	is
près de	near to
au premier étage	on the first floor
au sous-sol	in the basement
les pièces	rooms
l'entrée	hallway (entrance)
une armoire	a wardrobe
un ordinateur	a computer

en car de ramassage	by pick-up bus
en voiture	by car
à vélo	by bike
à pied	on foot
un lit	a bed
un ordinateur portable	a laptop

COMPLEX STRUCTURES

Après avoir visité Paris, je voudrais y habiter

– after having visited Paris, I would like to live there.

J'ai l'intention d'habiter à Paris

– I intend to live in Paris

J'ai décidé de visiter Paris

– I decided to visit Paris

Je pourrais habiter

– I could live

Je ne pourrais pas habiter

– I could not live

Je voulais habiter

– I used to want to live.....



MA VILLE EST... - MY TOWN IS...

historique - historic
 touristique - touristic
 pittoresque - picturesque
 elle se situe - it is situated
 au bord de la mer - by the seaside
 à la montagne - in the mountains
 on pourrait aller - we/you could go
 en ville - in/into town
 on peut + inf - you can + inf
 faire du shopping - go shopping
 faire les courses - to do (food) shopping
 visiter le musée - visit the museum
 aller à la plage - go to the beach
 le monde - the world
 tout le monde - everyone
 il y a trop de monde - there too many people
 beaucoup de - lots of
 la circulation - traffic
 un immeuble - a block of flats
 Je me balade - I go for a stroll
 un centre de sport - a sports centre

un centre de loisirs
 le château
 une gare
 une gare routière
 une grande surface
 un musée
 un cinéma
 un parc d'attractions
 une piscine
 une plage
 un stade
 plus moderne que
 sous / sur
 dans
 J'habite à Torquay
 J'habite en France (f)
 J'habite au Canada (m)
 mon quartier
 les espaces verts
 un jardin public
 une commode
 une chaise
 les escaliers
 une étagère
 un lit
 une table

- a leisure centre
 - the castle
 - a station
 - a bus station
 - a hypermarket
 - a museum
 - a cinema
 - a theme park
 - a swimming pool
 - a beach
 - a stadium
 - more modern than
 - underneath / on
 - in (inside eg. building)
 - I live in Torquay
 - I live in France (f)
 - I live in Canada (m)
 - my neighbourhood
 - green spaces
 - a public garden
 - a chest of drawers
 - a chair
 - the stairs
 - a shelf
 - a bed
 - a table

une télévision - a TV
 un miroir - a mirror
 une patinoire - ice skating rink
 une poubelle - a rubbish bin
 (trop) bruyant - too noisy
 très vivant - very lively
 ennuyeux / barbant - boring



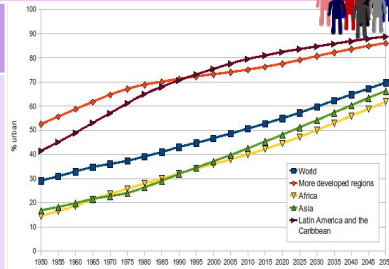
LINGUASCOPE
Login Details:
 Go to:
www.linguascope.com
 Username: paigntonac
 Password: towner

What is Urbanisation?

This is an increase in the amount of people living in urban areas such as towns or cities. In 2007, the UN announced that for the first time, more than 50 % of the world's population live in urban areas.

Where is Urbanisation happening?

Urbanisation is happening all over the world but in LICs and NEEs rates are much faster than HICs. This is mostly because of the rapid economic growth they are experiencing.



Causes of Urbanisation

Rural - urban migration (1)

The movement of people from rural to urban areas.



Push

- Natural disasters
- War and Conflict
- Mechanisation
 - Drought
- Lack of employment



Pull

- More Jobs
- Better education & healthcare
- Increased quality of life.
- Following family members.

Natural Increase (2)

When the birth rate exceeds the death rate.

Increase in birth rate (BR)

- High percentage of population are child-bearing age which leads to high fertility rate.
- Lack of contraception or education about family planning.

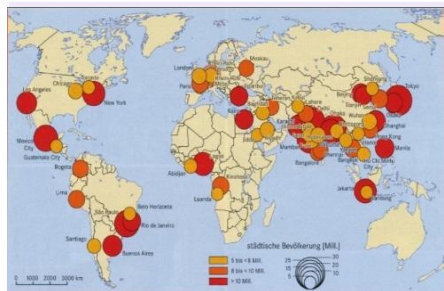
Lower death rate (DR)

- Higher life expectancy due to better living conditions and diet.
- Improved medical facilities helps lower infant mortality rate.

Types of Cities

Megacity

An urban area with over 10 million people living there.



More than two thirds of current megacities are located in either NEEs (Brazil) and LICs (Nigeria). The amount of megacities are predicted to increase from 28 to 41 by 2030.

GEOGRAPHY

Sustainable Urban Living

Sustainable urban living means being able to live in cities in ways that do not pollute the environment and using resources in ways that ensure future generations also can use them.



Water Conservation

This is about reducing the amount of water used.

- Collecting rainwater for gardens and flushing toilets.
- Installing water meters and toilets that flush less water.
- Educating people on using less water.

Energy Conservation

Using less fossil fuels can reduce the rate of climate change.

- Promoting renewable energy sources.
- Making homes more energy efficient.
- Encouraging people to use energy.



Creating Green Space

Creating green spaces in urban areas can improve places for people who want to live there.

- Provide natural cooler areas for people to relax in.
- Encourages people to exercise.
- Reduces the risk of flooding from surface runoff.

Waste Recycling

More recycling means fewer resources are used. Less waste reduces the amount that eventually goes to landfill.

- Collection of household waste.
- More local recycling facilities.
- Greater awareness of the benefits in recycling.

Unit 2a



Urban Issues & Challenges

Sustainable Urban Living Example: Malmö, Sweden

Background & Location

Located in south west Sweden. Since 2000, has been linked by the Øresund Bridge across the Øresund to Copenhagen, Denmark.

Sustainable Strategies

Malmö is known as one of the most sustainable cities in the world. - Malmö has over 500km of cycle tracks. 1 in every 4 journeys in Malmö is by bike. People in the city collect their organic waste to make biogas to power the city's busses. By 2030, Malmö wants to be powered entirely by renewable energy sources. At the moment, wind turbines around the city power 60,000 homes. All new houses in Malmö are low energy.

Integrated Transport System

This is the linking of different forms of public and private transport within a city and the surrounding area.

Brownfield Site

Brownfield sites is an area of land or premises that has been previously used, but has subsequently become vacant, derelict or contaminated.

Traffic Management

Urban areas are busy places with many people travelling by different modes of transport. This has caused urban areas to experience different traffic congestion that can lead to various problems.

Environmental problems

- Traffic increases air pollution which releases greenhouse gases that is leading to climate change.

Economic problems

- Congestion can make people late for work and business deliveries take longer. This can cause companies to lose money.

Social Problems

- There is a greater risk of accidents and congestion is a cause of frustration. Traffic can also lead to health issues for pedestrians.

Congestion Solutions

- Widen roads to allow more traffic to flow easily.
- Build ring roads and bypasses to keep through traffic out of city centres.
- Introduce park and ride schemes to reduce car use.
- Encourage car-sharing schemes in work places.
- Have public transport, cycle lanes & cycle hire schemes.
- Having congestion charges discourages drivers from entering the busy city centres.

Traffic Management Example: London

Oyster Cards allows people to travel on London's integrated transport network.

Boris Bike scheme- people can hire a bike for journeys across London. Congestion Charging to limit the number of cars in the city centre.

Greenbelt Area

This is a zone of land surrounding a city where new building is strictly controlled to try to prevent cities growing too much and too fast.

Urban Regeneration

The investment in the revival of old, urban areas by either improving what is there or clearing it away and rebuilding.

Urban Change in a Major UK City: London Case Study



Location and Background

London can be found in the South East of England, located on the River Thames which has been influential in its growth, and in the centre of the densest population of the UK. It also hosts the parliament of the UK.

City's Importance

- Within Europe, London is part of Europe's economic core, the area producing the majority of the GDP or wealth of Europe.
- London is one of the most visited cities in the world.
- London has several major airports including Heathrow, Gatwick, City and London Stansted.
- 65% of London's land is either gardens, public green space or water.

Migration to London

There are 3 main reasons for migration to London:

1. **Internal** (within the UK) migration has been negative; that is the numbers of people moving out of London has been greater than the number of UK residents moving in. This balance has got smaller over time.
2. **International** net migration is positive, so there have always been more foreign born people moving into London than out of it
3. **Natural Change** has been positive, so births have been above deaths and this has boosted the population size.

City's Opportunities

Social: cultural mix or multiculturalism basically refers to a country or place that has more than one culture living together in close proximity. Multiculturalism is an issue in many HICs and can be viewed in both a positive light and as something that can pose problems that need careful management.

Economic: London is a major world financial centre and a range of businesses which attract a highly skilled workforce.

- London residents (aged 16 to 64 and working) are more likely to be employed in managerial, professional or associate professional and technical occupations.
- The unemployment rate was one of the highest (10%)

Environmental: Urban greening means to increase the amount and proportion of green spaces within a city. These green spaces are essential for people's quality of life. London has made attempts to offer lots of green spaces

City Challenges

Social: House price increase along with greater house shortages. Inequalities in education. Increased crime rates.

Economic: INEQUALITIES exist in London between the rich and the poor – income, education, housing.

Environmental: Urban sprawl has led to increased pressure and decline of greenfield sites around the city. London suffers from air pollution due to a dense road network and high buildings. This means that central London tends to be one of the most polluted places in the UK.



Urban Change in a Major NEE City: LAGOS Case Study



Location and Background

Located in South West Africa's most populated city. Nigeria's largest city.

City's Importance

The city was originally a small fishing village. In the early twentieth century it became the capital city of Nigeria until 1991 when the government moved to Abuja. The population of Lagos increases by approximately 600,000 each year. The Lagos State Government estimates the population of Lagos to be 17.5 million. Urban growth occurred along the line of the railway. A population boom occurred during the 1970s as the result of the growth of the oil industry. Many thousands of people moved to the city seeking jobs in this industry. 80% of Nigeria's industry is located within Lagos. It remains the main financial centre of West Africa. The city has an international airport and an important sea port.

Migration to Lagos

The main reason for migration to Lagos over the past 50 years has been rural– urban migration. People are encouraged to leave the countryside by push factors such as the lack of job opportunities and low wages. They are brought to the city by pull factors such as the prospect of well-paid work and the attraction of an urban lifestyle.

Another reason for Lagos' population growth is the high rate of natural increase in the city's population. This is due to the city's youthful population, since most migrants to the city are young. Nigeria is becoming an increasingly urbanised country. By 2015, just over half the population was still living in rural areas, but as rural– urban migration continues, the majority will be urban within the next few years.

Reasons for rural to urban migration

Education and health services are poor in rural areas. Changing climate is making the weather less predictable. Droughts and floods occur more often, now. Farming pays low wages but requires a lot of hard work. Few job opportunities exist other than farming. There is a land shortage due to population growth. Despite urbanisation, rural population continues to grow. Land is degraded due to farming and other activities. Land in the Niger Delta region is polluted by the oil industry. Political unrest creates insecurity. The terrorist group, Boko Haram, is active in the north of Nigeria.

City Challenges

Social: There is a severe shortage of housing, schools and healthcare centres available. Large scale social inequality, is creating tensions between the rich and poor.

Economic: The rise of informal jobs with low pay and no tax contributions.

Environmental: Shanty towns are established around the city, typically on unfavourable land, such as low lying flat land vulnerable to flooding.

Self-help schemes – Floating School

Makoko is one of the world's largest waterside slums, much of it built on stilts above the waters of the Lagos Lagoon, on the eastern fringes of the city of Lagos in Nigeria. With an estimated 2,000 people migrating to Lagos every day, many end up in informal settlements like Makoko and people started building over the water. One of the main requirements was for more school space. The existing school is built on reclaimed land, but does not have room to expand and is also subject to periodic flooding. Adeyemi volunteered to design and help build a floating school for the area. Adeyemi designed a 3-storey A-frame multipurpose structure that could serve as a school as well as a venue for local community meetings and other activities. The whole structure floats on a matrix of 256 plastic 200-litre drums. Some of the outer drums can be used to store rainwater, a solar panel is used to supply electricity, and there are composting toilets aboard. In June 2016, however, the project was dealt a blow it collapsed during a heavy thunderstorm in Lagos.



HISTORY

GCSE History. Medicine Through Time

Medieval Medicine 1250-1500



Key events:

- 1123:** Britain's first hospital, St Bartholomew's was set up in London
- 1350:** Average life expectancy is 35 years of age.
- 1348-49:** The Black Death kills 1/3 of England's population.
- 1388:** Parliament passes the first law requiring streets and rivers to be kept clean by the people.

Key words:

- Superstition Purging
- Leeching Cupping
- Fasting Mass
- Astrology Miasma
- Wise Woman Apothecary
- Physician Barber Surgeon
- Dissection Epidemic
- Trepanning Vademecum
- The Four Humours
- Pilgrimage

The Medical Renaissance in England, 1500-1700



Key events:

- 1543:** Vesalius published The Fabric of the Human Body.
- 1565:** The first dissection was carried out in Cambridge
- 1628:** Harvey published his book An Anatomical Account of the Motion of the Heart and Blood.
- 1645:** The first meeting of the Royal Society/
- 1665:** The Great Plague in London. 75,000 died.

Key words:

- Continuity
- London Treacle
- Autopsy
- Royal Society
- Anatomy
- Physiology
- Microscope
- Thermometer
- Mortality Bill
- Pesthouse
- Renaissance

Medicine in 18th and 19th century Britain



Key events:

- 1798:** Edward Jenner developed the first vaccine for Smallpox.
- 1847:** James Simpson developed chloroform as an anesthetic.
- 1854:** John Snow's maps proved the source of cholera.
- 1861:** Louis Pasteur's germ theory was published.
- 1867:** Lister used antiseptic to prevent infection.
- 1875:** The Public Health Act.
- 1882:** Robert Koch identified bacteria that caused specific diseases.

Key words:

- Vaccine Sanitation
- Smallpox Workhouse
- Anaesthetic Drugs Dispensary
- Infection Voluntary hospital
- Cholera Chloroform
- Germ Theory Industrial Revolution
- Antiseptic Breakthrough
- Medical Officer Public health
- Contagion
- Epidemic

Year 11 History Medicine through time.

The Medical Renaissance in England, 1500-1700

Renaissance England.

The Renaissance was the period between 1500-1700 in England. Art and Science were growing in importance.



Key events:

1543 – Vesalius published The Fabric of the Human Body. It showed how the human body worked.

1565 – the first dissection was carried out in Cambridge.

1628- Harvey published his book An Anatomical Account of the Motion of the Heart and Blood which showed blood moving around the body.

1645 – The first meeting of the Royal Society.

1665- The Great Plague in London. 75,000 died.

Key Concepts of Medical Renaissance:

The King – People still believed that the King could cure diseases such as scrofula (a skin disease). Being touched by the King was as close as you could get to being touched by God.

Renaissance – this was a time of change (re-birth) when people became interested in all things Greek and Roman. Printing was developed so that books could be published (e.g. Galen, Vesalius). People realised the Greeks had loved enquiry – asking questions and challenging old ideas.

Evidence – rather than believing & accepting old ideas (e.g. The Four Humours) without question, scientists and doctors were more willing to experiment (e.g. dissecting bodies). People started to look to evidence over tradition.

Key people of Renaissance Medicine:

Thomas Sydenham
William Harvey
Andreas Vesalius

Key words:

Continuity	Microscope
London Treacle	Thermometer
Autopsy	Mortality Bill
Diagnosing	Pesthouse
Royal Society	Printing
Anatomy	Physiology

Medicine in 18th and 19th century Britain

18th and 19th century Britain.

This was a time of breakthroughs in medicine in England. There were many scientific discoveries but also many Public Health problems.

Key Words:

Vaccine
Sanitation
Smallpox
Workhouse
Anaesthetic Drugs
Dispensary
Infection
Voluntary hospital
Cholera
Chloroform
Germ Theory
Industrial Revolution
Antiseptic
Breakthrough
Medical Officer
Public health
Contagion
Epidemic

Key people of 18th and 19th Century medicine.

Robert Koch
Florence Nightingale
Edward Jenner
John Snow

Key events:

1798: Edward Jenner developed the first vaccine for Smallpox.
1847: James Simpson developed chloroform as an anesthetic.
1854: John Snow's maps proved the source of cholera.
1861: Louis Pasteur's germ theory was published.
1867: Lister used antiseptic to prevent infection.
1875: The Public Health Act.
1882: Robert Koch identified bacteria that caused specific diseases.

Key Concepts of Medicine in the 18th & 19th Century:

Nursing – Nurses are responsible for the care of patients in hospital. Before 1800, hospitals were dangerous places where death was very likely. The development of nursing changed that.

Breakthrough – a scientific discovery that dramatically alters the way people understood disease – e.g. the discovery of bacteria. This then helps the problem to be solved.

Public Health – when the government takes measures to prevent diseases spreading and to help the population become healthier. The government increasingly took on this role after the development of germ theory.

Year 11 History Medicine through time.

Medicine in modern Britain. 1900-Present.

Modern Britain

From 1900-Present, there have been massive changes in medicine and treatment.

Key words:

X-Ray Technology
Transplant
Radiotherapy/Chemotherapy
Superbugs
Gene therapy
Dialysis
Polio
Penicillin
Pacemaker
Antibiotics
Magic bullets
Electron microscope
DNA
Cancer

Key people:

Rosalind Franklin
James Watson
Francis Crick
Paul Ehrlich
Hata
Winston Churchill
Alexander Fleming
Howard Florey
Ernst Chain
Aneurin Bevan
NHS

Key events:

1900 – life expectancy was still below 50 years of age.

1911 – National Insurance Bill introduced – gave help if workers were sick or unemployed.

1914-1918 World War One leads to developments in surgery and treatment.

1928 – Fleming discovered penicillin.

1938 – Florey and Chain developed use of penicillin.

1948 – The NHS begins following the Beveridge report (1942)

1953 – Crick and Watson discovered the structure of DNA.

Key Concepts:

War – World War One and World War Two forced developments in treatment and surgery – e.g. plastic surgery and the use of antibiotics in WW2.

Technology – huge improvements in technology greatly improved the understanding and treatment of disease – e.g. X-ray, DNA, Pacemakers, dialysis and keyhole surgery.

National Health Service - After WW2, the government introduced the NHS in 1948. This offered free healthcare at the point of delivery. The expansion of who could vote and the shared experience of suffering in WW2 bought about this development.

The British sector of the western front 1914-18 injuries, treatments and the trenches.

Using sources key words:

Source	Useful
Provenance	
Contextual knowledge	
Nature	Suggests
Origin	Supports
Purpose	Accurate
Evidence	Atypical
Typical	

Possible sources of evidence about medicine on the Western Front:

Photographs
Diaries
Autobiographies/memoirs/ interviews of soldiers or different medical staff
Newspaper reports
Doctors'/surgeons' medical journals
Military records showing...
RAMC records of...

Key words:

The Western Front
RAMC (Royal Army Medical Corps)
Trenches
Triage
Arras underground network.
Field Ambulance
Front line

New treatment techniques in WW1

1. Wounds and infection:
 - The Carrel-Dakin method
 - Debridement
 - Amputation
2. The Thomas Splint
3. Mobile x-ray units:
4. Blood transfusions:
5. Brain surgery
6. Plastic surgery:

The chain of evacuation

Regimental Aid Posts (RAP)
Dressing Stations (ADS and MDS)
Casualty Clearing Stations
Base Hospitals

Major battles of the Western Front.

Oct-Nov 1914 - First Battle of Ypres
April 1915 - Hill 60
Apr-May 1915 - Second Battle of Ypres
July - Nov 1916 - Battle of the Somme
Apr - May 1917 - Battle of Arras
July - Nov 1917 - Third Battle of Ypres
Oct - Dec 1917 - Battle of Cambrai

SPANISH - Y10 - Term 2

Generación digital - The digital generation

descargar música	to download music	llamar por videollamda	to make a video call	la conexión wifi	Wi-Fi connection
gastar batería	to waste/use battery	sacar fotos	to take photos	la cuenta	the account
hacer la compra	to do the shopping	subir fotos	to upload photos	el navegador	sat-nav
por Internet	online	la aplicación/ la app	application (app)	la radio digital	digital radio
jugar a videojuegos	to play video games	las compras	shopping	el supermercado virtual	online supermarket
				la tableta	tablet



¿Qué ponen en la televisión ?- What's on TV ?

el concurso	the game show	el programa musical	music programme	el capítulo	episode/chapter
los dibujos animados	cartoons	la serie	the series	el dispositivo	the device
el documental	the documentary	el telediario	the news	hacer un maratón de	to binge-watch
la película	the film	la telenovela	the soap opera	la programación	TV guide/schedule
el programa de deportes	sports programme	a la carta	on demand	la variedad	variety
el programa de humor	comedy programme	el canal	the channel		



¿En el cine o en casa ?- In the cinema or at home ?

una película	a film	romántica	romantic	nuevo/a	new
cómica	comedy	cautivador(a)	captivating	peor	worse/worst
de aventuras	adventure	complejo/a	complex	predecible	predictable
de ciencia ficción	science fiction	decepcionante	disappointing	profundo/a	deep/insightful
de dibujos animados	animated	entretenido/a	entertaining	sangriento/a	gory
de miedo	horror	espeluznante	terrifying	triste	sad
de misterio	mystery	impactante	striking	me da miedo	it scares me
del oeste	western	mejor	better/best	me hace pensar	it makes me think
musical	musical	memorable	memorable	me hace reír	it makes me laugh



Somos melóman@s	We're music lovers
los instrumentos	instruments
la música	music
tocar	to play (an instrument)
la batería	the drums
la flauta	the flute
la gaita	the bagpipes
la guitarra	the guitar
la pandereta	the tambourine
el piano	the piano
la trompeta	the trumpet
el violín	the violin
el/la artista	the artist
la banda	the band/group
el/la cantante	the singer
el concierto	the concert
el/la melómano/a	the music lover
la pasión	passion

Quiero ser...-	I want to be...
el/la actor/actriz	actor/actress
el/la arquitecto/a	architect
el/la bibliotecario/a	librarian
el/la bloguero/a	blogger
el/la carnicero/a	butcher
el/la científico/a	scientist
el/la cocinero/a	chef
el/la dentista	dentist
el/la electricista	electrician
el/la enfermero/a	nurse
el/la escritor	writer
el/la fontanero/a	plumber
el/la fotógrafo/a	photographer
el/la granjero/a	farmer
el/la jugador/a de fútbol	footballer
el/la mecánico/a	mechanic

Mis intereses personales	My personal interests
los datos personales	personal data
el estado	status
la obsesión	obsession
el perfil de Internet	internet profile
la red social	social network
la tendencia	trend
el tuit	tweet
cambiar mi estado	to change my status
comentar las fotos	to comment on photos
dar 'me gusta'	to 'like' e.g. a photo
hacer vídeos en directo	to make live videos
leer las noticias	to read the news
estar de moda	to be fashionable
estar bien informado	to be well informed
estar obsesionado/a	to be obsessed
poner efectos	to add effects
poner filtros	to add filters
subir selfis	to upload selfies

el/la médico	doctor
el/la pescadero/a	fishmonger
el/la piloto (de avión)	pilot
el/la policía	police officer
el/la profesor/a	teacher
el/la recepcionista	receptionist
el/la secretario/a	secretary
el/la jefe	the boss
la libertad	freedom
el sueldo	salary
agradable	pleasant
estimulante	stimulating
exigente	demanding
gratificante	satisfying

Esto es lo que llevo	This is what I wear
la ropa	clothing
llevar	to wear
¿qué llevas?	what do you wear?
llevo...	I wear...
los calcetines	socks
la camisa	shirt
la camiseta	t-shirt
la chaqueta	jacket
la corbata	tie
la falda	skirt
la gorra	cap
el jersey	jumper
los pantalones	trousers
el uniforme	uniform
los vaqueros	jeans
el vestido	dress
las zapatillas (de deporte)	trainers
los zapatos	shoes
bonito/a	pretty
cómodo/a	comfortable
elegante	smart, stylish
guay	cool
tradicional	traditional
este/esta	this
estos/estas	these
ese/esa	that
esos/esas	those
aquel/aquella	that (further away)
aquellos/aquella	those (further away)

Estrellas con estilo – Stars with style

los estampados	- patterns	de lunares	- spotted
amplio/a	- baggy	de rayas	- striped
corto/a	- short	apropiado/a	- appropriate
de cuadros	- checked	distinto/a	- different
estampado/a	- patterned	la blusa	- blouse
estrecho/a	- tight	la cinta para el pelo	- headband
de flores	- floral	el cinturón	- belt
hortera	- tacky	el estilo	- style
largo/a	- long	el pijama	- pyjamas
liso/a	- plain		



De tiendas – At the shops

la carnicería	butcher's	alquilar	to hire
la chocolatería	chocolate shop	cerrar	to close
la joyería	jewellery shop	los complementos	accessories
la panadería	baker's	loco/a	crazy
la papelería	stationary shop	nuevo/a	new
la perfumería	perfume shop	algunos/as	some
la pescadería	fishmonger's	ciertos/as	certain
la tienda de disfraces	fancy dress shop	muchos/as	many
La tienda de ropa	clothes shop	otros/as	other
la zapatería	shoe shop	pocos/as	few
el abrigo	coat	todos/as	all
abrir	to open	varios/as	several



¡Es imposible comprar así!

It's impossible to buy like that!

tiene un agujero	it has a hole	probar	to try on	el tique de compra	receipt
está roto/a	it is broken	quedar bien	to suit/fit	vale	right, good, ok
cambiar	to (ex) change	el reembolso	refund	vender	to sell
funcionar	to work/function	¿En serio?	Really?		
pedir	to ask for	Lo siento	I'm sorry		

En el centro comercial	In the shopping centre
los centros comerciales	shopping centres
por Internet	online
las tiendas pequeñas	small shops
la agencia de viajes	travel agency
las alfombras	rugs
la alimentación	food
la azotea	rooftop
el juguete	toy
la juguetería	toy shop
el hogar	homewares/home
la moda deportiva	sportswear
los muebles	furniture
la planta baja	ground floor
la relojería	watch shop
el anuncio	advert
devolver	to return
en línea	online
hacer clic	to click (the mouse button)
la oferta	offer
el ratón	mouse
la variedad	variety
primero	first
segundo	second
tercero	third
cuarto	fourth
quinto	fifth
sexto	sixth
séptimo	seventh
octavo	eighth
novena	ninth
décimo	tenth

Si ganara la lotería - If I won the lottery

si fuera millonario/a	if I were a millionaire
si fuera posible...	if it were possible
si ganara la lotería	if I were to win the lottery
cambiaría de peinado	I would change my hairstyle
compraría	I would buy...
un montón de ropa marca	lots of designer clothes
unas gafas de sol de marca	designer sunglasses
iría a la peluquería	I would go to the hairdresser's
tendría un asistente personal	I would have a personal assistant
tendría un teléfono móvil de lujo	I would have an expensive mobile phone
viajaría por todo el mundo	I would travel around the world
el coche cuatro por cuatro	4x4 vehicle
el equipamiento propio/a	own equipment
la ropa de marca	designer clothes
salir de fiesta	to go out partying

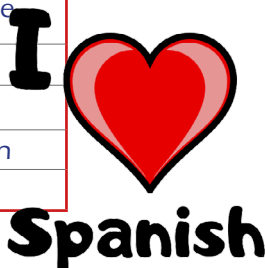
Lo que hago por las mañanas - What I do in the mornings

La rutina	routine
desayunar	to have breakfast
despertar(se)	to wake up
duchar(se)	to have a shower
ir al instituto	to go to school
lavar(se) los dientes	to brush your teeth
levantar(se)	to get up
peinar(se)	to brush/comb your hair
vestir(se)	to get dressed
a menudo	often
a veces	sometimes
antes	first, before
después	after, afterwards
durar	to last
inmediatamente	immediately
luego	then, later
mientras	while
nunca	never
raras veces	rarely
siempre	always
deprisa	fast, quickly
tener prisa	to be in a hurry

Lo que hago por las tardes y por las noches	What I do in the afternoons and evenings
acostar(se)	to go to bed
cambiar(se) de ropa	to get changed
cenar	to have dinner
hacer los deberes	to do homework
merendar	to have a snack (afternoon)
pasear al perro	to walk the dog
relajar(se)	to relax
volver a casa	to return home
cuando llego a casa	when I arrive home
cuando me apetece	when I feel like it
si mis padres me dejan	if my parents let me
si tengo tiempo	if I have time
siempre que puedo	whenever I can
al final del día	at the end of the day
aproximadamente	approximately
el proyecto	project
temprano	early
(no) tener tiempo	to (not) have time

¡Te he dicho que no! - I've told you, no!

aguantar(se)	to stand/bear	llevarse bien con	to get on well with
criticar	to criticise	llevarse mal con	to get on badly with
discutir	to argue, quarrel	pelearse	to fight/argue
enfadarse	to get angry	respetar	to respect
gritar	to shout	volver a casa	to return home
llegar a casa	to arrive home	estar de acuerdo	to be in agreement
estar en contra	to be against	a todas horas	all the time
estricto/a	strict	al conflicto	conflict
incompatible	incompatible	el lío	mess
injusto/a	unfair	el permiso	permission
justo/a	fair	la regla	rule
razonable	reasonable		



sueño con otra vida

ambicioso/a	ambitious
el canal	canal
cansar	to tire
igual	same, equal
el pensamiento	thought
el puente	bridge
la quinceañera	15th birthday party
recoger	to collect/pick
el sentimiento	feeling
tardar	to take (time)/be late
traer	to bring

I dream about another life

últimamente	recently, lately
vender	to sell
comenzar/empezar a	to start doing
Dejar de	to stop doing
depender de	to depend on
hablar con	to talk to
hablar sobre	to talk about
pensar en	to think about
soñar con	to dream about
volver a	to do something again



Art Component 1: Creative Practice in Art & Design

Fragments of Our World

Key Words investigation, visual language, approaches, skilful, comparisons, risk-taking, communication, insightful, practitioners, two-dimensions, manipulate, traditional, contemporary, disciplines, constraints, line, tone, shape, colour, pattern, texture, composition, space, depth, light, shadow, harmony, contrast, symmetry, asymmetry.

Materials, Techniques and Processes:

pencils, graphite, ink, pen and wash, drawing pens, chalk, pastels, hand-made tools, print-making, painting, acrylic, watercolour, ink, digital drawing, manipulation, textiles, print, embellish, collage, photography and digital manipulation.



Learning Aims:

- Use investigation and experimentation processes in art and design practice.
- Generate and communicate art and design ideas.
- Develop practical skills through application and review.
- Record and communicate skills development.

Fragments of Our World:

(a small part broken off or separated from something, break or cause to break into fragments)
Artists, designers and crafts people need 2D skills and knowledge to communicate their ideas effectively. Working in 2D requires skills in handling 2D materials and techniques. In Component 1 you will experiment with a range of 2D mark-making activities whilst exploring and being inspired by *Fragments of Our World*. You will focus on either **people, architecture or natural forms**.

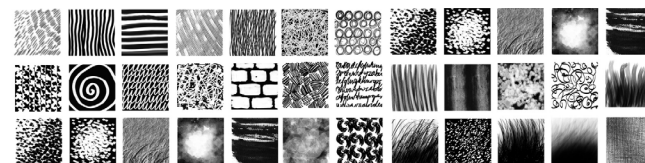


- Tips for Success**
- Investigate historical and contemporary practitioners.
 - Consider your audience needs.
 - Research primary and secondary sources.
 - Respond to the work of others practically.
 - Solve creative problems.
 - Reflect on your ideas.
 - Support visual ideas with diagrams, annotations and explanations.
 - Consider health and safety practice.
 - Learn from mistakes through trial and error.
 - Stay organised.
 - Consider presentation.



Useful Websites

- www.artjournal.co.uk
- www.creative-choices.co.uk/industry-insight/inside/design
- www.culture24.org.uk/
- www.fashion-era.com/C20th_costume_history
- www.graphicdesign.about.com/arts/graphicdesign
- www.masters-of-photography.com

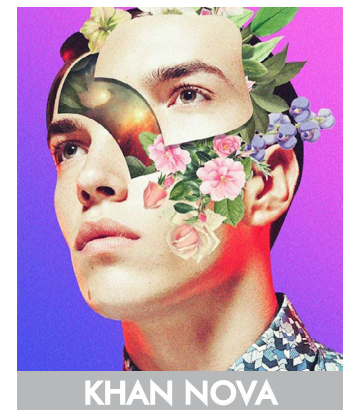
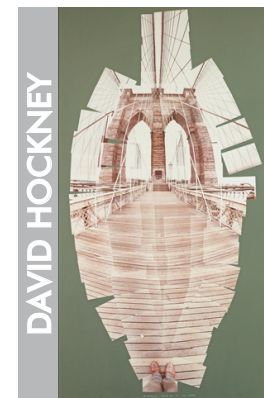


Use investigation and experimentation processes in art and design practice - research a range of practitioners, using primary and secondary sources. Develop understanding of art and design practice through investigation and experimentation, exploring how practitioners use materials, techniques and processes to find creative solutions and communicate with audiences.

Generate and communicate art and design ideas - explore and develop a range of experimental and imaginative ideas, applying research and practical investigation to visually communicate ideas.

Develop practical skills through application and review - develop practical skills through exploration of materials, techniques and processes. Practise and review skills relevant to creative intentions in order to develop and improve work.

Record and communicate skills development - use methods of recording to document and communicate development of skills and creative work.



Artists to Investigate:
Erik Jones, Josh Bryan, Nick Gentry, David Hockney, Khan Nova, Ed Fairburn, David Mack, Faig Ahmed, Fernand Léger, Daniel Clark, Alan Fletcher, Charles Sheeler, Jon Measures, Rebecca Vincent, John Piper, Sey Fedulor, David Schnell, Sophie Layton, Bonnie & Clyde, Florian Nicolle, Ray Van Nes, Irene Imfeld, Matthieu Paley, Ian Murphy, Edward Weston and Amiria Gale, Sophie Layton and Bonnie & Clyde.

1.3 Putting a Business Idea into Practice

1.3.1 Aims & Objectives

Aims – a long term, strategic goal eg grow the business

Objective- a short term specific target eg increase market share by 5% this year

Financial Objective – one that involves money eg improve sales, profit, market share, survival etc

Non Financial Objectives – one that does not involve money : personal satisfaction, challenge, control, independence, social benefit

1.3.2 Revenue, Costs and Profit

Formulas needed

Revenue = Selling Price x Quantity

Profit = Revenue – Total Cost

Total Cost = Fixed Cost + Variable Cost

Total Variable Cost = Variable Cost per unit x Quantity

Breakeven = Fixed Cost / (Selling Price - Variable Cost)

Margin of Safety = Actual Sales – Breakeven Level

Interest = (Total Repayment – Borrowed Amount) / Borrowed Amount

1.3.2 Revenue, Costs and Profit

Key Terms

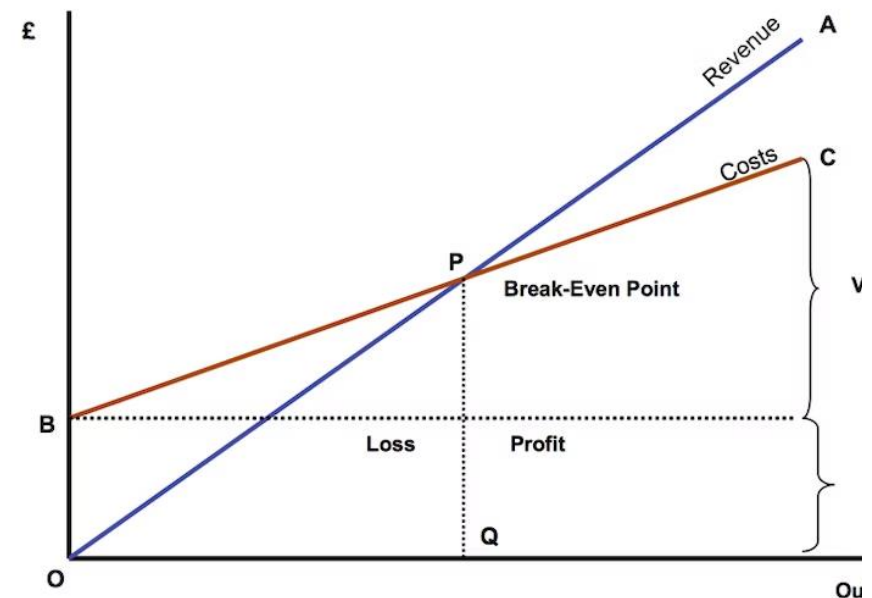
Variable Costs – costs that change with the level of output eg raw materials

Fixed Costs – costs that do not change with the level of output eg rent

Interest – cost of borrowing money from the bank or other financial institution

Breakeven – the minimum level of output needed to cover all costs, so no profit or loss is made

Margin of Safety – the amount of sales the business can afford to lose without making a loss



Cash Flow Forecasts

Opening Balance – money in the bank at the beginning of the month

Cash in – all money into the business including revenue, investment, loans etc

Cash out – all money out of the business including purchases and expenses

Net Cash Flow – How much the money in the business has changed

Closing Balance – money in the bank at the end of the month



CASH FLOW FORECAST

£	Wk 1	Wk 2	Wk 3	Wk 4	Wk 5	Wk 6	Wk 7	Wk 8	Wk 9
Opening Balance	0	(4,850)	(9,950)	(14,300)	(8,650)	(13,700)	(18,500)	(21,900)	(26,400)
CASH INFLOW									
Online Shopping Revenues	2,000	2,250	2,500	3,000	3,250	3,500	4,000	4,250	4,500
Government Grant				10,000					
Total Inflows	2,000	2,250	2,500	13,000	3,250	3,500	4,000	4,250	4,500
CASH OUTFLOW									
Office rental	(1,000)	(1,000)	(1,000)	(1,000)	(1,000)	(1,000)	(1,000)	(1,000)	(1,000)
Employee Salaries	(5,000)	(5,000)	(5,000)	(5,000)	(6,000)	(6,000)	(6,000)	(6,000)	(6,000)
Utilities (energy, water and broadband)	(300)	(300)	(300)	(300)	(300)	(300)	(300)	(300)	(300)
Travel	(450)	(450)	(450)	(450)	0	0	0	(450)	(450)
Digital Marketing	0	(500)	0	(500)	(500)	(500)	0	(500)	(500)
Shipping	(100)	(100)	(100)	(100)	(500)	(500)	(100)	(500)	(500)
Total Outflows	(6,850)	(7,350)	(6,850)	(7,350)	(8,300)	(8,300)	(7,400)	(8,750)	(8,750)
NET CASHFLOW									
Closing balance	(4,850)	(5,100)	(4,350)	5,650	(5,050)	(4,800)	(3,400)	(4,500)	(4,250)

Parentheses denote negative numbers

Sources of Finance for Business



Short Term

Overdraft – having a negative balance in the bank account

Trade Credit – buy now pay later given by suppliers

Long Term

Personal Savings – business owners putting in their own money

Venture Capital – (Dragon Den) experienced business people invest for a share of the business and lend their expertise and experience to help business succeed

Share Capital – selling shares in the ownership of the business to others

Loans – borrowing money from a bank and repaying with interest

Retained Profit – using profit made previously to reinvest in the business

Crowd Funding – using online platforms to raise money from a range of investors/donors in exchange for a loan, shares, discounts/privileges etc

1.4 Putting a Business Idea into Practice

1.4.1 Business Start ups

Franchise – when one business (the franchisor) sells the right to use their brand and sell their product to an individual or other business (the franchisee).

Sole Trader - a business owned by only one person, who can employ others if they like. A sole trader has unlimited liability.

Partnership – business owned by between 2-20 partners who all own part of the business and normally are involved running the business. Partners have unlimited liability.

Private Limited Company – Tend to be family run businesses. They can sell shares to family and friends but not to the general public. Shareholders have limited liability.

Liability – the amount of financial loss or criminal/civil damage you are responsible for.

Unlimited Liability – The owners are responsible for all the debt of the business and could lose their personal possessions like home and car because of it.

Limited Liability – any financial loss is limited to the financial investment made into the company, any personal assets are safe.

1.4.2 Business Location

Factors influencing business location

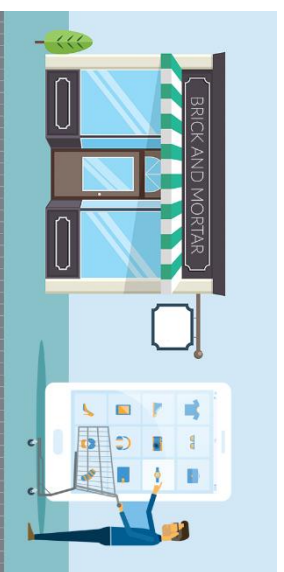
Proximity (closeness) to: customers, staff, materials and competitors

The nature of the business activity

The impact of the internet on location decisions

e-commerce vs bricks and mortar shops
 e-commerce saves on need for expensive high st location next to customers saving money but many enjoy trying goods before they buy.

THE DIFFERENCES		Sole trader	Limited company
Full control over the business		✓	✓
Work with a range of clients		✓	✓
Quick and easy to set up		✓	✗
Register with Companies House		✗	✓
File annual accounts		✗	✓
Pay corporation tax		✗	✓
Personally liable for business debts		✓	✗



1.4.3 The Marketing Mix

Key Terms

Marketing Mix – 4Ps – Price Product, Place and Promotion

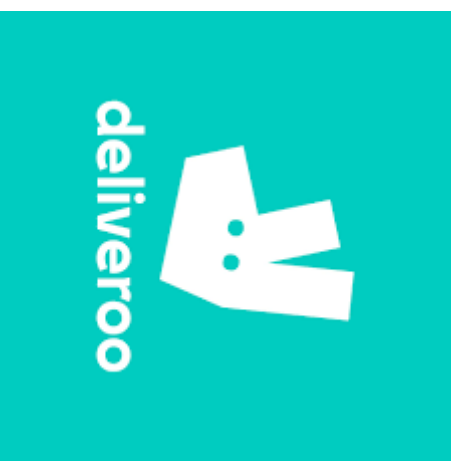
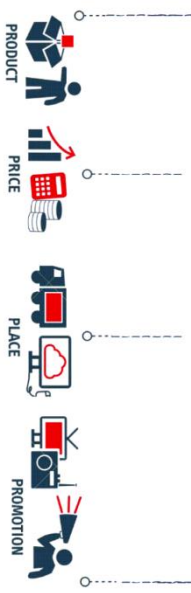
Adjusting the marketing mix based on the levels of competition. Eg lowering prices if a new competitor starts to steal customers

How changing customer needs impact the marketing mix eg with more people working and more living alone the need for convenience in food is leading to increase in ready meals and deliveries

Impact of technology on the marketing mix, especially e-commerce impacting place and digital communications influencing Promotions.



MARKETING MIX



1.4.4 Business Plans

Business Plans tend to include:

The business idea; aims and objectives; target market (market research); location, marketing mix; forecast revenue, costs and profit; and sources of finance.

Business Plans are used to attract finance from banks (loans) or investors as they show why the business needs the money and by when they will be able to pay it back.

They also help to minimise risk as they aide entrepreneurs to consider different aspects of the business and get prepared. Eg arrange overdraft if a shortage of funds identified for a short period of time.



COMPONENT 1 LIVE THEATRE EVALUATION

KEY TERMS

DESCRIBE - to write what you saw and heard - how actors use theatrical skills.

ANALYSE - to examine in detail by looking at the different elements and to explain it.

EVALUATE - to judge or form an opinion, e.g. explaining what effect was created and how successful it was for the audience.

KNOWLEDGE AND UNDERSTANDING OF THE PLAY

- Context of the play.
- Features of the style and genre of the play.
- The plot
- Characters
- Reviews of the play and production.
- Drama devices used.
- How relationships with other characters on stage were communicated by the actor.
- Stage Design and how the actors used it.

WRITING ABOUT DRAMA

WHAT IS A SPECIFIC EXAMPLE?

WHAT did the actor do?

WHEN did the actor do it?

HOW did the actor do it?

WHY did the actor do it?

Interaction between the actor and other characters?

The outcome for the audience.

THEATRICAL SKILLS?

PHYSICAL SKILLS

BODY LANGUAGE

POSTURE

GESTURE

MOVEMENT

SPATIAL AWARENESS

USE OF LEVELS

FACIAL EXPRESSION

EYE CONTACT

PROXEMICS

VOCAL SKILLS

PITCH

PACE

VOLUME

TONE

PROJECTION

ACCENT

INTONATION

TIMING

EMOTIONAL RANGE

DELIVERY OF LINES

COMPONENT 2 DEvised THEATRE

STYLE AND PRACTITIONERS

Naturalistic, Epic Theatre, Semi-naturalistic, Abstract, Stanislavski, Brecht, Frantic assembly

GROUP SKILLS

Choral Speech, Choral movement, Counterpoint, Repetition and Echo, Synchronised, movement/ Unison, Canon, Banners, Characterisation, Multi-role

DRAMA DEVICES

STILL IMAGE

MONOLOGUE

CROSS-CUTTING

PHYSICAL THEATRE

FLASH FORWARD

SLOW MOTION

MARKING THE MOMENT

THOUGHT-TRACK

SPLIT STAGE

MIME

NARRATION

FLASHBACK

WHAT TYPE OF GROUP MEMBER ARE YOU?

LEADER: you have ideas and are happy to express them. You enjoy being in charge. You may sometimes be frustrated if others aren't following you or disagree with you.

HELPER: you don't usually lead, but you are happy to put forward your ideas and work with others. You may assist Leaders to see their ideas through or encourage others to take part.

PASSENGER: you don't want to lead and you aren't confident about putting your ideas forward. However, you will go along with what the group wants to do.

BLOCKER: you find group work frustrating and you don't positively help the group. You might tend to argue with others, refuse to co-operate or become distracted.

REHEARSAL TECHNIQUES

Character Objectives, hot-seating, Emotional Memory, Improvisation, Character Modelling, Back-story, Research, Internal Dramatic Dialogue

Students must develop their ability to:

- ☺ carry out research
- ☺ develop their own ideas
- ☺ collaborate with others
- ☺ rehearse, refine and amend their work in progress
- ☺ analyse and evaluate their own process of creating devised drama
- ☺ realise artistic intention in devised drama



COMPONENT 2 - DEvised THEATRE

RESPONDING TO A STIMULUS

Frantic Assembly

Physical Theatre Company

Combines music, movement and text - inter-disciplinary

Chair Duets

Devised Origins

<ul style="list-style-type: none"> • What ideas generally come to mind? • What does this make you think of? • How does the stimulus make you feel? • What themes do you associate with your stimulus? • Which characters do you associate with your stimulus? • Which settings do you associate with your stimulus? 			<ul style="list-style-type: none"> • What research will you undertake? • What did you find out once you had completed research? • What do you want to show through your character? What do you want the audience to see about them? • What was the initial purpose of your piece overall? What message do you want to show? How do you want your audience to feel? 		
<p>Movement</p> <p>Gait - the way you walk. Posture - the position you hold your body when standing or sitting. Stance - the way you stand. Body Language - how you express your emotions through your body.</p>	<p>Expression</p> <p>Facial Expression - showing your character's emotion by using your face. When describing, focus on the eyes, eyebrows and mouth.</p>	<p>Gesture</p> <p>A movement, using the hand, that expresses an idea or communicates meaning. When describing, describe in detail, e.g. "I used a gesture where I outstretched my hand to show I wanted to ignore the other character."</p>	<p>Interaction</p> <p>Eye contact (or lack of). Proxemics - the distance between the characters that communicates their relationship/situation.</p>	<p>Voice</p> <p>Pitch - how high or low your voice is. Pace - how quickly you speak. Volume - how loud you speak. Use of pause - pausing before a line of speech. Tone - showing your character's emotions through your voice.</p>	<p>Audience</p> <p>What effect does this have on the audience? What do you want the audience to see/feel? How do you know your performance was successful? How did the audience react?</p>

CONSTANTIN STANISLAVSKI

NATURALISTIC

The magic 'if'	Stanislavski said that the character should answer the question, 'What would I do if I was in this situation?'. Also known as the 'magic if', this technique means that the actor puts themselves into the character's situation. This then stimulates the motivation to enable the actor to play the role.
Emotional memory	Emotional memory is when the actor finds a real past experience where they felt a similar emotion to that demanded by the role they are playing. They then 'borrow' those feelings to bring the role to life.
Subtext	The subtext is the actual meaning and motivation behind the lines that are spoken and the actions taken.
Objectives and super-objectives	An objective is the reason for our actions. What are we trying to achieve? The super-objective is an over-reaching objective, probably linked to the overall outcome in the play.
Given circumstances	The information about the character that you start off with and the play as a whole. How old is the character? What's their situation in the play and in relation to the other characters?
Method of physical actions	Imagine a simple activity like cleaning your teeth and then imagine a husband cleaning his teeth whilst deliberating on how to tell his wife about his mistress. This is a simple illustration of how a physical action can release the necessary emotions.
Realistic settings and characters	The objective of naturalism is to create a performance that is as close to real life as possible. Therefore, settings and characters should be realistic.

BERTOLT BRECHT

NON-NATURALISTIC

Verfremdungseffekt (The V effect OR the alienation effect)	Distancing the audience from becoming attached emotionally to the characters/the narrative by reminding them constantly they are watching a play. This enables the audience to think about the subject(s) and themes of the play and possibly take action rather than just being entertained.
Breaking the fourth wall	Addressing or acknowledging the audience directly in order to remind them they are watching a piece of theatre.
Gestus	Gestus is a clear character gesture or movement used by the actor that captures a moment or attitude rather than delving into emotion.
Narration	Narration is used to remind the audience that what they're watching is a presentation of a story. Sometimes the narrator will tell us what happens in the story before it has happened. This is a good way of making sure that we don't become emotionally involved in the action to come as we already know the outcome.
Placards	A placard is a sign or additional piece of written information presented on stage. Using placards might be as simple as holding up a card or banner. What's important is that the information doesn't just comment upon the action but deepens our understanding of it.
Non-linear structure	Scenes are episodic, which means they stand alone and are constructed in small chunks, rather than creating a lengthy and slow build of tension. Epic theatre often has a fractured narrative that is non-linear and jumps about in time, including flashbacks/flash-forwards.
Spass	Making jokes/including comedy to stop the audience from connecting emotionally to the characters. The audience will laugh and then question why they laughed.

HEALTH & SOCIAL CARE

RO32- Health and Social Care Knowledge organiser

Confidentiality	Respecting a persons privacy and not sharing personal, sensitive information about a person.
Disclosure	Making personal/sensitive information about a person known to other professionals.
Empowerment	the process by which people gain control over the factors and decisions that shape their lives
Quality of Life	An individual's perception of their position in life in relation to their health, values and goals that they have.
Jargon	Using medical terminology that most people would not be able to understand.
Informed Decision	Providing information to a person (both positively and negatively) so that they have a balanced view to make a decision.

6 C's
<ol style="list-style-type: none"> 1.Care 2.Compassion 3.Competence 4.Communication 5.Courage 6.Commitment

Active Listening Skills
<ul style="list-style-type: none"> o Show empathy, reflecting feelings o Open, relaxed posture o Eye contact, looking interested o Clarifying o Nodding in agreement o Summarising to show understanding of key points.

Special Methods of Communication in Health and Social Care	
Braille	A writing and reading system for people who have a visual impairment. Raised dots represent the alphabet. Braille is read by feeling those raised dots .
British Sign Language	A visual means of communicating that incorporates gestures, facial expressions and body language. Often used by people that are deaf or have hearing impairments.
Makaton	A language programme that uses symbols, signs and speech to enable people to communicate. Used by infants to help with communication or by adults/children who have a learning disability.
Interpreters	Assist people with little or no spoken English to ensure their health care needs are appropriately met and communicated.
Advocate	Ensure a persons rights are being upheld, this may involve speaking on a persons behalf when they cannot.
Voice Activated Software	Assist in communicating or providing support in tasks such as turning lights off.

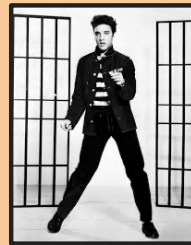
Person Centered Care Values	
Individuality	everyone has their own identity, needs, wishes and beliefs
Rights	As set out by the Human Right Act
Choice	being able to make choices for themselves
Privacy	he right to a private space, the right to personal information being kept private
Independence	being able to do things for themselves
Dignity	being treated with respect, valuing individuality and beliefs
Respect	showing people they have importance as an individual
Partnership	being involved and working with family and other workers

MUSIC

AUTUMN TERM -You Will Develop Your Understanding Of Musical styles

Popular music styles — (1 from each of the following groups)

- 1: 50s-60s: Rock 'n' roll, British invasion, folk Revival, motown & soul, psychedelic
- 2: 70s-80s: Heavy metal, prog, punk, disco, reggae, synth pop, hip-hop, post punk, hardcore
- 3: 90s to present, e.g. grunge, Britpop, rave, techno, house/techno, drum and bass, nu-metal, pop punk, dubstep, reggaeton, grime, trap



Other Music Styles — (1 style from two of the following groups)

- 4: World music and fusion, e.g. samba, bhangra, African drumming, gamelan
- 5: Music for media (film, TV or computer games), e.g. jingles, theme tunes, soundscapes, ambient music, foley, diegetic, non-diegetic, motifs and leitmotifs, thematic development
- 6: Western classical styles; baroque, classical, romantic, orchestral, leitmotif, minimalism, serialism
- 7: Jazz and blues, e.g. delta blues, trad jazz, bebop, swing/big band, modal jazz.



SPORT

Media is the main means of mass communication regarded collectively

Definition -Digital Media is media that operates with the use of various encoded machine-readable data formats

Digital Media Sources

- Social Networking
- Media Sharing Sites
- Live Streaming
- Websites/Blogs

Definition -Broadcast Media is the inclusion of different mediums that are used for communicating, transmitting and broadcasting to the public

Broadcast Media Sources

- TV
- Radio
- Podcasts

Definition –Print Media is a means of mass communication in the form of printed publications

Print Media Sources

- Newspapers
- Magazines
- Books

Positive relationships between Media and Sport helps...

- Participation
- Raising the profile of less popular sports

Positive impacts of the Media and Sport

- Increases in Revenue
- Education of higher levels of people

Negative effects of the media in sport

A range of negative effects of the media on sport in relation to spectators and live sport

- External factors affecting decline in live spectatorship
- Ethical appropriateness of sponsors
- How the media is assisting a widening wealth divide in sport
- Impact of wider global issues on sport/performers and spectators
- Media demands affecting sport fixture scheduling

Negative impacts of the media on sports and sports performers

- Coverage of inappropriate behaviour: On-field and Off-field
- Rejection of sporting heroes
- Scrutiny and criticism of participants: Performers, Officials, Leaders
- Increased pressure on athletes to look a certain way and links to mental health





Careers Careers Careers



Library News...

There are two libraries at Paignton Academy, Mrs Barter is the librarian at Borough Road, and Mrs Deane is the librarian at Waterleat Road.

Libraries can be places full of books where you have to be quiet all the time. At Paignton Academy we do things very differently! Whilst we do still want students to respect the Libraries and others that use it, we want to offer a great service to the whole Academy community. Library staff are members of the Careers Team and so can offer information and a relatively quiet place for students to research further and Higher Education opportunities and careers that you may wish to pursue in the future.

These are some of the services we offer:

- A daily Breakfast Club from 8.00am where we offer toast and squash - for free!
- We have thousands of books to suit all ages and abilities: from sports, to fantasy, to comedy, we have something for everyone.
- You can borrow board games and card games to play with your friends.
- Chromebooks can be borrowed that you can use to do your homework, do some research or just to enjoy.
- Various clubs are based in the Libraries that students can take part, for example, Chess Club and Cat Club.
- Special days where there are competitions and fun activities, for example, World Book Day.
- The chance to become a be a Student Assistant Librarian.
- The Libraries are a safe place if you need some 'me' time, or a place just to keep warm and unwind.
- Regular competitions to win prizes!

We also love a party, so look out for posters around the school with up to date information for when the next one is!

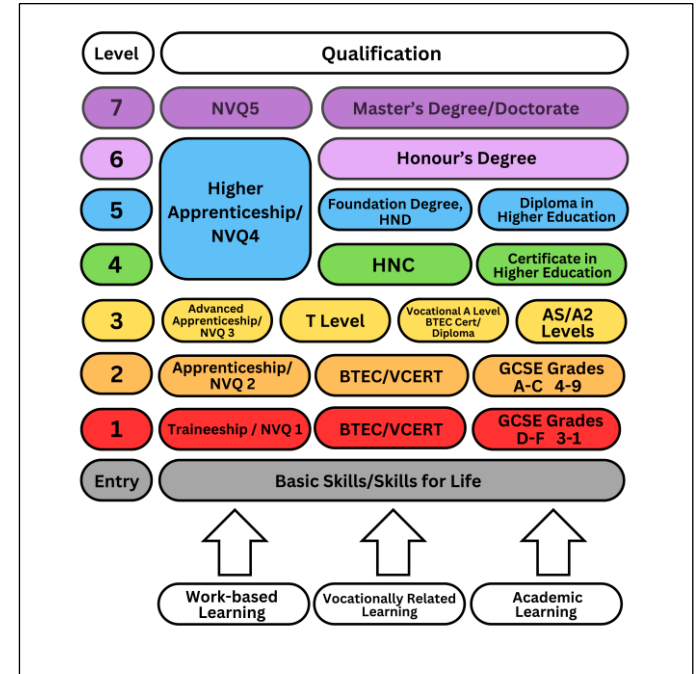
Getting to know me

*What type of personality are you?
Knowing who you are is a very important part of having a successful and satisfying career.
By knowing you, you will know where your strengths lie and this will help you match suitable employment and training options.
Why not use the following link and discover a little more about yourself?*

<https://icould.com/buzz-quiz/>



Types of qualifications (After Year 11) ...



Find out more by accessing the Careers Hub

The Careers Team are focussed on preparing our students for the challenges of the working world. We aim to do this by raising aspirations and building self-confidence. We are always available to speak to, via email and can arrange for one to one appointment. We offer regular drop in Careers sessions in the library at WRC on a Monday lunchtime and on a Tuesday lunchtime at BRC. We also offer extra drop in sessions at lunchtime covering topics such as securing an Apprenticeship, AI media workshop, Online/Interview skills, CV writing, job searching and applying for jobs. The Careers Hub is a dedicated careers information source simply click on the Careers Hub logo on the homepage of the Academy website to enter the site.

Please feel free to stop by the library or the Careers office at BRC and email us at:

careers@paigntonacademy.org

We look forward to hearing from you!





01752 512 280



shout
85258

kooth

YOUNGMINDS
fighting for young people's mental health



ChildLine
0800 1111 

THE MIX

Provides support for anyone under the age of 25
www.themix.org.uk | 0808 808 4994

CAMPAIGN
AGAINST
LIVING
MISERABLY
CALM

Confidential support to people
experiencing difficulties
www.thecalzone.net
0800 58 58 58
Everyday, 5pm-midnight

Whatever
you're facing
We're here
to listen
Call free day or night on
116 123
Email
jo@samaritans.org
SAMARITANS

Free 24/7 call service for all ages
to talk about your issues
www.samaritans.org | 116 123

stem4
supporting teenage mental health

Free service & apps supporting mental health
for ages 11-19
www.stem4.org.uk



In School



Speak to your Tutor

Find a member of staff with an Orange Lanyard

Speak to any member of staff



Use the 'Safeguarding Concern Form'
on your school desktop page

Speak to your Head of House
or Pastoral Manager