

49

English Literature Component 1: Section A: Macbeth

20% of your overall literature grade

Section A	Description	Mins	Example question	How to answer this question
	<p>Macbeth EXTRACT (15 marks)</p> <p>AO1 – Understand the whole text, and support answers with examples/ quotes. Use a critical style.</p> <p>AO2 – Analyse language, form and structure and how they are used to create meanings.</p>	20	<p>Read the extract on the opposite page. Then answer the following question:</p> <p>Write about _____ (could be how characters speak and behave, a character's thoughts and feelings or how a character is presented) . How do you think an audience might respond to this part of the play? Refer closely to details from the extract to support your answer.</p>	<ul style="list-style-type: none"> Read the question carefully to see if you've been asked to focus on a particular character or relationship, or the broader question, 'how might the audience respond?' Read the extract through once to work out what is happening and where it is from in the play. Make a note of what happens immediately before and after. The exam board choose a moment which is important to the play as a whole: it could be a turning point in a character's journey, or a moment of high tension. Read the extract again and highlight at least 5 quotations to discuss. You should cover a similar amount of quotations to your target grade. First lines and last lines are useful; stage directions count; one word quotations count. Make one word annotations next to the extract to ensure you have a variety of inferences when you start writing. Write a two sentence opening paragraph giving an overview of the extract (what is happening and why it is important). Track through the extract covering your quotations in chronological order. Make a variety of points as you go; use precise and analytical vocabulary; explain the effect of any terminology; zoom in if there is an opportunity to expand on your ideas. Use evidence, suggests, because to writer shorter, more concise paragraphs. However, remember to clearly explain what is happening in the extract rather than selecting evidence without its context in the scene. Do not write about any other parts of the play. Top band answers will select brief quotations; have detailed coverage; make concise and perceptive points. To achieve a grade 5 or higher, you should write more than one side of A4.
	<p>Macbeth PLAY AS A WHOLE (25 marks)</p> <p>AO1 – Understand the whole text, and support answers with examples/ quotes. Use a critical style.</p> <p>AO2 – Analyse language, form and structure and how they are used to create meanings.</p> <p>AO4 VSSPS (worth 5 marks).</p>	40	<p>You will either be given a quotation about a theme or idea which you have to write about, e.g: 'Macbeth is a play about power'. Write about how Shakespeare presents power at different points in Macbeth. Refer to characters and events from the play in your answer.</p> <p>OR</p> <p>Be asked to write about how a character is presented at different points in the play, e.g: Write about the character of Lady Macbeth and how she is presented at different points in the play.</p>	<ul style="list-style-type: none"> Read the question carefully to see which character or theme you've been asked to write about. Write down a plan with quotations which covers all five acts. Include key analytical vocabulary choices too. Creating plans in advance of the exam will help speed you up in the exam hall. The examiner wants to see your range of ideas on the question so ensure you choose moments to discuss which reflect different sides to the question or show a development in the character. If more varied and noteworthy events occur at the end, it's okay for those paragraphs to be longer. Write about the character or theme in chronological order, writing a paragraph for each of the five acts. This is a similar approach to the <i>Blood Brothers</i> and <i>A Christmas Carol</i> questions. Your paragraphs should be more developed than the extract question. Lead with topic sentences which make a clear inference. Remember to spend some time analysing Shakespeare's methods: language and structural choices. You could include more than one quotation in each paragraph to support your ideas. Remember to focus on the events of the play and what happens too; don't just select quotations without explaining their context within the play. Spend the last three minutes proof-reading your work. There are 5 SPaG marks up for grabs! To achieve a grade 5 or higher, you should write at least three sides of A4.

PLOT (AO1)

Act One	Act Two	Act Three	Act Four	Act Five
<p>1.1 The play opens with the appearance of three witches. They express their intentions to intercept Macbeth.</p> <p>1.2 A soldier reports that Macbeth has been bravely defending King Duncan and Scotland from Norway.</p> <p>1.3 Macbeth and his fellow general Banquo encounter three witches on the heath. The witches prophesise that Macbeth will receive the title the Thane of Cawdor and eventually become King of Scotland. Banquo will be father of kings, although not a king himself. Macbeth is told that he is now Thane of Cawdor; the previous thane betrayed Duncan and has been condemned to death for treason.</p> <p>1.4 Malcolm is appointed Prince of Cumberland, assuring he's next in line to the throne. Macbeth recognises Malcolm now stands between him and the throne.</p> <p>1.5 Macbeth writes to his wife, Lady Macbeth, telling her about the witches' prophecies. She calls upon evil spirits and vows to make them come true.</p> <p>1.6 Duncan arrives in the castle, greeted by a duplicitous Lady Macbeth.</p> <p>1.7 Lady Macbeth persuades Macbeth, using a variety of tactics, to kill the king. They plan drug Duncan's two servants and then blame the murder on them.</p>	<p>2.1 Macbeth hallucinates and sees a floating dagger pointing to Duncan's chamber.</p> <p>Offstage between 2.1 and 2.2 While Duncan is asleep, Macbeth stabs him.</p> <p>2.2 In the aftermath of murder, Macbeth panics and Lady Macbeth must plant the bloody daggers.</p> <p>2.3 Duncan's death is discovered the next morning by Macduff. Duncan's sons, Malcolm and Donalbain, flee to England and Ireland, fearing for their lives.</p> <p>2.4 Another thane, Ross, discusses with an old man how the natural world has been corrupted because of the regicide – cannibal horses!</p>	<p>3.1 Macbeth becomes king. Macbeth hires assassins to kill Banquo and his son Fleance because he is fearful that they may take the throne off him.</p> <p>3.2 Macbeth and Lady Macbeth discuss their precarious position.</p> <p>3.3 The assassins kill Banquo but Fleance escapes.</p> <p>3.4 At a feast that same night, Banquo's ghost visits Macbeth, which terrifies him. Lady Macbeth masks his paranoia to their guests and chastises him for his cowardice. Macbeth decides to visit the witches for advice.</p> <p>3.5 Hecate, the queen of the witches speaks.</p> <p>3.6 Lennox, another thane, discusses his concerns for Scotland.</p>	<p>4.1 Macbeth goes to visit the witches once more and they make further prophecies: beware Macduff; none of woman born can harm him; and he will be safe until Birnam Wood comes to Dunsinane Castle. They also confirm that Banquo's heirs are still a threat. When he learns that Macduff has fled to England to join Malcolm's army, Macbeth orders Macduff's family be murdered.</p> <p>4.2 Macduff's wife and child are murdered.</p> <p>4.3 Macduff vows to seek revenge when Malcolm tells him of Macbeth's heartless deed.</p>	<p>5.1 Lady Macbeth has become plagued with fits of sleepwalking during which she believes she has blood on her hands.</p> <p>5.2 Other thanes prepare for battle against Macbeth.</p> <p>5.3 The doctor tells Macbeth his wife cannot be cured. Macbeth arrogantly prepares for battle.</p> <p>5.4 Malcolm's army disguise themselves with branches from Birnam Woods.</p> <p>5.5 Macbeth receives news that Lady Macbeth has died while he awaits the English army. He has an existential crisis.</p> <p>5.6 and 5.7 Macbeth and Macduff battle and eventually meet.</p> <p>5.8 Macbeth encounters Macduff in battle, who declares that he was not "of woman born" but was instead "untimely ripped" from his mother's womb (caesarean section). Macbeth continues to fight until Macduff kills and beheads him.</p> <p>5.9 Prince Malcolm now becomes King of Scotland.</p>

KEY QUOTATIONS FROM KEY SCENES (AO1)

Act 1, Scene 1

- 'Fair is foul and foul is fair': *An eerie opening to the play showing the chaos and corruption to come*

Act 1, Scene 2

- 'Like valour's minion carved out his passage': *Macbeth's heroic and honourable origins*

Act 1, Scene 3

- 'Stay you imperfect speakers, tell me more': *Macbeth's intrigue about the Witches' prophecies*
- 'The instruments of darkness tell us truths, win us with honest trifles, and betray us in deepest consequence': *Banquo's scepticism and wariness about the Witches' prophecies*

Act 1, Scene 5

- 'Unsex me here and fill me from the crown to the toe topfull of direst cruelty': *Lady Macbeth's tenacious desires to be resolute and wicked in her schemes for regicide*
- 'Look like the innocent flower, but be the serpent under it': *Lady Macbeth's commands to her husband to act duplicitously*

Act 1, Scene 7

- 'I have no spur to prick the sides of my intent, but only vaulting ambition': *Macbeth's concern and fear about his foolish plan of regicide*
- 'Screw your courage to the sticking-place, and we'll not fail': *Lady Macbeth's aggressive encouragement of her husband*

Act 2, Scene 1

- 'Art thou but a dagger of the mind, a false creation, proceeding from the heat-oppressed brain?': *Macbeth questions his paranoid hallucination*

Act 2, Scene 2

- 'But wherefore could not I pronounce "Amen"?': *Macbeth's crisis of faith in the aftermath of regicide*
- 'Will all great Neptune's ocean wash this blood clean from my hand?': *Macbeth's extreme woe and regret at the tangible evidence of regicide*
- 'My hands are of your colour; but I shame to wear a heart so white.': *Lady Macbeth's supercilious dismissal of Macbeth's guilt*

Act 2, Scene 3

- 'Awake, awake...see the great doom's image': *Macduff's horror on encountering his dead king*
- 'I stand...against ...treasonous malice': *Banquo's unwavering commitment to avenging Duncan's death*

Act 3, Scene 1

- 'They hailed him father to a line of kings. Upon my head they placed a fruitless crown': *Macbeth's jealousy of Banquo and paranoia regarding his own newfound status as monarch*

Act 3, Scene 2

- 'O, full of scorpions is my mind, dear wife!': *Macbeth's anguish regarding his new-found status as king*

Act 3, Scene 4

- 'Never shake thy gory locks at me': *Macbeth's attempt to show bravery and fearlessness when confronted by Banquo's ghost*
- 'O proper stuff! This is the very painting of your fear': *Lady Macbeth rebukes her husband's fear*
- 'I am in blood stepped so far that, should I wade no more, returning were as tedious as go over': *Macbeth resolves to continue in his merciless tirade*

Act 4, Scene 1

- 'Now I see 'tis true, for the blood-boltered Banquo smiles upon me, and points at them for his': *Macbeth's misplaced fear regarding Banquo's lineage and the witches' prophecies*
- 'Seize upon Fife; give to the edge o' the sword his wife, his babes, and all unfortunate souls that trace him in his line': *Macbeth's savage and ruthless command to kill the Macduffs*

Act 4, Scene 3

- 'All my pretty chickens and their dam at one fell swoop?': *Macduff's shock and grief upon hearing of his family's murders*
- 'Let grief convert to anger; blunt not the heart, enrage it.': *Malcolm's advice to Macduff, encouraging him to take vengeance*

Act 5, Scene 1

- 'All the perfumes of Arabia will not sweeten this little hand. Oh, oh, oh!': *Lady Macbeth's guilt-ridden lament whilst sleepwalking, paralleling her line in 2.2*
- 'Foul whisperings are abroad: unnatural deeds do breed unnatural troubles': *The doctor comments on the wicked repercussions of regicide and rumblings of rebellion*

Act 5, Scene 5

- 'I have almost forgot the taste of fears': *Macbeth's hubris in the face of Malcolm's army*
- 'It is a tale told by an idiot, full of sound and fury, signifying nothing.': *Macbeth's existential crisis on hearing the death of his wife*

Act 5, Scene 7

- 'Swords I smile at, weapons laugh to scorn, brandished by man that's of a woman born': *Macbeth's scorn at his enemies and ignorant belief in his invulnerability in the battlefield*

Act 5, Scene 8

- 'Macduff was from his mother's womb untimely ripped': *The moment of Macbeth's anagnorisis, he has been truly bewitched by the witches' words*
- 'This dead butcher and his fiend-like queen': *Malcolm's apt assessment of the tyrannical villains the tragic heroes became*

How to revise

- Create flash cards with the quotation on one side and as much as you can say on the reverse: act and scene, who says it and why, key analytical vocab, terminology, links to elsewhere in the play.
- Upload the quotations to Quizlet and copy the italicised parts on the reverse for a pairs game.
- Create your own gap fill activities. Increase the number of gaps to increase the challenge.
- Do look, say, cover, write, check for each of them.
- Make flash cards using images and pictures to help you memorise them.

These are the key scenes too in terms of the extract question. Check out any revision videos analysing these on YouTube – Mr Bruff is an especially useful channel.

KEY CHARACTERS (AO1)

<p>Macbeth: protagonist</p> <p>Shakespeare's eponymous tragic hero, Macbeth is a dynamic character. Established as the valiant and loyal Thane of Glamis, Macbeth is willing to sacrifice himself for Scotland, and holds the ideal qualities of kingship, but soon becomes a victim of ambition, his hamartia.</p> <p>Macbeth's greed and ambition, along with the persuasiveness of his wife, leads him to take a violent and bloody path to the throne. Following the format of a tragic hero, Macbeth has multiple tragic flaws in his character, the most prominent being his ambition and being too loyal to and trusting of his wife. These tragic flaws go on to play a major role in Macbeth's demise and lead him to become a tyrant.</p> <p>Macbeth fits every characteristic of a Shakespearean tragic hero. The audience see the full cycle of a rise to power, followed by a great demise. His ambition leads to his degeneration as a character which results in his ultimate downfall, death.</p>	<p>Lady Macbeth: ambitious wife of Macbeth.</p> <p>Lady Macbeth is determined, ruthless and ambitious, subverting the patriarchal female stereotype. She plays a crucial role in plotting King Duncan's regicide in order for the witches' prophecy to come true. She is powerful, more ruthless, and more ambitious than her husband and seems fully aware of this, knowing that she will have to forcefully persuade Macbeth into committing murder by challenging his morality and forcing him to ignore his conscience.</p> <p>Shakespeare utilises the character of Lady Macbeth to expose the audience to the dangers of deceit and sin, and her tragic demise serves as a warning about the danger of ambition.</p>	<p>Banquo: a <i>foil</i> to Macbeth.</p> <p>Banquo is a loyal Scottish nobleman, general, and partner in battle to Macbeth, also father of Fleance. The weird sisters prophesise that while Banquo will never be King of Scotland, his descendants will one day sit on the throne. Banquo is as ambitious as Macbeth, but, unlike Macbeth, he does not possess the fatal flaw of putting his selfish ambition above his morality or loyalty.</p> <p>Aware of the Witches' prophecy and an honourable servant to Scotland, Banquo is both a threat to Macbeth and a living example of the noble path that Macbeth betrayed. Following Banquo's murder Macbeth is haunted by Banquo's ghost, symbolising Macbeth's overbearing guilt for committing regicide.</p>	<p>The Witches: <i>antagonists</i> to Macbeth.</p> <p>The three weird sisters open the play, creating a sinister atmosphere and ominous and chaotic tone that will follow the play. The witches' knowledge of future events indicates they have supernatural powers. They provide prophecies that act as the catalyst for Macbeth's vaulting ambition by luring Macbeth to act upon his dark desires.</p> <p>There was real superstition and anxiety about the evils of witchcraft amongst all echelons of society. King James wrote a book called 'Demonology' which was a study of the evils of magic. He also asked Parliament to pass an anti-witchcraft law, which he then used to execute a number of witches in the North Berwick Witch Trials.</p>
<p>King Duncan: <i>King</i> and victim of regicide.</p> <p>The King of Scotland, and father of Malcolm and Donalbain. King Duncan is moral and virtuous king who puts the welfare of the country above his own and seeks to nurture his kingdom. Savagely murdered by Macbeth, his death disrupts the Great Chain of Being and causes disorder to the natural world.</p>	<p>Malcolm and Donalbain</p> <p>Malcolm – As the oldest son of King Duncan, he stands to inherit his father's throne, but fears for his life and flees, therefore leaving the throne open to Macbeth. Macbeth is defeated and Malcolm is crowned the rightful king of Scotland.</p> <p>Donalbain – The younger son of Duncan.</p>	<p>Fleance: the young son of Banquo.</p> <p>The witches prophesise in that as Banquo's son, Fleance, will inherit the throne at an unspecified future time. Macbeth immediately focusses on this final prophecy and becomes consumed by it, obsessed with ridding Scotland of anything he perceives to be a threat to his sovereignty. Shakespeare utilises the motif of light as Fleance carries a torch, symbolising guidance towards the future and qualities of Kingship. Macbeth's obsession with power prompts him to hire assassins to murder Banquo and Fleance, but Fleance escapes unharmed to Macbeth's dismay.</p>	<p>Macduff: <i>contrast</i> to Macbeth.</p> <p>A Scottish nobleman and Thane of Fife, he remains loyal to king Duncan's line throughout the play and is the eventual defeater of Macbeth. Macduff suspects Macbeth's duplicity from early in the play and becomes one of the leaders of the rebellion to restore order to Scotland and overthrow tyrannical Macbeth from the throne. After Macbeth has Macduff's family brutally murdered, Macduff's desire for vengeance becomes more personal and powerful.</p>

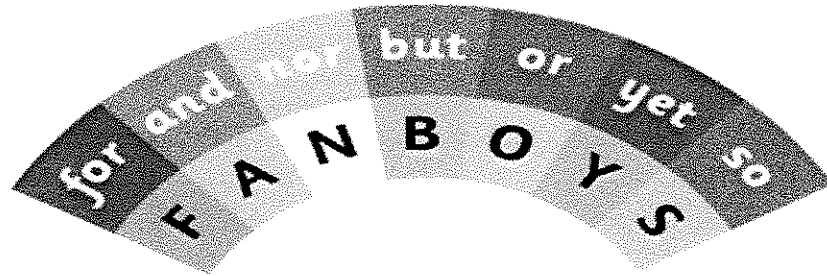
SPAG Absolute

Word Classes		Punctuation	
Proper noun	A naming word - Chris, East Anglia, Nimbus3000 - needs a capital initial letter.	Capital letter	An upper case letter used after a full stop to begin a sentence or to indicate a proper noun.
Concrete Noun	A thing you can see -you can put 'the' or 'a' before a noun e.g 'the table'.	Full stop	. Used to mark the end of a sentence.
Abstract Noun	The name of something you can't see e.g: hate/love/creativity/passion. Again, can put 'the' or 'a' in front: The <u>love</u> I feel...	Comma Commas need to be used for:	- lists e.g: I bought several things from the shop: books, pens and pencils. - before a FANBOYS conjunction to join two independent clauses in a compound sentence. The cat sat on the mat and the dog barked. - sentences which start with a fronted adverbial (ISPACED) starts Because it was raining, we ran for cover. - embedded clauses where the clause could be removed The boy, who I disliked intensely, pulled my hair.
Adjective	A word that is used to describe a noun e.g. 'The <u>tall</u> teacher talked to the class.'	Colon	: Used to precede lists, expansions or explanations e.g: I bought several things from the shop: books, pens and pencils.
Verb	A word used to describe an action, state or occurrence. What is being done? E.g: hit/jump/feel/believe	Semi colon	; Used to join two related independent clauses e.g: I ate too much pizza; I felt very sick. Also to separate longer items in a list.
Modal verb	Verbs used to express possibility or certainty (may/might/must/will/shall).	Dash	Used after an independent clause or parenthetically, instead of commas for an embedded clause. Used to emphasise the clause after the dash. You are late – this is the third time!
Adverb	A word that is used to modify a verb e.g. 'He ran <u>quickly</u> .'	Brackets	() Used to indicate an afterthought/sarcasm in a lower tone, like an 'aside' to the reader which can be taken out to leave a grammatically complete sentence. The old man (who smelled like cheese) sat next to me on the bus.
Pronoun	A word that can replace a noun: I, you, he, she, it, they, them, we.	Exclamation mark	! Used at the end of an exclamatory sentence to show strong emotion.
Preposition	A preposition is a word that tells you where or when something is in relation to something else. (at, in, on, after, before, under, inside and outside).	Question mark	? Used to indicate an interrogative sentence or rhetorical question.
Determiner	A determiner comes before a noun and helps to define it. E.g. a boy (a, an/the/those/these)	Apostrophe	' Used to show ownership (Sam's bag) or missing letters 'They're late'.
		Ellipsis	... Can be used to create suspense e.g: I couldn't believe my eyes... or to show the trailing off of a sentence e.g: 'I wonder...' she said.
Sentences			
Main clause	A clause that can stand alone as a sentence. Contains a subject (the person or thing doing the action) and a verb (the action). e.g. 'The cat sat on the mat'.		
Subordinate clause	A clause that depends on an independent clause to make sense e.g. 'The cat sat on the mat <u>despite hating the texture</u> '. Often uses a subordinating ISAWAWABUB conjunction (if, since, as, when, although, while, after, before, until and because.)		
Fronted subordinate clause	As above – but the subordinate clause comes at the front of the sentence: e.g: <u>Despite hating the texture</u> , the cat sat on the mat.' Also can be called a 'fronted adverbial'.		
Relative clause	Relative clauses use a relative pronoun or relative adverb to give us more information, usually about a specific word or phrase (that, which, who, whom, whose when, where, why). Relative clauses that contain non essential information need parenthetical commas and can also be called embedded clauses: e.g: The boy, <u>who I disliked intensely</u> , pulled my hair. The sentence should make sense if the clause was removed and the meaning should be intact.		
Simple sentence	Contains just one main clause. Makes complete sense.		
Compound sentence	Two main clauses joined together with a co-ordinating FANBOYS conjunction (for/and/nor/but/or/yet/so). The cat sat on the mat <u>and</u> the dog barked.		
Complex sentence	A main clause plus a subordinate clause. The subordinate clause can come after the main clause or before (when it would be a fronted subordinate clause). 'The cat sat on the mat <u>without turning around</u> '.		
Fronted adverbial	Words, phrases or fronted subordinate clauses at the start of sentences which tell us when, where or how something is done (they describe the verb) Can remember them using ISPACED. E.g: <u>Because it was raining</u> , we ran for cover.		
Expanded noun phrases	A phrase that contains a determiner (the/a) and a noun (table – e.g the table) and one or more adjectives (the black table). Can also contain a prepositional phrase e.g: The black table with wonky legs.		

Co-ordinating and subordinating conjunctions

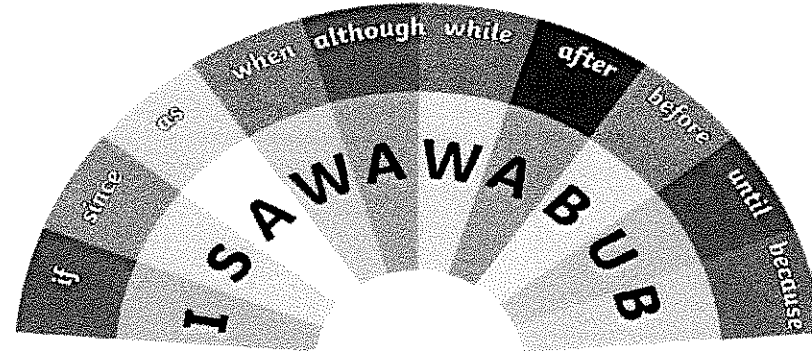
Co-ordinating Conjunctions

There are seven co-ordinating conjunctions. They give equal importance to the words or sentences they connect.



Subordinating Conjunctions

There are 10 subordinating conjunctions. They are used at the beginning of a subordinating clause which is a clause that doesn't make sense on its own.



Their/They're/There

Hear/Here

Your/You're

Was/Were

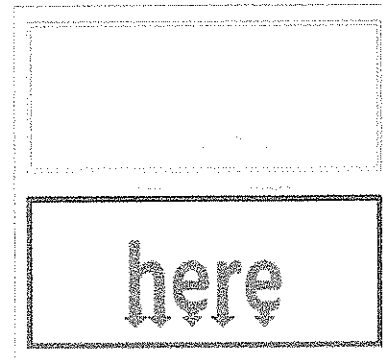
Ask yourself these two simple questions:

Does the word after it belong to **their** 'them'?

Is it short for 'they are'?

For everything else, it's

they're
there



Your
pizza

Your = you own it



It is yours.

You're
pizza

You're = you are



You are pizza!

'WAS' is used if you are talking about ONE person or thing (I, he/she/it):

'WERE' is used if you are talking about TWO OR MORE people/things (we/they/you):

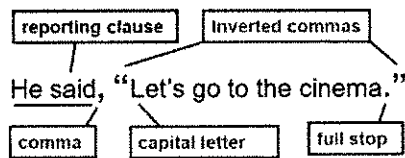
'You' is always 'were',

Punctuating Direct Speech

Reporting clause before the direct speech

The reporting clause of direct speech is the short clause that indicates who is talking. It is the clause that is outside of the inverted commas. It is therefore not the words being spoken.

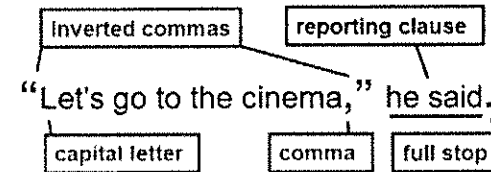
We can write the reporting clause either **before** or **after** the direct speech. If the reporting clause is **before** the direct speech, we write it as follows:



Grammar rules - If the reporting clause is before the direct speech:

- We write a comma (,) before the direct speech.
- We write the exact words inside the inverted commas.
- The first letter is a capital letter.
- We write a full stop (.) before the closing inverted commas.
- We might also use a ? Or a ! Before the closing inverted commas.

Reporting clause after the direct speech



If the reporting clause is after the direct speech:

- We write the exact words inside the inverted commas.
- The first letter is a capital letter.
- We write a comma (,) before the closing inverted commas. We might also use ? or !
- We write a full stop (.) at the end of the reporting clause.

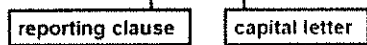
Sometimes we break up the direct speech into 2 parts:

"If you come to London," she said, "then call me."



The second part of the direct speech starts with a small letter if it is the same sentence as the first part of the direct speech.

"I'm tired," she said, "Let's stay at home."



The second part of the direct speech starts with a capital letter if it is a new sentence.

Notice that the first part still ends with a , (unless you need a ? Or a !)

New speaker, new line

If someone else speaks, we start a new line.

"Your book is over there," said the teacher.

"Thanks!" replied Johnny.

Using Fronted Adverbial openings - ISPACED

I

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Ing words		Similes	Prepositions		Adverbs		Conjunctions	Ed words
Walking	Shivering	Like a mouse	Over	On top of	Hastily	Quickly	First	Excited
Skipping	Screaming	Like a cheetah	Above	On	Calmly	Slowly	Later on	Delighted
Running	Growling	Like a statue	Beneath	Underneath	Casually	Gently	Suddenly	Pleased
Crawling	Shouting	Like a tree	Below	Under	Cautiously	Shyly	Immediately	Amazed
Creeping	Gasping	Like a predator	Through	Between	Softly	Nervously	Finally	Astonished
Jumping	Whispering	Like a monster	Inside	Beside	Neatly	Messily	After that	Shocked
Leaping	Yelling	Like a villain	By	Across	Angrily	Busily	Before long	Scared
Escaping	Talking	As quiet as a	Before	After	Spitefully	Loudly	Since	Puzzled
Bursting	Moaning	As loud as a	During	At	Ominously	Honestly	Whereas	Dazed
Grasping	Whimpering	As still as a	In	Off	Foolishly	Crazily	As	Surprised
Grabbing	Thinking	As fast as a	By	To	Moodily	Readily	Next	Worried
Seizing		As timid as a	About		Amazingly		Whenever	Petrified
Clutching		As bright as a			Expectantly		Despite	Horrorified
Picking		As slowly as a			Generously		Until	Exhausted
Shaking		As noisy as a			Chaotically		So	
Hiding		As calmly as a			Unexpectedly		Eventually	
Sleeping		As angry as a			Intelligently			

Remember to use a comma before the main clause: Creeping through the forest, I trembled with fear.

KEY THEMES (AO1)

<p>Tyranny versus kingship</p> <p>Kingship and power are intrinsically linked within the play. The possibility of ascending the throne is the driving force behind the motivations of Macbeth. Shakespeare contrasts the way the characters behave towards the possibility of power, and also how characters act once they have gained power. Shakespeare contrasts the behavior of a virtuous and benevolent king with that of a violent and ruthless ruler.</p>	<p>Violence</p> <p>Violence supports the cyclical structure of the tragedy. The play opens with a bloody battle between Scotland and Norway and ends in a bloody battle between the forces of Malcom (the rightful king of Scotland) and Macbeth (the usurper).</p> <p>Shakespeare warns that violent transgressions lead to more violent acts, even those of selfless intentions. We see that after Macbeth becomes king by committing regicide, he must continue to use violence to maintain his crown, until finally violence is all that remains.</p> <p>The violence Macbeth demonstrates on the battlefield in Act One is born from loyalty and honour, as he bravely defends Scotland.</p>	<p>Disorder</p> <p>The play subverts natural orders: Macbeth disrupts the natural succession of royalty; Lady Macbeth breaks gender norms; the supernatural imposes on the natural world; Macbeth and Lady Macbeth struggle with inner turmoil and conflicts. It is unclear how much control Macbeth has over his own fate. The witches' prophecies may be self-fulfilling as Macbeth's own ambition takes over and he seeks to make the prophecies a reality.</p>	<p>Loyalty and betrayal</p> <p>Macbeth's loyalties are conflicted between his comradeship for Duncan and Banquo and his loyalty to his wife. He makes the fatal decision to trust the witches' prophecies and his wife's judgement, choosing to betray Duncan and his own morality.</p> <p>Macbeth's loyalty fluctuates throughout the play. His loyalty and bravery in battle is rewarded but he is tempted by the supernatural and loyalty to his wife, Lady Macbeth.</p> <p>Macbeth betrays Banquo's loyalty out of paranoia and guilt.</p>	<p>Fear and fearlessness</p> <p>Shakespeare utilises the witches to terrify and disturb a Jacobean audience before Macbeth is described as a fearless warrior on the battlefield. His fearlessness continues when meeting the witches when Macbeth's curiosity is greater than his fear of the supernatural, whilst Banquo demonstrates caution.</p> <p>Lady Macbeth is also presented as fearless when she constructs the plot of King Duncan's regicide, juxtaposing Macbeth's doubts and fears, which surface as his conscience battles against his ambition.</p> <p>After achieving power, Macbeth becomes increasingly paranoid and tyranny breeds through fear of losing power.</p>
<p>Ambition</p> <p>The whole play pivots around the idea of ambition. Shakespeare suggests that ambition can be dangerous when it is motivated by greed, as can be seen through the characters of Lady Macbeth and Macbeth. This is compared to Banquo being content to see the future unfold as it may, and Macduff's ambition to restore the rightful monarch.</p>	<p>Appearance vs reality</p> <p>The outward appearance of Macbeth as virtuous and loyal enables him to successfully commit regicide and ascend the throne. Loyalty and trust are juxtaposed by the ultimate sin.</p> <p>Shakespeare utilises the supernatural to explore the ways in which appearance can be manipulated and altered, warning the audience that no one and nothing can be trusted and that there are no certainties when it comes to morality.</p>	<p>Guilt</p> <p>Shakespeare uses blood, sleeplessness and hallucinations as motifs to explore how guilt manifests itself in both Macbeth and Lady Macbeth. Shakespeare explores guilt as an inevitable and unavoidable consequence of committing sin, haunting Macbeth both as a ghost that he sees, as well as the heaviness of his conscience.</p> <p>Innocence is a virtue that Shakespeare celebrates. The Macbeths pursue a façade of innocence while plotting regicide, and as they descend into a web of violence, they long to regain their innocence.</p>	<p>Masculinity and femininity</p> <p>Jacobean society was 'patriarchal'. Women were said to be inferior to men in The Great Chain of Being and a woman's role of obedience in Jacobean times was clearly defined and gender was an establishment upon which hierarchy was built. Women were expected to marry, to bear children and be subservient to men. Masculinity was seen as the desired trait. Whilst through her manipulation of Macbeth, Shakespeare associates her femininity to the biblical allusion of the fall of man.</p>	<p>Power and powerlessness</p> <p>The fragility of power is a central theme in Macbeth, dictating the development of his characters and relationship dynamics. Shakespeare warns his audience of the fatal danger of pursuing power which is not rightfully bestowed, exposing them to the tragic consequences.</p> <p>Conversely, powerless also plagues the Macbeths later in the play. Lady Macbeth, disregarded by her husband, feels powerless to his increasingly tyrannical actions but bears the guilt.</p> <p>Furthermore, Macduff's powerlessness when his family are slaughtered motivates him to seek vengeance.</p>

SHAKESPEARE'S METHODS - MOTIFS (AO2)

<p>Sleep <i>Hit count: 34</i></p> <p>What happens</p> <ul style="list-style-type: none"> Macbeth takes the cowardly option by killing his king while he sleeps and should be playing the host. Macbeth believes he hears cries from the guards. The castle are awoken from the beds to hear the news of regicide. Lady Macbeth becomes plagued with somnambulism (sleepwalking). <p>Why it's significant sleeping Duncan aligns him with the heavenly image of the king, emphasising further that Macbeth is wholly in the wrong in killing him. Sleep symbolises purity, innocence and peace of mind. Lack of sleep is symbolic of the guilt that both the Macbeths feel. They have transgressed so far that rest cannot be granted to them.</p>	<p>Blood <i>Hit count: 43</i></p> <p>What happens</p> <ul style="list-style-type: none"> A soldier covered in blood reports of Macbeth and Banquo's success on the battlefield. Lady Macbeth craves her blood be thick enough stop her feeling 'remorse.' Macbeth returns from the scene of regicide covered in blood and believes his hands (and soul) will not be cleansed. The murderers return from Banquo's assassination with blood on their faces. Banquo appears as a ghost covered in blood. Banquo appears as an apparition with the Witches covered in blood pointing to his heirs. Lady Macbeth, during her sleepwalking, believes her hands are covered in blood. <p>Why it's significant Blood is closely linked with violence and is a tangible evidence that brutalities have occurred. Death and killing happen in an instant, but blood remains, and stains. At the times when both Macbeths feel most guilty, they despair that they will never be able to wash the blood—their guilt—from their hands.</p>	<p>Animals <i>5 owls</i> <i>10 horses</i> <i>1 raven</i> <i>2 lions</i> <i>1 eagle</i> <i>2 geese</i> <i>2 cats</i> <i>1 cricket</i> <i>7 dogs</i> <i>2 bats</i> <i>2 serpents</i> <i>6 birds</i> <i>2 bears</i> <i>1 scorpion</i> <i>And lots more!</i></p> <p>What happens</p> <ul style="list-style-type: none"> Lady Macbeth encourages her husband to act duplicitously like a serpent. The critters of the natural world react when Macbeth disrupts the natural order. Macbeth and his wife hear noises in the aftermath of regicide which they attribute to nocturnal animals. Horses eat each other as the order becomes disrupted. Macbeth describes his own mental state as painfully 'full of scorpions.' Macbeth vows to fight like a trapped bear in the face of Malcolm's army. Macbeth is referred to as a 'hellhound.' <p>Why it's significant Shakespeare draws on the connotations of animals and uses them as symbols to display positive or negative character traits. Macbeth begins as an 'eagle' and 'lion' but soon becomes an owl (who hunt, apparently cowardly, in the night, and then later a 'hellhound.' Lady Macduff and her son are associated with birds to suggest their helpless and vulnerability.</p>	<p>Biblical allusion <i>What happens</i></p> <ul style="list-style-type: none"> Lady Macbeth encourages Macbeth to act like the serpent in the Garden of Eden. The washing of hands alludes to Pontius Pilate (who ordered Jesus' crucifixion). It represents being cleansed of sin. When there is knocking on the door to the Porter, Shakespeare alludes to the Book of Revelation where it is said Christ will knock on the door. The very shedding of blood is referred to in Genesis, suggesting if you shed blood, someone else shall shed yours. Through this lens, Macbeth's death is inevitable. The 'dusty death' Macbeth laments over is a reference to Genesis; here Macbeth sees the futility of his sinful actions. <p>Why it's significant The repeated biblical references remind the audience how far Macbeth has strayed from God. By killing God's representative in earth, he has desecrated the Divine Right of Kings.</p>
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SHAKESPEARE'S METHODS (DEVICES) (AO1)

Soliloquy – where a character speaks their thoughts and feelings on stage. *Lady Macbeth's soliloquy is essential in demonstrating her wicked character.*

Dramatic irony – where the audience knows something the character doesn't. *The dramatic irony in act 4, scene 3 when Macduff is told of his family's murderers increases the audience's sense of pathos towards him.*

Imperative – commands. *Lady Macbeth's repeated imperative towards Macbeth demonstrate her dominance.*

Interrogative – questions. *The Macbeths' frantic interrogatives after Macbeth commits regicide reveal their guilt.*

Simile – comparing two things using as or like. *Lady Macbeth uses the simile 'like the innocent flower' to encourage her husband's duplicity.*

Metaphor – saying something is something else. *Macbeth uses a 'scorpion' metaphor to show his tortured mental state.*

Allusion – making a reference to another text or source. *Lady Macbeth's allusion to the 'perfumes of Arabia' demonstrates her belief that the evidence of her guilty is truly extensive.*

SHAKESPEARE'S METHODS (DEVICES) (AO1)

Rhyming couplet – two consecutive rhyming lines. *'Hear it not, Duncan, for it is a knell/ That summons thee to heaven or to hell.'*

Prose – unrhyming and not metrical lines. *Lady Macbeth's descent into madness is mirrored in her shift to prose.*

Verse – metrical and often rhyming lines. *Characters of high status speak in verse.*

Iambic pentameter – 10 syllables per line of stressed and unstressed.

Palindrome – the same words repeated backwards. *'Fair is foul and foul is fair'*

Aside – where a character speaks to themselves or in confidence to someone else on stage without others hearing. *The Macbeths often use asides to communicate their nefarious plans.*

Entrances and exits – simply having characters come on and off stage. *When Duncan's body is found, there are myriad entrances and exits to create a sense of chaos.*

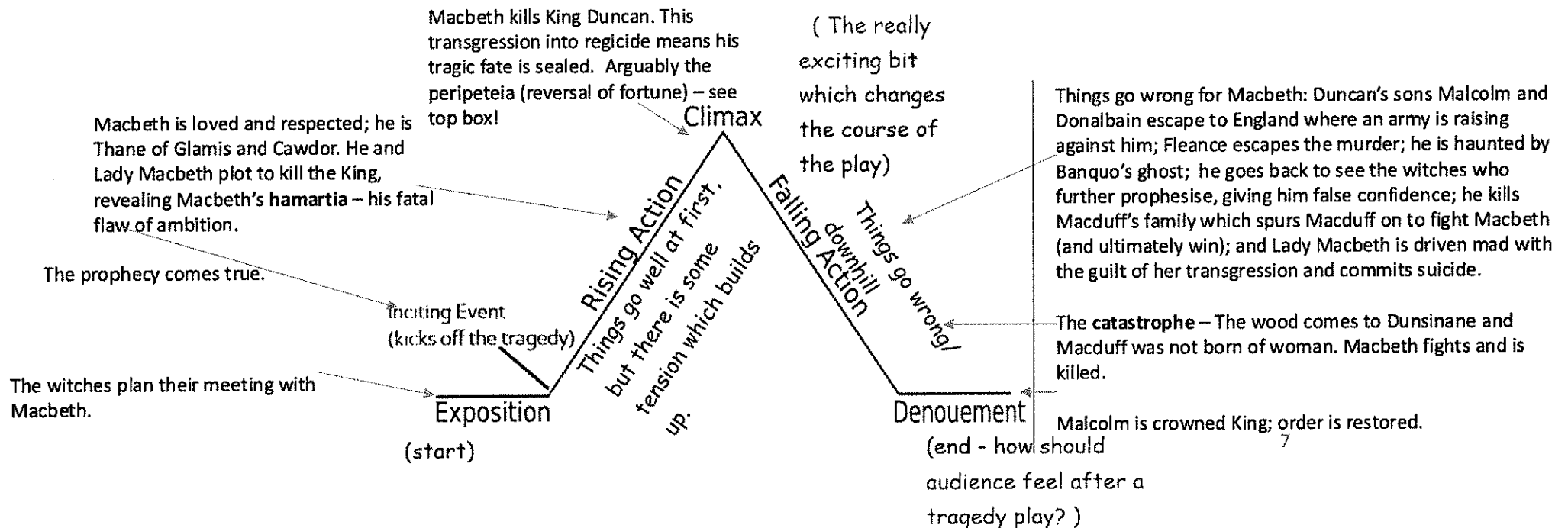
CONVENTIONS AND STRUCTURE OF A TRAGEDY PLAY (AO2)

Aristotle, a philosopher who lived in Ancient Greece from 384-322 B.C., first set out the rules of tragedy, which Shakespeare used in *Macbeth*:

- The action should move towards a **catastrophe** involving a **sudden reversal in fortune** from happiness to misery (the **peripeteia**), often leading to the protagonist's death, along with the deaths of many others. In *Macbeth*, the ultimate peripeteia comes when he is killed by Macduff. However we could argue that the regicide of Duncan is also the catastrophe which leads to his sudden reversal of fortune because although he becomes King, it disrupts the natural balance and seals his tragic downfall.
- A tragic hero must be of **noble birth** - in other words, rich and powerful. Macbeth is already a Thane at the start of the play and he rises to ultimate power as King.
- The tragic hero must have a **fatal flaw** - their **hamartia**. A fatal flaw is some negative quality in their personality which will be 'fatal' - it will lead to their death. Macbeth's hamartia is his 'vaulting ambition'.
- This often takes the form of arrogance, pride or over-confidence - their **hubris**. Macbeth's hubris is encouraged by the witches - 'No man of woman born shall harm Macbeth'.
- The tragic hero will have a moment of recognition of that fatal flaw - their moment of **anagnorisis**. Macbeth's anagnorisis comes when he finds out Macduff was not 'of woman born'.
- At the end of the play there will be some kind of resolution that puts some things right. Malcolm becomes the rightful king.
- The audience will be left feeling 'cleansed' after living through the emotions of fear and pity shown in the play - a feeling of **catharsis**.



Tragedies have a set structure; the first part builds up to a turning point (Duncan's murder) which is the climax of the play. The second part deals with the aftermath where things fall apart from Macbeth. Everything that happens in *Macbeth* happens to drive the play through this structure to its tragic conclusion. We can see the structure of *Macbeth* as a triangle:



ESSAY SKILLS (AO1)			CONTEXT
<p><u>Critical verbs</u></p> <p>Shakespeare uses _____ (insert the question focus – the character/relationship/theme/series of events) _____ in order... to criticise... to warn... to expose... to teach... to celebrate... to reveal the importance of... to question... to establish... because.....but.....so.....</p>	<p><u>Adjectives to describe Macbeth</u></p> <p>Valiant - brave Intrepid - fearless Ruthless - no pity or compassion for others Ambitious - strong desire to succeed Hubristic - excessively proud or self-confident Paranoid - suspicious, mistrustful Tyrannical - exercising power in a cruel way Merciless - showing no mercy Usurper - taking power illegally or through force</p> <p><u>Adjectives to describe Lady Macbeth</u></p> <p>Ambitious - strong desire to succeed Manipulative - exercising control or influence Assertive - forceful Duplicious - deceitful Supercilious - disdainful or contemptuous Callous - insensitive or cruel regard for others Calculating - scheming Tormented - mental suffering Neurotic – anxious and self-doubting Machiavellian - cunning, scheming, unscrupulous</p> <p><u>Adjectives to describe The Witches</u></p> <p>Uncanny - strange or mysterious Perplexing - puzzling Ardent - passionate Machiavellian - cunning, scheming, unscrupulous Calculating - scheming Disturbing - causes worry</p>	<p><u>Adjectives to describe Banquo</u></p> <p>Loyal - showing support or allegiance Intrepid - fearless Honourable - deserving of praise or respect Wary - showing caution Moral - concerned with the principles of right and wrong Dutiful - obedient Devoted - loving or loyal Discerning - showing good judgement Sceptical - having doubts or reservations</p> <p><u>Adjectives to describe King Duncan</u></p> <p>Worthy - deserving Virtuous - showing high moral standards Unsuspecting - unaware of the presence of danger Admired - respect and warm approval</p> <p><u>Adjectives to describe Macduff</u></p> <p>Loyal - showing support or allegiance Noble - fine qualities, high moral principles Zealous - showing great energy or enthusiasm Hostile - showing opposition or dislike</p>	<p>Although there are no context marks, you should still be aware of the following:</p> <p><u>The Divine Right of Kings</u> The Christian kings of Europe once believed they were answerable to no one except God. The idea became known as the divine right of kings. The divine right was an ancient idea that began with Europe's medieval kings. They claimed that they had been chosen by God and were his representatives on Earth.</p> <p><u>The Great Chain of Being</u> The Elizabethans believed in "The Great Chain of Being". This was an idea that everyone was placed within a hierarchy by God, with the king at the head. By killing the king and taking Duncan's place, Macbeth subverts this natural order. Disorder in nature reflects this disorder in human affairs.</p> <p><u>The Role of Women</u> Elizabethan England was a fiercely patriarchal society with laws that heavily restricted what women could and couldn't do. Women were not allowed to attend school or university and were encouraged to be silent and obedient to male authority.</p>
<p><u>Key phrases to use in your answer</u></p> <p>Macbeth's journey to destruction... Scrutinises the desire for power... Distorts the representation of women to create an atypical villain... The crumbling façade of power... The pressures of masculinity... The slippery nature of truth... The terror of regicide... Disrupts the natural order... Macbeth's transgressive deeds... The Macbeth's immorality, fuelled by greed and ambition...</p> <p><u>Tragic Terms</u></p> <p>Tragedy – a genre typically ending in the main character's death Pathos – emotional appeal (we feel invested in Macbeth) Catharsis – release of emotions at the end of a play Peripeteia – the reversal of fortunes Hamartia – fatal flaw Hubris – excessive pride Demise – downfall often leading to death Anagnorisis – sudden realisation of fate Zenith – the peak of a hero's fortunes Nadir – the lowest moment in a hero's journey</p>			

REVIEWS

What IS a review?	What is being tested?
<p>A review is an evaluation of a given topic. If you are asked to write a review, you must give a range of personal opinions on the given subject and evaluate the positives/negatives of the thing you are reviewing. The reader should then have a clear idea of whether they would enjoy the thing you have reviewed, or not.</p> <p>Reviews are often on books/films/restaurants or places.</p> <p>A review can be positive, negative or mixed.</p>	<ul style="list-style-type: none">• How you engage a reader, the quality of your ideas and how well you present them.• Your ability to be evaluative when writing.• Your ability to use sentencing, grammar and vocabulary.• Your ability to develop ideas and write about two sides.
Choosing what to review	Top Tips:
<p>If you are given a choice of what to review, e.g – a film of your choice, choose something you can say a lot about. Think about films that accompany novels you've studied in school if you can't think of anything else. By reviewing the film or book of a GCSE Literature text, you are also giving yourself the chance to use all the wonderful vocabulary you've learned to describe those characters/events etc.</p>	<p>A review should allow the reader to understand what you are reviewing in detail – so a book review needs to give details about the plot, and a place review needs to tell them all about the place. If not, you'll lose marks as the review won't be hitting its purpose.</p> <p>You can make up details. The examiner won't know or care if you do as it's about your writing skills at the end of the day. Obviously just don't be silly!</p>
Structuring a review:	<p>Reviews should be entertaining, so:</p> <ul style="list-style-type: none">- Use a pun in your title: E.g – when reviewing A Christmas Carol: <i>High Spirits in A Christmas Carol</i>.- Use parenthesis to give asides to your reader and build a relationship. Do this through embedded clauses, brackets or dashes: <p><i>The plot (which I'm sure you are vaguely familiar with) centers around a miserly misanthropist called Scrooge.</i></p> <p><i>On meeting Marley's ghost – a grim prediction of Scrooge's future – the plot really gets exciting.</i></p> <p><i>The Cratchits, who are symbols of the hardworking poor, are overlooked by Scrooge.</i></p>
<p>You will need:</p> <ul style="list-style-type: none">• A catchy title. If you can't think of one straight away, write a boring title ('A review of....') and come back to it!• An introduction which makes your opinion clear from the start.• An overview of the plot or the subject matter (e.g, if reviewing a place, details about what there is to see/do etc), not giving away any endings for films/books.• A summary of the high and low points for you.• Who would enjoy the thing you are reviewing.• Whether you would recommend it.	
Example questions for practice:	
<p>Write a review for a teenage magazine of a book, film or TV programme/series that you have enjoyed in the last year and why it might appeal to others of your age. [20]</p> <p>Write a review of your school or college based on your experiences there. [20]</p>	

1. PRINCIPLES OF ORGANISATION

Cells: The basic building blocks of all living organisms.

Tissue: A group of cells with a similar structure and function.

Organs: A group of tissues performing specific functions.

Organ systems: a group of organs which work together to form organisms

2. DIGESTIVE SYSTEM

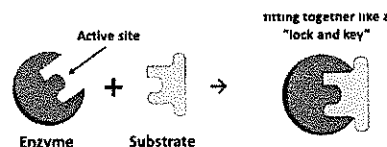
The digestive system is an example of an organ system in which several organs work together to digest and absorb food.

mouth	Mechanical breakdown by teeth. Saliva, produced by salivary gland, moistens food and contains amylase which digests starch into simple sugars
oesophagus	This tube joins the mouth to the stomach. The food is pushed down by muscular contractions in the wall.
stomach	Breaks down food. Contains stomach acid and digestive juices. This creates optimum pH for protease enzymes such as pepsin to digest proteins.
Small intestine	Fats are digested into lipids by the enzyme lipase. The acid from the stomach is neutralised by bile. Bile neutralised the acid and emulsifies fats. This increases the rate of fat digestion. Digested food is absorbed into the blood stream by diffusion or active transport. Villi are finger like projections that increase the surface area to increase the rate of diffusion.
Large intestine	Water is absorbed from the undigested material. If you do not eat enough fibre, there is no bulk to push through the large intestine.
liver	Produces bile.
pancreas	One of it's functions is to produce digestive enzymes.
Gallbladder	Stores bile.

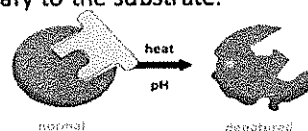
Organisation- B2

3. ENZYMES

Enzymes catalyse specific reactions in living organisms due to the shape of their active site.



The enzyme is complementary to the active site- this is known as 'lock and key' theory. Changes in temperature and pH can cause enzymes to denature- this means that the active site changes shape and is no longer complementary to the substrate.



Digestive enzymes convert food into small soluble molecules that can be absorbed into the bloodstream.

- Carbohydrases break down carbohydrates to simple sugars.
- Amylase is a carbohydrase which breaks down starch.
- Proteases break down proteins to amino acids.
- Lipases break down lipids (fats) to glycerol and fatty acids.

The products of digestion are used to build new carbohydrates, lipids and proteins. Some glucose is used in respiration.

4. FOOD TESTS

Starch - Iodine solution changes from orange-brown to blue-black

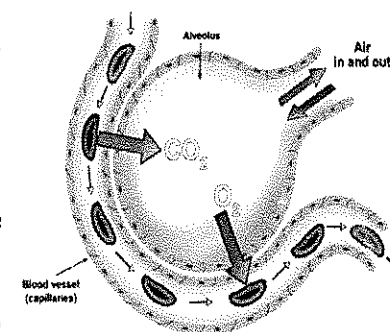
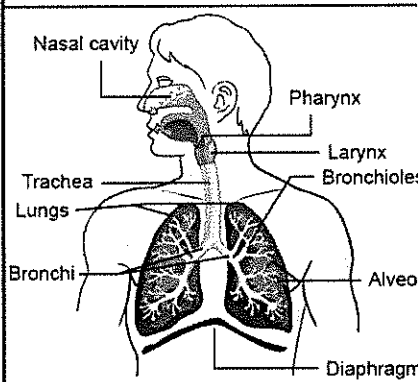
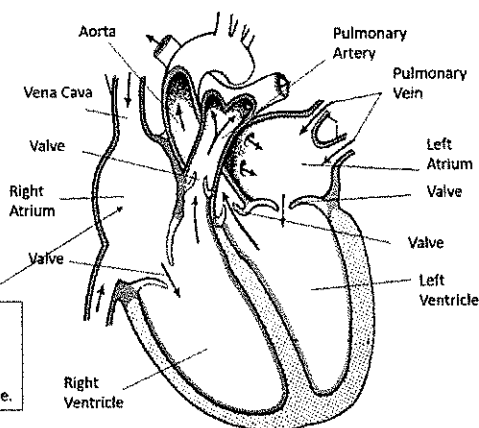
Sugar – Heat with Benedict's solution. Changes from blue to brick red.

Protein – Biuret solution changes from blue to purple.

5. HEART AND BLOOD VESSELS




The heart is an organ that pumps blood around the body in a double circulatory system.

- The right ventricle pumps blood to the lungs where gas exchange takes place.
- The left ventricle pumps blood around the rest of the body



6. BLOOD VESSELS

- Arteries- Carry blood away from the heart. Have thick, muscular walls and a small lumen to withstand a high pressure.
- Veins- Carry blood towards the heart. Have valves to prevent back flow of blood.
- Capillaries- Walls are one cell thick to allow efficient gas exchange

Artery	thick, elastic wall small lumen	
Vein	thin wall large lumen valve	
Capillary	single cell wall	

7. BLOOD

Blood is a tissue consisting of:

- **Plasma**- transports carbon dioxide, urea, hormones, glucose
- **White blood cells**- kill pathogens
- **Red blood cells**- carries oxygen
- **Platelets**- causes blood to clot at a wound

8. CORONARY HEART DISEASE

Layers of fatty material build up inside the coronary arteries, narrowing them. This reduces the flow of blood through the artery, resulting in a lack of oxygen for the heart muscle.

- Stents- a metal mesh used to keep the coronary arteries open
- Statins- tablets used to reduce blood cholesterol levels, which slows down the rate of fatty material deposit
- Biological or mechanical valves- used to replace faulty valves
- Heart/lung transplant- to replace a faulty organ
- Artificial heart- temporarily used while waiting for a transplant or to allow the heart to rest to aid recovery



Healthy
Coronary Artery



Coronary Artery
with Plaque Buildup

9. HEALTH ISSUES

Health is the state of physical and mental wellbeing

Causes of ill health:

- Communicable diseases
- Non-communicable diseases
- Poor diet
- Stress and life situations

Different types of disease may interact.

- Defects in the immune system mean that an individual is more likely to suffer from infectious diseases.
- Viruses living in cells can be the trigger for cancers.
- Immune reactions initially caused by a pathogen can trigger allergies such as skin rashes and asthma.
- Severe physical ill health can lead to depression and other mental illness.

Organisation- B2

10. DISEASE RISK FACTORS

A causal mechanism has been proven for some risk factors, but not in others. Many diseases are caused by the interaction of a number of factors.

- The effects of diet, smoking and exercise on cardiovascular disease.
- Obesity as a risk factor for Type 2 diabetes.
- The effect of alcohol on the liver and brain function.
- The effect of smoking on lung disease and lung cancer.
- The effects of smoking and alcohol on unborn babies.
- Carcinogens, including ionising radiation, as risk factors in cancer.

11. CANCER

Cancer is caused by a random mutation which changes cells, leading to uncontrolled growth and division.

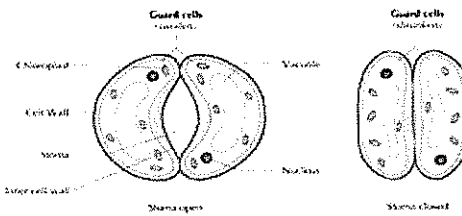
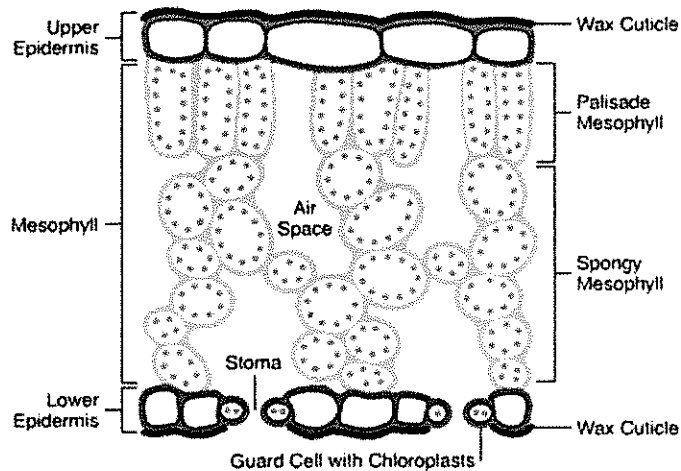
Benign tumours are growths of abnormal cells which are contained in one area, usually within a membrane. They do not invade other parts of the body.

Malignant tumours are cancers. They invade neighbouring tissues and spread to different parts of the body in the blood where they form secondary tumours.

Scientists have identified lifestyle risk factors for various types of cancer. There are also genetic risk factors for some cancers.

12. PLANT TISSUES

Stoma	Pore on the underside of the leaf.
Vein	Contains the tissues that transport food and water.
Spongy Mesophyll	Layer of cells with air-spaces between them.
Waxy Cuticle	Transparent layer on the top of the leaf.
Upper Epidermis	Single layer of flat cells covering the top surface of the leaf.
Palisade Cells	Layer of long cylindrical cells just under the upper epidermis. Where most chloroplasts are found.
Guard Cells	Control the closing and opening of the stomatal pores.
Lower Epidermis	Single layer of flat cells covering the bottom surface of the leaf.
Chloroplast	Small structures within the cells where photosynthesis takes place.



13. TRANSPIRATION

1. Water is constantly lost from the leaves- this occurs due to evaporation due to heat + water loss from the stomata
2. This produces a concentration gradient. There is more water in the roots/ at the base of the plant than in the leaves.
3. Water moves via osmosis from a high concentration in the roots to a lower one in the leaves.
4. As water moves from the roots to the leaves more water is drawn up from the soil into the root hair cells. This occurs because the concentration of water in the soil is larger than in the roots = water moves via osmosis in to the root hair cells.

Factors affecting transpiration rate:

- Temperature
- Humidity
- Air movement
- Light intensity

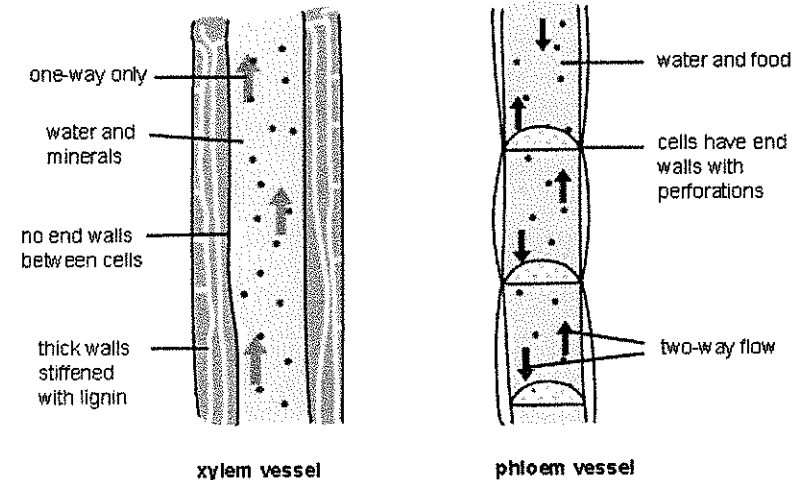
Organisation- B2

14. TRANSLOCATION

The movement of food molecules through phloem tissue is called translocation

Phloem tissue transports dissolved sugars from the leaves to the rest of the plant for immediate use or storage.

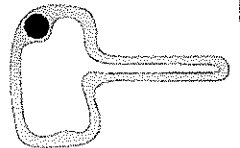
15. XYLEM AND PHLOEM



16. ROOT HAIR CELLS

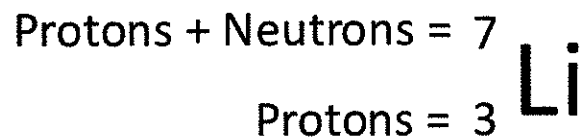
Root hair cells are adapted for the efficient uptake of water by osmosis, and mineral ions by diffusion and active transport.

- Long and thin to increase surface area



Structure of an Atom

The nuclear model of the atom consists of a nucleus containing protons and neutrons. Electrons orbit in shells around the nucleus.



3 Protons, 4 Neutrons, 3 Electrons

Useful Definitions

Radioisotope: An atom with an unstable nucleus.

Radioactive Decay: A radioisotope emitting radiation from its nucleus.

Radioactivity is a **random** process: We can't predict when the next decay will happen.

Radioactive decay produces **nuclear radiation** – radiation emitted from the nucleus.

The nuclear radiation emitted may be an alpha particle, beta particle, gamma ray or a neutron.

Neutron radiation: the release of a high-speed neutron from the nucleus.

Alpha particles: A helium nucleus made up of 2 protons and 2 neutrons.

Beta particles: A neutron in the nucleus emits an electron and becomes a proton.

Gamma rays: Emitted from a nucleus. These are very high-energy electromagnetic waves. They have no charge and no mass.

Isotopes

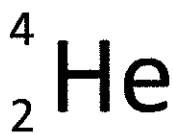
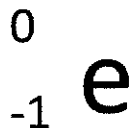
Isotopes of an element have the same number of protons, but different numbers of neutrons.

Electrons

If electrons gain energy, they can move further from the nucleus. They can return to their original level by emitting electromagnetic radiation.

Properties of Radiation

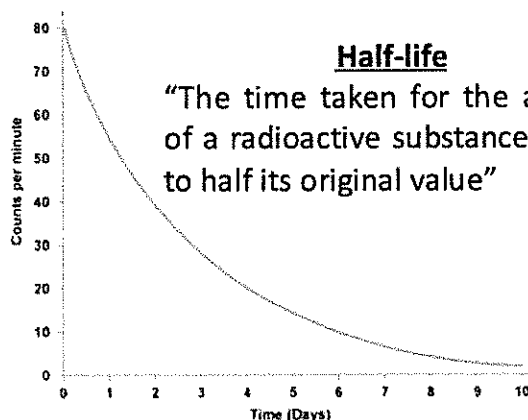
Type of Radiation	Ionising Power	Penetrating Power	Absorbed by
Alpha (α)	Most	Least	Paper, skin, a few cm of air
Beta (β)	Moderately	Moderately	Thin aluminium, a few m of air
Gamma (γ)	Least	Most	Thick lead, concrete

Nuclear Equations**Alpha decay****Beta Decay**

- Write in the alpha or beta particle.
- Make the top row add up.
- Make the bottom row add up.

Half-life

"The time taken for the activity of a radioactive substance to fall to half its original value"

**Half-life (Higher Tier)**

The proportion of the original activity changes as follows:

$$1 \text{ half life} = 1/2$$

$$2 \text{ half lives} = 1/4$$

$$3 \text{ half lives} = 1/8$$

To calculate the proportion remaining after x half lives: $1/2^x$

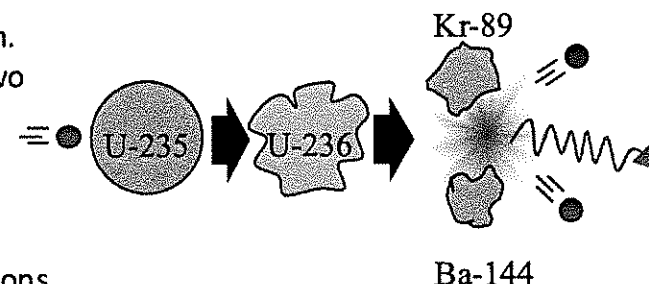
Uses of Ionising Radiation in Medicine

- X-rays are used to check for broken bones.
- Medical Tracers are injected and travel round the body in the blood.
- Radiotherapy is the use of gamma rays to kill cancer cells.

Any additional exposure to ionising radiation increase the risk of cancer, but the benefits of these treatments outweigh the risks.

Nuclear Fission

- A **large**, unstable nucleus absorbs a neutron.
- It becomes more unstable and splits into two **smaller nuclei**
- This releases **energy**
- Additional **neutrons** are released.



The additional neutrons can lead to more fissions, this is a **chain reaction**.

Hazards of Radiation

Ionising Radiation

Damages cells which leads to mutations. This can cause cells to become cancerous.

Contamination:

Radioactive materials on or in the body. This causes exposure to radiation over a long period of time until the materials are removed.

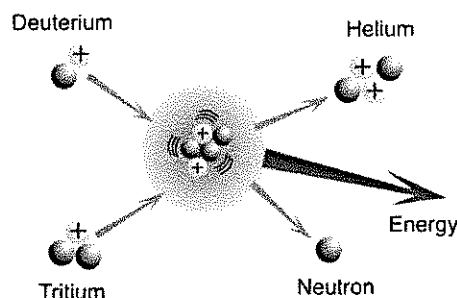
Contamination can be prevented by the use of safety clothing and equipment.

Irradiation:

Exposure to radiation. This only happens when you are near a radioactive source and stops when you move away from it.

Irradiation can be reduced by shielding (see table on previous page) and protective clothing.

Nuclear Fusion

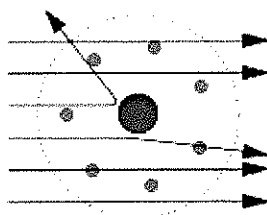


Nuclear fusion is the joining of **small, light nuclei** to form a **heavier nucleus**. Fusion is the energy source for stars. So far we have not yet been able to produce the **temperature** and **pressure** conditions required for fusion to occur on Earth.

Rutherford's Alpha Particle Scattering Experiment

Rutherford aimed a beam of alpha particles at a thin sheet of gold foil.

- Most of the particles passed straight through showing most of the atom was empty space,
- Some were deflected showing mass and charge were concentrated in the nucleus.
- Very few were deflected by large amounts, showing the nucleus was very small in comparison to the atom.
- This provided **new evidence** in support of the **nuclear model** – the **Plum Pudding** model was rejected.



Judaism Knowledge Organiser Three

Factual Knowledge: The Synagogue

The Synagogue is at the heart of the Jewish faith. It is a house of prayer, study and gathering. Some Orthodox Jews may use the synagogue 3 times a day to pray, more generally though services take place Mondays, Thursdays and Shabbat. The synagogue is also used for Study, Jews study the Torah and discuss this with other Jews. Children may also learn Hebrew at the synagogue. The Synagogue is also vital for the community and at the heart of celebrations such as weddings. The synagogue ensures the weak and vulnerable of the community are cared for.

The Features of the Synagogue:

The Ner tamid is an everlasting light. This represents the eternal presence of God. The mitzvah to keep a light burning at the temple in Jerusalem. This will always hang near the ark.

The Ark is precious, sacred and the most important place in the synagogue. It contains several Torah scrolls.

The Torah scrolls, each scroll is handwritten and contains the sacred words of God.

The Bimah, where the Torah scroll is read. The Bimah is usually central in Orthodox synagogues and at the front in reform synagogues.

The Yad, this is used to read from the Torah, it helps you point to the exact place where you should be reading from.

Dietary Requirements: Kosher

Kosher means something that is fitting and proper according to Jewish Law. The opposite of Kosher is treifah, which is used to describe actions and food that is forbidden. The laws concerning Kosher date back to the Torah. There are many references about not only what can and cannot be eaten, but also the way foods should be prepared. Foods which are forbidden include many types of birds and shellfish, as well as animals that do not chew the cud or have parted hooves.

Kosher food can be quite hard to find in Britain and quite expensive. Among Orthodox Jews, meat and dairy products are not allowed to be eaten or cooked together, although they can be cooked separately. Reform and Orthodox differ in the way that their kitchens are organised. Orthodox arrange things in such a way that there is no contact between meat and dairy products, whereas Reform traditions are much less concerned with such matters, however many Reform Jews are careful to observe the basic principles of *kashrut*.

Jewish Rituals

Brit Milah: Is the Hebrew name to describe the religious circumcision of boys at 8 days old. It can be carried out in a hospital, home or synagogue and is carried out by a mohel (male). Circumcision involves the removal of the foreskin and is performed in front of the minyan. Relationship with God is shown through the circumcision, it represents the covenant with Abraham. As part of the covenant God gave Abraham the rite of circumcision as the specific sign of the Abrahamic covenant.

Bar Mitzvah At the age of 13 a boy becomes bar mitzvah- he enters into Jewish adulthood. From this time he will be able to form part of the Minyan (minimum group of ten needed for prayers). According to Jewish law at the age of 13 a boy is considered responsible to fulfil the mitzvot in the Torah. The term 'Bar Mitzvah' means 'Son of Mitzvah.' At this age it is believed that a young male can enter into a covenant relationship with God. In the years before his bar mitzvah ceremony a boy learns Hebrew so he can read a portion of the Torah in the synagogue.

Marriage is seen as an important religious and spiritual ceremony in Judaism. It allows procreation, fulfilling the duty to be '*fruitful and multiply*' and the bonding referred to in the Torah. Marriage is considered God-given which can be seen by the word Kiddushin (holy or sanctified) which is used for the betrothal ceremony and the first part of the ceremony. The second part of the ceremony is called the Nisuin which finalises the marriage.

Mourning Rituals There is a pattern of rituals that take place when someone has died in the Jewish community. If possible a person's last moments should be spent reciting the Shema.

Chevre Kadisha: The burial society attached to the synagogue prepare the body for the burial.

The funeral is arranged by the Onan (main mourner).

Burial: For most Jews the body will be buried further than cremated and this should be done as quickly as possible.

Shiva: There are set rituals after the funeral which represents the fact that life cannot immediately carry on as before after a loved one has died these are known as Shiva (Meaning 7) and lasts for one week.

Factual Knowledge:**Jewish Festivals**

Rosh Hashanah – Many consider Rosh Hashanah as the day God created the world. Rosh means head or beginning. It is a happy time to celebrate the beginning of the world. It is also a serious time when they remember God as judge. Rosh Hashanah and Yom Kippur are connected in a process of judgement as many people believe God judges people for the deeds in the last year.

Special services are held on the eve of Rosh Hashanah. Special foods are eaten such as pomegranates, apples and honey to symbolise a sweet new year. At the morning service a shofar (rams horn) is blown 100 times to represent the crying of the soul asking to be reunited with God. Some Jews will perform tashlikh when they cast away the crumbs in their pocket to symbolise casting away sins. During the next ten days Jews consider their deeds of the year and try to apologise to anyone they have done wrong to.

Yom Kippur – Often called the Day of Atonement, it is the holiest day of the year. It is the end of the 10 days of repentance. It is a day of self-denial with a fast through the day. Many people spend this day in the synagogue. Food and money is given to help the poor. Some Jews will visit the mikveh (pool of natural water) for spiritual cleaning before Yom Kippur. They fast for 25 hours. In the synagogue the Kol Nidrei (all vows) is sung and the story of Jonah is told. During the prayers Jews confess their sins to God. The service ends with reciting the Shema. After nightfall a single blast of the shofar marks the end of the service.

Judaism Beliefs Key Terms:

Covenant: a promise or agreement between two parties. Covenants were made between God with Noah, Abraham and Moses.

Kosher: (fit or proper) foods that are permitted to be eaten according to Leviticus Chapter 11. It is also used to refer to the purity of ritual objects such as Torah scrolls.

Messiah: the anointed one who Jews believe will bring in a new era or age for humankind. This will include rebuilding the Temple and bringing in an age of universal peace.

Mitzvot: the term has a mix of meaning. It is often used to refer to duties (such as the 613 in the Torah) and good deeds.

Shabbat: day of spiritual renewal and rest. Beginning at sunset on Friday and closing at nightfall on Saturday.

Sukkot – An important harvest festival that is counted as a mitzvah. It remembers the 40 year period when the Israelites were in the desert on their way to the Promised Land. Shelters or booths (sukkahs) are made which represents the temporary shelters they used in the desert. Families will often eat and some sleep in here. Two special objects are used during the festival an Etrog (citrus fruit) and a lulav (palm, myrtle and willow placed in a wooden holder). Bringing the four species together is a reminder that Jews should be united.

Sukkot lasts for 7 days and many Jews do not work on the first and second day. Jewish families build a sukkah with a roof that the stars can be seen through. They may eat and sleep here. Sukkah are sometimes decorated with prayers and picture of fruit and harvests. Each morning the lulav is waved and a blessing said to God.

Pesach – celebrates the freedom from slavery in Egypt which was led by Moses. It is often called Passover as God passed over the houses of the Israelites during the final plague. In the book of Exodus God commands that the festival should be held each year.

Many foods are eaten during the celebration which have a special meaning: food without leaven such as matzah as a remembrance that the Israelites did not have time to allow the bread to rise before they left. The festival is called the festival of freedom and prayers are said for those who are not free. Before it begins the house is cleared of any products that rise. Families attend the synagogue and go home for a Seder meal. There will be a Seder plate with symbolic foods (lambs' bone, roasted egg, green veg to dip in salt, bitter herbs, paste made from apples, walnut and wine). Prayers are said for those who are not free and prayers from the Haggadah. The door is left open for Elijah who some Jews believe will come after Pesach to announce the coming of the messiah.

Key Terms continued:

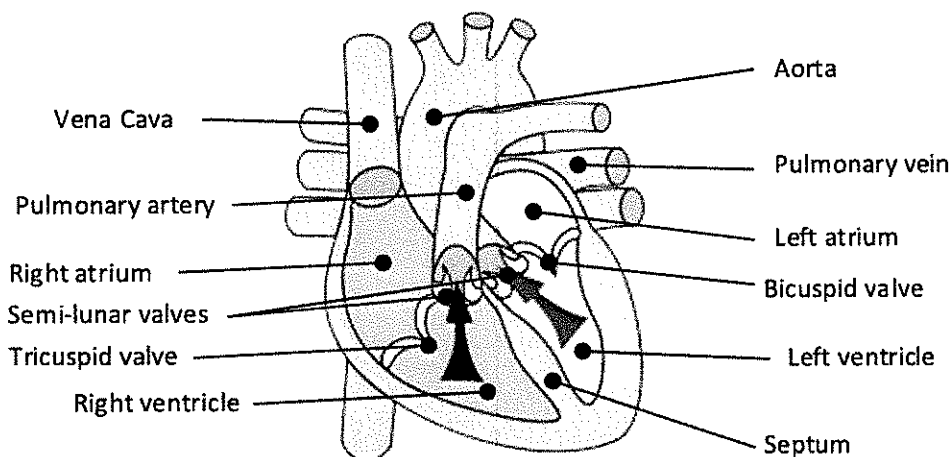
Shekhinah: the place where God's presence rests and can be felt.

Synagogue: house of assembly; building for Jewish public prayer, study and assembly.

Torah: the five books of Moses (Genesis, Exodus, Leviticus, Numbers and Deuteronomy). Regarded as the holiest books of the Torah.

ALL SAINTS ABSOLUTE 1.4 GCSE Physical Education – The structure and functions of the cardiovascular

1. Structure of the cardiovascular system



Deoxygenated blood = BLUE (Right side)

Oxygenated = RED (Left side)

Bicuspid and Tricuspid valves prevent backflow of blood from the ventricles to the atria.

4. Vascular Shunting/redistribution of blood

Vasoconstriction – NARROWING of the blood vessels

Vasodilation – EXPANDING of the blood vessels

EG When exercising the demand for oxygen is greater therefore is redistributed to the working muscles.

Muscles supplied with more oxygen or less oxygen to body parts with a lower demand.

Vasodilation if blood vessels so that they can keep working for longer.

Vasoconstriction of blood vessels so that blood flow to working muscles is maximised.

Heart gets same percentage of blood but an increase in amount of blood flow.

Skin gets less as a percentage but an increase in amount of blood flow.

Vital organs still get enough blood to function effectively.

Components of blood - Red blood cells (RBC)

Carry oxygen from the lungs to the working muscles + Removes CO₂.

Haemoglobin binds the oxygen



CHALLENGE



2. Function of the cardiovascular system

- Transport of oxygen, carbon dioxide and nutrients
- Clotting of open wounds
- Regulation of body temperature

3. Key Terms

Stroke volume (SV) This is the volume/amount of blood pumped out of the **left ventricle/ventricles/heart** in one **contraction**. (ml per beat).

Heart rate (HR) Number of beats per minute (bpm). Fitter you are the lower your HR.

Cardiac Output (Q)– The volume of blood pumped from the **Left ventricle/heart** in one minute. (litres/min) or stroke volume x heart rate

Capillarisation - An increase in the number of / more capillaries.

Arteries (arterioles – smaller arteries)

1. Away from the heart
2. Predominantly carries oxygenated blood (**except pulmonary artery**)
3. Thick walls
4. Elastic walls
5. Thick smooth muscle
6. Small/narrow lumen
7. Does NOT have valves
8. Higher **speed** of blood flow
9. High blood **pressure**

Veins (venules – smaller veins)

1. Back to the heart
2. Predominantly carries deoxygenated blood (**except pulmonary vein**)
3. Thin walls
4. Larger/wider lumen
5. Thin smooth muscle
6. Valves to prevent back flow of blood
7. Lower **speed** of blood flow
8. Non-elastic walls
9. Low blood **pressure**

Capillaries

1. In the tissue
2. Site of gaseous exchange
3. Very thin walls



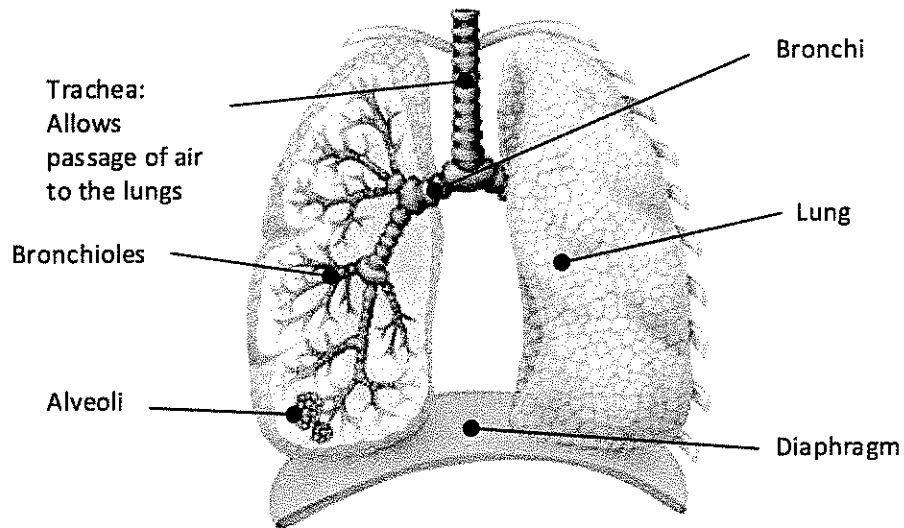
6. The double circulatory system: Blood in the body continuously flows through a network of blood vessels that forms a double circuit. This circuit connects the heart to the lungs, known as the pulmonary system, the process of gaseous exchange occurs in this system. Then the heart to the other organs in the body, known as the systemic. Whereby transporting O₂.

Pulmonary circuit : Deoxygenated blood from muscles/organs into **Vena cava** – right atrium – tricuspid valve – right ventricle – pulmonary valve – **pulmonary artery** – lungs to be oxygenated then returns to the heart.

Systemic circuit: Oxygenated blood from lungs into **pulmonary vein** – left atrium – bicuspid valve – left ventricle – aortic valve – **aorta** – muscles/organs.

Septum: keeps oxygenated blood separate from deoxygenated blood.

1. Structure of the respiratory system



2a. Alveoli (feature): 1. Thin walls/1 cell thick / semi permeable; 2. Moist walls; 3. Surrounded by capillaries; 4. Large surface area/large number of alveoli; 5. Walls contain elastic fibres. (numbers link – in table?)

2b . Gaseous exchange at the alveoli (functions)

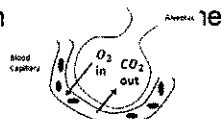
1. More efficient/faster gaseous exchange / diffusion – small distance for gases (CO_2/O_2) to pass through faster.
2. Gases dissolve to pass through or More efficient/gaseous exchange / diffusion
3. To provide blood for gaseous exchange / diffusion.
4. More gases (CO_2/O_2) can pass through or more efficient gaseous exchange/diffusion.
5. Allows the walls to increase surface area slightly during inspiration.

The process of gaseous exchange.

1. The movement of gases taking place at the alveoli and capillaries:
Oxygen diffuses into blood/capillaries/red blood cells/haemoglobin from alveoli – Carbon dioxide diffuses from blood/capillaries or Carbon dioxide diffuses into alveoli
2. Diffusion is the movement of molecules from an area of high concentration to a low one.

During inhalation:

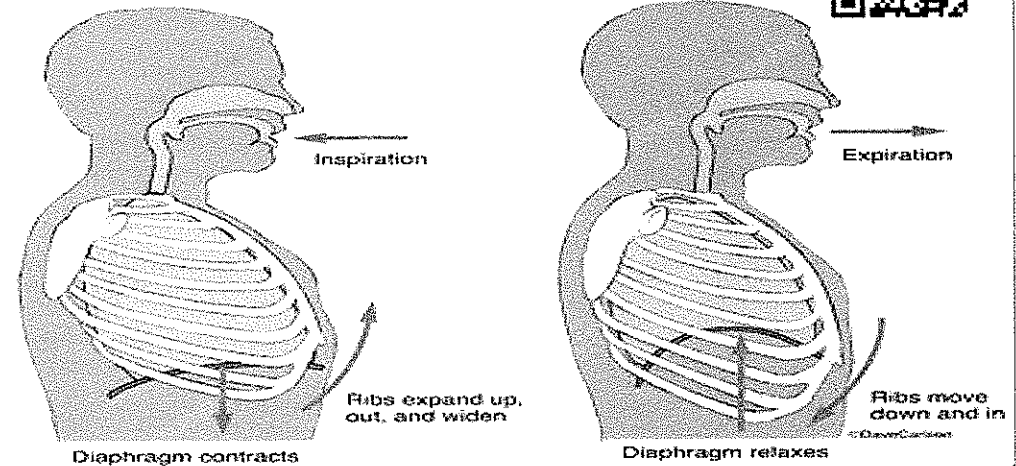
5. The concentration of **oxygen** in the air is higher than the alveoli.
6. The concentration of **carbon dioxide** in the blood is high air.



3. Pathway of air:

Nose, trachea, bronchi, bronchioles, alveoli

4. Mechanics of Breathing



5. Inspiration (breathing in)

1. External intercostal muscles and diaphragm contract/flatten
2. The ribs move up and out
3. The lungs/thoracic cavity volume increases
4. The lung pressure decreases
5. Gases move from high to low pressure
6. Air moves into the lungs

6. Expiration (breathing out)

1. External intercostal muscles and diaphragm relax/go into dome shape
2. The ribs move down and in
3. The lungs/thoracic cavity volume decreases
4. The lung pressure increases
5. Gases move from high to low pressure
6. Air moves out of the lungs

7. Key terms

1. Breathing rate- Sometimes called the respiratory rate or ventilation rate, it is the frequency of breathing measured in breaths per minute. Normal breathing rate at rest is approximately 72 breaths per minute.

2. Tidal Volume – the amount of air inhaled and exhaled per breath. Resting value = 500ml

3. Minute Ventilation – The amount of air inhaled and exhaled per minute. Measured in litres.

$$\text{VE} = \text{TV} \times \text{F}$$

The **short term** effects are what happens to the body's systems as we exercise.

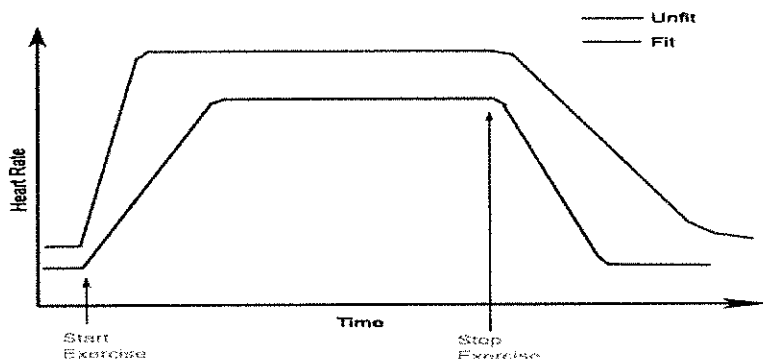
Muscular system

1. The immediate effects of exercise on the muscular system involve an increase in the temperature of muscles and metabolic activity or metabolism.
2. There is also an increase in the production of lactic acid in the muscles depending on the type of exercise. This increase in the production of lactic acid is a result of prolonged high-intensity exercise when there is a lack of oxygen in the muscles.
3. Increase rate of diffusion in the capillaries
4. Increase speed of contraction



The respiratory system

1. The short-term response of the respiratory system to exercise includes a rise in the respiratory rate (breathing rate) due to the body's demands for more oxygen.
2. Respiratory / intercostal / diaphragm muscles work harder / contract stronger / contract faster
3. Tidal volume (TV) also **increases** during exercise or increased breathing depth. This is the volume of air either inspired or expired per breath.
4. Minute ventilation/volume also **increases** during exercise- This is the volume of air that is inspired and expired in one minute.
5. Increase in gaseous exchange/diffusion.



The cardiovascular system

1. In the short term, the heart rate is raised just before exercise and will increase during exercise to ensure that there is enough supply of oxygen to the working muscles and that waste products, such as carbon dioxide, are removed.
 2. The raising of the heart rate before exercise is called the anticipatory rise.
 3. When exercise begins the heart rate will rise rapidly. As exercise continues, the heart muscle also becomes warmer.
 4. Increase Cardiac output
 5. Increase Stroke volume
 6. Increases blood flow/oxygen transport to (working) muscles directs blood away from other organs OR less blood to other organs
 7. Increase in blood pressure due to the increase in demand for oxygen (from the working muscles)
 8. Increase in blood lactate/lactic acid/CO₂ because muscles are working
 9. Blood temperature increases
 10. Vascular shunt **OR** vasodilation of blood vessels to muscles **OR** vasoconstriction of blood vessels to other organs **OR** less blood to other organs
 11. Blood vessels near skin dilate.
- When exercise stops, the heart rate will fall rapidly and the level of adrenaline falls, along with a drop in temperature of the heart. The heart rate then returns to around its pre-exercise rate.
- During exercise, the working skeletal muscles require more and more oxygen. The increase in stroke volume, cardiac output and heart rate enables more oxygen to be delivered, but this is often not enough and therefore the vascular shunt mechanism takes effect.



Key Vocabulary

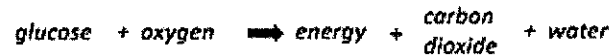
1. Anticipatory rise- This is the raising of the heart rate before exercise begins. It is caused through the release of adrenaline, which is a hormone.
 2. Adrenaline- This is a hormone released from the adrenal glands and its major action is to prepare the body for 'fight or flight'.
 3. Vascular shunts- Occur when more blood is distributed to the working muscles and less to the non-essential organs. The vascular shunt mechanism involves two processes. When exercising 80% of the blood will be shunted to the working muscles, and 30% to the organs. This is due to the demand of oxygen required.
- > The graph to the left demonstrates the change in HR for a fit and unfit person.
- Lactic acid can cause fatigue and tiredness, pain/soreness/discomfort or aches in muscles and a decrease in performance/ causes pain or soreness/ decrease performance.

PAPER 1 ALLSAINTS ABSOLUTE 1.5 GCSE Physical Education – Aerobic/Anaerobic and long term effects of exercise

1. Aerobic and Anaerobic exercise – two methods of energy production by the body (Energy: the capacity to do work)

Two factors determine which method is used: **Intensity & duration**

2. Aerobic energy production – takes place in the presence of oxygen



Exercise intensity is moderate/low and continuous for 3+minutes, oxygen is used with no oxygen debt and lactic acid not produced. E.g. marathon runner, triathlon, long distance cyclist.

Aerobic capacity - Ability to take in and use oxygen / ability of (heart and lungs) to get oxygen to the muscles **OR** the ability to continuously exercise without tiring.

4. Cardiovascular system Long term effects of exercise

1. **Lower resting heart rate**
 - Bradycardia
 - Heart doesn't need to work as hard / more efficient
2. **Larger / stronger heart OR** (cardiac) hypertrophy
 - Stronger contractions
3. **Increase in stroke volume**
 - At rest and high intensity
 - More blood pumped from the heart in one beat
4. **Increase in maximum cardiac output**
 - Higher volume of blood ejected from left ventricle in one minute **during high intensity exercise**
5. **Capillarisation OR Increased capillary density**
 - Improved circulation
 - Greater surface area for gaseous exchange **OR** more efficient / faster diffusion
 - More oxygen to muscles **OR** faster removal of CO₂ / lactic acid
6. **More efficient vascular shunt mechanism**
 - More blood to (working) muscles / body
7. **Lower blood pressure**
 - Less strain on the heart / blood vessels
 - Reduced risk of heart complications / strokes / heart attacks
8. **Increase in red / white blood cells**
 - (red) more haemoglobin / haemocrit
 - (red) Increased oxygen carrying capacity to supply working muscles
 - (white) better able to fight infections / disease
9. **Increased plasma / blood volume**
 - Decrease in blood viscosity
 - Blood flow is easier through blood vessels
10. **Faster / shorter recovery rate**
 - Heart rate returns to resting value faster after exercise
 - Performer will recover quicker from playing sport / training



6. Skeletal system Long term effects of exercise

1. Increased bone density – stronger bones reduce the risk of injuries.
2. Reduced risk of osteoporosis.
3. Increased strength of ligaments and tendons –



3. Anaerobic energy production – takes place in the absence of oxygen



Short bursts of exercise for up to 30 seconds. Intensity of anaerobic activity is high as muscle contraction are powerful & quick time. No or little oxygen used and oxygen debt is created as a result lactic acid is produced. E.g. *100m sprinter/long jump/50m swimmer* **or** long jump, triple jump, high jump **or** javelin, shot, discus, hammer **or** pole vault

5. Respiratory system: Long term effects of exercise

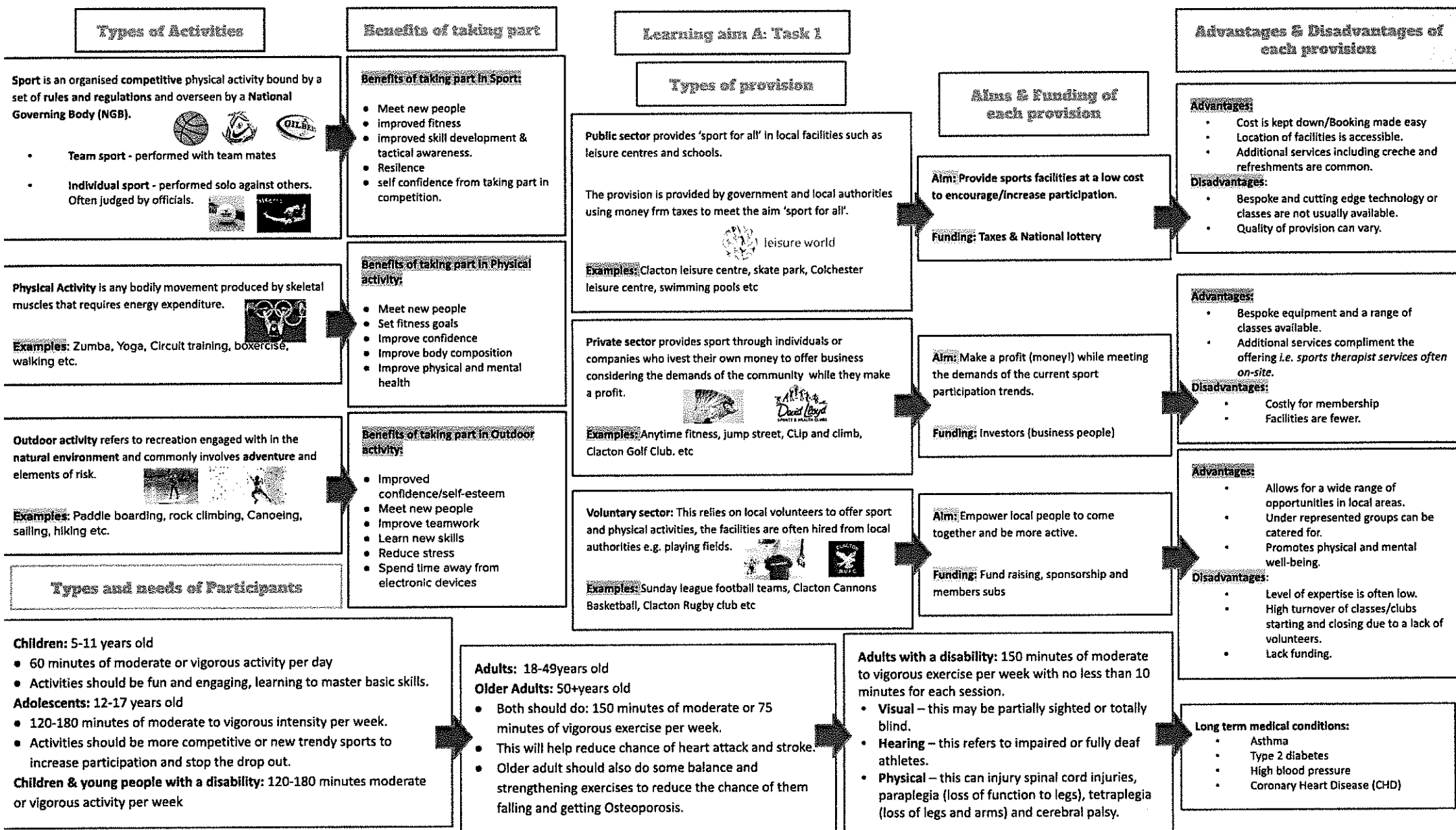
1. Increased capillarisation – better blood supply around the alveoli.
2. Increased surface areas of alveoli – results in better gaseous exchange (oxygen delivery and waste product removal)
3. Increased strength of diaphragm and intercostal muscles – this increased tidal volume and vital capacity.
4. Increase in Tidal volume
5. Increase minute ventilation
6. Decrease in lung disease/healthier lungs
7. Reduced resting respiratory rate
8. Increase in pulmonary ventilation.



7. Muscular system: Long term effects of exercise

1. Muscular hypertrophy – increase muscle mass. Increase size or number of muscle fibres
2. Increase strength of tendons
3. Greater speed of contraction
4. Increase size and number of mitochondria – produces more energy aerobically.
5. Increased tolerance to lactic acid/greater removal of lactic acid – reduces muscle fatigue.
6. Increase in muscular endurance /able to work for longer/less prone to fatigue
7. Increase strength of respiratory muscles e.g. intercostal ,muscles allowing more air to forcibly enter the lungs.
8. Greater flexibility / increased elasticity
9. Increased stores of glycogen / PC
10. Less prone to injury /faster recovery from injury / quicker recovery rate





Cost: The amount of disposable money a person has can be a barrier to participation.

Activities that have a lot of equipment or specialist equipment can make it very expensive and membership fees.

Transport can be costly as well, does the activity mean you have to travel lots? Petrol and train tickets are expensive.

Examples expensive sports:

Skiing, cricket, golf, horseriding

Examples of affordable sports: Football, Basketball, Netball



Accessibility: For people to participate in sport and physical activity, facilities, sessions and resources need to be available in the area.



If activities are too far away then it is unlikely that you take part in them, especially if you do not have a car.

Disabilities may cause some issues with accessibility, if a swimming pool does not have a chair hoist then they would not be able to access the pool.

Examples: If you do not live near a swimming pool then you are less likely to either learn to swim or get involved in swimming.

If there are no climbing walls in your area, again you are less likely to participate in climbing.

Possible Solutions:

- Taster days
- Better staff training to support individual needs
- Increased range of sports
- Ramps
- Assistive technology – pool hoist, braille and hearing loops.

Barriers to participation

Time: lack of time due to other commitments

Long working hours, family commitments, school and a lack of free time affect participation in sport.



Example: working 9-5pm, 5 days a week and also having child will reduce the amount of time you have to attend a sports club or exercise class.

Methods to address barriers to participation

Possible Solutions:

- Extended opening hours
- 24 hour opening times
- Creche for younger children

Possible Solutions:

- Private changing rooms
- Marketing campaigns have used a range of people with different body shapes in e.g. This Girl Can
- Allowed participants to wear clothing that they feel comfortable in.
- Parents and child sessions

Cultural barriers: Some religions and cultures have laws or expectations which make it more difficult to participate in sport.

- Restrictions on clothing for women
- Time of day may also affect participation, as many religions have specific times for rituals and worship.
- Lack of role models
- Specialist sports clothing is hard to come by and expensive



Examples: Ramadan, where Muslims fast from April to May and Salat is when Muslims pray 5 times a day, this can make it difficult to fit in physical activity.

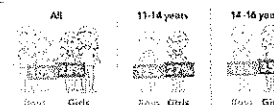
Possible Solutions:

- Women-only sessions staffed by female staff
- Ask employers to reflect on diversity of their staff
- Cultural and diversity training for all staff
- Prayer rooms at leisure centres or extended opening times to offer more variety
- Adapted sports wear

Personal barriers: A range of other personal barriers may exist:

- Body image
- Lack of self confidence
- Parental/guardian influence
- Low fitness levels
- Concerns around existing health conditions
- Limited or time off previous participation

I am not confident



Protective equipment

Learning aim B: Task 2

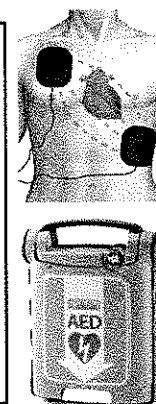
First aid

Protective equipment category	What injuries/hazards does the equipment protect against?	Sport/physical activity/outdoor activity its used in.
Goggles	Used to protect the eyes from weather conditions, water and projectiles. In skiing goggles protect your eyes from snow blindness.	Skiing Snowboarding Swimming Shooting
Mouth Guard	Mouth guards typically cover the upper front teeth, and are designed to protect against broken teeth which can lead to, cut lips and other damage to your mouth.	Boxing Rugby Basketball
Flotation device	A personal flotation device (PFD) is something you wear that will keep you afloat should you enter the water. It will reduce your chance of drowning.	Open water swimming Sailing Canoeing Sailing Kayaking Paddle boarding
Helmets	Helmets absorb, dissipate, and reduce impact forces to an athlete's head and brain during collisions between players or a fall to the ground.	American football Rock climbing Canoeing Ice Hockey Racing driving Skiing Cricket
Body protection	Contact sports always put stress on your body, all body armour is designed to minimise the impacts of regular contact training on your body. The main function of shin pads is to protect the soft tissues and bones in the lower extremities from external impact. Shin guards provide shock absorption and facilitate energy dissipation, thereby decreasing the risk of serious injuries.	Rugby Cricket Horseshooting Football

Defibrillator: A defibrillator is a device that gives a high energy electric shock to the heart of someone who is in cardiac arrest.

It is automated and takes the user through the process step by step. Where for find them?

- Schools
- Leisure centres
- Train stations
- Work offices
- Public spaces

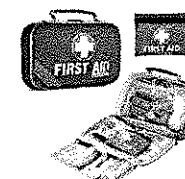


First aid kit:

It's important to have a well-stocked first aid kit in your home so you can deal with minor accidents and injuries.

Some items you may find in a first aid kit:

- Scissors
- Plasters
- Bandages
- Eye wash
- Tweezers
- Burn gel
- Ice packs



Officials

Officials: All sports will have some form of official, that might be a; referee, judge or umpire.

Some of the equipment they will need is:

- Whistle
- Earpiece
- Watch
- Microphone
- Disciplinary cards
- Note pad



Officiating technology

VAR: video assistant referee, is used in football to check decisions made by the officials, such as penalties, offsides and fouls.

- Pros:**
- Better decision making
 - Player discipline
 - Avoid controversial decisions

- Cons:**
- Time wastage
 - Decisions can still be wrong
 - Only used at top level games



Hawkeye: Is used in tennis and cricket, it used 10 cameras to predict where the ball will land.

- Pros:**
- Better decision making
 - Decision made on under 10 seconds

- Cons:**
- Accurate to 5mm so there are still errors
 - Only used at top level games



Goal line technology: Uses the same technology as Hawkeye, 14 high speed cameras are used to detect if the ball has fully crossed the goal line or not. The referee is notified through a watch on his wrist. It will vibrate for 10 seconds if a goal is scored.

Pros: Accurate decisions.

Cons: 5mm error margin, costly & only used in the top leagues.

Sports facilities

Sportshalls: A number of sports can be played in a sports hall, there will be court markings for different sports.

For example:

- Volleyball
- Basketball
- Handball
- Netball



Pros:

Can rent a hall easily in the public sector.

Cons: It can be expensive and might not be available when you need it.

Indoor climbing wall: A climbing wall is an artificially constructed wall with grips for hands and feet. It replicates the experience of outdoor climbing in a more accessible environment. Climbing walls are usually found in the private sector.



Pros:

More affordable and you can rent equipment.

Cons: High risk activity, expensive equipment if you buy your own, it can be repetitive. You may have to travel far as there are not that many indoor walls.

Dry Ski slopes: A dry ski slope or artificial ski slope is a ski slope that mimics the attributes of snow using materials that are stable at room temperature. They are found in the private sector.



Pros:

Cheaper, can do it in any conditions, you can hire equipment.

Cons: It's not the same as snow, they can be far away and there aren't very many of them.

4G pitches: All weather pitches used for football and rugby. They have artificial grass and a rubber layer to help replicate the bounce of a grass surface.



Pros: Can be used in all weather conditions, they can be rented in the public sector.

Cons: Injuries e.g. skin burns and joint injuries due to the impact. They can be expensive to rent.

Swimming pool: Can be used for fitness swimming or fun, you can play water polo and in some pools have a go at diving. They can be found in the public and private sector.



Pros: Accessible to all at a local leisure centre, lower prices in the public sector.

Cons: They have a timetable which means they may not be available when you need it.

Gym: Fitness centres and gyms will have a number of cardiovascular and weight machines to suit your fitness needs. They are found in the public and private sector.



Pros: A variety of equipment, in the public sector the membership will be more affordable or pay as you go. The equipment in the private gyms will be state of the art.

Cons: Private gyms are more expensive and require membership fees. Equipment in public gyms may not be the newest.

Footwear

Hiking boots: High sides to support ankles, waterproof, thick firm soles to provide grip on rocky terrain.



Football boots: Studs to reduce the chance of slipping.



Basketball trainers: High sides to reduce chance of rolling an ankle, rubber soles with grip to reduce the chance of slipping.



Running trainers: Cushioned to reduce impact on the joints and gripped soles.



Clothing

Warm gear: Feather weight fabric utilizes moisture transportation, which wicks sweat away from the wearer's body and filters it through the material, where it is then evaporated. This keeps athletes cool and dry in hot conditions.

Cold gear: In cold conditions the body loses 4-5% in performance. Cold gear is specially designed to help keep you warm; Light weight, soft brushed interior, 4 way stretch to stop it riding up and it traps air to keep you warm. They also have quick dry fabric so sweat can evaporate quickly to prevent chill.

Aerodynamic: Mainly used in cycling, tight specialist fabrics like lycra cling to your skin to reduce drag. Wearing lycra when cycling makes your 2km per hour quicker! They also wick sweat away to keep you warm and dry.

Waterproof jackets: Waterproof materials mean that water will bead up and roll off, this is because the fibres are so close together that the water is unable to penetrate it. Hikers will always have a waterproof jacket with them! It will keep them dry and protect them from the elements.

Adaptive equipment

Sports wheelchairs: Cambered wheels to improve a player's turning circle and stability in performing sharp turns. The addition of rear caster wheels to stop athletes from falling out backwards and carbon fibre spokes to increase the strength of their wheels.



Pros: They are light weight and move easily.

Cons: Expensive and need to be specially made.

Cheetah blade: A running blade used to assist people with amputations. They make it easier for people to take part in sports or physical activities.

Pros: Blades are tailor made for each individual.

Cons: They are expensive and you may have to travel far to get fitted for one.



Smart watches

Smart watches: a wearable computing device that closely resembles a wristwatch or other time-keeping device. They track a number of things that can help to improve your health and fitness. E.g. iwatch, garmin & fitbit.

Advantages:

- Track heart rate
- Calories
- Activity
- GPS and many more features!

Disadvantages:

- Cost, it can be expensive
- Tracking is inaccurate



GPS

GPS: Global Positioning System. Athletes wear GPS trackers when they train and play. They give them data on their distances, speeds and area covered.

Advantages:

- Reduce the chance of injury
- Help you improve

Disadvantages:

- Cost, it can be expensive
- It doesn't track touches on the ball
- Unreliable when used inside



Hearing impairment: Radio aids help reduce the impact of background noise. The coach or instructor wears a transmitter and the participant wears the receiver.

Visual impairment: Adapted equipment can be used e.g. bells inside balls, brightly coloured balls or larger balls.

Pulse Raiser

Pulse raiser: This is a gradual increase in heart rate. To elevate the heart rate so it matches the intensity of the exercise about to be undertaken.

How long: 3-5 minutes

Example activities:

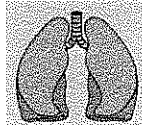
- Jogging
- Skipping
- Star jumps
- Side steps
- High knees
- Spotty dogs

Musculoskeletal Responses to a pulse raiser

The musculoskeletal system is the interaction of the **muscles, bones and connective tissues** (tendons and ligaments)

1. **Increased muscle temperature** – muscle contractions create movement and several by-products, one of which is heat.
2. **Increased pliability of muscles** – When the muscles and ligaments/tendons are warm they can stretch further. This will make movements much easier when you are playing sports.
3. **Reduced risk of muscle strain** – the chances of injury are reduced when a pulse raiser is carried out. This is because your muscles are able to move and stretch further as they are warm.

Cardiorespiratory



Musculoskeletal



Learning aim C: Task 3

Body's response to a pulse raiser

Cardiorespiratory Responses to a pulse raiser

1. **Increased heart rate** – this is a response to the oxygen demand at muscle sites. The muscles need oxygen to help break down energy to produce movement. The more movement a person does the more oxygenated blood they will need.
2. **Increased blood flow to muscles** – blood is re-directed to areas of need. *i.e. working muscles. If a person starts to jog the muscles in the lower body will need to contract more often and with more force. To do this the muscles will need more oxygenated blood.*
3. **Increased breathing rate** – This is a bodily response to the lack of oxygen at tissue sites. Breathing rate will go up to cope with the demand for more oxygen.
4. **Increased depth of breathing** – this aids a faster removal of waste products. With each breath you will be able to breath out more carbon dioxide.
5. **Increased removal of carbon dioxide** – this is the waste product of respiration.

Cardiorespiratory & Musculoskeletal Responses to stretching

Response of cardio-respiratory system:

- **Static stretches** - Further drop in heart rate and breathing rate due to stillness when performing the stretches.
- **Dynamic Stretches** - Maintained elevated heart rate and breathing rate as this involved active movements.

Response of musculo-skeletal system:

Extends the muscle beyond a normal state to reduce the risk of a tear during the sport or activity session.

Mobilisers

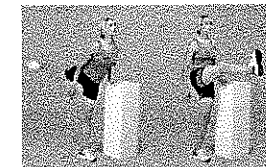
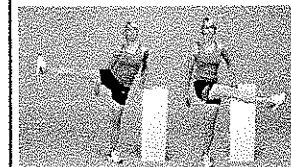
Mobilisers: These are exercises that take the joint through their range of movement. The movements will start small and progressively get bigger as you warm up.

Example activities:

- Wrist circles
- Shoulder rolls
- Lunges
- Open and close gates at the hips
- Ankle circles
- Hip rotation

The body's response to mobilisers:

1. **Slight drop in Heart Rate** – As exercise intensity reduces heart rate will fall to reflect this.
2. **Slight drop in breathing rate** – The rate of breathing will fall by at least a 50% reduction.
3. **Increased Synovial fluid** – Mobiliser actions will **increase production of synovial fluid** in the joints to increase **lubrication** of the area. This will increase the range of movement possible.



Preparation stretches

Preparation stretches: These are completed once the muscles are warm. The stretches picked should target the muscles that will be used in your chosen activity.

How long: Hold each stretch for 10-15 seconds and can be repeated

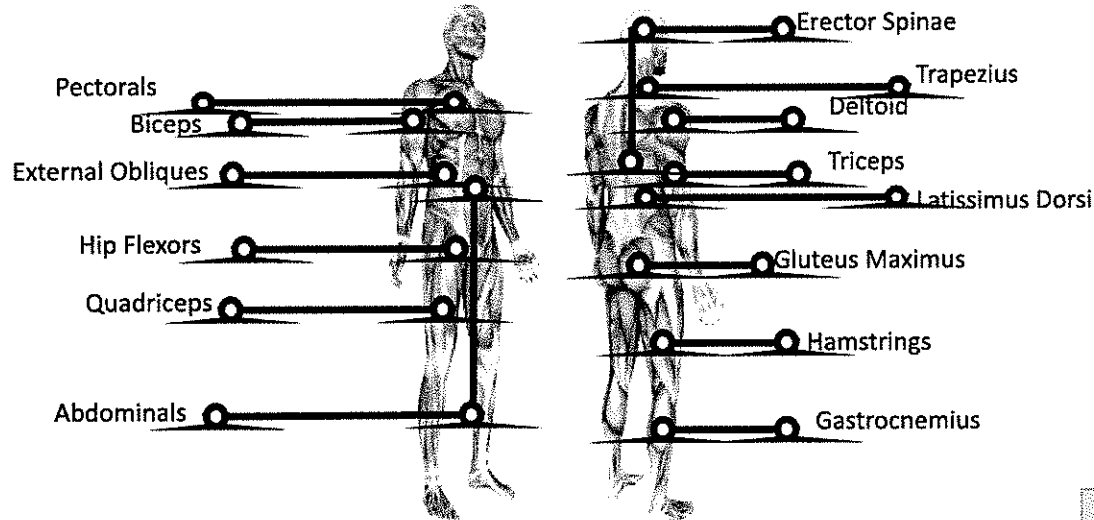
Static stretch: when a person holds a position for a short period of time.



Dynamic stretch: when a person carries out a stretch on the move.



Muscular system



Example stretches

Obliques: Dynamic stretch



Deltoids: Static stretch



Bicep & Tricep: Static stretch



Erector Spinae: Static stretch



Hip Flexors: Dynamic Stretch



Gluteus Maximus: Static stretch



Quadricep: Static Stretch



Hamstrings: Static stretch



Gastrocnemius: Static stretch



Adapting warm ups

Adapting:

It may be necessary to adapt your planned warm up to suit the participants needs. Warm ups can be adapted in a number of ways:

- **Intensity** of the activity (moderate or vigorous intensity)
- **Impact** (high or low)
- **Timings**
- Different type of **stretch**

Low impact activities:



High impact activities:



Sports specific activities

The last part of the warm up should include the opportunity to practice some of the skills used in the selected sport/physical activity or outdoor activity.

Examples of sport specific activities

- **Football** - passing, 2v2, shooting drills.
- **Basketball** - layup and rebound drills, ball handling skills, 3 man weaves
- **Boxing** - shadow boxing, boxing combinations
- **Kayaking** - practise the paddling action out of the water to help mobilise the shoulder joints

Organising your warm up

Things to think about when organising your warm up:

- **Space:** Is it indoor or outdoors? How well you mark out your area?
- **Indoor or outdoor:** Is the weather suitable e.g. too hot, too cold or raining?
- **Equipment:** What equipment do you need and how much?
- **Participants:** Will they be in groups or in pairs?
- **Timings:** How much time will you allocate to each section?

Delivering your warm up:

Positioning: Think about where you stand when giving instructions. All participants should be in front of you and looking at you.

Demonstrating: You should be prepared to demonstrate each activity and you should also have alternative activities in case you need to adapt the warm up.



All Saints Absolutes Year 9 German / Term 3a – Technology in Everyday Life



Quiz 5.1 – DIV WAZ DUM JO T

daher	therefore (v2)	um...zu	in order to...
ich denke, daß	I think that (vs)	meiner Meinung nach	in my opinion (v2)
vielleicht	perhaps (v2)	jedoch	however (v2)
weil/ wenn	because/if (vs)	obwohl	although (vs)
außerdem	in addition (v2)	trotzdem	nevertheless (v2)
zum Beispiel	for example (v2)		
da	because (vs)		

Quiz 5.2 – talking about what you do on the internet

I download music / I upload photos	Ich lade Musik herunter / Ich lade Fotos hoch
I stay in touch with friends	Ich bleibe in Kontakt mit Freunden
You can share funny photos and links	Man kann lustige Fotos und Links teilen
I google homework / I chat	Ich google Hausaufgaben / Ich chatte
I use social media / social networks every day	Ich benutze soziale Medien / soziale Netzwerke
My friend (female / male) uses snapchat every day	Meine Freundin / Mein Freund benutzt Snapchat jeden Tag

Quiz 5.3 – talking about the dangers of the internet

Cyber bullying is a big problem	Cybermobbing ist ein großes Problem
You don't know who is online	Man weiss nicht, wer online ist
There are unknown people on the net	Es gibt unbekannte Menschen im Internet
The internet is a waste of time	Das Internet ist eine Zeitverschwendung
You must be careful	Man muss vorsichtig sein
Too much time on the internet is unhealthy	Zu viel Zeit im Internet ist ungesund

Quiz 5.4 – using your mobile phone

With a phone you can.. text friends	Mit dem Handy kann man Freunde sim sen
You can send a message	Man kann SMS schicken
You can download music for free	Man kann kostenlos Musik herunterladen
You can surf the net	Man kann im Internet surfen
You can also play games	Außerdem kann man Spiele spielen
You can shop online because it's cheaper	Man kann online einkaufen, weil es billiger ist

Key skills

- | | |
|-----------------------------|--------------------------------|
| 1. Using PALM COW | 4. DIV WAZ DUM JO T |
| 2. Vocab knowledge is power | 5. Gern/nicht gern with a VERB |
| 3. Using können accurately | |

Vocab book pages 12-14

Parallel texts

<p>I use the internet every day, because I it really useful find For example, google I my homework or I buy clothes online, because it cheaper is. In my opinion am I internet addicted!</p> <p>With the mobile phone can one everything do. You can in contact with friends stay, in order activities to plan. You can also for not cost music download and funny photos share. Therefore think I that my mobile my life is.</p> <p>My family uses the internet not so often However my father works sometimes online and my mum buys groceries. Tomorrow will I with my friends on Snapchat chat. Perhaps will we also famous people stalk. That makes always fun!</p>	<p>Ich benutze das Internet täglich, weil ich es wirklich nützlich finde. Zum Beispiel google ich meine Hausaufgaben oder ich kaufe Klamotten online, da es billiger ist Meiner Meinung nach bin ich internetsüchtig!</p> <p>Mit dem Handy kann man alles machen. Man kann in Kontakt mit Freunden bleiben, um Aktivitäten zu planen. Man kann auch kostenlos Musik herunterladen und lustige Fotos teilen. Daher denke ich, dass mein Handy mein Leben ist.</p> <p>Meine Familie benutzt das Internet nicht so oft jedoch mein Vater arbeitet manchmal online und meine Mutter kauft Lebensmittel. Morgen werde ich mit meinen Freunden auf Snapchat chatten. Vielleicht werden wir auch berühmte Leute stalken!! Das macht immer Spaß!</p>
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All Saints Absolutes Year 9 German / Term 3a - School Life

Quiz 6.1 – Giving opinions on school subjects

I like learning / I don't like learning languages	Ich lerne gern / nicht gern Fremdsprachen
I like History / I don't like Geography	Ich mag Geschichte / ich mag nicht Erdkunde
I like German / I don't like German	Deutsch gefällt mir / Deutsch gefällt mir nicht
because we get too much homework	, weil wir zu viel Hausaufgaben bekommen
because the teacher (f/m) is helpful	, da die Lehrerin / der Lehrer hilfsbereit ist
because I always get good grades	denn ich bekomme immer gute Noten

Quiz 6.2 – Describing school

We have lots of pupils	Wir haben viele Schüler
My school is a comprehensive school	Meine Schule ist eine Gesamtschule
The buildings are dirty	Die Gebäude sind schmutzig
However we've got new labs in science	Jedoch haben wir neue Labors in Naturwissenschaften
There is a big canteen, where you can eat cheaply	Es gibt eine große Mensa, wo man billig essen kann
The headteacher is called Mr Cuomo	Der Direktor heisst Herr Cuomo

Quiz 6.3 – Talking about school uniform

In England we have to wear a school uniform	In England müssen wir eine Schuluniform tragen
I wear trousers / a blazer	Ich trage eine Hose / eine Jacke
I would like to wear my own clothes	Ich möchte meine eigene Kleidung tragen
you must not wear a skirt or dress	Man muss keinen Rock oder Kleid tragen
The clothing is completely uncomfortable and not at all practical	Die Kleidung ist ganz unbequem und gar nicht praktisch
If I had the choice I would wear jeans	Wenn ich die Wahl hätte, würde ich eine Jeans tragen

Quiz 6.4 – In and out of lessons

My classroom has lots of paper	Mein Klassenzimmer hat viel Papier
We read novels in lessons	Wir lesen Romane im Unterricht
My favourite subject is Maths	Mein Lieblingsfach ist Mathe
We have lots of rules	Wir haben viele Regeln
We chat in the schoolyard	Wir chatten auf dem Hof

- | | |
|-------------------------------------|---------------------------------|
| 1. The importance of learning vocab | 4. Working in at least 3 tenses |
| 2. Accurate use of gern/nicht gern | 5. Using seit/vor |
| 3. Using accurate word order | |

Vocab book pages 14-18

Quiz 6.5 – rules & future plans

you must send no texts	man muss keine SMS schicken
you must be on time/not late	man muss pünktlich/nicht spät sein
you must go to the toilet at break	man muss in der Pause auf die Toilette gehen
ich will Abitur machen	I want to do A levels
I want to be successful	ich will erfolgreich sein
I want to go to university/sixth form	ich möchte auf die Universität/ in der Oberstufe gehen

Parallel texts

<p>My school is a big comprehensive school and I visit All Saints since 5 years.</p> <p>I believe that my school excellent is, because the teachers extremely helpful are. The buildings are clean</p> <p>I learning like history because I get always good grades.</p> <p>On the other side learn I not like maths because it too easy is and the teacher is too strict</p> <p>Yesterday at break have I a lot done</p> <p>For example have I in the canteen a sandwich eaten and I have with friends chatted</p> <p>Tonight will I study, because I tomorrow a test have. My dream is, an apprenticeship to do.</p>	<p>Meine Schule ist eine große Gesamtschule und ich besuche All Saints seit 5 Jahren.</p> <p>Ich glaube, dass meine Schule ausgezeichnet ist, da die Lehrer ganz hilfsbereit sind. Die Gebäude sind sauber.</p> <p>Ich lerne gern Geschichte denn ich bekomme immer gute Noten</p> <p>Auf der anderen Seite lerne ich nicht gern Mathe, weil es zu leicht/einfach ist und der Lehrer ist zu streng.</p> <p>Gestern in der Pause habe ich viel gemacht</p> <p>Zum Beispiel habe ich in der Mensa ein Butterbrot gegessen und ich habe mit Freunden geplaudert.</p> <p>Heute Abend werde ich studieren, da ich morgen eine Klassenarbeit habe. Mein Traum ist, eine Lehre zu machen.</p>
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Year 9 French Half-Term 5 – Technology in Everyday Life

Quiz 5.1 – Gadgets

I have a device / laptop (portable computer)	J'ai un appareil / un ordinateur portable
I don't have a mobile phone	Je n'ai pas de portable
I look at social media	Je regarde les reseaux sociaux
I send texts	J'envoie des textes
I do shopping online	Je fais du shopping en ligne
I stay in contact with friends	Je reste en contact avec mes copains
Thanks to the power of the Internet	Grâce à la puissance de l'Internet

Quiz 5.2 – Gadgets and activities using technology

I stay in contact with my friends	Je reste en contact avec mes copains
He shares photos	Il partage des photos
She communicates with her friends	Elle communique avec ses copains
We use the Internet	Nous utilisons l'Internet
They chat on the Internet (boys / boys & girls)	Ils tchattent sur Internet
They buy things on line (girls)	Elles achètent les choses en ligne.

Quiz 5.3 – past tense technology

I (have) downloaded music	J'ai téléchargé de la musique
I (have) used the Internet	J'ai utilisé l'Internet
I (have) sent some messages	J'ai envoyé des messages
We (have) shared photos	Nous avons partagé des photos
We (have) chatted with friends last night	Nous avons tchatté avec les copains hier soir
I (am) stayed in contact	Je suis resté en contact (rester takes 'suis' in past)

Quiz 5.4 – advantages and disadvantages of technology

I can download music	Je peux télécharger de la musique
I can translate homework	Je peux traduire les devoirs
I can make friends	Je peux me faire des amis
There is lots of cyberbullying	Il y a beaucoup de cyberintimidation
There is the risk of identity theft	Il y a le risque du vol d'identité
There is the risk of fraud	Il y a le risque de la fraude
There are people with bad intentions	Il y a des personnes mal intentionnées

Parallel texts

<p>At my house, I have a phone and a laptop. In addition, we have a flat-screen TV and a camera.</p> <p>However, I don't have a tablet and we don't have a mouse for the computer.</p> <p>Normally I use my phone in order to stay in contact with my friends. I like also to communicate with my family, especially my grandparents. Thanks to technology, it's easy.</p> <p>Yesterday evening I downloaded music on my phone and after having done that, I chatted with my friends online.</p> <p>In addition, we shared videos but I would have preferred to share photos.</p> <p>This evening, I'd like to watch films and surf on Internet. I have the intention to use my computer to do my homework. In my opinion, that will be useful because it's important for school.</p>	<p>Chez moi, j'ai un portable et un ordinateur portable. En plus, nous avons une télévision à écran plat et un appareil photo.</p> <p>Cependant, je n'ai pas de tablette et nous n'avons pas de souris pour l'ordinateur.</p> <p>Normalement j'utilise mon portable pour rester en contact avec mes copains. J'aime aussi communiquer avec ma famille, surtout mes grand-parents. Grâce à la technologie, c'est facile.</p> <p>Hier soir, j'ai téléchargé de la musique sur mon portable et après avoir fait cela, j'ai tchatté avec mes copains en ligne.</p> <p>En plus, nous avons partagé des vidéos mais j'aurais préféré partager des photos.</p> <p>Ce soir, j'aimerais regarder des films et surfer sur Internet. J'ai l'intention d'utiliser mon ordinateur pour faire mes devoirs. À mon avis, ça sera utile car c'est important pour le collège.</p>
<p>At my house, I have a phone and a laptop. In addition, we have a flat-screen TV and a camera.</p> <p>However, I don't have a tablet and we don't have a mouse for the computer.</p> <p>Normally I use my phone in order to stay in contact with my friends. I like also to communicate with my family, especially my grandparents. Thanks to technology, it's easy.</p> <p>Yesterday evening I downloaded music on my phone and after having done that, I chatted with my friends online.</p> <p>In addition, we shared videos but I would have preferred to share photos.</p> <p>This evening, I'd like to watch films and surf on Internet. I have the intention to use my computer to do my homework. In my opinion, that will be useful because it's important for school.</p>	<p>Chez moi, j'ai un portable et un ordinateur portable. En plus, nous avons une télévision à écran plat et un appareil photo. Cependant, je n'ai pas de tablette et nous n'avons pas de souris pour l'ordinateur.</p> <p>Normalement j'utilise mon portable pour rester en contact avec mes copains. J'aime aussi communiquer avec ma famille, surtout mes grand-parents. Grâce à la technologie, c'est facile.</p> <p>Hier soir, j'ai téléchargé de la musique sur mon portable et après avoir fait cela, j'ai tchatté avec mes copains en ligne.</p> <p>En plus, nous avons partagé des vidéos mais j'aurais préféré partager des photos.</p> <p>Ce soir, j'aimerais regarder des films et surfer sur Internet. J'ai l'intention d'utiliser mon ordinateur pour faire mes devoirs. À mon avis, ça sera utile car c'est important pour le collège.</p>

Key skills

1. Using the present tense
2. Using the past tense
3. Using the future tense

4. STEPS TO SUCCESS

5. Applying UNPACK to technology

Year 9 French Half-Term 6 – School, College & Future Plans

Quiz 6.1 – giving and justifying opinions on school subjects

I like history because it's very exciting	J'aime l'histoire car c'est très passionnant
However I don't like maths because it's too difficult	Cependant je n'aime pas les maths car c'est trop difficile
My favourite subject is drama	Ma matière préférée, c'est le théâtre
Because I find it practical	Parce que je le trouve pratique
I can't stand science	Je ne peux pas supporter les sciences
Because it's completely useless	Vu que c'est complètement inutile

Quiz 6.2 – describing your school

My school is called All Saints	Mon collège s'appelle All Saints
It's a mixed, catholic school	C'est un collège mixte et catholique
There are approximately 1000 students	Il y a environ mille élèves
The teachers are quite strict	Les profs sont assez stricts
We have lots of homework	Nous avons beaucoup de devoirs
We can eat in the canteen at midday	On peut manger à la cantine à midi
Lessons start at 9:00am	Les cours commencent à neuf heures
The school day finishes at 3:30pm	La journée scolaire finit à quinze heures trente

Quiz 6.3 – school buildings

In my school there are classrooms moderns	Dans mon collège il y a des salles de classe modernes
There is a canteen in front of the hall	Il y a une cantine devant la grande salle
There is a playground near to the building main	Il y a une cour près du bâtiment principal
You'll find interactive whiteboard in each classroom	Il y a un tableau interactif dans chaque salle de classe
Unfortunately , there isn't a gym	Malheureusement il n'y a pas de gymnase
There isn't a swimming pool	Il n'y a pas de piscine
You won't find a library	On ne trouve pas de bibliothèque

Quiz 6.4 – school rules and uniform

You must wear grey trousers	Il faut porter un pantalon gris
You must be polite	Il faut être poli
You must respect the rules	On doit respecter les règles
You must listen during lessons	On doit écouter pendant les cours
You must not wear too much make-up	Il ne faut pas porter trop de maquillage
You must not chew gum	Il ne faut pas mâcher le chewing-gum
You must not be late	On ne doit pas être en retard
You must not eat in class	On ne doit pas manger en classe

Quiz 6.5 – future plans – sixth form, college, university

In the future, I would like to go to sixth form	Dans le futur, je voudrais aller au lycée
In the future, I would like to go to uni	A l'avenir, j'aimerais aller à la fac
After my exams, I am going to continue my studies	Je vais continuer mes études
Next year, I intend to do an apprenticeship	L'année prochaine, j'ai l'intention de faire un apprentissage
I hope to pass my exams and find a job	J'espère réussir à mes examens et trouver un emploi
I want to go to University in order to study maths	Je veux aller à l'université pour étudier les maths
I want to learn English and French	Je veux apprendre l'anglais et le français

Example 90 word task: You are writing a blog on the subject of school. Discuss -

- the subjects that you study and your opinions
- the school and the buildings
- what you did yesterday at lunchtime
- your plans for school next year

At school, I study English and law. I would say that I love to learn English because it's creative, however I cannot stand law because it's difficult.	Au collège, j'étudie l'anglais et le droit. Je dirais que j'adore apprendre l'anglais vu que c'est créatif, toutefois je ne peux pas supporter le droit car c'est difficile.
In my school, there are approximately 1000 students and 0 the teachers are strict. There is a library modern but unfortunately, there isn't a swimming pool.	Dans mon collège, il y a environ mille élèves et les profs sont stricts. Il y a une bibliothèque moderne mais malheureusement, il n'y a pas de piscine.
Yesterday I went to the canteen with my friends where we ate a pizza together. After having done that, we spoke with our teacher of Geography on the subject of homework. In my opinion it was practical.	Hier je suis allé(e) à la cantine avec mes copains où nous avons mangé une pizza ensemble. Après avoir fait cela, nous avons parlé avec notre prof de géographie au sujet des devoirs. A mon avis, c'était pratique.
Next year, I would like to go to sixth form because I would like to continue my studies of maths. I think that it would be magnificent and useful.	L'année prochaine, je voudrais aller au lycée vu que j'aimerais continuer mes études de maths. Je pense que ça serait magnifique et utile.

Example 150 word task: You are writing an article on your school. Discuss -

- your school life – subjects and school rules
- a memorable school event

There are lots of aspects different of my school life. Let's talk first of all on the topic of subjects. At school I learn French, Maths and Art, to name a few. I would say that I really like maths because it's so practical and I am good at it, however I can't stand Art because it's too difficult. As far as concerns the rules, you must not eat in class because it's impolite. Equally, you must wear a uniform and even if it's good for discipline, I would like better to wear my own clothes because that would be more comfortable and if I were the head teacher I would like to abolish the uniform.	Il y a beaucoup d'aspects différents de ma vie scolaire. Parlons tout d'abord au sujet des matières. Au collège, j'apprends le français, les maths, et le dessin, pour nommer que quelques-unes. Je dirais que j'aime bien les maths étant donné que c'est tellement pratique et j'en suis fort(e), toutefois je ne peux pas supporter le dessin vu que c'est trop difficile. En ce qui concerne le règlement, il ne faut pas manger en classe car c'est impoli. Également, il faut porter un uniforme et même si c'est bon pour la discipline, j'aimerais mieux porter mes propres vêtements parce que ça serait plus confortable et si j'étais le directeur, je voudrais abolir l'uniforme.
Last year we visited France as part of a visit with school. In my opinion, it was a memorable event because I went there with my friends and I had fun. We have a lot learned about the history and the language during the visit. If I had the money, I would really like there to go back.	L'année dernière, nous avons visité la France comme visite scolaire. A mon avis, c'était un événement mémorable dû au fait que j'y suis allé avec mes copains et je me suis bien amusé. Nous avons beaucoup appris de l'histoire et de la langue pendant la visite. Si j'avais de l'argent, j'aimerais bien y retourner.

What do I need to know?

- Able to perform and describe reflections of shapes.
- Able to perform and describe the rotation of shapes in either direction.
- Able to perform and describe translations of shapes using column vectors.
- Able to perform and describe enlargements of positive.

How do I recognise this topic?

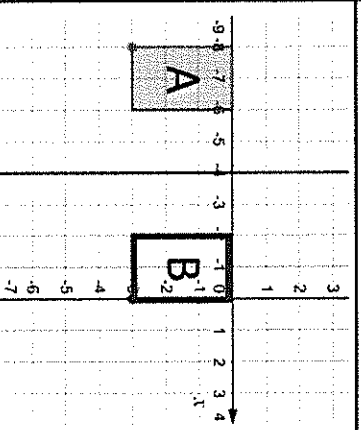
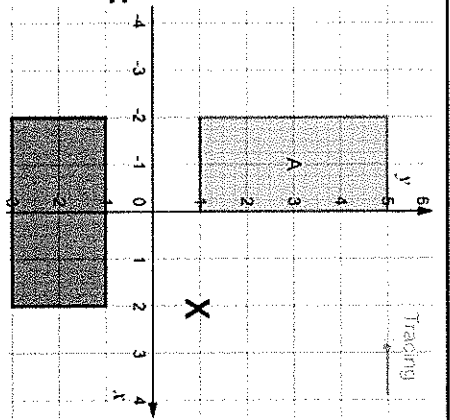
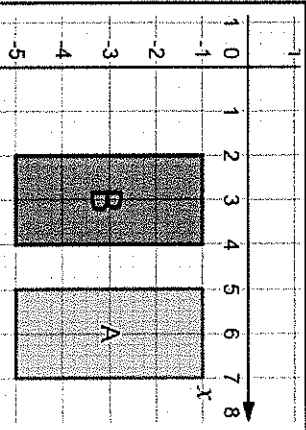
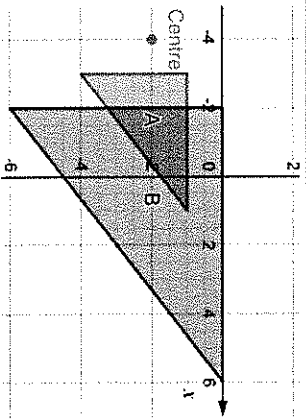
- Typically involves shapes and the following key words: “reflection”, “rotation”, “translation”, “enlargement” and “transformation”.
- Usually involves the coordinate grid and axes.

General Tips

- **Reflection:** count squares to the mirror line from a vertex (corner), then count the same amount of squares in the opposite direction to the mirror line. Repeat for other vertices.
- **Rotation:** if you don't have tracing paper, rotate the worksheet instead in the given direction.
- **Translation:** when reading a column vector, the number on the top part is the horizontal (\leftrightarrow) movement and the bottom number is the vertical (\updownarrow) movement (e.g.: $\begin{pmatrix} 2 \\ 1 \end{pmatrix}$ means 2 right and 1 up).
- **Enlargement:** work out the column vector from the centre of enlargement to one of the vertices, then multiply by the scale factor and use the new column vector from the centre to find your new vertex. Repeat for all other vertices.

Worked Examples

Use the tips above to perform the following transformations.

<p>a) Reflect shape A against the line $x = -4$, label the new shape B.</p> 	<p>b) Rotate shape A 90° anticlockwise about the point (2, 1), label the new shape B.</p> <p>90° is $\frac{1}{4}$ of a full turn.</p> <p>About the point (2, 1) is the centre of rotation.</p> <p>Anticlockwise means in the direction of this arrow:</p> 
<p>c) Translate shape A by the vector $\begin{pmatrix} -3 \\ 0 \end{pmatrix}$, label the new shape B.</p> 	<p>d) Enlarge shape A by scale factor 2 about the point (-4, -2), label the new shape B.</p> <p>First mark the centre. Then, count the distance from the centre (-4, -2) to each corner of the shape, and multiply it by the scale factor 2.</p> 



What do I need to know?

- All of probability adds up to 1
- Probability is typically written as a fraction or decimal. In rare cases, it can be written as a percentage.
- How to construct a tree, venn and sample space diagram

How do I recognise this topic?

- If you see the following terms – Relative Frequency, Tree Diagrams, Venn Diagrams, Sample Space Diagrams

General Tips

Probability tends to follow the below formula:

$$\text{Probability} = \frac{\text{Number of favorable outcomes to A}}{\text{Total number of outcomes}}$$

To put this into context →
A = A number more than or equal to 8

$$P(A) = \frac{\text{Number of favorable outcomes to A}}{\text{Total number of outcomes}}$$

$$P(A) = \frac{6}{24} = \frac{1}{4}$$

Score on 1 st Die		1	2	3	4	5	6
Score on 2 nd Die	1	2	3	4	5	6	7
	2	3	4	5	6	7	8
	3	4	5	6	7	8	9
	4	5	6	7	8	9	10
	5	6	7	8	9	10	
	6	7	8	9	10		

Set Notation

A

B

A'

"not A"

B'

"not B"

A ∩ B

the "intersection"

A ∪ B

the "union"

Worked Examples

Lucy has a box of 30 chocolates. 18 are milk chocolate and the rest are dark chocolate. She takes a chocolate at random from the box and eats it. She then chooses a second. (a) Draw a tree diagram to show all the possible outcomes. (b) Calculate the probability that Lucy chooses: (i) 2 milk chocolates. (ii) A dark chocolate followed by a milk chocolate.

First Pick Second Pick

18
30

Milk

12
30

Dark

17
29

Milk

12
29

Dark

P(milk and milk) = $\frac{18}{30} \times \frac{17}{29} = \frac{306}{870}$

P(milk and dark) = $\frac{18}{30} \times \frac{12}{29} = \frac{216}{870}$

P(dark and milk) = $\frac{12}{30} \times \frac{18}{29} = \frac{216}{870}$

P(dark and dark) = $\frac{12}{30} \times \frac{11}{29} = \frac{132}{870}$

↑

(i) 2 milk chocolates

$\frac{306}{870}$

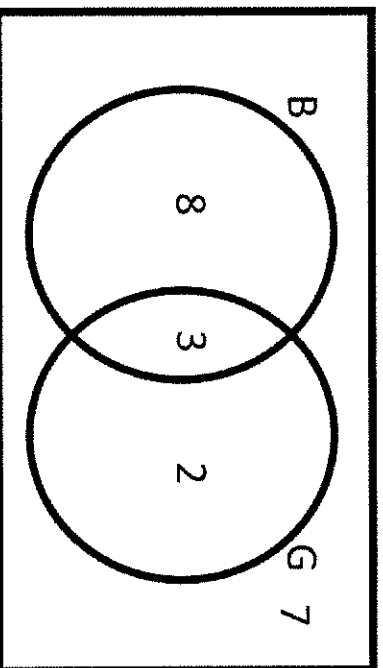
↑

(ii) A dark chocolate followed by a milk chocolate.

$\frac{216}{870}$

Tree Diagrams

In a class of 20, there are 11 boys, 5 Pupils with glasses and 3 boys that wear glasses. Given that a boy is chosen, what is the probability that he wears glasses?



Venn Diagrams

'Given that' means that you are only selecting from this source. In this case 'a boy'. Your total number of outcomes becomes the total amount of boys.

Then the Number of favourable outcomes is the part you want, in this case boys who wear glasses.

$$\frac{\text{Boys who wear glasses}}{\text{Total boys}} = \frac{3}{11}$$



What do I need to know?

- Use and interpret maps and scale drawings
- Identify shapes that are congruent
- Understand similarity of triangles and of other plane figures, and use this to make calculations
- identify shapes that are similar, including all squares, all circles or all regular polygons with equal number of sides

How do I recognise this topic?

- Identify key words such as “congruent” and “similar” or “mathematically similar”.
- Congruency rules only apply to triangles. (ASA, SAS, SSS and RHS)

Step by Step Guide / General Tips

If two shapes are CONGRUENT, they are EXACTLY THE SAME — the SAME SIZE and the SAME SHAPE.

Similar shapes are exactly the same shape, but can be different sizes (they can also be rotated or reflected).

Worked Example

Two triangles are congruent if one of the four conditions below holds true:

SSS three sides are the same

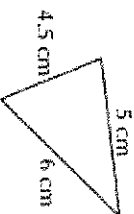
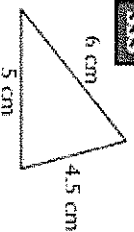
AAS two angles and a corresponding side match up

SAS two sides and the angle between them match up

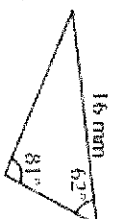
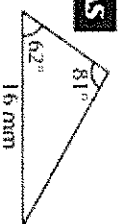
RHS a right angle, the hypotenuse and one other side all match up

The hypotenuse is the longest side of a right-angled triangle — the one opposite the right angle.

SSS

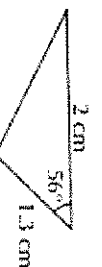
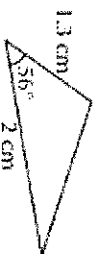


AS

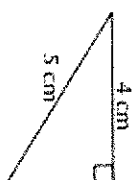
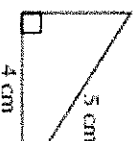


Make sure the sides match up — here, the side is opposite the 81° angle.

SAS



RHS

**EXAMPLE:**

Tony says, “Triangles ABC and DEF are similar.”
Is Tony correct? Explain your answer.

Check condition 3 holds — start by finding the missing angle in triangle DEF.

Angle DEF = $180^\circ - 46^\circ - 30^\circ = 104^\circ$ so angle ABC = angle DEF

Now check that AB and BC are proportional to DE and EF:

$DE \div AB = 6 \div 2 = 3$ and $EF \div BC = 9 \div 3 = 3$ so DE and EF are 3 times as long as AB and BC.

Tony is correct — two sides are proportional and the angle between them is the same so the triangles are similar.



What do I need to know?

- Know and recall the basic angle facts (angles on a straight line sum to 180° /around a point sum to 360° , right angle is 90° , vertically opposite angles are equal and the definition of acute, obtuse and reflex angles).
- Recognise and apply the angle facts involving parallel lines (alternate, corresponding and co-interior angles).
- Know and use the angle rules associated with triangles and quadrilaterals.
- Know and recall formula to work out the interior and exterior angles of polygons (regular/irregular)
- Calculate bearings using angle rules involving parallel lines and know the rules of bearings.

How do I recognise this topic?

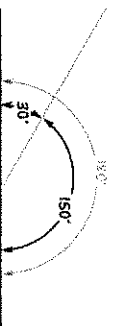
- Look for key words such as “angle” and “bearing”.
- There is normally a curve connecting one line to the other and is labelled.



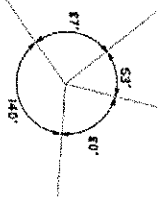
General Tips/Angle rules/Worked examples

Basic rules

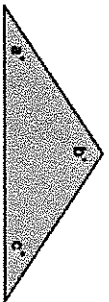
Angles on a straight line add up to 180° degrees



Angles around a point add up to 360° degrees

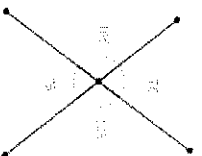


Angles in a triangle add up to 180° degrees

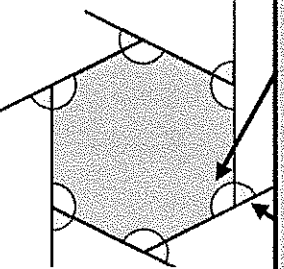


$$a + b + c = 180$$

Vertically opposite angles are equal

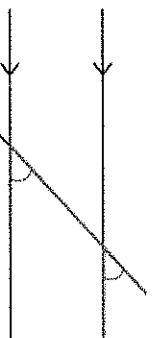


Interior Angle + Exterior Angle = 180°



Parallel line rules

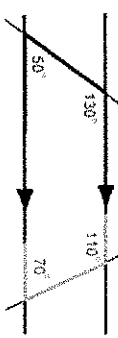
Corresponding angles are equal



Alternate angles are equal



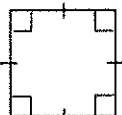
Co-interior angles add up to 180° degrees



Quadrilaterals

Square

Parallelogram with equal sides & equal angles



- Kite
- 2 Pairs of equal adjacent sides
- $A = B$
- Longer diagonal bisects the other at 90°

Rhombus

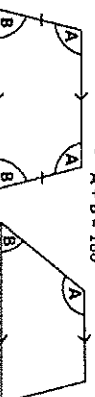


- Diagonals bisect each other at 90°
- Diagonals bisect the angles

Isosceles Trapezium

- 2 Parallel sides
- $A + B = 180^\circ$

Trapezium

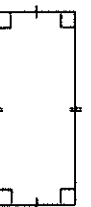


Parallelogram

- Parallel opposite sides
- Equal opposite sides
- Equal opposite angles
- Diagonals bisect each other

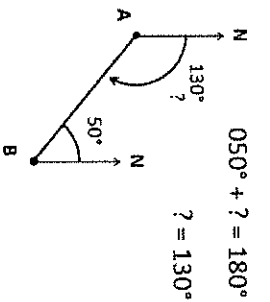


Rectangle



Parallelogram with equal angles

1. Bearings are a measure of direction taken from North.
2. Bearings are always measured in a clockwise direction
3. Bearings are always written in 3 figures



Polygons

A pentadecagon has 15 sides.

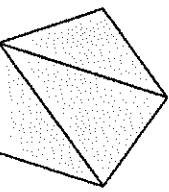
What is the size of each exterior angle?

$$360 \div 15 = 24^\circ$$

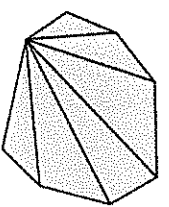
Exterior Angles of any Polygon total 360°

The formula for any regular or irregular polygon is:
Sum of Interior Angles = $(n-2) \times 180$

We can see that any polygon can be divided into triangles. The amount of triangles is two less than the number of sides (n).



Regular Pentagon
Total Interior Angles = $3 \times 180^\circ = 540^\circ$



Irregular Octagon
Total Interior Angles = $6 \times 180^\circ = 1080^\circ$

1.3.1 Networks and Topologies

The internet as a worldwide collection of computer networks:

- DNS (Domain Name Server)
- Hosting
- The Cloud
- Web servers and clients

The internet is basically a giant WAN – it is a network of networks. Any computer or device that is connected to the internet has a IP address which acts as its 'address' on the internet.

URLs are made up of different sections

http://www.ocr.org.uk

http - tells the computer to use the hypertext transfer protocol which puts the packets together to be used in a web browser

www - tells us that this is a webpage and that it is located on the world wide web

ocr.org.uk - is the domain name

A DNS is the server that translates the domain name (the website name) into its IP address. This makes accessing the internet easier as we only have to remember website names instead of the IP address.

When a user types in the URL, the DNS looks up the URL and matches its IP address.

A web server holds the data needed for the website (both the content of the website and the layout). When someone wants to view a web page their web browser sends a request to the web server. The web server processes that request and prepares the data that has been requested, before sending it back. The web browser then receives that data and displays the web page to the viewer. The web host is acting as a server (controlling access to a centralised resource). The web browser is acting as a client (requesting access to that resource).

The cloud uses the internet to store files and applications.

The cloud is a network of servers:

- Some servers will run applications
- Some servers will store data.

The benefits of the cloud are that you can:

- Increase storage e.g. from mobile phones
- Access files from anywhere in the world
- Collaborate with others from around the world.

The drawbacks of cloud are:

- No internet no access
- If the cloud fail data is lost
- Can be quite expensive

1.3.2 Wired and wireless Networks, protocols and layers

Modes of connection:

- Wired
 - Ethernet
- Wireless
 - Wi-Fi
 - Bluetooth

Ethernet networks require physical cables to be connected

Cons

- This makes it much harder to change or move around.
- Cables can also be trip hazards so are routed along walls and under floors

Pros

- Ethernet networks are more secure because you need physical access to the cables
- The connections are more stable, faster and less susceptible to interference.

wireless networks require physical cables to be connected

Cons

- Wi-Fi networks are vulnerable to hacking because the connection can be intercepted by anyone in range.
- Wall or obstructions will reduce the signal strength
- Electrical objects can cause interference
- Transfer speeds are slower than Ethernet

Pros

- Wi-Fi allows movement of devices without moving cabling
- You don't need to purchase extra cables to connect devices
- Adding clients is easier



Wireless	Up to 100m range	Ideal for connecting personal devices	Does not need a router
Wireless	150-350 ft range	Slower than wired ETHERNET connections	Needs a wireless router and uses 2.4 & 5ghz frequencies

1.3.2 Wired and wireless Networks, protocols and layers

- ☐ Encryption
- ☐ IP addressing and MAC addressing
- ☐ Standards
- ☐ Common protocols including:
 - TCP/IP (Transmission Control Protocol/Internet Protocol)
 - HTTP (Hyper Text Transfer Protocol)
 - HTTPS (Hyper Text Transfer Protocol Secure)
 - FTP (File Transfer Protocol)
 - POP (Post Office Protocol)
 - IMAP (Internet Message Access Protocol)
 - SMTP (Simple Mail Transfer Protocol)

☐ The concept of layers

Encryption

Encryption software **SCRAMBLES** (encrypts) data to stop third-parties from accessing it.

To decrypt the data, a special '**KEY**' is needed. The computer uses the key and a set of instructions to turn the data back into its original form.

SYMMETRIC

Risky – single key to both encrypt & decrypt the message.

ASYMMETRIC

Safer – uses two keys
PUBLIC & PRIVATE key to decrypt the message

Standards and Protocols

- A network standard is a set of **agreed requirements** for hardware and software.
- Standards are important as they allow **manufactures** to create products that are **compatible** with other manufactures.
- A network protocol is a **set of rules** for how **devices communicate** and how data is transmitted across a network.
- Communication protocols specify how communication between two devices is carried out.

Addressing

There are two main types of addressing used in networks

IP addressing

- IP addressing is used when sending data between TCP/IP networks i.e. over the internet.
- IP addresses are assigned by the ISP or network manager.
- There are 2 versions **IPv4** (uses 32 bits) & **IPv6** (uses 128 bits).

MAC Addressing

- Every device needs a **unique** identifier so it can be found on the network.
- MAC addresses are **assigned** to all network-enabled devices by the **manufacturer**.
- They are Unique and **cannot be changed**
- MAC addresses are **48 or 64-bit** binary numbers, these converted into hexadecimal to make it easier to understand.

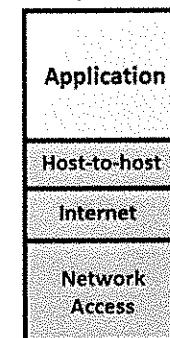
Common protocols

- **TCP/IP** – this is the protocol that dictates how data is sent across networks.
 - TCP (Transmission Control Protocol) rules for how devices connect on a network
 - IP (Internet Protocol) for directing packets to their destination
- **HTTP** (Hyper Text Transfer Protocol) – Used by web browsers to access websites and communicate with web servers
- **HTTPS** (Hyper Text Transfer Protocol Secure) More secure version of HTTP used on websites that have sensitive data.
- **FTP** (File Transfer Protocol) – Used to access, edit and move files between devices on a network.
- **POP3** (Post Office Protocol) – Used to receive emails from a server, after which it is deleted from the server.
- **IMAP** (Internet Message Access Protocol) - Used to receive emails from a server, remains on the server after downloading.
- **SMTP** (Simple Mail Transfer Protocol) – Used to send emails

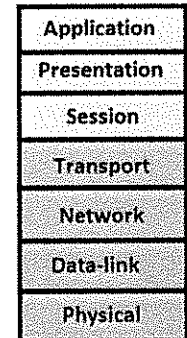
The concept of Layers

- Layers are groups of protocols which have similar functions
- Layers are self contained, the protocols in each layer don't need to know what is happening in the other layers
- Each layer serves the layer above

TCP/IP model



OSI model



1.4.1 Threats To Computer Systems And Networks

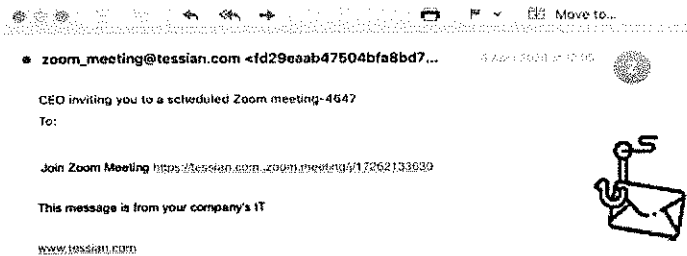
Forms of Attack:

- ☐ Malware
- ☐ Social engineering, e.g. phishing, people as the 'weak point'
- ☐ Brute-force attacks
- ☐ Denial of service attacks
- ☐ Data interception and theft
- ☐ The concept of SQL injection



SOCIAL ENGINEERING involves exploiting human weaknesses in order to gain access to a computer system/network. The most common way it is done is **Phishing**

PHISHING emails are sent by criminals and are designed to steal money or login details they contain links or attachments which, if clicked, allow access to the system.



BRUTE FORCE ATTACKS – this involves a hacker attempting to gain access to a network, they do this by guessing a users password using a trial and error method until it is found. They use software created that produces hundreds of likely password combinations that are commonly used.

HOW TO SPOT A PHISHING EMAIL

- Spelling mistakes
- Suspicious origin address
- Impersonal (i.e. no name)
- Asks for personal information
- Contains links attachments



DENIAL OF SERVICE (DoS) attacks are designed to 'crash' a network or website. Criminals do this by bombarding it with so many requests (traffic) that it cant function properly. These are used silence a website that the malicious user disagrees with Can be used as a smoke screen to hide another attack that is happening on the server. **DISTRIBUTED DINIAL OF SERVICE (DDoS)** uses a large number of computers to attack. This is more effective than using one system because a large number of systems can generate more traffic. DDoS attacks make use of botnet – collection of zombie computers that have been infected with code that gives the malicious user control over that machine

Malware is software which can cause damage to a computer.

- Malware is installed on devices without the users knowledge, typical actions of malware are.
 - Deleting, changing files
 - Locking files
 - Monitoring actions
 - Changing permission to allow hacker access
- Types of malware
 - Worms
 - Viruses
 - Spyware
 - Ransomware
 - Trojans



People as the weak point – where illegal access is obtained by influencing people within a company, common way of doing this is over the telephone: Someone calls the employee and pretends to be a network administrator, they persuade the employee to disclose information e.g. their login details or sensitive company data.



DATA INTERCEPTION and theft is done when data is being sent across a network. The packets are **intercepted**. Wireless networks are most venerable to data interception because **no physical access** is required. Data can also be accessed is it is being transferred across a WAN as it uses telecommunications as part of its infrastructure. **Packet sniffing** software is used to intercept the packets as they move round the network.

SQL INJECTION – this refers to using SQL statements to access databases. By exploiting vulnerabilities hackers could access systems containing customer data, intellectual property or other sensitive information. Should an attacker gain access to the database they could:

- **Bypass** authentication procedures and impersonate specific users
- Execute queries, **exposing** data
- **Alter** data, resulting in integrity issues
- **Delete** data

1.4.2 Identifying And Preventing Vulnerabilities

Common prevention methods:

- ☐ Penetration testing
- ☐ Anti-malware software
- ☐ Firewalls
- ☐ User access levels
- ☐ Passwords
- ☐ Encryption
- ☐ Physical security

Penetration testing is done under controlled environment by a qualified person.

They check for current vulnerabilities and explore potential ones

They may use tools/software to help them

There are different types of hacker:

White Hat Hacker – they have permission and are authorised to act as a penetration tester.

Grey Hat Hacker – they may not have permission to perform penetration testing but will inform the organisation if they find vulnerabilities

Black Hat Hacker – someone who does not have permission and has malicious intent, these are the ones that penetration testers are trying to stop



Anti malware software scans the system checking for viruses. They need to be kept up to date to ensure that they find and remove new malware. Some anti-malware software offers real-time protection of the system, it monitors the traffic and stops malware entering.

Physical security is used to prevent physical access to devices, and to prevent theft.

Steps may include:

- door locks
- window locks or bars
- intruder alarm systems
- CCTV systems
- laptop locks (e.g. Kensington locks)
- security guards.



FIREWALLS

Software that performs a 'barrier' between a potential attacker and the computer system.

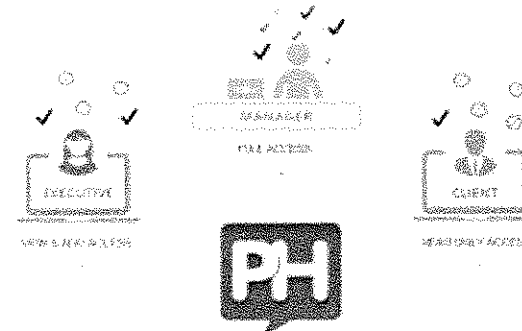
- Can be held on a **server**, or a **standalone** computer.
- Many have this feature as part of an anti-virus package.
- **Not 100% effective** – an attacker could exploit a vulnerability.
- Monitors application and network usage.
- Has the ability to block access from certain computer users and disable processes which may be perceived as a threat.

There are two different types of firewall:

- **Hardware firewall** – runs on its own physical device
- **Software firewall** – part of another system i.e. installed as part of an antivirus or operating system

Network administrators can set different levels of **USER ACCESS LEVELS**:

- Also known as system access rights.
- Comes under system access control.
- Allows a system administrator to set up a hierarchy of users.
- Lower level users would have access to limited information and settings.
- Higher level users can access the most sensitive data on the system.



Strong or Secure Passwords

- 12 characters or more.
- The greater the characters, the stronger the password.
- Mixture of capitals, lower case letters, numbers and symbols.

Encryption

Where data is translated into code so that only authorised users, or users with the key can decrypt it.

Users must need the key in order to decrypt the coded file.

It uses an algorithm to encode the data so that it is unreadable. The data then has to have the algorithm run on it again to make it readable.

History

Year 9

Topic: Early Elizabeth England: Queen, government and religion 1558-69

Timeline of events: Elizabethan England	
1.	1558- Elizabeth I is crowned Queen of England
2.	1559– Elizabeth's coronation
3.	1559– Elizabeth implemented her Religious Settlement
4.	1559– Mary Queen of Scots becomes Queen of France when her husband becomes King Francis II
5.	1560– Treaty of Edinburgh. Scottish Protestants overthrow Mary Queen of Scots mother
6.	1560– Mary return to Scotland after Francis dies
7.	1562– French religious war: Catholics vs. Protestants
8.	1563– Statute of Artificers. An Act of Parliament to fix prices, set maximum wages and restrict workers freedoms
9	1565– Mary Queen of Scots marries Lord Darnley
10	1566– Archbishop of Canterbury issued further guidelines for priests
11	1566– The Pope instructs Catholic's not to attend Church of England services
12	1566– Dutch Revolt
13	1566– Mary Queen of Scots gives birth to her son James
14	1567– Lord Darnley murdered and Mary marries the Earl of Bothwell
15	1568– Mary flees to England from Scotland

Key words		
1	Courtiers	Members of nobility who spend most of their life with Elizabeth
2	Divine Right	Belief that the monarch's right to rule came from God
3	Succession	Who was going to take the throne after the monarch died
4	The Reformation	Challenge to the teachings and power of the Roman Catholic Church
5	Clergy	Religious leaders such as bishops and priests
6	Royal Supremacy	This is when the monarch is head of the Church
7	Papacy	The system of Church government ruled by the Pope
8	Heretics	Deny the teachings of the Church
9	Martyr	Someone killed for his or her beliefs
10	Act of Supremacy	Made Elizabeth Supreme Governor of the Church of England
11	Act of Uniformity	Established the appearance of churches and the form of services
12.	Royal Injunctions	Instructions on how to worship God
13.	Puritans	Protestants who want to remove all Catholic rituals from the Church of England
14.	Privy Council	The committee of ministers appointed by Elizabeth to advise her.
15	Secretary of State	Supervised all government business and managed Parliament meetings.



Key individuals					
Mary Queen of Scots	Henry VIII	Anne Boleyn	Philip of Spain	Mary I	William Cecil
Elizabeth's Catholic cousin who was Queen of Scotland	Elizabeth's father	Elizabeth's mother who was executed by Henry VIII	King of Spain who launched the Spanish Armada against Elizabeth	Elizabeth's Catholic sister, was Queen before Elizabeth	Elizabeth's most important advisor and Secretary of State

History

Year 9

Topic: Early Elizabeth England: Challenges at home and abroad 1569-88

Timeline of events: Elizabethan England	
1.	1569– The Revolt of the Northern Earls
2.	1570– Pope Pius V excommunicates Elizabeth from the Catholic Church
3.	1571– The Ridolfi Plot
4.	1576– The Spanish Fury
5.	1576– Pacification of Ghent
6.	1583– The Throckmorton Plot
7.	1584– Treaty of Joinville
8.	1585– All Catholic priests are ordered to leave the country
9.	1585– Treaty of Nonsuch
10.	1585– War begins with Spain
11.	1586– The Babington Plot
12.	1587– Mary Queen of Scots is executed
13.	1587– Drake singes the King of Spain's beard by leading an assault on the Spanish fleet in Cadiz harbour
14.	1588– Philip II of Spain launches the Armada. The Spanish are ultimately defeated at The Battle of Gravelines.

Key words		
1	Sacked	Robs town or city using violence
2	Civil War	A war between people of the same country
3	Conspiracy	A secret plan with the aim of doing something against the law
4	Papal bull	A written order issued the pope
5	Council of the North	Used to implement Elizabeth's law and authority in the north of England.
6	New world	The continents of North and South America
7	Fireships	Emptying ships set on fire and sent in the direction of the enemy to cause dam-
8	Warning beacons	Fires lit at well known locations on hills to warn of enemy ships or troops
9	Excommunicate	No longer a member of the Catholic Church
10	Armada	Spanish word meaning a naval fleet or group of warships
11	Revolt	An uprising or rebellion against the monarch
12	Earl	A senior noble who played an important role in governing England
13	Double Agent	Someone who pretends to be on one side but is actually on the other
14	Spymaster	Francis Walsingham, Elizabeth's chief spy responsible for her security
15	Jesuits	Extreme Catholics carrying out the wishes of the Pope
16	Gravelines	A town on the boarder of France and the Spanish Netherlands
17.	Galleon	Large but slow fighting ships used by the Spanish
18.	Fleet	Group of ships
19.	Cadiz	Spain's main western port– the site of much of the Armadas preparations
20.	Gloriana	The image of Elizabeth as divine, powerful and in control



Key individuals				
Francis Walsingham	Sir Francis Drake	Duke of Medina Si- donia	Lord Charles Howard	Duke of Palma
Elizabeth's Secretary of State	An English privateer and excellent sailor	Leader of the Spanish Armada	Lord High Admiral of the English fleet	Leader of the Spanish army based in the Netherlands

History

Year 9

Topic: Early Elizabeth England: Elizabethan Society in the Age of Exploration

Timeline of events: Elizabethan England	
1.	1563: Statute of Artificer
2.	1572: Vagabonds Act
3.	1576: Poor Relief Act
4.	1577: Francis Drake sets sail from Plymouth to begin his circumnavigation of the globe
5.	1578: Drake discovered that the Magellan Strait was a group of islands.
6.	1579: Drake claimed California for Queen Elizabeth, calling it Nova Albion
7.	1579-80: Drake made various trade treaties with islands in Asia
8.	1580: Drake returns back to Plymouth
9	1580: Francis Drake is knighted
10	1585: First English colony in Virginia is established
11	1586: Surviving colonists abandon Virginia and return to England
12	1587: Colony established at Roanoke
13	1590: English sailors arrive at Roanoke to find it abandoned
14	
15	

Key individuals	
Sir Walter Raleigh	Sir Francis Drake
An explorer and courtier	The first English man to circumnavigate the globe

Key words		
1	'Fourth sort'	Nickname for the lower classes– the commoners
2	Bear-baiting	An activity where a bear was tied up and made to fight dogs
3	Feast days	Public celebrations, a day off and a change to feast or dance
4	Deserving poor	Those who wanted to work but had good reasons why they shouldn't
5	Vagabonds	Often homeless, petty criminals
6	Travelling company	A group of actors who travelled to perform their shows
7	Groundings	The poorer people who had standing tickets on the round
8	Playwrights	People who wrote plays, such as Marlowe
9	Public school	Elite fee-paying schools for the children of the gentry
10	Parish/petty schools	A place where children aged 4-7 could learn to read and write
11	Enclosure	Using land to raise sheep rather than grow crops, to make money
12	Rack-renting	When landowners increased rent fees on land rented to farmers
13	Inflation	When goods rise in price, and become harder to afford
14	Idle poor	Those without a good reason not to work
15	Grammar schools	Schools where mostly middle classes got a basic education
16	Virginia	A territory on the east coast of America, named for the Virgin Queen
17	Circumnavigation	Sailing around the whole world– Drake was first captain to do this
18	Colony	An overseas territory that belonged to another country, i.e. England
19	Mutiny	An uprising against the leaders by the crew of a boat
20	Roanoke	A failed settlement in North America

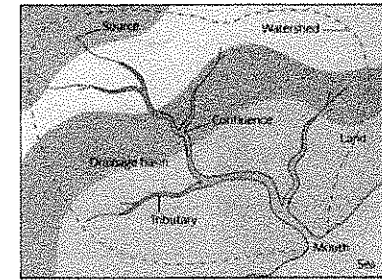
Geography – Hydrology and Flooding

Keywords

1. Transpiration	Water loss from plants through pores in the leaves
2. Evaporation	Where water changes from a liquid to a vapour
3. Evapotranspiration	The combined loss of water from plants and the land
4. Throughflow	Water moving through soil
5. Stemflow	Water flowing down the stem of a plant or tree to the ground
6. Percolation	Water moving down through the rock
7. Interception	Rainwater being trapped by trees or buildings and being prevented from reaching the ground
8. Precipitation	Water moving from the atmosphere to the ground – rain, hail, snow
9. Baseflow	The normal flow of water in the river caused by groundwater
10. Groundwater	Water in the rocks
11. Infiltration	Water moving downwards into the soil
12. Groundwater flow	Water moving through the rocks
13. Water table	The level of water in the ground
14. Watershed	Boundary of a drainage basin
15. Drainage basin	The area a river collects its water from it can also be called the catchment area
16. Drip flow	Rainwater that falls onto vegetation and then drips onto the ground
17. Peak discharge	The highest amount of water in a river after a storm
18. Peak rainfall	The highest amount of rain which falls
19. Lag time	The time between the peak rainfall and the peak discharge
20. Condensation	The process where water changes from a gas back to a liquid
21. Porous	A rock which has many tiny gaps in it that allow it to store water e.g. sandstone or chalk
22. Impermeable	Soil or rock which does not allow water to pass through it e.g. clay
23. Permeable	A rock which allows water to pass through e.g. limestone
24. Mouth	The point where a river enters the sea or lake
25. Overland flow	The movement of water over the surface of the land
26. Source	Point where a river starts
27. Surface stores	Places where water is found on the surface of the ground in such as rivers and lakes
28. Tributary	A smaller river which joins a larger river
29. Confluence	Point where two rivers meet
30. Distributary	Found at a delta where the river splits to work its way through the material it has deposited

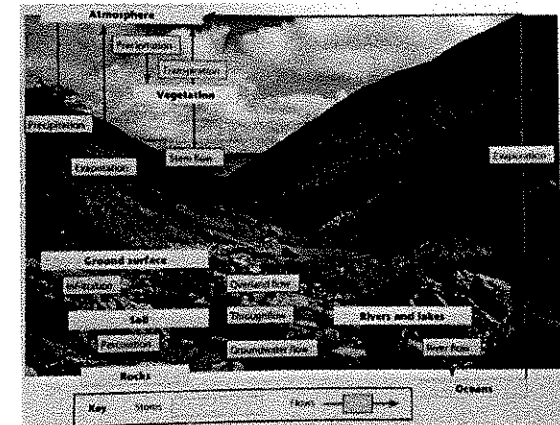
31. Drainage Basin

- The area from which a river gets its water, rain that falls in this area makes its way to the river
- Drainage basins are separated by a watershed which is often mountain ranges
- Multiple streams with different sources form within a basin, which all join (confluence) the main channel
- Includes the mouth where the river flows into a lake or ocean
- Humans can impact the drainage basin by building near the river on the floodplain



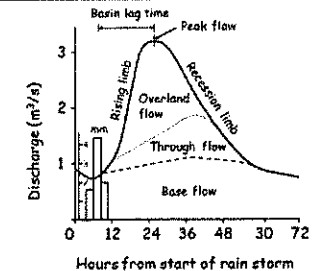
32. Hydrological Cycle

- Cycle of water with stores and flows
- Stores: atmosphere, vegetation, ground surface, soil, rocks, rivers, lakes and oceans
- Flows: precipitation, evaporation, transpiration, stem flow, overland flow, infiltration, throughflow, percolation, groundwater flow, river flow, evaporation
- Rate of flow are impacted by climate, vegetation cover and type, permeability, porosity, land use, soil type
- People impact the cycle by changing the land use and increasing the amount of impermeable land, which increases overland flow on roads and pavements (pluvial flood) and water can flow quickly to the river via drains (fluvial flood)



33. Storm Hydrograph

- X-axis shows hours from the start of a rain storm
- Y-axis shows discharge in m^3/s on the line graph
- Y-axis also shows precipitation levels in mm on the bar chart
- Base flow - expected river levels without a storm. Through flow - shows the amount of water which travelled to the river through the soil.
- Overland flow - the water which reached the river on the ground surface
- Peak rainfall - highest point on the bar chart. Peak discharge - highest point on the line graph. Lag time - time between peak rainfall and peak discharge



Hydrology Revision Questions



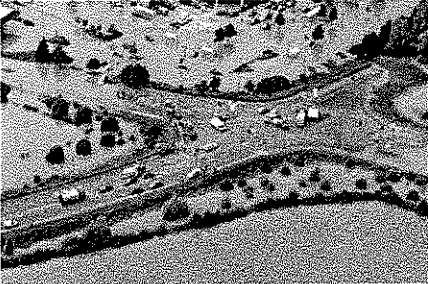
- How would an increase in deforestation impact the hydrological cycle?
- How would an increase in urbanisation impact the hydrological cycle?
- How does impermeable rock impact a drainage basin?
- What is the difference between tributary and confluence?
- What is the difference between permeable and impermeable rock?
- How can people impact the hydrological cycle?
- How can humans impact the drainage basin of a river?
- What is the difference between infiltration and percolation?

- Why would planting trees reduce flood risk?
- Describe how water travels around the hydrological cycle.
- What is peak rainfall and peak discharge on a storm hydrograph?
- What is the difference between a rising limb and a recession limb on a storm hydrograph?
- Why are storm hydrographs useful? Who would use them?
- How do you calculate lag time?
- If the peak rainfall was at 6am and peak discharge was at 11am, what is lag time?
- Why is base flow included on a storm hydrograph?

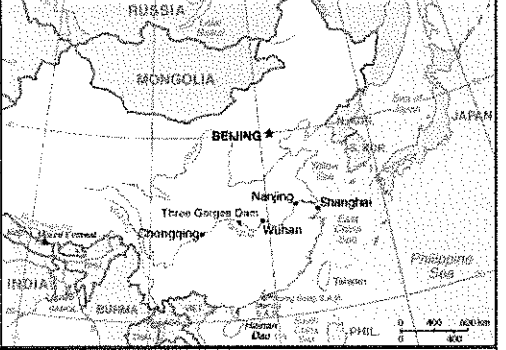
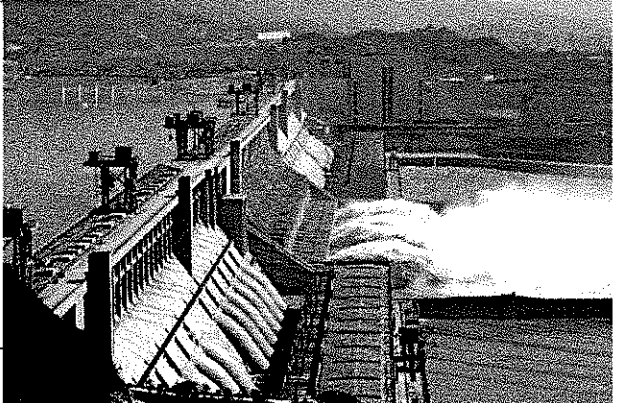
Geography - Tewkesbury Floods (HIC)

Background and Causes

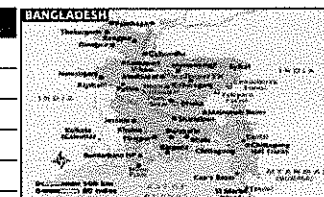
Effects

1. Where is the River Severn drainage basin?	<ul style="list-style-type: none"> Central Wales, Shropshire, Worcestershire, Gloucestershire
2. What was the date of the flood studied?	<ul style="list-style-type: none"> June 2009 (90mm on the 20th June)
3. How big is the drainage basin?	<ul style="list-style-type: none"> 6,900²km plus the River Avon with 4,000²km
4. How much rain fell?	<ul style="list-style-type: none"> Twice the usual amount in May and June
5. What do we call the conditions before the flood?	<ul style="list-style-type: none"> Antecedent conditions
6. What happened when more rain fell in June?	<ul style="list-style-type: none"> There was flooding from overland flow
7. Why was there extra rain?	<ul style="list-style-type: none"> There was a low-pressure depression coming from the Atlantic
8. What causes the extra rain?	<ul style="list-style-type: none"> Global warming leading to sea expansion and extra evaporation so more clouds and rain
9. What happened to the drains?	<ul style="list-style-type: none"> They became blocked so the pluvial flood water was not able to be diverted to the river
10. How did building houses cause the flooding?	<ul style="list-style-type: none"> More impermeable surfaces were created, did not allow infiltration into the soil, water went into drains and reached the river more quickly
11. How did construction cause the floods?	<ul style="list-style-type: none"> The railway embankment built on the floodplain meant that the water could not spread out so the water became deeper
12. Name groups of people affected by the 2009 flood	<ul style="list-style-type: none"> Café owner (Mandy Crump) - out of the café for 8 months with £40,000 damage M5 closed The Plough Inn beside river at Upton upon Severn Schools closed – students had to go to other schools to sit GCSEs Local residents wanting to sell their house – Dave Witts, secretary of local flood group- house values dropped Local residents flooded – John and Marion Badham, Abbey Terrace, Tewkesbury – adapted their house with tiles and light furniture Severn Trent Water Authority employees had to work extra hours
13. What are the Economic effects of the flood?	 <ul style="list-style-type: none"> M5 closed so deliveries were delayed, people could not get to work, cost of repairing road Tewkesbury, Gloucester, Evesham flooded and many houses under water which need repairs Mythe water treatment works at Tewkesbury shut down as flood water got near the electrics. Water supply in the area cut off. Local people needed 90 water tankers, 1,100 bowzers and 5 million litres bottled water. Repairs and new flood defences cost £25 million and took 8 weeks and left 350,000 people without a water supply. Businesses flooded and closed, e.g. Mandy Crump at Crumpets Tea Shop in Tewkesbury. Shop under 3 feet of water. Out of the café for 8 months with £40,000 damage. Other businesses that were not flooded lost out on trade because people assumed they had been flooded as well Difficult to sell houses in the area because of their history of being flooded – leads to lower prices
14. What were the social effects of the flood?	<ul style="list-style-type: none"> Many people had to move out of their houses for up to a year, while they dried out and were re-plastered and re-wired People had to redesign their houses to make them flood proof (soft engineering) – lighter furniture that can be moved upstairs, plugs higher up the wall, tiled floors, flood gates on doors Schools closed during floods – students had to go to other schools to sit GCSE's 10,000 people stranded on M5
15. What were the environmental effects of the	 <ul style="list-style-type: none"> R Severn floods quite often, so not too many houses had been built on the floodplain, so the effects could have been worse. Crops destroyed Blocked drains meant that rain water could not drain away from roads or car parks and so it causes pluvial floods Sensors now placed on drains near river to make sure that they are kept clear of leaves and branches Whole area flooded had to be cleared of mud and sewage deposits after the floods went down. 

Geography - Three Gorges Dam (NIC)

Background and cost	1. What is the location of the Three Gorges Dam?	<ul style="list-style-type: none"> The Three Gorges Dam is a <u>mega-dam</u> located on the <u>Yangtze River</u> in central <u>China</u> 	
	2. How long did it take to build?	<ul style="list-style-type: none"> <u>15 years</u> 	
	3. Why was it built?	<ul style="list-style-type: none"> The dam was built in response to the <u>seasonal flooding</u> that takes place along the Yangtze that has <u>killed hundreds of thousands of people</u> 	
	4. How much did it cost to build?	<ul style="list-style-type: none"> The overall cost of the dam is estimated at roughly <u>¥180 billion</u> It will take nearly a decade for the dam to pay for itself by <u>generating electricity</u> 	
	5. What other costs were involved?	<ul style="list-style-type: none"> The inundation (flooding) of land behind the dam however is costly because many <u>factories</u> were located behind the dam and had to be <u>relocated</u>, often at a high cost In addition, the <u>lack of annual flooding</u> means that much of the <u>farmland</u> that is located on the Yangtze's floodplain will gradually become <u>less fertile</u>, reducing agricultural yield 	
Impacts	6. How many people had to leave their homes?	<ul style="list-style-type: none"> Over <u>1.2 million</u> people were required to <u>leave their homes</u> as they were going to be inundated by the dam's reservoir 	
	7. What happened to those who did not want to leave?	<ul style="list-style-type: none"> The people who refused to leave were <u>forcibly removed</u> from their homes The reservoir ended up <u>flooding 13 cities</u> and <u>hundreds of villages</u> Those that were displaced were relocated to cities that had been specially constructed for the dam 	
	8. What were the positive social impacts?	<ul style="list-style-type: none"> For many of the people living in <u>poverty</u> who were displaced, the new homes they were given represented a substantial <u>improvement</u> in terms of <u>quality and living standards</u> 	
	9. Why is the building of the dam a problem for sediment?	<ul style="list-style-type: none"> The Yangtze transports a lot of <u>sediment</u> that is now being blocked behind the dam This is going to result in the gradual <u>destruction</u> of the Yangtze's delta and <u>increased erosion</u> downstream of the dam The blocked sediment will <u>alter the chemical composition</u> of water upstream from the dam This, in turn, will result in a <u>reduction in biodiversity</u> and the potential extinction of several species of animals 	
	10. Why is blocked sediment a problem for farmers?	<ul style="list-style-type: none"> The farmers who relied on the fertile soil produced by floods will now have to use <u>artificial fertiliser</u> that will drain into the river and <u>pollute the downstream</u> section of the river 	
	11. What is a positive environmental impact of the dam?	<ul style="list-style-type: none"> The Three Gorges Dam serves as a <u>hydroelectric power</u> plant that will supply <u>5% of China's power</u> and will result in <u>millions of tonnes of coal not being burnt</u> 	
	12. What has China done about deforestation?	<ul style="list-style-type: none"> China plans to redouble its <u>forestry</u> development efforts in the next 30 years A massive <u>afforestation programme</u> along the upper Yangtze river would raise tree coverage in the region from <u>22.1 % to 45%</u> The floods, which <u>killed over 3,000 people</u> and caused <u>billions of dollars in infrastructure damage</u>, have been widely blamed on the environmental destruction caused by years of <u>logging</u> 	
Other Management	13. How have the Chinese Government changed the shape of the river and what is the effect of this?	<ul style="list-style-type: none"> Over the past decades, much has been done to <u>straighten</u> out the river and the meandering section has been shortened by <u>80 kilometres</u> A river channel may be <u>widened</u> or <u>deepened</u>, increasing the volume the river can hold (increase its load) A river channel may also be straightened so that water can travel <u>faster</u> along the course The channel course of the river can also be altered, <u>diverting floodwaters</u> away from settlements Straighter, deeper river channels mean that <u>flood water travels</u> through and out of those areas much <u>faster</u>, reducing flooding in the straightened areas Straightening also means that difficult rivers become much easier to <u>navigate</u> and this can improve <u>business and trade</u> 	
	14. What problem can this cause?	<ul style="list-style-type: none"> Altering the river channel may lead to a <u>greater risk of flooding downstream</u>, as the water is carried there faster 	


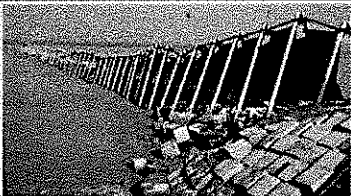

Geography - Bangladesh Floods (LIC)



Background and Causes

Impacts

Responses

1. Where is Bangladesh?	• South of the Himalayas, east of India, west of Myanmar, coastline on the Bay of Bengal
2. What was the years of the floods studied?	• 1998, 2004 and 2007
3. Name the 3 rivers that flow into Bangladesh.	• Ganges, Meghna, Brahmaputra
4. How big is the drainage basin?	• The Meghna, Brahmaputra and the Ganges combined reach over 1,000,000km ²
5. How does rain cause flooding in Bangladesh?	• Monsoon season May-September causes saturates soils so more surface run-off
6. What do we call the conditions before the flood?	• Antecedent conditions
7. Why else does Bangladesh flood naturally?	• Seasonal snowmelt from Himalayas, 3 major rivers which have a confluence in Bangladesh, Monsoon season, storm surges
8. How do human contribute to the floods in Bangladesh?	• Deforestation in the upper course, settlements on floodplains (Dhaka) rapid urbanisation with correct infrastructure, climate change
9. How does climate change impact Bangladesh's coastline?	<ul style="list-style-type: none"> Increased temperature causes low pressure depressions in the Indian Ocean, leading to storm surges along the coast of Bangladesh This adds pressure to the river floods Warmer temperatures also cause more evaporation, so heavier rains fall Thermal expansion also means that the Indian Ocean increases in volume, adding pressure to the coastline
10. What were the main impacts from the floods?	 <ul style="list-style-type: none"> Char islanders have to relocate during and after major floods, displaced and homeless, infertile agricultural land More than 450 people died and more than 30 million people in Bangladesh affected Of the country's 64 districts, 43 are affected by the rising waters Around 40% of the county's capital, Dhaka, was covered by water and Government figures report more than 150,000 homes were destroyed and more than half a million acres of crops destroyed Floodwaters place the population at risk from a range of water-borne diseases, including diarrhoea, dysentery, typhoid and cholera Outbreaks of diarrhoea have already been reported, especially in the capital, where sewers mix with floodwater and water supplies were contaminated
11. What is the FAP?	 <ul style="list-style-type: none"> The Flood Action Plan (FAP) was set up in 1990 supported by several wealthy countries and the World Bank Its aim was to reduce the impact of the floods that occurred annually in Bangladesh The FAP's objectives were to set up regional planning groups to study and monitor local river processes, followed by the construction of huge embankments to protect the land, initially from river flooding. It was intended to construct coastal embankments to protect from storm surges brought by cyclones but these have not been completed. As a result, the FAP is not considered to have been a complete success. Over 3 million people have been killed by coastal flooding in the last 30 years
12. What are the hard engineering methods used?	<ul style="list-style-type: none"> Cluster villages which are raised above flood levels and high schools, shops, sustainable housing and community boats for floods Improved drainage (pipes and storage underground) and Dhaka's Western Flood embankment
13. What are the soft engineering methods used?	<ul style="list-style-type: none"> Sustainable farming through Practical Action: Noor's super ducks, Moshir's pumpkins, Faruk's fish Oxfam distributes emergency supplies
14. Challenges faced by the government	 <ul style="list-style-type: none"> The Bangladeshi Government cannot afford the high maintenance costs of the scheme The embankments are at risk of erosion from the rivers River channelisation by FAP embankments has increased the risk of flood damage for downstream areas An estimated 8 million people were forced to move due to the FAP, people who relied on farming and fishing to support themselves Today, smaller, more sustainable projects tend to be favoured such as flood embankments to protect important urban areas (like Dhaka), improved forecasting and early warning systems and the building of flood shelters (areas of raised land to provide a safe haven for people in times of flood)

Flooding Revision Questions

15. Explain the causes of river floods using an example you have studied.	19. Is a river flood more likely to be cause by people or occur naturally?
16. Explain how river floods can impact named groups of people.	20. Why are the impacts of the Bangladesh floods more severe than Tewkesbury?
17. What is the difference between hard and soft engineering?	21. Compare the causes of river flood in two examples you have studied.
18. How can river floods be managed?	22. Should hard engineering or soft engineering be used in LIC flood management?

River Flood Management				
		How it works	Advantages	Disadvantages
Soft Engineering	Afforestation	<ul style="list-style-type: none">Trees are planted near to the river. This means greater interception of rainwater and lower river discharge. This is a relatively low cost option, which enhances the environmental quality of the drainage basin.Environmental groups and local residents often prefer softer options, such as planting trees. Soft options cause little damage to the environment and do not involve the resettlement of communities.	<ul style="list-style-type: none">Helps to reduce climate changeTrees reduce risk of landslidePrevents desertificationNatural habitats createdConservation of endangered speciesLeisure activities createdAssurance of wood supplyEmployment opportunities	<ul style="list-style-type: none">Decrease in land value for ownerLess space for development or agricultureRisk of wildfires depending on climateLeisure may lead to litterCan be expensive depending on area planted/scale
	Land Use	<ul style="list-style-type: none">Local authorities and the national government introduce policies to control urban development close to or on the floodplain. This reduces the chance of flooding and the risk of damage to property.There can be resistance to development restrictions in areas where there is a shortage of housing. Enforcing planning regulations and controls may be harder in LEDCs.	<ul style="list-style-type: none">More expensive buildings/land uses are further away from the river, so have reduced flood risk.Less damage is caused, leading to fewer insurance claims.	<ul style="list-style-type: none">Not always possible to change existing land uses.Planners have to decide what type of flood to plan for.
	Managed	<ul style="list-style-type: none">The environmental agency monitors rivers and issues warnings via newspapers, TV, radio and the internet when they are likely to flood so people can prepare.	<ul style="list-style-type: none">People have time to try to protect their properties, e.g. with sandbags.Many possessions can be saved, resulting in fewer insurance claims.	<ul style="list-style-type: none">Some people may not be able to access the warnings.Flash floods may happen too quickly for a warning to be effective.They do not stop land from flooding - they just warn people that a flood is likely.
	Flood Wall/	<ul style="list-style-type: none">Raise the river banks so the channel can contain a larger volume of water before bursting its banks.Can be used to raise the height of the river bank to a level where the river might not burst its banks.Can be permanent features or incorporated into the design of an area and become invisible.Can also be temporary structures where flood gates or removable 'stoplogs' are built to protect a stretch of river.	<ul style="list-style-type: none">Cheap with a one-off cost.Allow for flood water to be contained within the river, protecting particular areas of high value from flooding.	<ul style="list-style-type: none">Looks unnatural and reduces access to the river.Water speeds up and can increase flood risk downstream.
Hard Engineering	River Engineering	<ul style="list-style-type: none">The river channel may be widened or deepened allowing it to carry more water. A river channel may be straightened so that water can travel faster along the course. The channel course of the river can also be altered, diverting floodwaters away from settlements.Water is usually stored in a reservoir behind the dam. This water can then be used to generate hydroelectric power or for recreation purposes.Altering the river channel may lead to a greater risk of flooding downstream, as the water is carried there faster.	<ul style="list-style-type: none">More water can be held in the channel.It can be used to reduce flood risk in built-up areas.Improves the river as a shipping route.Silt from the river makes an excellent fertiliser.	<ul style="list-style-type: none">Dredging needs to be done frequently.Speeding up the river increases flood risk downstream.
	Dam Construction	<ul style="list-style-type: none">Dams are often built along the course of a river in order to control the amount of discharge. Water is held back by the dam and released in a controlled way. This controls flooding.Water is usually stored in a reservoir behind the dam. This water can then be used to generate hydroelectric power or for recreation purposes.Building a dam can be very expensive.Sediment is often trapped behind the wall of the dam, leading to erosion further downstream.Settlements and agricultural land may be lost when the river valley is flooded to form a reservoir.Governments and developers often favour large hard engineering options, such as dam building.Building a dam and a reservoir can generate income. Profits can be made from generating electricity or leisure revenue.	<ul style="list-style-type: none">Can be used to produce electricity by passing the water through a turbine within the dam.Reservoirs can attract tourists.	<ul style="list-style-type: none">Very expensive.Dams trap sediment, which means the reservoir can silt up and hold less water.Habitats are flooded, destroying ecosystems and often leading to rotting vegetation. This releases methane which is a greenhouse gas.Settlements are lost leading to the displacement of people. In some countries locals are not always consulted and have little say in where they are relocated.

Geography – River Processes

Keywords	
1. Upper course	Where the river source is found at high altitude, vertical erosion creates waterfalls, gorges and v-shaped valleys
2. Waterfall	An erosional feature with a steep drop off a rocky ledge
3. Gorge	Vertical valleys left by a retreating waterfall
4. V-shaped valley	Steep-sided valley with inter-locking spurs
5. Middle Course	Where the relief becomes gentler, the river becomes wider and deeper and more lateral erosion takes place
6. Meander	A bend in a river with erosion and deposition
7. Ox-bow lake	A meander bend which has been cut-off from the river channel
8. Lower course	Where the land is flat and the river mouth meets the sea/lake where deposition occurs
9. Floodplain	The land next to the river which floods when the discharge increases
10. Levee	After a flood, deposition on the river bank builds up creating a natural embankment
11. Estuary	Tidal area at the river mouth with fresh and salt water
12. Delta	Where the river divides into distributaries
13. Erosion	Breaking down rock
14. Vertical erosion	Rock eroded downwards, deepening river channel
15. Lateral erosion	Rock eroded sideward, widening river channel
16. Transportation	Sediments (rocks, pebbles, sand) moved by the water
17. Deposition	Sediments dropped by a river
18. Load	The sediments a river carries
19. Bedload	Larger particles moved along a river bed
20. River bed	The bottom of the river channel
21. River bank	The sides of the river channel
22. Sediment	Material moved and deposited in a different location
23. Long profile	A line showing the gradient of a river from source to mouth
24. Cross profile	A cross-section drawn across the river valley
25. Discharge	The volume of water at a given point in a river (cumecs)
26. Velocity	Speed of flow, usually measured in metres per second (m/s)

31. Erosion

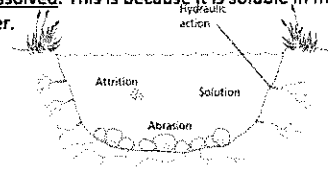
There are two main types of erosion: Vertical and Lateral. However, four processes can be identified. These are:

Hydraulic action – the force of the water hitting the river bed and banks, forces air in cracks and breaks rock off.

Abrasion – when the load carried by the river scrapes the bed or banks, dislodging particles into the flow of water.

Attrition – when stones carried by the river knock against each other, gradually making stones smaller and less rounded.

Solution – when the river flows over limestone or chalk, the rock is slowly dissolved. This is because it is soluble in mildly acidic river water.



32. Transportation

The material transported by a river is called its load. The four main processes of transportation are:

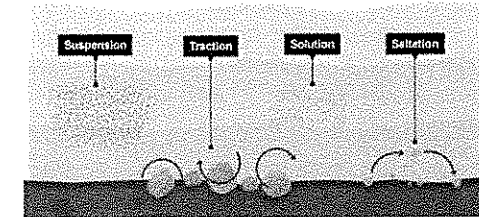
Traction – large particles rolled on the river bed.

Saltation – ‘bouncing’ of particles too heavy to suspend.

Suspension – small sediment held in the river (floating).

Solution – dissolved load.

The size and total amount of load that can be carried will depend on the river's rate of flow – its velocity.



33. Deposition

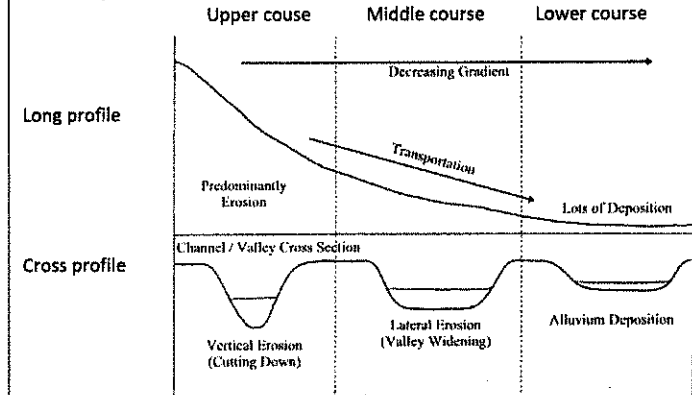
This occurs when the velocity of the water decreases. It no longer has enough energy to transport its sediment so it is deposited (dropped).

a) Larger rocks tend to be deposited in the upper course of a river. They are only transported for very short distances (traction) with high flow.

b) Finer sediment is carried further downstream, mostly held in suspension. This material will be deposited on the bed and banks, where velocity is slowed by friction.

c) A large amount of deposition occurs at the river mouth, where the interaction with tides, along with the very gentle gradient, greatly reduces the river's velocity.

34. River profiles



Rivers Revision Questions

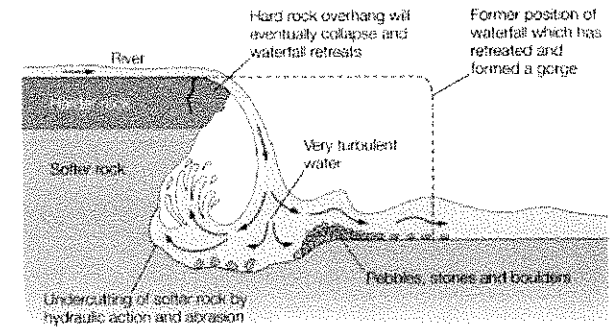
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| <p>35. Describe how a river's long profile changes throughout its course</p> <p>36. Describe how a river's cross profile changes throughout its course</p> <p>37. Explain why a river's long profile changes throughout its course</p> <p>38. Explain why a river's cross profile changes throughout its course</p> <p>39. What are the main differences between the upper, middle and lower course of a river?</p> <p>40. Explain how a river erodes material</p> <p>41. What is the difference between vertical and lateral erosion and where in a river do they take place?</p> <p>42. Which is the most powerful type of erosion? Why?</p> <p>43. Can solution as erosion occur in any river? Why?</p> <p>44. What is the difference between abrasion and attrition?</p> | <p>45. Why is solution both a type of erosion and transportation?</p> <p>46. Explain how a river transports material</p> <p>47. Explain how erosion types change going downstream of a river and explain why</p> <p>48. Explain how transportation types change going downstream of a river and explain why</p> <p>49. How does velocity change the type of erosion that occurs?</p> <p>50. How does velocity change the type of transportation that occurs?</p> <p>51. How does discharge change along the course of a river?</p> <p>52. What is the difference between the river bed and the river bank?</p> <p>53. What is the difference between sediment, load and bedload?</p> <p>54. Look back at the hydrology absolutes and review storm hydrographs. How do you think storm hydrographs would look after floods in the upper, middle and lower course?</p> |
|--|--|

Geography – River Features

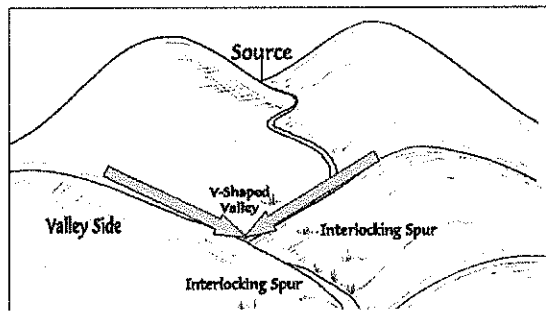
Upper Course

1. Waterfall and Gorge

- a) The soft rock (less resistant to erosion, like sandstone) is eroded quicker than the hard rock (more resistant to erosion, like granite) and this creates a step.
- b) Hydraulic action continues which undercuts the hard rock, forming an overhang.
- c) Abrasion and hydraulic action erode at the bottom of the waterfall to create a plunge pool.
- d) Over time this gets bigger, increasing the size of the overhang until the hard rock is no longer supported and it collapses.
- e) This process continues and the waterfall retreats upstream.
- f) A steep-sided valley is left where the waterfall once was. This is called a gorge.



2. V-shaped valley

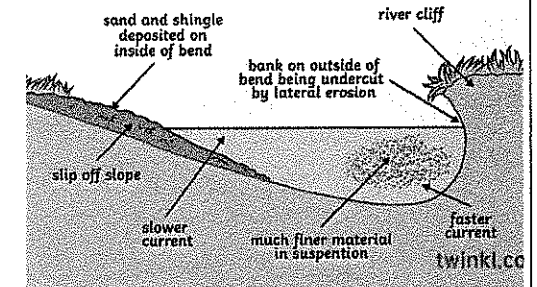


- a) Rivers begin high up in the mountains so they flow quickly downhill eroding the landscape vertically.
- b) The river cuts a deep notch down into the landscape using hydraulic action, abrasion and solution.
- c) As the river erodes downwards the sides of the valley are exposed to freeze-thaw weathering which loosens the rocks (some of which will fall into the river) and steepens the valley sides.
- d) The rocks which have fallen into the river assist the process of abrasion and this leads to further erosion.
- e) The river transports the rocks downstream and the channel becomes wider and deeper creating a V-shaped valley
- f) Interlocking spurs occur if there are areas of hard rock which are harder to erode, the river will bend around it. This creates interlocking spurs of land which link together like the teeth of a zip.

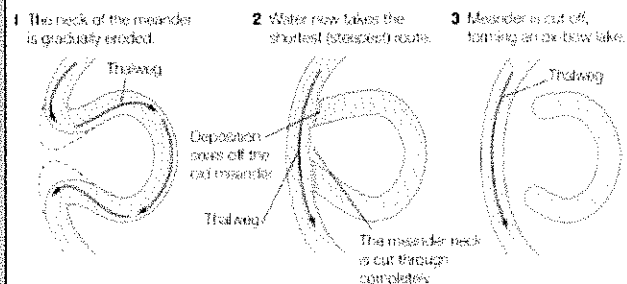
Middle Course

3. Meander

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

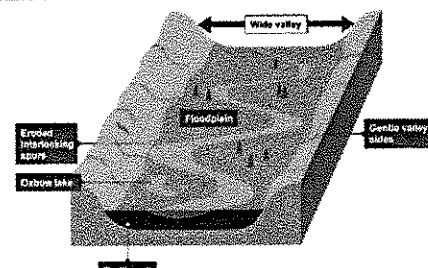
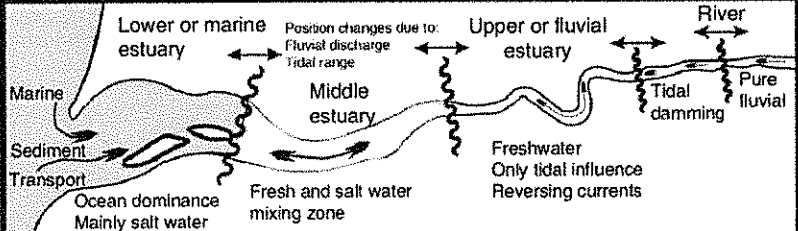
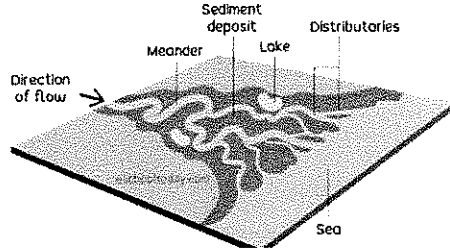


4. Ox-bow lake



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

Geography – River Features

5. Floodplain	<p>a) A <u>floodplain</u> is an area of land which is <u>covered in water</u> when a river <u>bursts its banks</u>.</p> <p>b) Floodplains form due to both <u>erosion</u> and <u>deposition</u>.</p> <p>c) <u>Erosion</u> <u>removes</u> any <u>interlocking spurs</u>, creating a wide, flat area on either side of the river.</p> <p>d) During a <u>flood</u>, <u>material</u> being carried by the river is <u>deposited</u> (as the river <u>loses its speed</u> and <u>energy</u> to transport material). Over time, the <u>height</u> of the floodplain <u>increases</u> as material is deposited on either side of the river.</p> <p>e) Floodplains are often <u>agricultural</u> land, as the area is very <u>fertile</u> because it's made up of <u>alluvium</u> (deposited silt from a river flood). The floodplain is often a <u>wide, flat</u> area caused by <u>meanders shifting</u> along the valley.</p>	
6. Levee	<p>(a) Before flood</p> <p>(b) During flood</p> <p>(c) After many floods</p> <p>Thickest and coarsest sediments deposited at channel edges</p> <p>Thin and fine sediments deposited over outer parts of floodplain</p> <p>Natural levees built up by many floods</p> <p>a) <u>Levees</u> occur in the lower course of a river when there is an <u>increase</u> in the <u>volume</u> of water flowing downstream and <u>flooding</u> occurs.</p> <p>b) <u>Sediment</u> that has been <u>eroded</u> further upstream is <u>transported</u> downstream.</p> <p>c) When the river <u>floods</u>, the <u>sediment spreads</u> out across the floodplain.</p> <p>d) When a flood occurs, the river <u>loses energy</u>. The <u>largest</u> material is <u>deposited first</u> on the sides of the river banks and <u>smaller</u> material <u>further away</u>.</p> <p>e) After many floods, the <u>sediment builds up</u> to <u>increase</u> the <u>height</u> of the river <u>banks</u>, meaning that the <u>channel</u> can <u>carry more water</u> (a <u>greater discharge</u>) and <u>flooding</u> is <u>less likely</u> to occur in the <u>future</u>.</p>	
7. Estuary	<p>a) An <u>estuary</u> can be found at the river <u>mouth</u>, where the river meets the <u>sea</u>.</p> <p>b) As the river approaches the mouth, it <u>slows</u> down so <u>deposition</u> increases.</p> <p>c) Built up sediment from deposition can create <u>sand bars</u>, <u>marshland</u> or <u>mudflats</u>.</p> <p>d) The river here is <u>tidal</u> and when the <u>sea retreats</u> the <u>volume</u> of the water in the estuary is <u>reduced</u>.</p> <p>e) When there is <u>less water</u>, the <u>river deposits silt</u> to form <u>mudflats</u> which are an important habitat for wildlife.</p>	
8. Delta	<p>a) Deltas are found at the <u>mouth</u> of large rivers - for example, the Mississippi.</p> <p>b) A delta is formed when the <u>river deposits its material</u> faster than the <u>sea can remove</u> it.</p> <p>c) There are three main types of delta, named after the shape they create.</p> <ul style="list-style-type: none">• <u>Arcuate</u> or fan-shaped - the land around the river mouth <u>arches</u> out into the sea and the <u>river splits</u> many times on the way to the sea, creating a <u>fan effect</u>.• <u>Cuspate</u> - the land around the mouth of the river <u>juts</u> out <u>arrow-like</u> into the sea.• <u>Bird's foot</u> - the river <u>splits</u> on the way to the sea, each part of the river <u>juts</u> out into the sea, rather like a bird's foot. <p>d) The separate channels created by the deposition are called distributaries.</p>	
Rivers Revision Questions		
9. Explain from memory how each of the 8 river features are created		14. Explain how a meander can become an ox-bow lake
10. Explain how river features and the processes that make them, change as rivers travel downstream		15. Why does a river have a floodplain?
11. Which of the river features involve a flood? Why?		16. What is alluvium?
12. What 3 types of erosion occur to create waterfall and gorges?		17. Explain how levees and an earth embankment (Tewkesbury and Bangladesh) are similar
13. Explain the relationship between v-shaped valleys and interlocking spurs		18. Why are estuaries and deltas tidal?
		19. Explain why deltas could not form if erosion did not take place in the upper course

All Saints' Drama Department: **KS4 – Set text study Blood Brothers – CONTEXT**

Key themes of the play:

- **Superstition** - People at this period of time were very superstitious and truly believed that there would be a consequence to actions such as breaking mirrors etc. The narrator appears as a constant reminder to Mrs Johnstone that giving away her baby will have a consequence later on.
- **Nurture v's nature** - A constant debate is raging about whether behaviour is innate or learnt through influence. Overall nurture seems to slightly over-ride nature through Edward's opportunities. This theme is epitomised by Mickey's exasperated cry, 'I could have been him!'
- **Class** – a clear divide is made between all classes in the play and it could be argued that the people who attempt to cross the class divide (Edward and Linda) are who cause the deaths of Mickey and Edward.
- **Friendship** - Friendship is explored through Many characters: Mr Johnstone, Mrs Lyons, Eddie, Linda and Mickey. Often however, friendships are broken and manipulated throughout the text and the depth of the brotherly friendship not only heightens the irony but deepens the tragedy of the ultimate betrayal.
- **Fate, bad luck and destiny** - Destiny is often explored through the narrator who is the voice of judgement in the play. It is indicated that the death of the twins is fated from the beginning because of Mrs Johnstone's choice to give Eddie away. The song 'Shoes upon the table' is full of key metaphors related to the theme.
- **Growing up** - Growing up is a key theme throughout the novel but also a source of great tension. The early years of childhood are portrayed as idyllic, teenage years awkward and adulthood ruinous. Growing up is also a source of tension for Mickey and Edward as Edward's delayed adulthood and immaturity at university initially causes the rift between them.
- **Money and power** - Money and power go hand in hand in Blood Brothers. We see Eddie get his position at his Father's factory whilst Mickey works putting together boxes. Eddie uses his position as the Chairman of the housing committee to get Linda and Micky their house. Mickey is very aware he is different to Eddie "I'm in these shoes..."
- **Violence** - The working class children are linked to violence from a young age when we see Mickey and his friends as young children, they play a variety of games that are all linked to guns and death, Sammy uses an air pistol which then progresses to a real gun.

The plot:

Blood Brothers is a musical with book, lyrics, and music by Willy Russell. The story is a contemporary nature versus nurture plot, revolving around fraternal twins Mickey and Eddie, who were separated at birth, one subsequently being raised in a wealthy family, the other in a poor family. The different environments take the twins to opposite ends of the social spectrum, one becoming a councillor, and the other unemployed and in prison. They both fall in love with the same girl, causing a rift in their friendship and leading to the tragic death of both brothers.

The playwright:

Blood Brothers was written by Willy Russell.

Liverpool was set between the 1960's and 1980's.

Characters:

Mrs Johnstone
Mickey Johnstone
Mrs Lyons
Mr Lyons
Edward Lyons
Linda
Narrator
Sammy
Minor roles: Donna Marie, policeman, milkman, doctor

Margaret Thatcher:

She is alluded to throughout the play and subtly blamed for the difficulties of the working classes in the play, due to her political decisions to privatise and reduce public spending. She was known as 'Margaret Thatcher milk snatcher' for removing children's milk funding.

Marilyn Monroe:

- Born in 1926 and died in 1962 from an overdose of sleeping pills
- Referenced throughout Blood Brothers – women at that period of time wanted to look like her, she was a cultural icon and a symbol of beauty and indulgence.
- Used as an iconic motif by Russell
- Parallels to Mickey – never knew her father, addiction to pills, both died
- Mrs Johnstone sings about Marilyn when Mickey is depressed “treats his ills with daily pills like poor Marilyn Monroe.”

Liverpool and the docks

Liverpool is the setting of the play and at the time was seeing a lot of decline as many workers were being made redundant due to the economic decline and privatisation of manufacturing. It is also a perfect area as, like in the play, there were many affluent and poor areas in the city.

Image:

This image is very important in the play. This signifies the boys ‘pretending’ to be blood brothers which is dramatic irony because the audience know they are indeed ‘blood brothers.’

**Education**

- Although the 1945 Education act had made grammar schools free, working class children had to pass the 11+ to gain entry to the grammar schools. The pass mark was kept deliberately high. Few children were allowed the privilege of a grammar school education, and even if they gained a place, there was no guarantee that they would leave with qualifications, as the school leaving age was 15.
- Pupils at grammar schools studied academic subjects and took O levels. Some went on to take A levels, while others were under pressure from parents to leave school, get a job and bring money into the household.
- There were far fewer university places then, so most would go into employment after school.
- Children who failed the 11+ would go to a secondary modern school to be prepared for life in the trades. Boys would study practical skills like bricklaying, alongside academic work, and girls would learn how to cook. Many of these schools were under-funded.

Social Context

- Set in Liverpool which was a prosperous seaport in the 19th Century however by the 20th century it was a place of financial depression, high unemployment and strikes
- People disapproved of sex before marriage which is why Mrs Johnstone has to marry
- Divorce was uncommon
- Council houses were the homes of most working class people in the 1950s and 1960s. The terraced houses had a lot to recommend them, but they were also cramped and lacked inside toilets and bathrooms. They did not have central heating and were heated mostly by coal fires. Their inner city locations were often dirty and there was nowhere for children to play as they rarely had gardens.

All Saints' Drama Department: **KS4 – Blood Brothers exam paper overview and design aspects**

Blood Brothers Exam Overview:

- Given an extract from the play
- Part of the extract will include a highlighted section of text
- 4 questions
- First question on design aspect – sound, props, costume, lights, set,
- Second question on one specific line of the extract asking if YOU were the character how would you play that line vocally and physically and be able to say why
- Third question asking how you would play one character from the extract with specific reference to the shaded part to create a specific effect, e.g. tension, comedy
- Fourth question on how you would play a character from the extract vocally and physically. Must make reference to the extract, play as a whole, social context, playwrights intentions.

Timings and marks:

- Q1. Design – 4 marks – **5 minutes**
 Q2. Specific line – 8 marks – **10 minutes**
 Q3. Shaded part of extract – 12 marks – **15 minutes**
 Q4 Whole extract and reference to play as a whole – **20 marks – 25 minutes**

Sound types

Diegetic

These are effects that are called for in the text as part of the performance. They are also known as 'spot' cues as they have to arrive precisely on time. Any sounds a character can hear on stage are diegetic, e.g a ringing phone which a character answers.

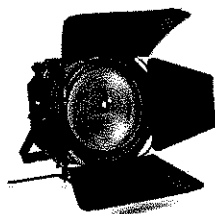
Non-Diegetic

Sound effects which are used to enhance a scene but are not realistically necessary to it. They are used to produce an effect on the audience.

Lighting types:



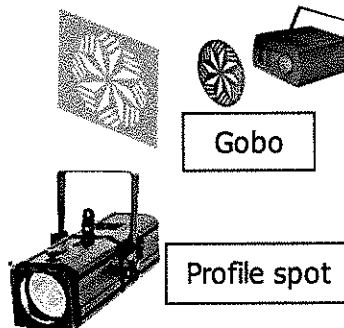
Follow spot



Fresnel



Par Can



Gobo

Profile spot

Sound tools:

Volume -The volume of sound (soft or loud) is a basic effect.
Direction (speaker placement) - This is especially important for diegetic sounds – the noise needs to appear to come from the source
Sound quality -Sound may be manipulated to create specific effects, e.g distortion could be used
Sound selection and creation - Sounds need to be very carefully selected to enhance the play's atmosphere

Incidental sound

This is usually introductory pre-show or play-out music to create a mood or atmosphere. This can also be interval or scene change music

Soundscape

This refers to a soundtrack that runs continuously throughout a scene. It is designed to suggest and maintain a mood, atmosphere or place – often not noticed consciously by the audience but its effect is felt.

Example lighting question: "You are designing the lighting for the scene where Mickey is in jail. Consider what lighting types you would use and why."

All Saints' Drama Department: **KS4 – Blood Brothers exam paper – 8, 12, 20 markers**

Blood Brothers Exam Overview:

- Given an extract from the play
- Part of the extract will include a highlighted section of text
- 4 questions
- First question on design aspect – sound, props, costume, lights, set,
- Second question on one specific line of the extract asking if YOU were the character how would you play that line vocally and physically and be able to say why
- Third question asking how you would play one character from the extract with specific reference to the shaded part to create a specific effect, e.g. tension, comedy
- Fourth question on how you would play a character from the extract vocally and physically. Must make reference to the extract, play as a whole, social context, playwrights intentions.

Timings and marks:

- Q1. Design – 4 marks – **5 minutes**
 Q2. Specific line – 8 marks – **10 minutes**
 Q3. Shaded part of extract – 12 marks – **15 minutes**
 Q4 Whole extract and reference to play as a whole – **20 marks – 25 minutes**

Understanding of vocal and physical skills: Using the mouldy parmesan criteria

Mouldy (**movement**), parmesan (**posture**), grates (**gesture** – use of hand movement to signal thoughts and feelings), itself (**interaction** between other characters), very (**vocal expressions** – the way you use your voice) **pitch** (low pitch or high pitch) **pause** (stops between speech) **projection** (use of how you project your voice loudly or softly), **pace** (speed of speech), flipping easily (**facial expressions**).

8 marker:

The 8 mark question will give you one line from the extract in your examination paper and ask you how you would perform that line vocally and physically.

For example: *You are playing the role of Mrs Lyons. How would you use vocal and physical skills to perform the line below and explain the effects you want to create "Are you always going to follow me?"*

You must include **WHAT** you would do, **WHY** you would do it, **HOW** you would do it, have a good balance of vocal and physical skills and link points together, e.g a vocal point and physical point

"If I was playing the role of Mrs Lyons on the line "Are you always going to follow me?" I would walk quickly and purposefully (movement) towards Mrs Johnstone, then point sharply and directly (gesture) towards her whilst clenching my jaw (face) and speaking in an aggressive tone of voice (pitch) to show my anger at Mrs Johnstone being in my life. I would project the words (projection) "follow me" very loudly to show my frustration and worry that Mrs Johnstone being around us provides a big risk that Edward might find out I am not his birth mother. I would say the line quickly (pace) to emphasise my growing paranoia that Mrs Johnstone is following us."

12 Marker:

Using the same extract as the one used for the 8 mark question, you will be asked to perform a SPECIFIC character and create a **SPECIFIC** effect – e.g comedy, tension, frustration etc

Again you must refer to a good balance of vocal and physical skills and **WHAT** would you do, **WHY** you would do it and **HOW** you would do it.

Key themes / concepts:

- Superstition
- Nurture v's nature
- Class
- Friendship
- Fate, bad luck and destiny
- Money and power
- Love
- Education
- Marilyn Monroe
- Liverpool docks
- Recession

20 marker:

The 20 marker requires you to comment on both the extract and the play as a whole. It is usually focused on a different character to that answered for the 8 and 12 marker.

*"You are performing the role of Mickey. Describe how you would use your acting skills to **interpret Mickey's character** in this extract **and** explain why your ideas are appropriate both for this extract and the play as a whole."*

20 Marker Blood Brothers

Paragraph 1

Explain what is happening in this extract - BRIEFLY

In this extract the character of _____ is _____ (explain what the character does in this extract)

At this point in the play I would want the audience to _____

Character's relationship with others in the selected extract (In this extract _____ relationship with _____ is _____ because _____ This is reinforced by _____)

Paragraph 2

Choose a specific moment from the extract (in chronological order)

What you would do – choose 2 from this list – Movement, posture, gestures, interaction, vocal – pitch, pause, projection, pace, facial expressions

I would (explain what you would do) _____ Then explain HOW and WHY you would do it.

Comparison with another moment in the play as a whole (write briefly about another moment from the whole play NOT the extract where we see SIMILAR behaviour)

This is similar to when _____ where I would _____

Paragraph 3

Choose another specific moment from the extract (in chronological order)

What you would do – choose 2 from this list – DIFFERENT SKILLS FROM LAST PARAGRAPH - Movement, posture, gestures, interaction, vocal – pitch, pause, projection, pace, facial expressions

I would (explain what you would do) _____ Then explain HOW and WHY you would do it.

Why you would do it:

Comparison with another moment in the play as a whole : (write briefly about another moment from the whole play NOT the extract where we see DIFFERENT behaviour)

This is different to when _____ where I would _____

Paragraph 4

Choose another specific moment from the extract (in chronological order)

What you would do – choose 2 from this list – DIFFERENT SKILLS FROM LAST TWO PARAGRAPHS - Movement, posture, gestures, interaction, vocal – pitch, pause, projection, pace, facial expressions

I would (explain what you would do) _____ Then explain HOW and WHY you would do it.

Why you would do it:

Paragraph 5

Choose another specific moment from the extract (in chronological order)

What you would do – choose 2 from this list DIFFERENT ONES TO LAST PARAGRAPH - Movement, posture, gestures, interaction, vocal – pitch, pause, projection, pace, facial expressions

I would (explain what you would do) _____ Then explain HOW and WHY you would do it.

Why you would do it:

Paragraph 6

Summary of character and significance in the play as a whole

Overall in this extract the character of _____ is significant because _____