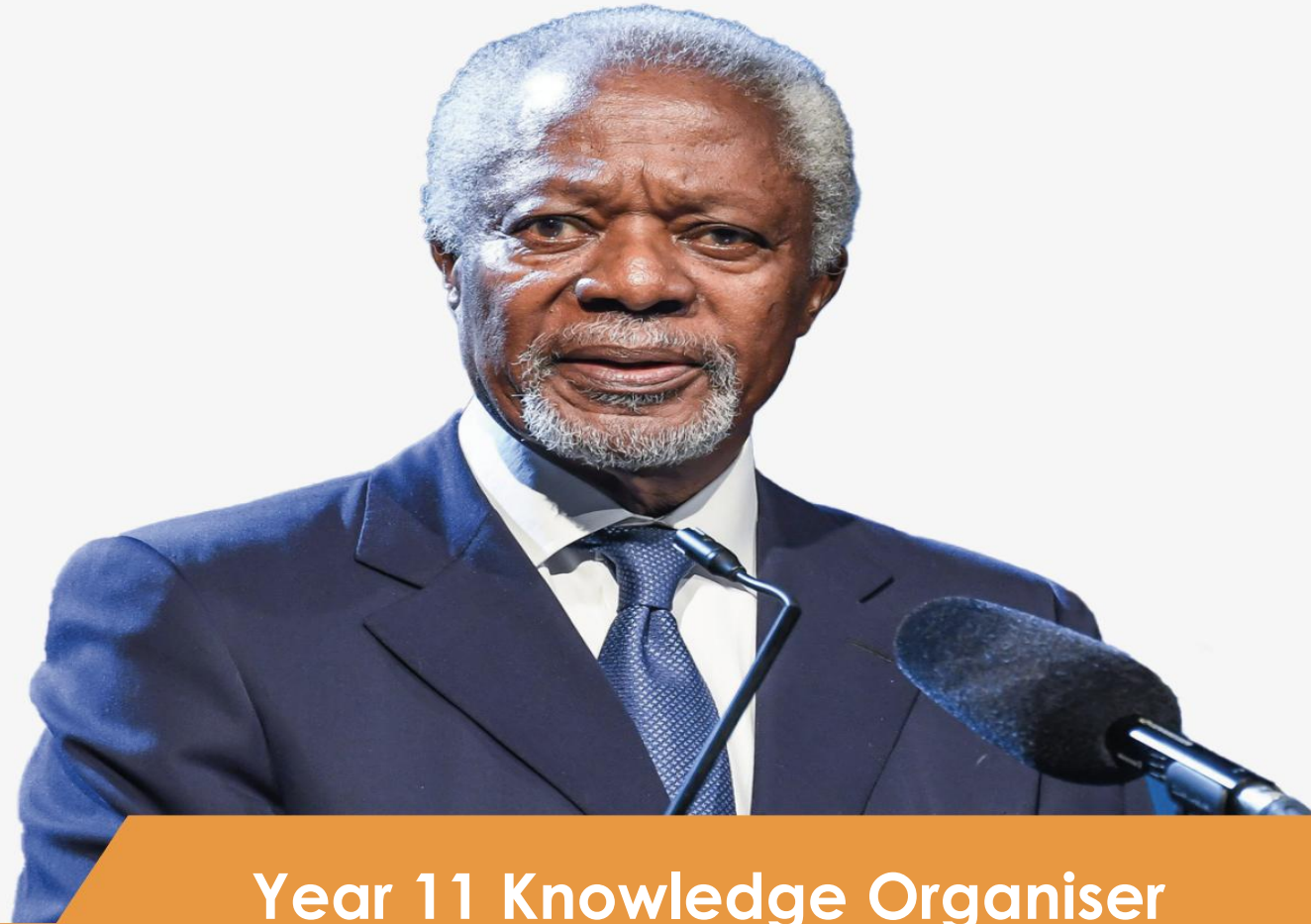




Frank Field
Education Trust

*“Knowledge is power.
Information is liberating.
Education is the premise
of progress, in every
society, in every family”*

- Kofi Annan



Year 11 Knowledge Organiser

Learning Programme 2

Pupil Name:

Form Group:

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Instructions to use the Knowledge Organiser

Use of the Knowledge Organiser

Every school day you should be studying at least 1 section of your Knowledge Organiser (KO) for homework.

The timetable outlines the tasks you will study during that week.

Your subject teacher will set the relevant homework task from the Knowledge Organiser booklet and inform you of when the homework is to be handed in.

Your homework is to be completed in your subject exercise book, unless the instructions are different within the task.

You need to bring your Knowledge Organiser and exercise books with you EVERYDAY to the academy.

You will also be tested in your lessons on knowledge from the organisers every week to ensure that the core knowledge is retained over time.

You should also be developing your core knowledge by developing your self-testing, revision and study skills techniques alongside the homework tasks.

You can use any of the adjacent techniques on top of the core homework tasks to enhance your revision skills.

Self-testing, revision and study skills techniques

You can use your KOs and book in a number of different ways but you should not just copy from the Knowledge Organiser into your book. Use the 'How to self-test with the Knowledge Organiser' booklet to help you.

Below are some possible tasks you could do in your workbooks, no matter which task you do you should always check and correct your work in a different coloured pen.

- Ask someone to write questions for you
- Write your own challenging questions and then leave it overnight to answer them the next day
- Create mind maps
- Create flashcards
- Put the key words into new sentences
- Look, cover, write and check
- Mnemonics
- Draw a comic strip of a timeline
- Use the 'clock' template to divide the information into smaller sections. Then test yourself on different sections
- Give yourself spelling tests
- Definition tests
- Draw diagrams of processes
- Draw images and annotate/label them with extra information
- Create fact files

How do I self quiz?

How to use...Flashcards

1. On one side of the flash card, write the word or question.
2. On the other side, write the definition for the word, or answer to the question.
3. Once you have completed your set of cards, put them in a pile. Then for each card, see if you can remember the definition or answer to the question. Tick or cross when you get it right or wrong.
4. When you get the card right, place it in the 'correct' pile. When you get it wrong, place it in the 'wrong' pile. Repeat until all cards are in the 'correct' pile.

You can also use the Leitner Method: <https://www.youtube.com/watch?v=C20EvKtdJwQ>

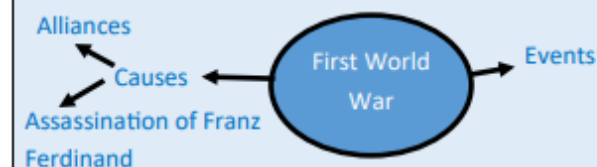
How to use... Look, Cover, Write, Check and Correct

1. Write your key words into the 'Look, Cover' column and then cover it.
2. Write out the meaning, definition or spelling in the 'Write' column.
3. Put a 'tick' or 'cross' in the 'Check' column depending on if you got the answer right.
4. If you got the answer incorrect, write the correct answer in the 'Correct' column.

Look , Cover	Write	Check	Correct
Noun	A person, place or	✓	
Algorithm	Algorithm	X	Algorithm

How to use... Mind Maps

1. Write out your topic or idea in the centre. E.g. The First World War.
2. Off of the main bubble, write out important categories to organise your ideas. E.g. causes of WWI and events in WWI
3. Then add your knowledge off of these branches. You might even be able to make connections between them.
4. Once made, then redraw as many of the connections as possible from memory. Correct any errors.



How to use... Explaining a process/ idea further

Your teacher might ask you to explain a key idea, process or event from your learning. This could be the water cycle (Geography), photosynthesis (Science) or something else. In your answer, try to use the words **because**, **but**, and **so**. These will help you to:

1. **Because:** helps to explain a reason, cause or why something works.
2. **But:** helps to explain a limitation or problem.
3. **So:** helps to explain what happens next in a sequence, process or event.

Check your sentences to see if your explanations or right or wrong. Correct any errors.

How to... Summarise a process/idea

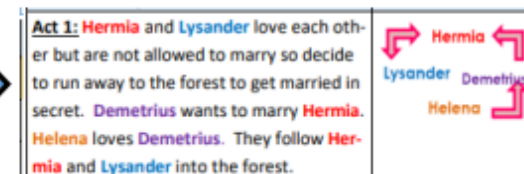
Rather than expand or explain a process, your teacher might ask you to summarise it into its key parts. E.g. summarising the plot 'A Midsummer Night's Dream' in English.

1. Read through the relevant part of your knowledge organiser as directed by your teacher.
2. Write out the (up to) 5 most important parts in your KO book, leaving a two lines in-between.
3. For each part, add **one** main idea.
4. E.g. here, the 4 key characters are picked out, and the direction of love is shown through the arrows. Check and correct any errors.

How to use... Subject Specific Tasks or Questions

Your teacher might choose to set a task that is not outlined here, and which is specific to that topic or their subject.

In this case, your teacher will outline specifically what it is you need to do, and how. This will still include you checking and correcting any errors.



Homework tasks

Week	Subject	Task
LP2.1	English	A Christmas Carol: Complete character flashcards. Exemplar question practice.
	Maths	Complete the Maths homework task set on Sparx Maths.
	Science	List 3 scalar quantities and 3 vector quantities. For each, explain how they differ in terms of magnitude and direction.
	Option W	Complete option W homework task.
	Option X	Complete option X homework task.

Week	Subject	Task
LP2.2	English	Nature Poems: Complete poem flashcards. Exemplar question practice.
	Maths	Complete the Maths homework task set on Sparx Maths.
	Science	Draw a diagram showing two forces acting on an object at right angles. Use a scale to calculate the resultant force using the parallelogram method.
	Option Y	Complete option Y homework task.
	Option Z	Complete option Z homework task.

Week	Subject	Task
LP2.RLW	ALL	<p>This week is an opportunity to work on knowledge that has been identified during lessons as key areas for development.</p> <p>This could be additional revision and recall tasks from the knowledge organisers or it could be specific tasks set by classroom teacher.</p>

Week	Subject	Task
LP2.3	English	Romeo and Juliet: Complete character flashcards. Exemplar question practice.
	Maths	Complete the Maths homework task set on Sparx Maths.
	Science	Complete a table comparing speed and velocity. Then, calculate the acceleration of a car that goes from 10 m/s to 30 m/s in 5 seconds.
	Option W	Complete option W homework task.
	Option X	Complete option X homework task.

Week	Subject	Task
LP2.4	English	Create a timeline of the plot of Romeo and Juliet, remember to include key quotations.
	Maths	Complete the Maths homework task set on Sparx Maths.
	Science	Sketch a velocity-time graph for an object that accelerates, moves at constant speed, then decelerates. Label each section and calculate the total distance travelled.
	Option Y	Complete option Y homework task.
	Option Z	Complete option Z homework task.

Week	Subject	Task
LP2.5	English	Venn diagram for Prelude and Death of a Naturalist.
	Maths	Complete the Maths homework task set on Sparx Maths.
	Science	Calculate the weight of a 60 kg person on Earth. Then, explain in 3 steps how terminal velocity is reached during a skydive.
	Option W	Complete option W homework task.
	Option X	Complete option X homework task.

Week	Subject	Task
LP2.6	English	Venn diagram for To Autumn Death of a Naturalist.
	Maths	Complete the Maths homework task set on Sparx Maths.
	Science	A 500 kg car moving at 20 m/s crashes into a wall and stops. Calculate its momentum before the crash. List 3 factors that affect braking distance.
	Option Y	Complete option Y homework task.
	Option Z	Complete option Z homework task.

Week	Subject	Task
LP2.7	English	Unseen Poetry past question.
	Maths	Complete the Maths homework task set on Sparx Maths.
	Science	Describe how fossils form. Then, explain how fossil evidence supports the theory of evolution using one example.

Options homework tasks

Subject	Task
3D Design	Explain the key features of Courtney Mattison's work, explore your own opinions, reflecting on your thoughts.
	Create a fact file about Aude Bourguine's work, explore the key features and create a spider diagram.
	Create a split tonal/colour study of a sweet in the style of one of the artists.
Art	Explain the key features of Banksy's work, explore your own opinions, reflecting on your thoughts.
	Create a fact file about Blu's work, explore the key features and create a spider diagram.
	Create a split tonal/colour study of a sweet in the style of one of the artists.
Business	Complete the knowledge check homework on Seneca.
	Complete the knowledge check homework on Seneca.
	Complete the knowledge check homework on Seneca.
Drama	Choose 5 key words from the key vocabulary for 'Devising a Performance'. Learn their spelling and definition. Then use look, cover, write, check to test yourself.
	Explain what 'EPIC STARS' stands for.
	Explain your next steps for your own devising for Component 3. What other ideas has this knowledge organiser given you to try?
Geography	Describe characteristics of the Tropical Rainforest biome.
	Describe the location of deserts around the world.
	Explain the challenges of the Desert biome.
Health and Social Care	Write a PEE paragraph explaining the impact physical activity can have on the development of PIES on a middle adult.
	Create a flow chart of how Nadia's PIES have been negatively impacted by life events.
	Look, cover, write and check four key vocabulary words.

Subject	Task
History	Explain two negatives about the Weimar Constitution.
	Explain what happened in Germany at the end of WW1.
	Explain the different ways in which the 1923 was a crisis year for the German people.
ICT	Complete the knowledge check homework on Teams/Seneca.
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Spanish	Log onto your personal Languagenut account and complete the appropriate homework task.
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Music	Using your chosen genre for the mock exam, go onto the internet and find out 5 stylistic features of this genre that will be useful to you when creating your reinterpretation.
	Using the Knowledge Organiser - create a revision card about how to use Garageband.
	Using the Knowledge Organiser and by conducting some research of your own, create a revision card about EQ and how it can be used to manipulate sound. Include a labelled diagram of EQ in your homework.
Btec Sport	Create a list of components of fitness in sport.
	Make flashcards on the components of fitness used within your sport/activity.
	Practice some of the key training tests for a sport of your choice.
Photography	Explain the key features of Lucy Shires work, explore your own opinions, reflecting on your thoughts.
	Create a fact file about Abigail Reynolds work, explore the key features and create a spider diagram.
	Describe the two photographers work and convey your opinions on which you prefer.
Religious Education	In your own words, explain the nature of justice.
	Create a mind map of Muslim attitudes toward human rights and criminals.
	Answer the question: Explain two Muslim beliefs about crime and punishment.
Hospitality and Catering	Explain what being a vegan means and suggest a three course menu option.
	Explain what being a vegetarian means and suggest a three course menu option.
	Create a fact file exploring the six main nutrients and their functions.

This Learning Programme you will be focusing on refining work by exploring ideas, selecting, and experimenting with appropriate media, materials, techniques, and processes.

1. How to refine your work.
2. How to select and explore multiple materials
3. Select key media to explore specific techniques
4. Identify successful use of materials
5. Explore multiple materials
6. Evaluate your use of processes
7. Identify successful experimentation.

KEY VOCABULARY

DEFINITION

Media	The materials used
Tone	Shades, ranging from dark to light
Shape	The outside line, joined to create a shape
Texture	Representation of how something feels
Pattern	A design in which shapes, lines and colours are repeated
Line	Basic visual element, used to create shapes
Form	Three dimensional shape, height, width, and depth
Colour	Different shades and tones
Review	An evaluation of artwork
Reflect	Think carefully and make comments



AO2

Refine work by exploring ideas, selecting and experimenting with appropriate media, materials, techniques and processes.

What does this mean?

You need to demonstrate that you are able to explore, progress and improve your ideas through a development journey of experimentation, trails, samples, working things out as you go.

Refinement means to improve. You will learn from doing something then working out how to do it better and then having another go. This may take many steps.

AO2 should be seen as an integral part of your creative journey and not a separate thing.

How does it link with AO1?

Experimenting in response to your chosen artists

How does it link with AO3?

Recording your ideas and observations as you experiment and as your ideas develop. Recording your decisions.

How does it link with AO4?

Your experimentation and refinement of ideas should lead to a skilful personal and meaningful response.

How do I show this in my work?

- Refine a dominant idea by trying various compositions
- Refined techniques in a variety of media
- Have you developed an idea and not just used your first idea?
- Clearly demonstrate purposeful trialling of materials supported by notes
- Attempts to mimic the style/technique of an artist in your own work
- Selection and rejection of ideas
- Problem solving
- Showing stages of development

Reaching for the level 8/9:

How do I show

A highly developed ability to thoughtfully refine ideas.

A highly developed ability to effectively select and purposefully experiment with appropriate media, materials, techniques and processes.

The level to which you experiment. Do you go through a number of processes refining along the way? Have you copied the artists work in a superficial way or have you really explored their technique? Have you taken risks and shown a highly developed creative journey as a result? Are your ideas unique?

Annotate your own work

- What have you produced and why?
- How does it link to the artist you have been looking at?
- Has the technique been successful and why?
- How might your work now develop?
- What have you learnt?
- What are your decisions?

Refinement is important, not just repetition

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Colour	Different shades and tones
Review	An evaluation of artwork
Reflect	Think carefully and make comments
Analyse	Examine in detail



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Refinement is important, not just repetition

Key Terms

Visual Merchandising: Visual merchandising is a marketing practice that enhances the presentation of products in retail to attract customers, create an appealing store atmosphere, and drive sales by using elements like lighting, colour, space, and product arrangement to highlight features and benefits

Breakeven - This is the point where a business's income from sales is exactly the same as its total costs. The business isn't making a profit or a loss

Profit maximisation - This means making as much profit as possible. A business does this by increasing sales, reducing costs, or both.

Market share - This is the percentage of total sales in a market that one business has. For example, if a company sells 1 out of every 4 burgers, it has a 25% market share.

Footfall - This means the number of people who enter a shop or shopping area over a certain period of time.

Impulse buys - These are products people buy suddenly without planning to

Seasonality - This means that sales of some products go up or down at certain times of the year. For example, ice cream sells more in summer than in winter.

Customer expectations - These are what customers believe they should get from a business, such as good quality products, fair prices, and friendly service.



1. The purposes of visual merchandising
2. Types of visual merchandising
3. Principles of visual merchandising
4. Adapting principles for different retail channels
5. Adapting principles for different retail types, scale and products
6. Designing visual merchandising installations.

Year 11 BTEC Performing Arts LP2 Knowledge Organiser

This Learning Programme you will be completing **Component 3**. You will be learning how to respond to a brief.

Key Vocabulary – Responding to a brief

Brief	A brief is a set of instructions given to a group to create a performance.
Stimulus	A stimulus is a starting point from which all of your ideas stem.
Research	Research is finding out information that will help you create your performance. This may be finding out ideas about a particular time period, location that the play is set.
Producing	Managing the project. This could be through communicating with companies, venues, organizing marketing and the budget.
Concept	Concepts are the general ideas for what you want your performance to look like.
Script writing	Writing the words (dialogue) that people will say in a play.
Directing	Leading a group of people to create a performance
Technical rehearsal	A run through of the performance with technical elements e.g. lighting, sounds, set, prop.
Dress-rehearsal	A run through of the performance with costume and makeup elements.

Devising a performance

Target Audience	The people that you want to ‘reach’ / ‘impact’ with your performance. The people that you are aiming your performance at.
Theme	A theme is what the play is about. It is an idea in the story that runs throughout the whole performance.
Context	The circumstances of the story. This could include what has happened before the scene, the relationships between characters, the time period, the location, the social class and the cultural influences.
Structure	The order that the story is performed in.
Story-board	A storyboard is a series of images that explain how your story will look, shot by shot. Each image appears in chronological order, with notes underneath to explain what’s happening.
Style	A theatre style is a ‘type’ of theatre. Some example of different styles are: Naturalism, Physical Theatre, Melodrama.
Stage Type	The shape of the stage and how the audience are placed in relation to the stage. The 4 main examples of stage types are ‘End On’ (audience are sat facing the stage), ‘Transverse stage’ (like a catwalk. The audience are positioned on each side of the stage), ‘Thrust Stage’ (audience surround the stage on 3 sides), ‘In the Round’ (audience fully surround the stage)
Creative Intentions	How you want your audience to feel or the mood and atmosphere you want to create at any given point throughout your performance – for instance scared, sad, excited.
Mood	The overall feeling created through the performance. Some example of moods/atmosphere are: exciting, scary, busy, calm.
Climax	The key moment that the performance builds up to. This could be a turning point or a high point of tension in the story.
Tension	A sense of anticipation or suspense – the feelings that the story is building up to something.
Symbols / Semiotics	Using something visual or a sound in a performance to suggest something to the audience. For example, a red flashing light could symbolise danger to the audience.
Resources	Resources are the physical objects you will need to put on the performance. E.g. specific props, costumes, rehearsal timetable, letters to target audience, devices for filming rehearsals

Year 10 BTEC Performing Arts LP2 Knowledge Organiser

Ways of exploring a stimulus

Improvisation	Trying out ideas on the spot without a script
Research for a secondary stimulus	Finding other stimuli e.g. newspaper articles, historical artefacts, photos, which links to the stimulus in the brief.
Solo work	Writing something to perform yourself e.g. a monologue, solo song or dance piece
Small group work	Writing something to perform in a small group e.g. a duologue
Ensemble work	Working together with your group to come up with a scenario and short script to start off your story
Drawings / photographs	Drawing out your ideas or finding photos for inspiration
Mock-ups	Create a version of your set/props/costume using what you have around you to give some inspiration for your performance
Role on the wall	Drawing an outline of a character and writing facts about them and their personality inside
Movement techniques	Try out some touch and response improvisation, round-by-through sequences or chair duets
Vocal work	Try out performing some words, phrases or sounds with your voice to create a mood and atmosphere. See if it generates any ideas.
Hot-seating	Create a character and take it in turns to ask questions to fill out the background of the character.
Mind-mapping	Write down your first thoughts about your stimulus. What ideas come to mind from the start
Explore the senses	Go through each sense – what type of tastes, smells, sights, sounds and textures does the stimulus make you think of?

Key points to help you with devising and story-telling – EPIC STARS

E	Ending	How will you end your performance? This could be with a tableau (freeze frame) or an exit from the stage
P	Plot	This is the story you are telling through your performance.
I	Issue	For a performance to be meaningful and interesting, there needs to be an issue (this could be a theme or problem)
C	Characters	These are the people in your performance. It is important you understand your character's background and personality to play them convincingly.
S	Structure	This is the order you will tell the story in. Not all performances have to be in chronological (time) order. Sometimes it is effective to put scenes in the wrong order to make a point in your performance.
T	Techniques	These are the methods you use to tell the story. For example, mime, slow motion, monologue, sound-scape. This can also mean methods you use to help you with devising. For example, hot-seating and thought tunnel.
A	Aim	This is the reason for your performance – WHY is it being performed? What is it trying to achieve? For example, it could be to educate the audience about an issue or entertain the audience and make them laugh.
R	Resolution	This is the way that your issue is resolved. Your piece may have a “happy” or “unhappy” resolution. Sometimes there is no resolution (for example, a ‘cliffhanger’ ending) however, this should only be done for a specific effect.
S	Style	A theatre style is a ‘type’ of theatre. It is HOW the piece is performance. Some example of different styles are: Realism, Physical Theatre, Melodrama, Abstract.

Contextual links: Practitioners including
Frantic Assembly <https://www.franticassembly.co.uk/>
Stanislavski <https://www.bbc.co.uk/bitesize/guides/zxn4mp3/revision/1>
Berkoff <https://www.dramacraft.net/steven-berkoff.html>
Brecht <https://www.bbc.co.uk/bitesize/guides/zwmvd2p/revision/1>

This Learning Programme you will be learning about:

The play Romeo and Juliet and how to critically engage with a text. You will also revise some key poems.



Key Vocabulary

Soliloquy	A character speaks their thoughts aloud when by themselves on the stage
Fate	the development of events outside a person's control, regarded as predetermined
Conflict	A serious disagreement or argument, which can occur between individuals, groups, or even within oneself.
Feud	a long-running argument or conflict, often involving a great deal of anger and sometimes violence, between two individuals or groups
Unrequited Love	When romantic feelings are not reciprocated by the other person
Romantic love	A deep, passionate affection for another person, often involving physical attraction and the idealisation of the other person. It is characterized by strong emotions, a desire for closeness, and the anticipation of a long-lasting relationship.

LP2.1 – Act 4

Plot knowledge:

Juliet visits the Friar and they make a plan. The Friar sends a letter to Romeo to tell him what they are going to do. Juliet takes a potion from the Friar which will make it seem like she is dead. At night, she is frightened of taking the potion but does so as she loves Romeo. The nurse finds Juliet and thinks she is dead.

1

LP 2.2 - Act 5 - Plot knowledge:

Romeo has not received the letter from the Friar as the plague meant that the messenger could not deliver it. Balthasar tells Romeo that Juliet is dead, and he decides to return to Verona to kill himself on her grave. He buys a poison and returns to Verona. He is apprehended by Paris, so Romeo kills Paris. He finds Juliet's body and drinks the poison and dies. Juliet awakes, and seeing Romeo dead, kills herself with his dagger. The families are distraught but decide to make amends as they have lost their beloved children and realise the error of their ways.

2

LP2.3

Mock exam revision.

Revision of An Inspector Calls using your 'plot organisers'

Revision of 'nature' poems

Revision of A Christmas Carol; Key Terms and ideas:

- ☐ Novella
- ☐ Ghost Story
- ☐ Redemption
- ☐ Stave
- ☐ Metaphor, simile, imagery
- ☐ Pace
- ☐ Shifts in time, place, person



3

LP2.4:

Literature Mock exam

4



LP2.5: - Literature Mock exam

5

LP2.6 and 2.7- Revision of poems studied in Year 10.

6 and 7

Vocabulary					
Stanza	Simile	Metaphor	Symbolism	Form	Assonance
Imagery	Tone	Narrative Voice	First Person	Structure	Sibilance
Interrogative	Tense	Verb	Alliteration	Repetition	Onomatopoeia



Context

Social and Historical Context

Romeo and Juliet is set in a **Patriarchal Society**. A **patriarchy** is a social system where men hold primary power and dominate society.

Women were owned by men; they belonged to their fathers and gifted to their husbands, who then owned them. A woman's purpose was to marry and bear children.

Shakespeare wrote **three types of play** – comedies, tragedies and histories. R&J is a tragedy. One of the key elements of a tragedy is a character's **Hamartia** (fatal flaw).

Suicide was considered a sin and a betrayal of God's purpose. Suicide was considered evil, and those who died by it could not be buried in consecrated ground.

Petrarchan love – a Petrarchan lover is rejected which leads to inner turmoil. In Elizabethan society, it was the role of a woman to reject a man's advances.

Elizabethans believe that **children were a gift from God**. They were given to their parents. If a child disobeyed their parents, they were seen as disobeying God which was a sin.

Courtly love was characterised by falling in love at first sight and dying for your true love. For love to be considered courtly, the man cannot eat or sleep and isolates himself; he should forget his old love when a new one comes along; the man should speak in poetry when he is in love.

Fate is defined as the development of events outside of a person's control as it is defined by supernatural forces. In Elizabethan times, it was thought that a greater force (God, the stars) had defined destiny. Fate was a central concept in Elizabethan times and it was highly respected.

Key Quotations – referred to throughout the LP

- Romeo: 'Is she a Capulet? O, dear account! My life is my foe's debt'
- Juliet: 'My only love sprung from my only hate!'
- Juliet: 'O Romeo, Romeo! Wherefore art thou Romeo?'
- Juliet: 'What's in a name? That which we call a rose by any other name would smell as sweet'
- Friar Laurence: 'Young men's love then lies not truly in their hearts, but in their eyes.'
- Juliet: 'Romeo, I come! This do I drink to thee.'
- Prince: 'For never was a story of more woe that this of Juliet and her Romeo.'

Character revision

Characters	
Montague family	Capulet family
Romeo	Juliet
Mercutio	Tybalt
Montague	Capulet
Benvolio	Nurse
Balthasar	Paris
Abraham	Sampson
	Gregory

This Learning Programme you will be learning about global biomes, with a particular emphasis on rainforests and deserts: distribution, features, challenges and opportunities.

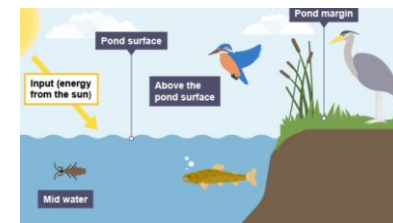
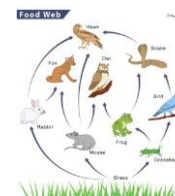
Key Vocabulary

Food chain	Linear diagram which shows how energy is transferred through an ecosystem
Biodiversity	The range of plant and animal species
Producer	Organism which creates its own energy via photosynthesis
Subsistence farming	Growing crops or raising animals to feed one's family
Deforestation	Removing trees and using the land for a different function
Logging	Cutting down trees to sell the wood
Eco tourism	Small scale tourism which hugely benefits local economies
Desertification	Degradation of the land
Appropriate technology	'Mid' level technologies which local people can afford and manage

1

Ecosystems/biomes

An **ecosystem** is a local community where living organisms (plants, animals, etc.) interact with each other and their non-living environment (like soil, water, and climate). A **biome** is a much larger-scale community, like a tropical rainforest or desert, defined by its broad climate conditions and the general types of plants and animals adapted to it. You can think of biomes as large geographical regions containing many smaller, interconnected ecosystems that share similar characteristics.

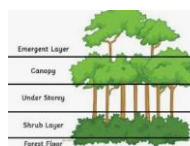


2

Tropical rainforest biome

Tropical rainforests cover about **2 per cent** of the Earth's surface yet they are home to **over half of the world's plant and animals**. A rainforest works through **interdependence**. This is where the plants and animals **depend on each other** for survival. If one component changes, there can be **serious knock-on effects** for the entire ecosystem.

The **hot, damp conditions** on the forest floor allow for the **rapid decomposition** of dead plant material. This provides plentiful nutrients that are easily absorbed by plant roots. However, as these nutrients are in high demand from the many fast-growing plants, they do not remain in the soil for long and stay close to the surface. If vegetation is removed, the soils quickly become **infertile**.



3

What are the causes of deforestation?

- **Logging:** Most widely reported cause of destruction to biodiversity; timber is harvested to create **commercial items** such as furniture and paper; **violent confrontation** between indigenous tribes and logging companies.
- **Agriculture:** Large scale 'slash and burn' of land for ranches and palm oil.; increases **carbon emission**; **river saltation** and **soil erosion** increasing due to the large areas of **exposed land**; increase in **palm oil** is making the **soil infertile**.
- **Mineral Extraction:** **Precious metals** are found in the rainforest; areas **mined** can experience **soil and water contamination**; **indigenous people** are becoming **displaced** from their land due to roads being built to transport products.
- **Road Building:** **Roads** are needed to bring supplies and **provide access** to new mining areas, settlements and energy projects; in Malaysia, logging companies use an **extensive network of roads** for heavy machinery and to transport wood

4

17

Sustainability for the Rainforest: uncontrolled and unchecked exploitation can cause irreversible damage such as loss of biodiversity, soil erosion and climate change.

Possible strategies include:

- Agro-forestry - Growing trees and crops at the same time. It prevents soil erosion and the crops benefit from the nutrients.
- Selective logging - Trees are only felled when they reach a particular height.
- Education - Ensuring those people understand the consequences of deforestation
- Afforestation - If trees are cut down, they are replaced.
- Forest reserves - Areas protected from exploitation.
- Ecotourism - tourism that promotes the environments & conservation



5

Location of deserts

Most of the world's hot deserts are found in the **subtropics** between **20 degrees and 30 degrees north & south** of the Equator. The **Tropics of Cancer and Capricorn** run through most of the world's major deserts

Features of deserts:

Aridity – hot deserts are extremely dry, with annual rainfall below **250 mm**; **heat** – hot deserts rise over **40 degrees**; **landscapes** – Some places have dunes, but most are **rocky** with **thorny bushes**.

Climate: **Very little rainfall** with less than **250 mm per year**; it might only **rain once every two to three years**; temperatures are **hot in the day** (45 °C) but are **cold at night** due to little cloud cover (5 °C).

6

Opportunities and challenges in deserts:

The Thar Desert is located on the border between India and Pakistan in Southern Asia. With India soon becoming the most populated country in the world in the next five years. With this, more people will plan to live in the desert

- Opportunities: There are valuable minerals for industries and construction. Energy resources such as coal and oil can be found in the Thar desert. Great opportunities for renewable energy such as solar power at Bhaleri. Thar desert has attracted tourists, especially during festivals.
- Challenges: The extreme heat makes it difficult to work outside for very long. High evaporation rates from irrigation canals and farmland. Water supplies are limited, creating problems for the increasing number of people moving into area. Access through the desert is tricky as roads are difficult to build and maintain

7

Desertification

Desertification means the turning of semi-arid areas (or drylands) into deserts.

Climate Change: reduced rainfall and rising temperatures have meant less water for plants.

Fuel Wood: people rely on wood for fuel. This removal of trees causes the soil to be exposed.

Overgrazing: too many animals mean plants are eaten faster than they can grow back, causing soil erosion.

Over-Cultivation: if crops are grown in the same areas too often, nutrients in the soil will be used up causing soil erosion.

Population Growth: a growing population puts pressure on the land leading to more deforestation, overgrazing and over-cultivation.

This Learning Programme you will be learning about Component 1 - The human lifespan and development. Understanding how people develop throughout the different life stages and the factors that can either progress or hinder development.

Key Vocabulary

accessed	Information or support that can be used to support individuals
Life events	An event that has significant occurrence or transition in an individual's life
Wellbeing	The state of being comfortable, healthy or happy
professional	Appropriately competent or skilled person
Standard of living	Degree of wealth, comfort available to a person or community
Social opportunities	Support, service, benefit possibilities that society offers to individuals



Year 11 Health and Social LP2 Knowledge Organiser

1

Case study: Isha

Isha is aged 34 and works in a large city as a lawyer. She lives in a shared house with other young professionals because the cost of housing in her area is very high. Her family home is 25 miles away. She has access to good public transport links and visits her family regularly. Two of Isha's housemates have recently moved out. This means the remaining tenants have to cover a larger amount of the housing costs each. This has changed Isha's standard of living because she has had to reduce her usual spending. Isha has recently met someone who works in a similar job role to her. They have now formed a romantic relationship. Although the change in her financial situation is having an impact on her social opportunities, Isha has a positive outlook about the future.

2

Case study: Nadia

Nadia is 67 years old and retired from her job as a school catering assistant seven years ago. She has a small pension from her job and was able to begin claiming her state pension this year. This has meant that her income has increased. Nadia used to go to the local board game club with her husband, who died two months ago. Since her husband's death, Nadia has not returned to the club because her self-confidence has decreased. Several friends from the club have telephoned and visited Nadia to see how she is and have offered to take her out for a day. Nadia is concerned that she will not be welcome in social situations without her husband and she has low self-esteem. She and her husband had no children, but she is fond of her nieces and nephews.

3

Life events:

These can impact any of/all of the PIES. Best way to think of how is to imagine you are the person impacted. These are also either expected or unexpected.

Expected

- Bereavement (death of a loved one)
- New relationships
- Marriage
- Parenthood
- Moving house

Unexpected

- Ill health - when someone is severely ill
- Accident or injury
- Divorce
- Exclusion

Example: Impact of lifestyle on development

Being physically active is a lifestyle factor that affects development. Regular movement or exercise helps to strengthen bodies, improves muscle tone, flexibility and bone density, improved cognitive functions and psychological (mental) health.

Factors affecting development

4

5



Factors affecting development example: Physical development

Infancy: From more being able to walk, talk or feed themselves, to learning how to do these things through development of gross and fine motor skills. Infants will first learn to roll over, then sit up, then stand, then walk. Whereas in **early adulthood**, individuals are at peak fitness, then are completely independent, have gone through puberty and in females will be in peak opportunity for reproduction.

6

Support Types

Who is around to support the person and understanding how they help.

Formal support - provided by anyone who is a paid professional. Any job that you can think of, you can use!

Informal support - This is friends, family and provided by people who are provided the care and support because they want to or feel a connection to the person, not because they have to.



7

Types of Formal support

- GP
- Social Care worker
- Dentist
- Surgeon

Types of Informal support

- Family
- Friend
- Volunteers

	What they mean?	Examples
Physical factors	Factors affecting the body physically, typically individuals are born with these, or have a major issue to cause them.	Inherited conditions - sickle cell disease, cystic fibrosis, muscular dystrophy, Marfan syndrome and Huntington's disease Experience of illness and disease Mental ill health - anxiety, stress Physical ill health - cardiovascular disease, obesity, type 2 diabetes Disabilities Sensory impairments
Lifestyle	Factors based on how individuals live their lives - what they eat	Nutrition Physical activity Smoking/vaping Substance misuse - alcohol, cannabis, opiates
Emotional	Factors affecting the feelings of an individual	Fear Anxiety/worry Upset/sadness Grief/bereavement Happiness/contentment Security attachment
Social	Factors that involved interacting with other people in any manner	Supportive and unsupportive relationships - friends, family, peers and colleagues Social inclusion and exclusion Bullying discrimination
Cultural	Factors that are influences be characteristics of individuals	Religion Gender roles and expectations Gender identity Sexual orientation Community participation Race
Environmental	Factors based around where and the condition of an individual's living conditions	Housing needs, conditions, location Home environment Exposure to pollutions - air, noise, light
Economic	Factors involving the access to money an individual has	Employment situation Financial resources - income, inheritance, savings, pension



This Learning Programme you will be learning about the condition of Germany after WW1. How Germany was governed after WW1.

Key Vocabulary

T2 Words for the world

Social	Affects society
Political	Affects government
Economic	Affects jobs, money
Interpretation	An opinion about a time in history
Convincing	Supports your knowledge more

T3 History specific words

Kaiser	Germany King
Bundesrat	Part of the German government
Ruhr	Industrial area in Germany
Abdicated	Giving up of the throne
Hyperinflation	Money loses its value
Militaristic	Pursuing an aggressive military policy

Year 11 History LP2 Knowledge Organiser

1

Kaiser Wilhelm

In 1888, Wilhelm II became the new Kaiser of Germany. A grandson of Queen Victoria, he had a dominating personality and a militaristic outlook which affected how he governed the Reich. He sacked his grandfather's Chancellor, Otto von Bismarck, who had helped create Germany. He would have preferred a dictatorship. He wanted Germany to have an empire that rivalled Britain's and a navy to protect it.



Problems the Kaiser Faced: 2

- ❖ **Growth of Parliamentary government:** The Kaiser would have preferred to rule alone but needed the Reichstag to pass legislation. Political parties such as the Social Democrats (SPD) grew.
- ❖ **Industrialisation:** This made Germany rich but also created social problems. Poor working conditions led workers to join **trade unions**, which in turn meant the government had to regulate working ages and hours, as well as introducing old age pensions and welfare reforms. Workers also turned to **socialism**.
- ❖ **Naval Laws:** The naval laws greatly increased the size of the German fleet. They allowed Germany to increase her empire, in line with **Weltpolitik**, and showed her power. However, they were unpopular with some, such as the SPD, due to the expense. The naval arms race was another factor causing WWI.



How the German Government was run under the Kaiser How the German Empire worked:

*The **Kaiser** was the Head of State

*The army swore allegiance to the Kaiser and the officers advised him.

*The **Chancellor** was the chief minister and responsible to the Kaiser,

*The **Bundesrat** was made up of representative from the 25 states and consulted with the Kaiser and the Chancellor over policies.

*The **Reichstag** was the Parliament made up of members voted for by all men, 25 and over. They passed, amended or rejected laws.



3

4

What happened to Germany at the end of WW1

At the end of the First World War, Kaiser Wilhelm II **abdicated** and the new government made peace with the allies in November 1918.

Friedrich **Ebert** became the **President**- temporarily- and set up elections for the new year. It was a time of **unrest**. Germany had been affected badly by the war:

- ***Politically**- the Kaiser had abdicated and a new Republic was set up
- ***Economically**- Germany was in debt before the war and then borrowed more to fight. The government also had to pay pensions to war widows. This was before the reparations bill!
- ***Socially**- 1.7 million men had died, leaving widows and women having to work, changing family life. It also widened the class divide.



5

What was the Treaty of Versailles?

The treaty punished Germany with harsh terms.

- T: Territory. Germany lost 13% of their land including their colonies and the Saar coalfields
- R: Reparations: Germany had to pay £6.6 billion in reparations payments
- A: Army. The German army was reduced to 100,000 men, no Airforce and 6 battleships
- W: War guilt. Germany had to accept responsibility for the war and all of the dead
- L: The League of Nations was created

6

The creation of the Weimar Constitution: A new way to rule Germany, that was the most democratic in the world

The **President** was the Head of State. He was elected every seven years and controlled the armed forces. In an emergency he could rule without the Reichstag using Article 48.

The **Chancellor** was appointed by the President from the party with most votes. He was responsible for laws, taxation and welfare. He needed a majority of the Reichstag behind him to pass laws (known as a majority).

The **Reichstag** discussed and passed laws. The MPs were elected every four years by a system called **proportional representation**.

The **electorate** voted for President and MPs. There was **universal adult suffrage** for men and women over 21.

7

However, there were three problems:



Unpopular

The new government was linked to the **November Criminals**. Other people disliked the idea of democracy

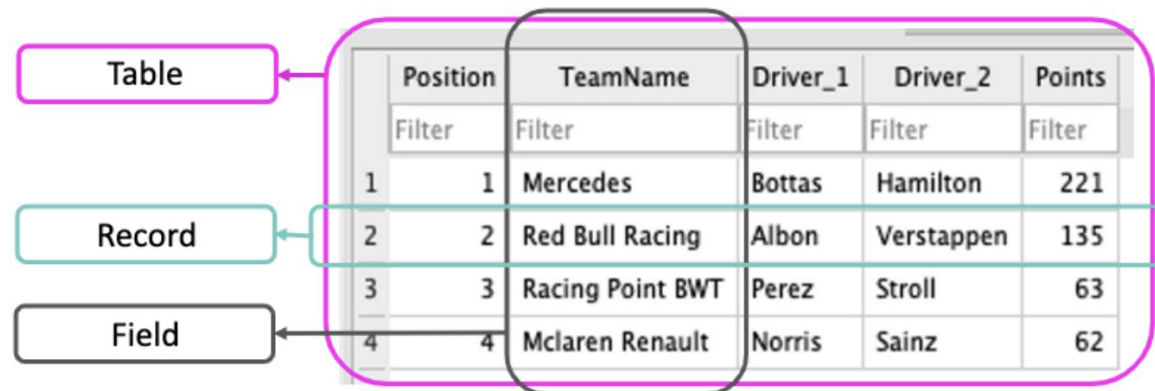


Article 48 meant the President could pass any law he chose

Proportional Representation meant the Chancellor struggled to get a majority and led to **coalitions**.

Key Vocabulary

Flat File Database	When a database has only one table and everything is stored in that one table
Relational Database	The database contains more than one table and these are linked together
Primary Key	A field which allows the user to uniquely identify a record in a table.
Foreign Key	A link to a primary key in a relational database table.
Entity	An object, e.g. a person or film. In databases, entities are the subjects whose attributes are stored as records
Query	A search or question performed inside a database.
Data Type - Text	Strings of letters or a mixture of letters and number or just numbers that do not need to be used in calculations
Data Type - Number	Numbers can include positive or negative numbers and decimal places e.g. 1, 23, 0.23
Data Type – Date/Time	Dates in many different formats or time values e.g. 12/9/2024
Data Type - Boolean	Values which are either Yes or No, True or False or On or Off e.g. Yes or Now, True or False
Data Type – Auto Number	Generates a number automatically e.g. 1,2,3,4,5
Data Type - Currency	Numbers including the symbol for monetary values e.g. £45.99



1. Controlled assessment task: client brief and success criteria
2. Controlled assessment task: planning and designing
3. Controlled assessment task: importing data and enhancing layout
4. Controlled assessment task: formatting and validation
5. Controlled assessment task: sorting and filters
6. Controlled assessment task: modify, test and evaluate

This Learning Programme you will be learning about the properties of numbers, both rational and irrational.

Key Vocabulary

inverse	The operation or function that reverses or undoes a previous operation or function.
decay	The process where a quantity decreases over time at a rate proportional to its current value, resulting in an exponential decrease.
power	The number of times a base number is multiplied by itself, represented by a small superscript number.
factor	A whole number that divides exactly into another whole number, leaving no remainder.
surd	The irrational root of a rational number.
truncate	To cut it off at a specific place value, discarding all digits after that point, and replacing them with zeros if necessary.
estimate	To find an approximate answer to a calculation or quantify a value, usually by rounding numbers to make them simpler and easier to work with, providing a rough but useful idea of the actual value.

1

$$0.7 \times 0.4$$

2 digits to the right of the decimal point

$$7 \times 4 = 28$$

$$0.7 \times 0.4 = 0.28$$

2 digits to the right of the decimal point

Increase £440 by 10%

10% of £440 = £44 (divide by 10)
Increase by 10% so add the 10% extra on to the original amount

$$£440 + £44 = £484$$

2

After a 10% increase the price of an object is £528. Calculate the original price.

Original price = 100% New price = 110%

Non Calculator Calculator (110% = 1.10)

110% = 528 Original $\times 1.10$ = New

10% = 48 ($\div 11$) New $\div 1.10$ = Original

100% = £480 ($\times 10$) 528 $\div 1.1$ = £480

Express 11 out of 20 as a percentage

Write as a fraction and then multiply/divide to make the denominator 100

$$\frac{11}{20} = \frac{55}{100} = 55\%$$

$\times 5$

3

Work out $6 \times 10^3 \times 5 \times 10^2$

$$6 \times 10^3 \times 5 \times 10^2$$

$$= 6 \times 5 \times 10^3 \times 10^2$$

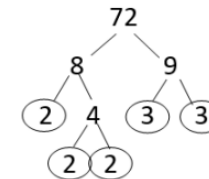
$$= 30 \times 10^5$$

$$= 3 \times 10^6$$

Make sure your answer is in standard form

$$10^a \times 10^b = 10^{a+b}$$

Express 72 as a product of prime factors



$$72 = 2 \times 2 \times 2 \times 3 \times 3$$

$$= 2^3 \times 3^2$$

4

When we work out a fraction of an amount we can

divide by the denominator
and
multiply by the numerator

$$\frac{3}{4} \text{ of 16 litres} = 12 \text{ litres}$$

Simplify $\sqrt{180}$

$$180 = 2 \times 2 \times 3 \times 3 \times 5$$

$$= 4 \times 9 \times 5$$

$$\sqrt{180} = \sqrt{4} \times \sqrt{9} \times \sqrt{5}$$

$$= 2 \times 3 \sqrt{5}$$

$$= 6\sqrt{5}$$

Rationalise the denominator $\frac{12}{\sqrt{3}}$

$$= \frac{12}{\sqrt{3}} \times \frac{\sqrt{3}}{\sqrt{3}}$$

$$= \frac{12\sqrt{3}}{3}$$

$$= 4\sqrt{3}$$

Rationalise the denominator $\frac{10}{\sqrt{2}+1}$

$$= \frac{10}{\sqrt{2}+1} \times \frac{\sqrt{2}-1}{\sqrt{2}-1}$$

$$= \frac{10\sqrt{2}-10}{1}$$

$$= 10\sqrt{2}-10$$

Denominator: $\sqrt{2}+1$ Multiply by $\frac{\sqrt{2}-1}{\sqrt{2}-1}$

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5

Simplify $\sqrt{5}(2 - 2\sqrt{5})$

$$\sqrt{5} \times 2 - \sqrt{5} \times 2 \times \sqrt{5}$$

$$2\sqrt{5} - 2\sqrt{5} \times \sqrt{5}$$

$$2\sqrt{5} - 10$$

Simplify $(\sqrt{3} - 4)(2 + 3\sqrt{3})$

$$= 2 \times \sqrt{3} - 4 \times 2 + 3\sqrt{3} \times \sqrt{3} - 4 \times 3\sqrt{3}$$

$$= 2\sqrt{3} - 8 + 9 - 12\sqrt{3}$$

$$= 1 - 10\sqrt{3}$$

6

Remember $a^{-n} = \frac{1}{a^n}$

$$3^{-1} = \frac{1}{3} \quad 3^{-2} = \frac{1}{3^2} = \frac{1}{9}$$

$$\left(\frac{2}{3}\right)^{-2} = \left(\frac{3}{2}\right)^2 = \frac{9}{4} = 2\frac{1}{4}$$

Round 68 to 1 significant figure

6 is the 1st significant figure
in the 10's column so round to the nearest 10
Answer = 70

Round 734 to 1 significant figure

7 is the 1st significant figure
in the 100's column so round to the nearest 100
Answer = 700

7

You can also use these patterns to change recurring decimals into fractions

$$0.444444444444 \dots = \frac{4}{9}$$

$$0.04444444444444 \dots = \frac{4}{90}$$

$$= \frac{2}{45}$$

The decimal has been
divided by 10
→ So divide the
fraction by 10!

Remember
to simplify!

This Learning Programme you will be learning how to talk about the environment and climate change

Key Vocabulary

Imperative	Used to give instructions
The passive	Use to say what is/was or eill be done to something or someone
Imperfect continuous tense	Used to describe what people were doing
Se debería + infinitive	You should...
Prepositional pronouns	Nouns used after a preposition and are the same as the subject pronouns apart from mí (me) and ti (you)

Year 11 Spanish LP2 Knowledge Organiser

LP2.1 – Espacios naturales maravillosos

¿A ti qué te parece?	What do you think?	cuando hace buen tiempo	when it is good weather
A mí me gusta(n) / me encanta(n) ...	I like / I love ...	durante el mes de (julio)	during the month of (July)
A mí me interesa(n) ...	I am interested in ...	El sitio más hermosa/alto del mundo está en ...	The prettiest/highest place in the world is in ...
A mí me parece(n) ...	It seems / They seem ... to me	*América Latina / España	Latin America / Spain
¿A ti qué lugar te gustaría / te interesaría visitar?	Which place would you like to visit / be interested in visiting?	el medio del mar	the middle of the sea
A mí me interesaría / me gustaría visitar ...	I would like to visit ...	la isla hermosa de ...	the beautiful island of ...
¿Por qué te gustaría/interesaría visitarlo?	Why would you like to visit / be interested in visiting it?	un lugar lleno de sorpresas	a place full of surprises
(A mí) Me gustaría visitarlo porque parece ...	I would like to visit it because it seems ...	el medioambiente	the environment
increíble/emocionante/ maravilloso/a	incredible/exciting/ marvelous	la lluvia / las nubes	rain / clouds
Hay que ir ...	You have to / One has to go ...	amenazar / atreverse a esconder / *saltar	to threaten / to dare to hide / to jump
		A/Para/Sin ...	To/For/Without ...
		mí / ti / él/ella	me / you / him/her
		nosotros/as / vosotros/as ellos/ellas	us/you (plural) them

LP2.3 – el planeta en peligro

El planeta en peligro (pages 162–163):			
¿Cuál es el problema más grave para el planeta?	What is the most serious problem for the planet?	¿Qué estabas haciendo cuando ocurrió el desastre natural?	What were you doing when the natural disaster happened?
Para mí, el problema / la cuestión más grave es ...	For me, the most serious problem/issue is ...	Estaba ayudando a mi madre.	I was helping my mother.
el hambre / la contaminación	hunger/pollution	Estaba viendo una película.	I was watching a film.
el cambio climático	climate change	Mi amiga y yo estábamos paseando a su perro.	My friend and I were walking her dog.
la falta de agua/comida	the lack of water/food	Mis amigos y yo estábamos jugando un partido de fútbol.	My friends and I were playing a football match.
porque me parece que ...	because it seems to me that ...	Estaban escuchando un *pódcast.	They were listening to a podcast.
afecta a nuestro planeta / nuestra salud	it affects our planet / our health	Los cultivos fueron afectados.	The crops were affected.
hay personas que no tienen *acceso a comida	there are people who don't have access to food		
no se puede vivir sin agua limpia	you/one can't live without clean water		

LP2.2 – Actúa ya

¡Respeto la igualdad!	Respect equality!
¡Exige medidas fuertes contra los delitos!	Demand strong measures against crime!
¡Lucha por la libertad de expresión!	Fight for freedom of expression!
¿Qué haces para ayudar ... ? en tu comunidad / la sociedad	What do you do to help ...? in your community / society
Para ayudar en mi comunidad / la sociedad,	To help in my community / society,
compro ...	I buy ...
ropa de segunda mano	secondhand clothes
productos de comercio justo	fairtrade products
ayudo/participo en proyectos sociales	I help/participate in social projects
doy/llevo comida a los bancos de alimentos	I give/take food to food banks
hago campañas para apoyar a las personas sin hogar /trabajo	I do campaigns to support homeless people / unemployed people
Es importante hacerlo porque ...	It is important to do it because ...
vale la pena apoyar buenas causas	it is worth supporting good causes
hace falta ayudar / ser responsable	it is necessary to help / be responsible
todos merecemos tener las mismas oportunidades	we all deserve to have the same opportunities
¿Qué hiciste en el pasado para ayudar a otras personas?	What did you do in the past to help other people?
El mes/año/verano pasado ...	Last month/year/summer ...
di dinero a ...	I gave money to ...
organicé / compré / hice ...	I organised / I bought / I did/ made ...
ayudé en un hogar de ancianos	I helped in a care home
¿Qué más te gustaría hacer en el futuro?	What else would you like to do in the future?
El próximo verano/año ...	Next summer/year ...
haré/daré ...	I will do/make / I will give ...
ayudaré / participaré en ... un proyecto / una campaña	I will help / participate in ... a project / a campaign
me gustaría ...	I would like to ...
ayudar / participar en ...	help / participate in ...
dar/recoger ropa	give/collect clothes

LP2.4 – protegemos el planeta

Protegemos el planeta (pages 164–165):

¿Qué haces para cuidar el medioambiente en casa?
Para ayudar al medioambiente, en casa ...

What do you do to look after the environment at home?
To help the environment, at home ...

no uso bolsas/botellas de plástico
trato de / intento controlar el uso de ...

I don't use plastic bags/bottles
I try to control the use of ...

viajo en ...
reciclo/separo la basura
utilizo botellas de **vidrio**

I travel by ...
I recycle/separate the rubbish
I use glass bottles

¿Y en tu colegio? ¿Qué cosas hacéis para ayudar?

What about at your school?
What do you do to help?

Para ayudar al medioambiente en el colegio ...

To help the environment, at school ...

se sigue la regla de 'las tres erres'

the 'three Rs' rule is followed

se recicla el papel/**vidrio**

paper/glass is recycled

se ahorra energía/agua

energy/water is saved

se organizan/hacen **campañas** de *reciclaje ...

recycling campaigns are organised/done ...

se mantienen limpias las zonas verdes

green spaces are kept clean

la comida se recicla, no se tira

food is recycled, it isn't thrown away

se usa para crear *compost para el jardín

it is used to create compost for the garden

se apagan los ordenadores, las pantallas y las luces

computers, screens and lights are switched off

¿Qué hiciste en el pasado para ayudar?

What did you do in the past to help?

El mes/año/verano pasado ...

Last month/year/summer ...

EL fin de semana pasado ...

Last weekend ...

aprendí/ayudé a ...

I learned/helped to ...

hice ...

I did/made ...

ahorré/organicé ...

I saved/organised ...

participé en ...

I participated in ...

viajé en ...

I travelled by ...

¿Qué más te gustaría hacer para ayudar?

What else would you like to do to help?

EL verano/año próximo ...

Next summer/year ...

me gustaría ...

I would like ...

ayudar a los animales en peligro

to help animals at risk

reciclar la ropa

to recycle clothes

organizar un mercado para comprar/vender ropa y objetos de segunda mano

to organise a market to buy/sell secondhand clothes and objects

aprender a **arreglar** portátiles/ropa

to learn to fix laptops/clothes

organizar **campañas**

to organise campaigns

No solo es malo para la salud **sino** también para el planeta.

It's not only bad for your health but also for the planet.

Year 11 Spanish LP2 Knowledge Organiser

LP2.5 – Nuestro mundo, nuestra responsabilidad

¿Qué problema(s) te preocupa(n) más?

Which problem(s) worry/worries you the most?

(A mí) me preocupa(n) ...

I worry about ...

la discriminación

discrimination

la contaminación de los bosques/mares

pollution of forests/seas

la violencia contra ...

violence against ...

las mujeres

women

las personas transgénero

transgender people

la falta de agua

lack of water

debido a que ...

due to (the fact that) ...

muchos animales ...

many / lots of animals ...

muchas personas ...

many / lots of people ...

no tienen suficiente comida

don't have enough food

son afectados/as

are affected

sufren

suffer

¿Qué acción quieres ver?

What action do you want to see?

Quiero/Espero que ...

I want/hope (that) ...

Recomiendo que ...

I recommend (that) ...

Odio que ...

I hate that ...

Me pone triste que ...

It makes me sad that ...

el gobierno ...

government ...

la gente/sociedad

people/society

la juventud

youth / young people

haga acciones positivas ...

do(es) positive actions

haga campañas contra ...

do(es) campaigns against

sea responsable

is/are responsible

tenga cuidado con ...

is/are careful with ...

vaya a manifestaciones

go(es) to demonstrations

contra ...

against ...

no **haga** acciones positivas

do(es) not do positive actions

no **haga campañas**

do(es) not do campaigns

no **sea** responsable

is/are not responsible

no **tenga** cuidado con ...

is/are not careful with ...

hacer un esfuerzo

to make an effort

proteger/cuidar

to protect / to look after

preocupar(se)

to worry

tener cuidado

to be careful

parar / recoger

to stop / to pick up

el camino

route/path

el comentario

comment

LP2.6 – el future está en nuestras manos

El futuro está en nuestras manos (pages 168–169):

Jóvenes en acción

Young people in action

Se debería ayudar a resolver los problemas sociales.

You/One should help to solve social problems.

¿Quién es tu modelo a seguir favorito?

Who is your favourite role model?

Mi modelo a seguir favorito es ...

My favourite role model is ...

porque ...

because ...

usa su *popularidad en TikTok para ...

he/she uses his/her popularity on TikTok to ...

ayuda a mucha gente

he/she helps a lot of people

¿Te gustaría hacer trabajo *voluntario? ¿Por qué (no)?

Would you like to do volunteer work? Why (not)?

(No) Me gustaría hacer ...

I would (not) like to do ...

Creo que es importante ayudar / participar en ...

I think it is important to help / participate in ...

Para ser un buen *voluntario, se debería ayudar a resolver ...

To be a good volunteer, you/one should help to solve ...

Yo pienso que se debería hacer todo lo posible ...

I think that you/one should do everything ...

Yo estoy de acuerdo con sus acciones porque ...

I agree with his/her actions because ...

(no) se debería

you/one should (not)

gracias a / **igual** que

thanks to / the same as

el/la **protagonista**

protagonist, main character

prestar

to lend

dar **cariño** a

to give affection to

haz/pon/sal

do/put/go out

sé/ten/ve/ven/di

be/have/go/come/tell

LP2.7 – Revision of the vocabulary from the whole LP

This Learning Programme you will be learning about the expectations and skills for Component 3 and sitting a mock simulation of the exam.

Key Vocabulary

Context	Information about something.
Brief	A set of instructions.
Cover	Re-creating a song in a different style.
Reinterpretation	Re-creating a song in a different style.
Melody	The main tune of the music.
Harmony	Two or more sounds working together to create a pleasing sound.
Structure	How the music is organised/laid out.
Texture	How many sounds there are present.
Timbre	Describing the qualities of a sound.
Dynamics	How loud or soft a sound is.

What is a brief?

A brief is a written document that provides a scenario and instructions to find or create a product for a target audience. It gives a brief overview of the background and objectives.

Target audience

This is a group of people identified as likely customers. People in the target audience share similarities such as age or location. This makes it easier to target your product.

Activity 1 - Responding to a brief

- ☐ Investigate the musical styles in the brief
- ☐ Carry out **research** of relevant material eg listen to **cover versions**, find **sheet music**
- ☐ What **resources** are required?
- ☐ What **changes** will you make?
- ☐ **Timeline** of development

Activity 2 - Applying musical skills

Organisation Skills

- Identify priorities - what will you do and when?
- Set targets - what do you need to do each lesson? How will you monitor this?
- Use of technology - do you need to use Garageband?

Preparing for the project

- Health and Safety - correct and safe use of equipment, manual handling
- Checking resources and facilities - what instruments are available? Do you need sheet music and/or lyrics?
- Plan for alternatives - have a back up plan in case things go wrong

Consider the constraints

- Ensure you are working within the aims of the brief - keep in mind your target audience, the finished product and the deadline
- Use suitable materials and techniques
- Address any quality issues

Activity 3 – Reflecting on Your Practice

- Reflect on your creative decisions during the creative process
- Reflect on your use of the musical elements
- Remember to reflect on how and why you did things

Creating A Reinterpretation

2

- **Start by researching the stylistic features of your chosen genre and understanding them**
- **Know the original song well – listen to it alongside your chords/music**
- **Gather and split your stems**
- **Put the chord progression into your DAW**
- **Add the bass line (use a stem if you can)**
- **Remember to include the melody line – you should perform this if you can so you will need to learn it!**
- **Make sure your whole track is in time and balanced**

During LP2, we will be completing a mock run of the Component 3 paper to give you an idea of what to expect when we do this in the real exam in January.

For this it is important that you prepare by:

- Revising the stylistic features of as many genres as you can and outside of the time continue to do this for your chosen genre
- Look at pre-existing re-interpretations of songs and see what has been changed
- Practice gathering chords/bass tabs/sheet music etc
- Know Garageband and its features well
- Know the musical elements and their definitions to use these words in Activity 1 and 3.

3

PIANO BASIC CHORD CHART



C MAJOR



C# MAJOR



D MAJOR



E FLAT MAJOR



E MAJOR



F MAJOR



F# MAJOR

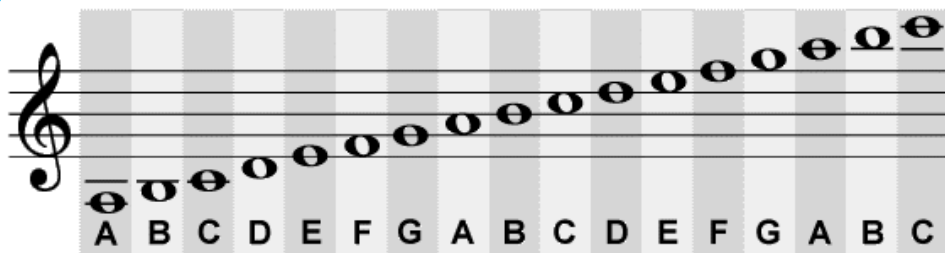


G MAJOR

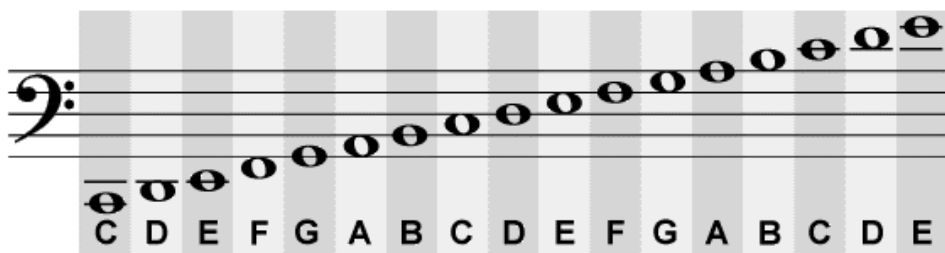


A FLAT MAJOR

5 Treble Clef



Bass Clef



Showing & Hiding Various Functions

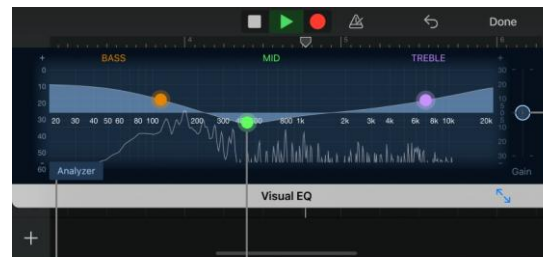
Action	Shortcut
Automation	A
Smart Controls Window	B
Score Editor	N
Loop Browser	O
Piano Roll Editor	P
Library	Y
QuickHelp	Shift+/ (backslash)
Full Screen	Command+Control+F
Musical Typing	Command+K
Master Track	Command+Shift+M

Tricks with Tracks

Action	Shortcut
Create new track	Command+Option+N
Create new real audio track	Command+Option+A
Delete selected track	Command+Delete
Mute toggle for selected track	M
Solo toggle for selected trackS	

These are some handy keyboard shortcuts for Garageband. They will help you to access certain features quickly or do things in a more efficient way to save time.

HANDY HINT – to see more features in action, there are many helpful tutorials about iMac Garageband on Youtube to view.



Tap to view frequency curve.

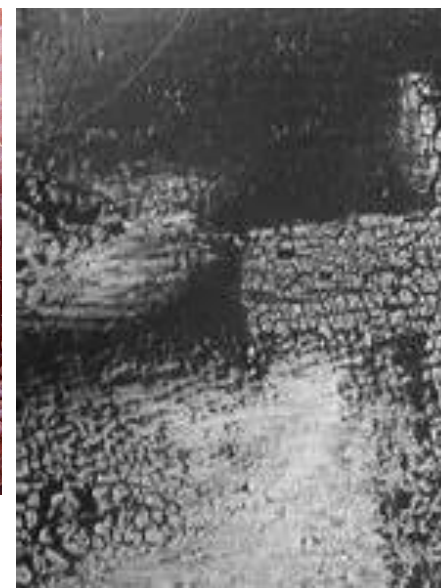
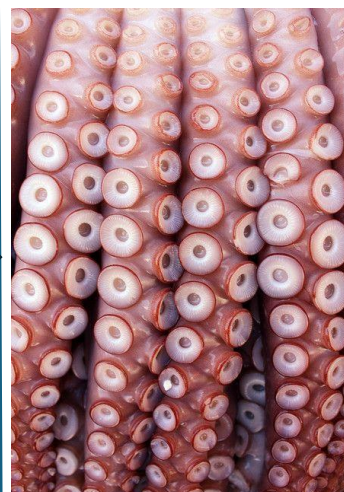
Drag to adjust an EQ band.

Drag to adjust overall gain.

EQ is a really good way of manipulating stems in garageband to make them sound different. It is important to know however what each part of EQ does
 HIGH PASS – cuts out the higher frequencies
 LOW PASS – cuts out the lower frequencies
 (REMEMBER PULLING UP INCREASES, PULLING DOWN DECREASES!)

This Learning Programme you will be focusing on refining work by exploring ideas, selecting, and experimenting with appropriate media, materials, techniques, and processes.

1. How to refine your work.
2. How to select and explore multiple materials
3. Select key media to explore specific techniques
4. Identify successful use of materials
5. Explore multiple materials
6. Evaluate your use of processes
7. Identify successful experimentation.



Key Vocabulary	Definition
Depth of field	Refers to the distance between the nearest and farthest objects that appear acceptably sharp in an image.
Leading lines	Leading lines in photography are compositional elements that guide the viewer's eye through an image, directing attention to the main subject
Composition	Composition in photography refers to the position of elements inside the frame and how they interact with each other.
Zoom	How close or far away the main feature of the photograph is
Focus	How clear/blurry the main feature of the photograph is
Rule of thirds	The Rule of Thirds is a type of off-center composition where important elements of a photograph are placed along a 3×3 grid, which equally divides the image into nine parts.

AO2 Refine work by exploring ideas, selecting and experimenting with appropriate media, materials, techniques and processes.

What does this mean?

You need to demonstrate that you are able to explore, progress and improve your ideas through a development journey of experimentation, trails, samples, working things out as you go.

Refinement means to improve. You will learn from doing something then working out how to do it better and then having another go. This may take many steps.

AO2 should be seen as an integral part of your creative journey and not a separate thing.

How does it link with AO1?

Experimenting in response to your chosen artists

How does it link with AO3?

Recording your ideas and observations as you experiment and as your ideas develop. Recording your decisions.

How does it link with AO4?

Your experimentation and refinement of ideas should lead to a skilful personal and meaningful response.

How do I show this in my work?

- Refine a dominant idea by trying various compositions
- Refined techniques in a variety of media
- Have you developed an idea and not just used your first idea?
- Clearly demonstrate purposeful trialling of materials supported by notes
- Attempts to mimic the style/technique of an artist in your own work
- Selection and rejection of ideas
- Problem solving
- Showing stages of development

Reaching for the level 8/9:

How do I show

A highly developed ability to thoughtfully refine ideas.

A highly developed ability to effectively select and purposefully experiment with appropriate media, materials, techniques and processes.

The level to which you experiment. Do you go through a number of processes refining along the way? Have you copied the artists work in a superficial way or have you really explored their technique? Have you taken risks and shown a highly developed creative journey as a result? Are your ideas unique?

Annotate your own work

- What have you produced and why?
- How does it link to the artist you have been looking at?
- Has the technique been successful and why?
- How might your work now develop?
- What have you learnt?
- What are your decisions?

Refinement is important, not just repetition

This Learning Programme you will be learning about issues relating to crime and punishment, focusing upon Muslim views. We are considering issues such as the aims of punishment, capital punishment, and the ways in which Muslims may respond.

Key Vocabulary

Justice	Fairness; system of laws in a country that apply to all people.
Ummah	Worldwide community of Muslims.
Equality	The state of people being treated with fairness.
Fard	Muslim duty required by Islamic law.
Fitrah	Natural inclination.
Halal	That which is permitted (allowable).
Haram	Forbidden actions.
Mandub	Actions that will be rewarded.
Mubah	Neutral actions – allowed but not punished/rewarded.
Capital Punishment	Being put to death for a crime that you have committed – the death penalty.

The Nature of Justice

Justice means rewarding the good and punishing the bad, making sure that what is right is what happens in society. The way to make sure there is justice in society is to have laws which organise the behaviour of individuals and to protect the weak from the strong.

Why is Justice important for Muslims?

The Qur'an describes God as just. As God himself is just, then justice must be of the highest importance for Muslims. The Qur'an says that God wants people to treat each other fairly and to establish Justice **Surah 16:90** – *God commands justice,, the doing of good... and He forbids all shameful deeds and injustice.* The Prophet is shown as acting justly and telling Muslims to treat everyone justly and equally. Muslims believe it is part of their role as **vicegerents** (stewards) of God's creative to behave justly by following the Shari'ah Law. Islamic teaching on the Last Day is concerned with the need for the good to be rewarded and the evil to be punished.

Why Muslims believe Justice is important for the victim

Islam teaches that justice should always be given as the victim is totally innocent. The Qur'an teaches that the victims of crime should be compensated. The fact that God commands Muslims to be just means that the unjust must be punished so that their victims are given justice.

The Nature of Crime

A crime is an act against the law. In the UK, laws are made either by Parliament or by judges. Types of crime include:

- **Violent Crime** – Ranges from minor assaults to murder.
- **Cyber Crime** – which is a crime committed using the internet and involves such crimes as hacking people's bank accounts to steal money from them.

Causes of Crime

Poverty – Many people convicted of shoplifting were stealing it to feed themselves or their families.

Upbringing – In a survey from 2011, 24% of people stated they had been in car at some point. 29% of prisoners had experienced abuse.

Drugs – Some research studies have found that a lot of **acquisitive crimes** (crimes where the criminal wants to acquire someone else's property, is committed by users of heroin and crack cocaine).

Low Self Esteem – Criminals in prison for drug offences and those with extensive criminal histories were found to have significantly lower self-esteem than the average person.

Muslims Attitudes to Crime

Muslims are against crime because misdeeds are breaking the laws of God. They try to remove the cause of criminality and alleviate the problems of crime:

Poverty - Islam tries to deal with the issue of poverty by banning the use of interest and gambling and encouraging other Muslims to share their wealth. They also use Zakah to help poor Muslims in the UK and support charities such as Muslim Aid and Islamic Relief

Upbringing – Muslims help people to fulfil their duties as Muslim parents. Islam teaches that children are a gift from God and that, on the Last Day, Muslims will be judged by God on how well they have brought up their children. Muslims are expected to teach the difference between right and wrong, introduce them to faith through Salah (prayer) and observe Ramadan.

Alcohol and Drugs – These are haram (not allowed) in Islam so shouldn't be an issue. The Qur'an says that intoxicants are a means by which Satan tries to keep people God.

Self-Esteem – Islam's teachings should mean that no Muslim has problems with Self-Esteem. To know that you are the **Khalifah** of God, given the task of looking after the world in the way God wants, should mean never having a problem with low self-esteem.

Muslims Attitudes to good, evil and suffering

In Islam, good actions are known as 'halal', meaning 'that which is permitted'. Good actions are subdivided into:

Fard – Actions which must be performed for a person to be regarded as good. These include observing the Five Pillars and obeying the laws of the Shari'ah. Performing these actions will be rewarded and not performing them will be punished.

Mandub – Actions which a Muslim will be rewarded for doing, but not punished if they do not do them

Mubah – Actions which are permitted because nothing is said about them in the Qur'an or the hadith, for example watching television. These actions will neither be rewarded nor punished.

Evil actions are called 'haram', meaning 'that which is forbidden'. Any action that is forbidden in the Qur'an, hadith or Shari'ah law (such as alcohol, gambling) is haram and so is regarded as evil. Evil is often divided into **moral** and **natural** evil:

Moral – Evil that is caused by humans misusing their free will. E.g. rape, murder and burglary are clear examples

Natural – Suffering that has not been caused by humans. E.g. earthquakes, floods and volcanoes are not caused by humans but result in suffering.

Muslim beliefs about forgiveness

The Qur'an teaches that God is compassionate and merciful to sinners.

Surah 64:14 - *But if ye forgive and overlook and cover up their faults, verily God is Off-forgiving. Most Merciful.*

Because of this, Muslims believe that they too should be forgiving because:

- On the Day of Judgement, God will deal with everyone as they deserve, but Muslims will be able to request his mercy. However, how can Muslims ask God for forgiveness if they are not prepared to forgive?

- The Qur'an says that Muslims should forgive other people's sins against them and Muslims should obey the Qur'an as they believe it is the word of God.

- There are many hadith from the Prophet Muhammad about forgiving people who have offended others and bringing reconciliation to conflicts.

3

The aims of punishment

The main aim of punishment is to try to make sure that everyone obeys the law, but there are some other aims:

- To protect law-abiding members of society from the lawbreakers
- The deter law-abiding citizens from committing crimes
- To reform and rehabilitate criminals so that they do not break the law in the future
- To make criminals pay for their actions and give the victims of crime a sense of retribution

Muslim attitudes to the aims of punishment

Muslims agree with all four aims of punishment because:

- The Qur'an sets down lashes or amputation for certain crimes and the Qur'an is the Word of God which must be followed.
- Whipping and amputation allow the offender to remain in society with their families where, it is believed, they are less likely to reoffend than those who have been sent to prison.

4

Retribution

Retribution is the theory that criminals should pay for their crimes. Many people think this should be the main reason for punishment because:

- It makes criminals pay for their crimes in proportion to the severity of the crimes they have committed.
- It makes criminals suffer for what they have done wrong. Criminals make their victims suffer, so the criminals should also suffer
- It actually punishes the criminal. The dictionary definition of punish is to 'make an offender suffer for what they have done', and this is exactly what retribution does.

Deterrence

Deterrence is the theory that punishment should put people off committing crime. Many people think that deterrence should be the main reason for punishment because the main aim of punishment is to stop people from committing crimes. The idea of deterrent punishment is that punishment should be so severe that no one will dare commit crimes.

- If someone knows they will have their hand cut off if they are caught stealing, then they will not steal
- If people know that they will be executed if they are found guilty, they will not murder.

Reformation

Reformation is the theory that criminals should be taught not to commit crimes again.

- Many people believe that the only way to stop crime is to reform the criminals so that they will become honest law-abiding citizens who will not want to commit crimes again
- Many people believe that most criminals commit crimes because of how they have been brought up and need to be taught how to live a life without crime.
- Reformation punishment often involve giving criminals education and qualifications so that they can find a job

Protection

Protection is the theory that punishment should protect society from criminals and their activities. Many people think:

- Capital punishment is a good punishment for murderers and terrorists because they are dead and cannot threaten people
- Long prison sentences are a good punishment for people as they keep them out of society
- Community service can be a good punishment for hooligans and vandals because it keeps them off the streets

5

**Treatment of Criminals
Human Rights**

The Universal Declaration of Human Rights was proclaimed by the United Nations in 1948. It set out fundamental human rights to be universally protected which all members of the United Nations agreed to. These rights include:

- Freedom from torture and degrading treatment
- The right to liberty - people are free to do anything that is not against the law
- The right to a fair trial - trials are made in public and judgements are made by impartial people
- The right to not be punished for something that was not a crime when you did it
- Freedom of thought, conscience and religion

Muslim attitudes to the treatment of criminals

1. Some Muslims believe that criminals should be treated fairly and that punishments should aim at both reforming criminals and bringing in restorative justice. Both the Muslim Prison Chaplains' Association and Muslim Aid work with Muslim prisoners to achieve these ends.
2. Muslim countries with Shari'ah justice systems have a somewhat different attitude as they believe that criminals should be punishment according to the ***hadd punishments*** set out in the Qur'an.

Islam and the use of torture

All Muslims are opposed to the use of torture. However, some non-Muslims interpret the Shari'ah punishments such as flogging, stoning or amputation as torture. Some Muslims would say that it is permitted to torture criminals who are hiding a secret which will harm innocent people. Most Muslims believe that the Qur'anic verse: ***and they feed, for the love of Allah, the indigent, the orphan and the captive' Surah 76:8***, means that Muslims have been ordered by God to treat captives fairly and humanely.

Islam and Fair Trial

Muslim countries adopting the Western-type legal systems operate a jury where 12 ordinary members of the public decide whether the accused is guilty. However, Muslim countries operating the Shari'ah legal systems do not use a jury. Crimes against God's law are prosecuted as ***hadd*** crimes and all other criminal matters are treated as disputes between individuals.

Islam and Human Rights

Muslims have some problems with the United Nations Declaration of Human Rights, especially around the areas of gay rights, sex outside of marriage and freedom of speech and religion. As a result, Muslim countries signed an alternative agreement which stated that ***'all men are equal in terms of basic human dignity and basic obligations and responsibilities'***. In Muslim countries, there are often no gay rights and no equal rights for women.

6

The Nature of Purpose of Capital Punishment

Capital Punishment is punishment which takes away the criminals life. There are several methods of Capital Punishment still in use around the world, such as lethal injection, electrocution, hanging, firing squad, stoning and decapitation (cutting off someone's head).

102 countries around the world have abolished the death penalty for all crimes and was abolished in the UK in 1970. Seven have abolished it but retain it for special circumstances. The USA, Japan and Singapore are the only countries to retain it. These countries believe that it's purpose is to deter people from committing murder, to protect society from dangerous people and to act as retribution for those who have taken a life.

7

Most Muslims agree with Capital Punishment because...

- It is a punishment set down by God in the Qur'an and Muslims believe the Qur'an is the Word of God
- Muhammad made several statements agreeing with capital punishment and Muhammad is the seal of the prophets whose words should be obeyed

Some Muslims do not agree with Capital Punishment because...

- They feel that Capital Punishment is recommended by the Qur'an, but not compulsory
- They feel that since Capital Punishment does not reduce crimes and since there is a possibility of the wrong person being convicted and then executed, capital punishment is not justice and so is banned by Suah 6:151

This LP students study key concepts in physics and biology, including forces, motion, magnetism, evolution, fossils, and antibiotic resistance. They interpret graphs, calculate momentum, and explore real-world applications. Literacy tasks and mock exams develop scientific communication, focusing on applying knowledge and building strong foundations for future science learning.

Key Vocabulary

Vector	A vector is a quantity with both magnitude and direction.
Acceleration	Acceleration is the rate of change of velocity over time.
Terminal	Terminal velocity is the constant speed when forces on an object balance.
Mass	Mass is the amount of matter in an object.
Force	Force is a push or pull that can change motion.
Currents	Current is the flow of electric charge through a conductor
Extinction	Extinction is the permanent disappearance of a species from Earth.
Scalar	Scalar is a quantity that has magnitude but no direction.
Displacement	Displacement is the straight-line distance and direction from start to finish.
Momentum	Momentum is the quantity of motion, calculated as mass times velocity.

Scalars and vectors

Scalar quantities only have a magnitude (e.g., distance and speed).

Vector quantities have a magnitude *and* a direction (e.g., velocity and displacement).

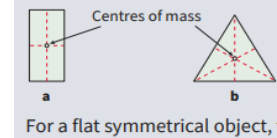
Resultant forces

If two or more forces act on an object along the same line, their effect is the same as if they were replaced with a single **resultant force**. The resultant force is

- the sum of the magnitudes of the forces if they act in the same direction
- the difference between the magnitudes of the forces if they act in opposite directions.

If the resultant force on an object is zero, the forces are said to be **balanced**.

Centre of mass

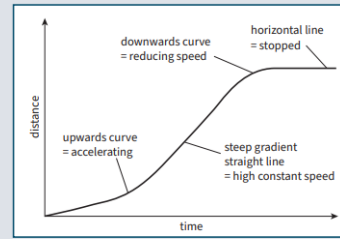


The point through which the weight of an object can be considered to act.

For a flat irregularly shaped object, find the centre of mass by suspending the object from different points. The centre of mass always lies beneath the point of suspension.

Distance-time graphs

A distance-time graph shows how the distance travelled by an object travelling in a straight line changes with time.

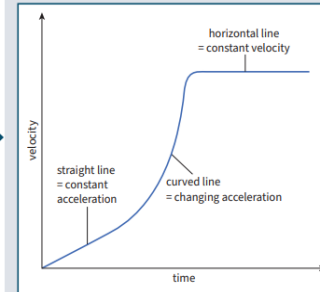


The gradient of the line in a distance-time graph is equal to the object's speed.

If the object is accelerating, the speed at any time can be found by calculating the gradient of a tangent to the curved line at that time.

Velocity-time graphs

A velocity-time graph shows how the velocity of an object changes with time.



The gradient of the line in a velocity-time graph is equal to the object's acceleration.

Acceleration

Acceleration is the change in velocity of an object per second. It is a vector quantity.

The unit of acceleration is metres per second squared, m/s^2 .

An object is accelerating if its speed or its direction (or both) are changing. A negative acceleration means an object is slowing down, and is called **deceleration**.

Acceleration can be calculated using:

$$\text{acceleration (m/s}^2\text{)} = \frac{\text{change in velocity (m/s)}}{\text{time taken (s)}}$$

$$a = \frac{\Delta v}{t}$$

Force and acceleration

If the velocity of an object changes it must be acted on by a **resultant force**. The acceleration is always in the same direction as the resultant force.

Newton's Second Law says that the acceleration a of an object:

- is proportional to the resultant force on the object
 $a \propto F$
- is inversely proportional to the mass of the object
 $a \propto \frac{1}{m}$

Resultant force, mass and acceleration are linked by the equation:

Resultant force, mass and acceleration are linked by the equation:

$$\text{resultant force (N)} = \text{mass (kg)} \times \text{acceleration (m/s}^2\text{)}$$

$$F = ma$$

The **inertial mass** of an object is a measure of how difficult it is to change the velocity of an object. It can be found using:

$$\text{inertial mass (kg)} = \frac{\text{force (N)}}{\text{acceleration (m/s}^2\text{)}}$$

$$m = \frac{F}{a}$$

Gravity

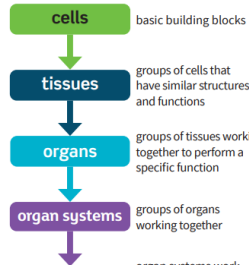
The force of **gravity** close to the Earth is due to the planet's **gravitational field strength**. Weight is the force acting on an object due to gravity.

- The weight of an object
- can be considered to act at the object's **centre of mass**
- can be measured using a calibrated spring-balance (newtonmeter).

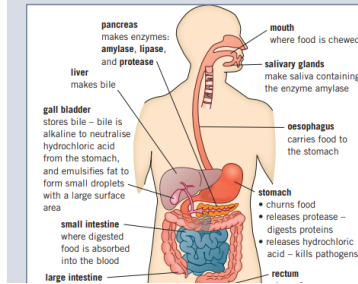
$$\text{weight (N)} = \text{mass (kg)} \times \text{gravitational field strength (N/kg)}$$

$$W = mg$$

There are five **levels of organisation** in living organisms:



Digestive system



Digestive enzymes

Digestive enzymes convert food into small, soluble molecules that can then be absorbed into the bloodstream. For example, **carbohydrases** break down carbohydrates into simple sugars.

Enzyme	Sites of production	Reaction catalysed
amylase	salivary glands pancreas small intestine	starch → glucose
proteases	stomach pancreas small intestine	proteins → amino acids
lipases	pancreas small intestine	lipids → fatty acids and glycerol

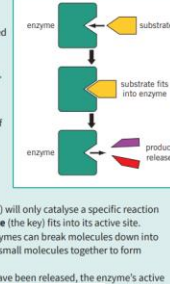
Enzymes

Enzymes are large proteins that **catalyse** (speed up) reactions. Enzymes are not changed in the reactions they catalyse.

Lock and key theory

This is a simple model of how enzymes work:

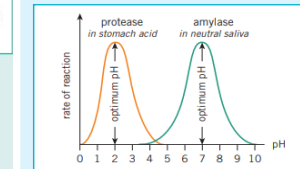
- The enzyme's **active site** (where the reaction occurs) is a specific shape.
- The enzyme (the lock) will only catalyse a specific reaction because the **substrate** (the key) fits into its active site.
- At the active site, enzymes can break molecules down into smaller ones or bind small molecules together to form larger ones.
- When the products have been released, the enzyme's active site is ready to catalyse another reaction.



The effect of pH on enzymes

Different enzymes have different **optimum pH** values.

This allows enzymes to be adapted to work well in environments with different pH values. For example, parts of the digestive system greatly differ in pH.

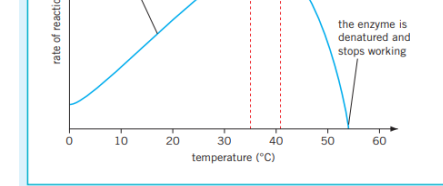


The effect of temperature on enzymes

as the temperature increases, the rate of reaction increases because enzyme and substrate molecules move around faster and collide more frequently

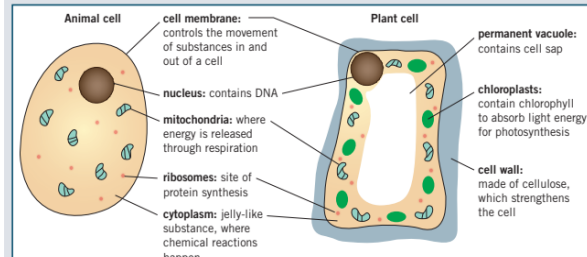
optimum temperature – this is when the reaction works as fast as possible

the enzyme is denatured and stops working



Eukaryotic cells

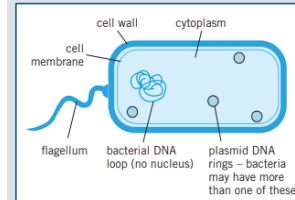
Animal and plant cells are eukaryotic. They have genetic material (DNA) that forms **chromosomes** and is contained in a **nucleus**.



Prokaryotic cells

Bacteria have the following characteristics:

- single-celled
- no nucleus – have a single loop of DNA
- have small rings of DNA called **plasmids**
- smaller than eukaryotic cells.



Microscopes

Light microscope	Electron microscope
uses light to form images	uses a beam of electrons to form images
living samples can be viewed	samples cannot be living
relatively cheap	expensive
low magnification	high magnification
low resolution	high resolution

Electron microscopes allow you to see sub-cellular structures, such as ribosomes, that are too small to be seen with a light microscope.

To calculate the **magnification** of an image:

$$\text{magnification} = \frac{\text{image size}}{\text{actual size}}$$

Comparing diffusion, osmosis, and active transport

Diffusion	Osmosis	Active transport
Definition The spreading out of particles, resulting in a net movement from an area of higher concentration to an area of lower concentration. Factors which affect the rate of diffusion: difference in concentration, temperature, and surface area of the membrane.	Definition The diffusion of water from a dilute solution to a concentrated solution through a partially permeable membrane .	Definition The movement of particles from a more dilute solution to a more concentrated solution using energy from respiration.
Movement of particles Particles move down the concentration gradient – from an area of high concentration to an area of low concentration.	Movement of particles Water moves from an area of lower solute concentration to an area of higher solute concentration.	Movement of particles Particles move against the concentration gradient – from an area of low concentration to an area of high concentration.
Energy required? no – passive process	Energy required? no – passive process	Energy required? yes – energy released by respiration

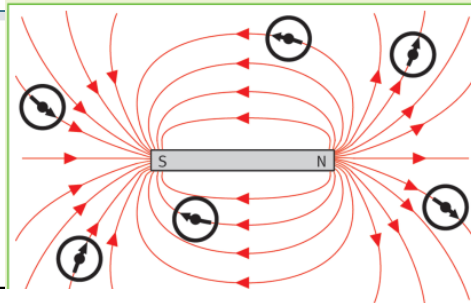
Induced and permanent magnets

A **permanent magnet** produces its own magnetic field which is always there.

An **induced magnet** is an object that becomes magnetic when it is placed in a magnetic field.

The force between an induced magnet and a permanent magnet is **always attractive** (it doesn't matter which pole of the permanent magnet the induced magnet is near).

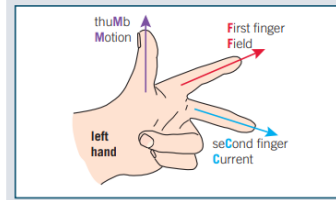
If the induced magnet is removed from the magnetic field it will quickly lose most or all of its magnetism.



Fleming's left-hand rule (HT only)

The direction of the force/motion of the wire is always at right angles to both the current and the direction of the magnetic field it is within.

It can be worked out using Fleming's left-hand rule:

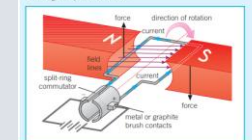


Electric motors (HT only)

A current-carrying coil of wire in a magnetic field will tend to rotate.

This is the basis of an electric motor.

The diagram below shows a simple motor made of one rectangular piece of wire.



When there is a current in the wire, it spins because:

- each side of the coil experiences a force due to being a current-carrying conductor in a magnetic field
- the forces on each side of the coil are in opposite directions.

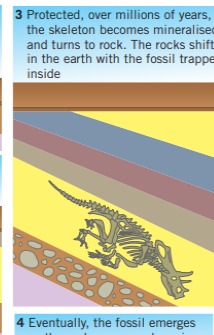
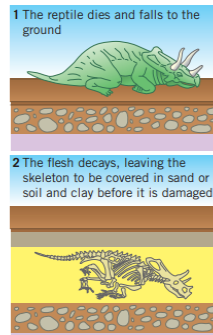
Fossils

Benefits of the fossil record

- can tell scientists how individual species have changed over time
- fossils allow us to understand how life developed over Earth's history
- fossils can be used to track the movement of a species or its ancestors across the world

Problems with the fossil record

- many early organisms were soft-bodied, so most decayed before producing fossils
- there are gaps in the fossil record as not all fossils have been found and others have been destroyed by geological or human activity – this means scientists cannot be certain about how life began on Earth



Theory of evolution

Evolution is the gradual change in the inherited characteristics of a population over time.

Evolution occurs through the process of **natural selection** and may result in the formation of new species

Evidence for evolution

The theory of evolution by natural selection is now widely accepted because there are lots of data to support it, such as

- it has been shown that characteristics are passed on to offspring in genes
- evidence from the fossil record
- the evolution of antibiotic resistance in bacteria.

Process of natural selection

The theory of evolution by natural selection states that

- organisms within species show a wide range of variation in phenotype
- individuals with characteristics most suited to the environment are more likely to survive and breed successfully
- these characteristics are then passed on to their offspring.

Extinction

Extinction is when there are no remaining individuals of a species still alive.

Factors that may contribute to a species' extinction include

- new predators
- new diseases or pathogens
- increased competition for resources or mates
- catastrophic events (e.g., asteroid impacts, volcanic eruptions, earthquakes)
- changes to the environment (climate change, destruction of habitats).

This Learning Programme you will gain knowledge of how the body works in sport. Practical skills in playing, improving, and leading sports. Understanding of fitness and training techniques and development of communication, leadership, and analysis skills.

Key Skills:

In BTEC Sport, you develop practical skills in sports performance, fitness training, and teamwork. You also gain analytical skills by evaluating performance and designing effective training programs. The course helps build communication, leadership, and problem-solving abilities useful both in sport and future careers.

Methods of Training

Interval Training – athletes training with periods of work follow by periods of rest

Continuous Training – training for a specific period of time with no rest

Fartlek Training – a combination of slow and fast running over a variety of distances and terrains

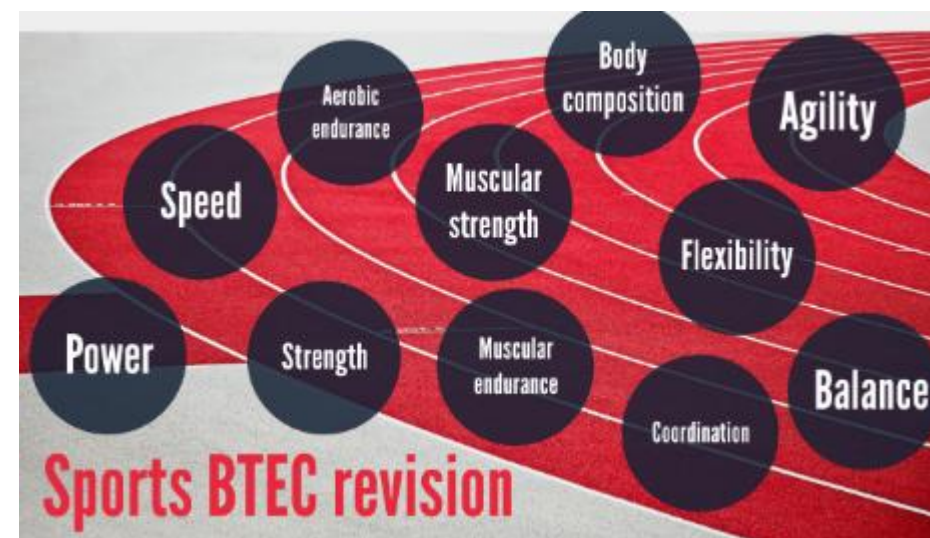
CrossFit Training - a mixture of training

Circuit Training – a number of exercises, set out at stations to avoid exercising the same muscle group consecutively.

Weight Training – using progressive resistance, in the form of actual weights ,in terms of number of times the weight is lifted.

Key Vocabulary

Heart Rate	The number of times your heart beats per minute.
Maximum Heart Rate	The highest number of times your heart can safely beat per minute.
Intensity	How hard your body is working during physical activity.
Time	The duration spent performing a physical activity to exercise
Nutrition	The intake of food and nutrients to support athletic performance, recovery and overall health
Components of fitness	Aerobic endurance, muscular endurance, muscular strength, flexibility, body composition. Power, agility, reaction time, balance, coordination.



Y11 LP2 BTEC Sport Knowledge Organiser

LP2.1

Pupils will evaluate how performance can be enhanced with testing methods.

LP2.2

Pupils will begin to learn how to interpret fitness test results and provide recommendations for improvement.

LP2.3

Pupils will identify strengths and weaknesses of the training methods.

LP2.4

Pupils will define and explain each fitness testing method and describe how performance can be enhanced.

LP2.5

Pupils will be able to explain the advantages and disadvantages of each provision.

LP2.6

Pupils will confidently be able to explain the effects of long term training on an individual athlete or performer.

LP2.7

Pupils will know how to improve participants sporting skills (written) and use retrieval practice to consolidate learning over the LP.

This Learning Programme you will create new defensive and attacking strategies to improve team performance. Pupils should be able to recognise the importance of responding to changing situations within the game in attack and defence.

Key Vocabulary

Tactical Skills	The ability to make smart decisions and apply strategies during a game.
Attack	The actions taken by a player or team to try to score points or goals.
Defence	The actions and strategies used by a player or team to prevent the opponent from scoring.
Free space	An open areas on the field, court or pitch where no players are present, allowing an athlete to move, pass or shoot.
Losing an opponent	Successfully moving away from a defender to create space or gain advantage.
Coordination	The ability to use different parts of the body smoothly and efficiently together.
Agility	The ability to move quickly and easily while changing direction
Reaction Time	The speed at which an athlete responds to a stimulus
Power	The ability to perform a strong and explosive movement quickly.
Stamina	The ability to sustain physical and mental effort over a long period of time.

Y11 LP2 Physical Education Knowledge Organiser - Basketball

Key Skills

Passing – Various passes are used within a game; chest, bounce, overhead and shoulder with control and accuracy.

Catching – A skill used to receive the ball, enabling the team to keep possession of the ball. Catching is consistent and accurate.

Behind the back dribble - Involves the ball handler bouncing the ball off of the floor behind his feet and catching it with the other hand.

Dodging – Advanced techniques to outwit opponents. A change of speed and direction in order to get free into space to receive the ball .

Shooting – Fluency, control and accuracy when shooting. A skill used by any player within the game to score a basket.



Excessive contact results in a flagrant foul. Flagrant fouls refer to a personal foul that can potentially injure the opponent. These fouls carry heavier penalties. There are two types of flagrant fouls: flagrant foul penalty (1) and flagrant foul penalty (2). Flagrant 1 refers to fouls involving unnecessary contact. The penalty for this foul type is a free throw for the opponent and possession of the ball. Flagrant 2 refers to any foul involving unnecessary and excessive contact. The opposing team receives free throws and possession of the ball.

LP2.1

Students will know how to compare and contrast the different attacking principles through the use of width and speed, students will demonstrate a variety of passes with good accuracy, control and fluency.

LP2.2

Students will know how to compare defender positions in order to outwitting opponents using advanced skills. Students will know how to develop team tactics of attack, including use of space and playing forward.

LP2.3

Students will know how to demonstrate good ball control and maintain possession in competitive situation. Students will explain the benefits of strategic and tactical approaches to outwit opponents.

LP2.4

Students will know how to replicate numerous defence skills including zonal and man to man marking, students will understand the benefits of strategic and tactical approaches to outwit opponents

LP2.5

Students will know how to understand the positions and strategic formation used to prevent attack from opposition and develop strategic and tactical plays in a competitive situation.

LP2.6

Students will know how to demonstrate outstanding knowledge and understanding of the rules and regulations of a team sport and demonstrate skills and tactical decision making in a competitive game.

LP2.7

Students will know how to develop set plays within a game situation to defend and attack effectively, students will know how to evaluate performance.

LP2: Y11 Hospitality & Catering

This Learning Programme you will be learning how to complete NEA and plan practical assessment



Restaurants, bars, hotels, and other businesses that provide customers with food, drink, and a place to sleep.

They focus on consumers who seek enjoyment, luxury, and pleasure.

What Is A Design Brief?

A design or creative brief is a document that outlines how a design project should go.

•The hospitality industry offers a variety of job roles:














Customer service roles, such as front desk manager, concierge, or event planner.

•Sales and marketing roles, such as sales manager, marketing manager, or public relations manager.

•Accounting and finance roles, such as accountant, auditor, or financial analyst.


•Food service roles, such as head chef, sous chef, pastry chef, sauce chef, or waiter/waitress.

1. Special dietary requirements
2. Causes of ill health
3. Combating situational cooking
4. Roles of the EHO
5. Equipment and method analysis
6. Exploration of cooking methods
7. Analysis of specific dishes

DIETARY REQUIREMENT		COOKING METHOD	
	A SPECIFIC NEED OR RESTRICTION IN A PERSON'S DIET DUE TO HEALTH, RELIGION, OR PERSONAL CHOICE		THE TECHNIQUE USED TO PREPARE FOOD, AFFECTING TEXTURE, FLAVOUR, AND NUTRITION
	VEGETARIAN A DIET THAT EXCLUDES MEAT, FISH, AND FOULTRY BUT MAY INCLUDE DAIRY AND EGGS		COOKING FOOD IN WATER OR BROTH AT 100°C
	VEGAN A DIET THAT EXCLUDES ALL ANIMAL PRODUCTS INCLUDING MEAT, DAIRY, EGGS, AND HONEY		COOKING FOOD USING STEAM, PRESERVING NUTRIENTS AND MOISTURE
	GLUTEN-FREE A DIET THAT EXCLUDES GLUTEN, A PROTEIN FOUND IN WHEAT, BARLEY, AND RYE		COOKING FOOD USING DIRECT HEAT, OFTEN ON A GRILL OR BARBECUE
	LACTOSE-FREE A DIET THAT EXCLUDES LACTOSE, A SUGAR FOUND IN DAIRY PRODUCTS		COOKING FOOD IN AN OVEN WITH DRY HEAT, OFTEN USED FOR MEATS AND VEGETABLES
	HALAL FOOD PREPARED ACCORDING TO JEWISH DIETARY LAWS		COOKING FOOD IN HOT OIL, INCLUDES SHALLOW AND DEEP FRYING
			COOKING FOOD USING DRY HEAT IN AN OVEN, COMMONLY USED FOR BREAD CAKES




Keyword	Definition
Dietary Requirement	A specific need or restriction in a person's diet due to health, religion, or personal choice.
Vegetarian	A diet that excludes meat, fish, and poultry but may include dairy and eggs.
Vegan	A diet that excludes all animal products including meat, dairy, eggs, and honey.
Gluten-Free	A diet that excludes gluten, a protein found in wheat, barley, and rye.
Lactose-Free	A diet that excludes lactose, a sugar found in dairy products.
Nut-Free	A diet that excludes all types of nuts due to allergies.
Halal	Food prepared according to Islamic dietary laws.
Kosher	Food prepared according to Jewish dietary laws.
Cooking Method	The technique used to prepare food, affecting texture, flavour, and nutrition.
Boiling	Cooking food in water or broth at 100°C.
Steaming	Cooking food using steam, preserving nutrients and moisture.
Grilling	Cooking food using direct heat, often on a grill or barbecue.
Roasting	Cooking food in an oven with dry heat, often used for meats and vegetables.
Frying	Cooking food in hot oil, includes shallow and deep frying.
Baking	Cooking food using dry heat in an oven, commonly used for bread and cakes.
Poaching	Gently cooking food in liquid below boiling point, ideal for eggs and fish.



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5. Enter your name and date of birth
6. Note down your username
7. Create a password (minimum 6 characters)