100% book - Year 11 Mainstream set 3
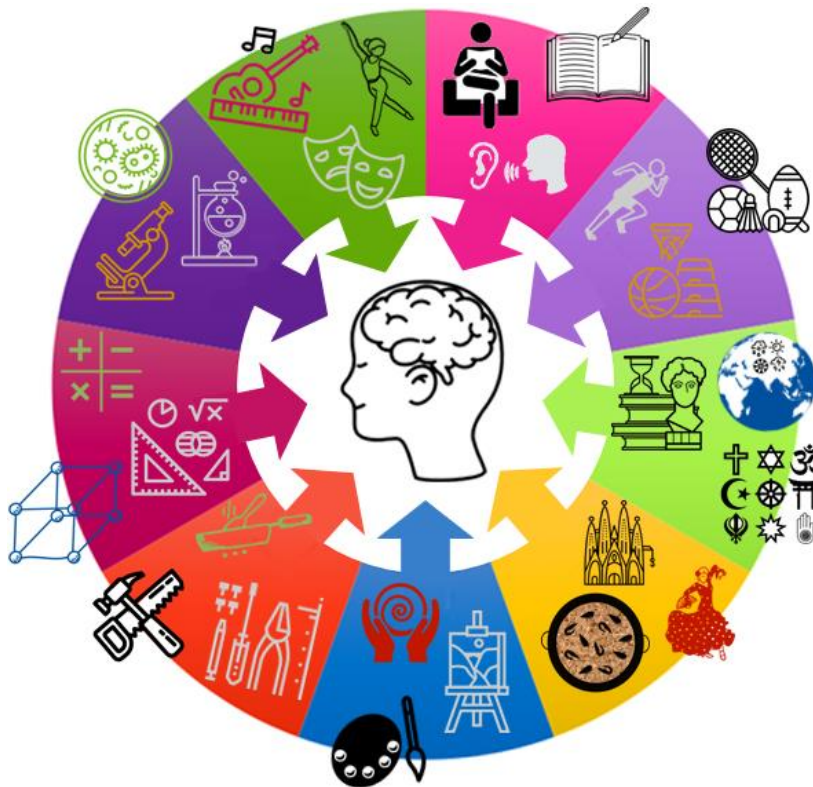
Aim to memorise 100% of the knowledge on these Knowledge Organisers.

Term 2

Swindon Academy 2022-23	
Name:	
Tutor Group:	
Tutor & Room:	

"If you are not willing to learn, no one can help you.
If you are determined to learn, no one can stop you."

How to use your 100% book of Knowledge Organisers and Quizzable Organisers

Knowledge Organisers

Knowledge Organisers contain the essential knowledge that you MUST know in order to be successful this year and in all subsequent years.

They will help you learn, revise and retain what you have learnt in lessons in order to move the knowledge from your short-term memory to long-term memory.

Quizzable Knowledge Organisers

These are designed to help you quiz yourself on the essential Knowledge.

Use them to test yourself or get someone else to test you, until you are confident you can recall the information from memory.

Top Tip
Don't write on your Quizzable Knowledge Organisers! Quiz yourself by writing the missing words in your prep book. That way you can quiz yourself again and again!

Expectations for Prep and for using your Knowledge Organisers

1. Complete all prep work set in your subject prep book.

2. Bring your prep book to every lesson and ensure that you have completed all work by the deadline.

3. Take pride in your prep book – keep it neat and tidy.

4. Present work in your prep book to the same standard you are expected to do in class.

5. Ensure that your use of SPAG is accurate.

6. Write in blue or black pen and sketch in pencil.

7. Ensure every piece of work has a title and date.

8. Use a ruler for straight lines.

9. If you are unsure about the prep, speak to your teacher.

10. Review your prep work in green pen using the mark scheme.

How do I complete Knowledge Organiser Prep?

Step 1	Step 2	Step 3
Check Epraise and identify what words /definitions/facts you have been asked to learn. Find the Knowledge Organiser you need to use.	Write today's date and the title from your Knowledge Organiser in your Prep Book.	Write out the keywords/definitions/facts from your Knowledge Organiser in FULL.

Step 4	Step 5	Step 6
Read the keywords/definitions/facts out loud to yourself again and again and write the keywords/definitions/facts at least 3 times.	Open your quizzable Knowledge Organiser. Write the missing words from your quizzable Knowledge organiser in your prep book.	Check your answers using your Knowledge Organiser. Repeat Steps 3 to 5 with any questions you got wrong until you are confident.

Make sure you bring in your completed Prep notes to demonstrate that you have completed your prep.

Key Vocabulary

Term	Definition
Patriotism	Being devoted to your country
Colonialism	When a powerful country takes control of a less powerful country
Dominate	To have power and influence over others
Defiance	Showing that you don't want to obey someone
Isolated	To be far away from other people or places.
Dictatorial	Telling people what to do in a forceful and cruel way
Nostalgia	A warm feeling for the past, particularly a very happy time
Fragility	being easily broken or damaged.

Poem	Context	Events in the poem	Message	Form/ structure
Kamikaze- Beatrice Garland	• During WW2, the term 'kamikaze' was used for Japanese fighter pilots who were sent on suicide missions. • They were expected to crash their planes into enemy warships. • The poem explores the moment that the pilot's decides to turn back and sketches out the consequences for the rest of his life. • The word 'kamikaze' literally translates as 'divine wind'. • Flying a kamikaze mission was said to be a great honour by the Japanese government. • It was claimed that there were many volunteers, although some have argued that not every kamikaze soldier would have been willing.	• The narrator of this poem is a kamikaze pilot's daughter. • Unlike many of his comrades, this pilot turns back from his target and returns home. • The poem explores the moment that the pilot's decides to turn back and sketches out the consequences for the rest of his life. • He shunned (rejected) by his neighbours, but his wife refuses to speak to him or look at him. • His children gradually learn that he is not to be spoken to and begin to isolate and reject him.	• The poem explores the conflict between personal and national duty • It suggests that individual desire and extreme patriotism cannot be achieved together. • Through the pilot, Garland may be expressing how it is not honour that gives meaning to life, but rather being with loved ones. • The poem explores the impossible situation that the pilots were put in by those in power • Dying in glory or being shamed and rejected by your family. • It also deals with the lasting effects that war can inflict on people, families, and communities. • This poem not only deals with the kamikaze pilot's own story, but the consequences for those around him.	Kamikaze is a narrative poem. It begins as a report, summarising another conversation told by someone else. Sections of the poem are presented in italics as first-person narrative, where the storyteller speaks directly for herself. This has the effect of heightening the sense of sadness she feels.
Checking Out Me History- John Agard	• Since the early 17th century, the country of Guyana has been colonised and controlled by the Dutch, French and British. • The indigenous population spoke Arawak, but the British introduced English as the language of the government, courts and education system. • For centuries, nations would repress (crush) the culture and identity of the countries that they colonised. • They did this to control the population and get rid of any rebellion against the colonisers. • Born in Guyana in 1949, Agard moved to Britain in 1977 and sees the culture as both an insider from living there and an outsider from moving to Britain	• The poem focuses on the omission of indigenous (original) history and discusses how colonized people were forced to learn about British history—which had little to do with their actual lives. • Not only does the poem highlight the oppressive (harsh) nature of colonial education, but it also praises important figures who were left out—figures such as Toussaint L'Ouverture, the leader of the Haitian revolution. • The poem suggests the curriculum deliberately blinds or hides colonized people to their own histories and argues that in order to understand their own identity they must learn their own history.	• No one has the right to oppress (treat others badly)others by denying them facts about their past. • This can lead to feelings of inferiority and there should be more equality in the world. • History is important and there is power in knowing your heritage and culture. • There is a sense of caution in this poem in relation to believing what you are told. • We are reminded that we should always seek the truth for ourselves and question what others choose to teach us. • The education system has power to shape our thinking and we should be aware of this. • There is a warning that, when people are denied knowledge, they can become bitter and angry, and this could lead to rebellion.	The open form highlights Agard's rebellion against the status quo (reality) and the restrictions of a colonial curriculum. His use of italics separates and celebrates the important historical figures from the history he was taught. The sing-song rhyme scheme holds a bitterness and anger that he was taught trivial (useless)things whilst his own history was omitted (not mentioned)
The Émigrée- Carol Rumens	• Carol Rumens was born in South London in 1944 • Published her own poems and translations of Russian poems • She has a 'fascination with elsewhere' • The Émigrée is not autobiographical poem, but is inspired by living in London (a diverse society) • The poem sympathises with people who have been exiled (forced to move) • Emigrants are people who have left the country of their birth to live elsewhere in the world.	• A displaced person(someone who has moved) person pictures the country where they were born. • The city and country are never named to increase the poem's relevance. • The speaker's home country appears to be at war or under the control of a dictatorial government that has banned the language the speaker knew. • Despite this, the émigrée's childhood memories are filled with light and happiness. • Though there is a clear sense of fondness for the place, there is also a more threatening tone in the poem, suggesting that not all of her memories are happy.	• Rumens presents the importance of empathy (understanding the feelings of others). She reminds us of how traumatic conflict can be. • The poem highlights the importance of belonging and is a celebration of diversity – we should make people feel welcome when they move to a new home. • Memories are shown to be powerful with the ability to bring both pain and comfort. • The past can be difficult to escape and can restrict us from moving forward in life. • There is also a sense of the power of the media – their portrayal of immigrants can lead to a lack of sympathy in society; • it is important we do not become insensitive (not caring) to the pain that can lead to people moving to a new home.	The use of enjambment (see key words) reflects the chaos and confusion of her situation. The poem consists of two stanzas with eight lines and a third stanza with nine lines. The added line in the final stanza could suggest she doesn't want to let her memories go, stop writing about her homeland or give up her past.
Storm on the Island- Seamus Heaney	• For many centuries, there has been conflict in Northern Ireland. • The majority of Northern Ireland's population were unionists, who wanted to remain within the United Kingdom. • Most of these were Protestant Christians. • Seamus Heaney was a Catholic born in Northern Ireland in 1939. • Catholics were seen as the underclass (not as good as others) and were discriminated against • This resulted in strong political warfare movements to try to overthrow British rule and re-unite Ireland.	• **There are two interpretations of this poem- literal and metaphorical.** • **Literal:** The narrator describes how well prepared they are for the storm. The storm attacks the island. As the poem progresses, the narrator's confidence decreases, and they begin to worry. • **Metaphorical:** Heaney uses the storm as a metaphor for the conflict in Northern Ireland. The 'Islanders' suffer under enemy occupation.	• Heaney portrays nature as a powerful force that humans should fear and not attempt to control. • Heaney presents the idea that life under constant enemy occupation ((rule) can leave people accepting their presence with sadness, but stop trying to do anything about it. • He warns that the enemy can appear reasonable, but can quickly turn in to a dangerous threat	Heaney's use of iambic pentameter may appear strange given its use in traditional British poems. However he changes the traditional structure by swapping the stressed and unstressed syllables on certain lines, resisting the regularity of British control.
Tissue- Imtiaz Dharker	• Imtiaz Dharker was born in Pakistan but grew up in Scotland. Her poetry often deals with themes of identity, the role of women in society and the search for meaning. • Tissue is from her poetry collection called 'The terrorist at my table'. Most of the poems in that collection relate to religion, terrorism and global politics.	• Tissue explores the varied uses of paper and how they relate to life. • It is written from the point of view of someone looking out at the conflict and troubles of the modern world; destruction, war and politics, money and wealth as well as issues like terrorism and identity. • The poem remarks how nothing is meant to last.	• Human power is ephemeral. No matter how much we try to build structures to display our power, nature will always outlast it. • Our relationship with paper is unhealthy. We rely on it too much to make records, document ownership and build debt. Instead, we should realise that the significance of human life will outlast the records we make of it on paper or in buildings. • Human life is fragile, and not everything can last. We must understand our fragility and should not try to build our lives through making recordings or building with blocks and bricks, we should focus on living.	The poem has an irregular structure and no rhyme scheme reflecting the irregularity of life and the lack of and predictability. The fragile structure Is symbolic of the fragile nature of our lives.

Key Vocabulary

Key Vocabulary	
Patriotism	
Colonialism	
Dominate	
Defiance	
Isolated	
Dictatorial	
Nostalgia	
Fragility	

Poem	Context	Events in the poem	Message	Form/ structure
Kamikaze- Beatrice Garland	• During _____, the term 'kamikaze' was used for… They were expected to… The _____made the Kamikaze missions sound like… It was claimed that…	• The narrator of this poem is… • The poem explores the moment… • His neighbours _____ and his wife… • His children and grandchildren…	• The poem explores the conflict… • Through the pilot, Garland may be expressing how… • The poem explores… • It also deals with the…	Kamikaze is a … Sections of the poem are presented in…
Checking Out Me History- John Agard	• Since the early _____, the country of • For centuries, nations would … • They did this to… • Born in…	• The poem focuses on how… • Not only does the poem call attention to the how oppressive colonial education was, but it also… • The poem suggests the curriculum deliberately…	• Knowledge should not be… • There is a sense of… • There is a warning that,…	His use of italics… The sing-song rhyme scheme…
The Émigrée- Carol Rumens	• Carol Rumens was born… • Published her own… • She has a 'fascination with… • The Émigrée is not autobiographical poem, but… • The poem sympathises with … • Emigrants are…	• An emigrant… • The speaker's home country appears to be… • Despite this, the émigrée's childhood memories are…	• Rumens presents the importance of… • The poem highlights the importance of… • Memories are shown to be…	The use of enjambment reflects the… The poem consists of…
Storm on the Island- Seamus Heaney	• For many centuries, … • The majority of Northern Ireland's population were … • Seamus Heaney was…	**There are two interpretations of this poem- _____ and _____.** _____**:** The narrator describes how well prepared they are for… _____**:** Heaney uses the storm as a metaphor for…	• Heaney portrays nature as… • Heaney presents the idea that life under… • He warns that the enemy can …	Heaney's use of _____ _____ ___ may appear
Tissue- Imtiaz Dharker	• Imtiaz Dharker was… • Tissue is from…	• Tissue explores… • It is written from the point of view of … • The poem remarks how…	• Human power… • Our relationship with paper is … • Human life is…	

1. Context

Writer: Charles Dickens (1812-1870)
Dates: First published in 1843
Genre: Allegorical; a ghost story.
Era: Victorian
Set: Victorian London
Structure: The novella is divided into 5 staves (chapters).

Biography of Dickens
- Born in Portsmouth in 1812
- When Dickens was 12, his father was sent to debtors' prison as he was unable to pay his bills.
- His mother and youngest siblings were sent with him, whilst Dickens stayed with a family friend. In order to help his family, Dickens had to leave school and work in a factory sticking labels on bottles.
- Dickens dedicated his life to writing works that revealed the horrors of life in Victorian London for those living in poverty.

Christmas:
Dickens grew concerned that, due to capitalism, society had lost sight of traditional values (Christian morals, forgiveness, charity). He felt that Christmas was the perfect time to reconnect with these values and used his novella to do this. He also knew that Christmas would be a popular topic so it would sell well – therefore enabling his message to reach a wider audience.

London and inequality:
Dickens contrasts the lives and attitudes of the different classes. He switches between scenes of wealth and poverty to highlight the inequality within Victorian London.

The Poor Law, 1834
In order to prevent poor people from claiming financial help, the government made people live in workhouses if they did not have enough money. The workhouses were essentially, prisons for the poor. Dickens hated this law and wanted to highlight the situation facing poor people.

Malthusian Theory
Thomas Malthus argued that if living standards increased, population would increase and eventually the number of people would be too great for the food that could be produced. As a result, Malthus thought it was important not to support the poor or improve their standards of living, but to allow them to die if they couldn't support themselves because charity would only prolong their suffering.

The Supernatural: Victorian society was fascinated by the supernatural, including mediums, ghosts, and spiritualism. However, this belief in the supernatural was also heavily influenced by the church, with the belief that ghosts were souls who were trapped in purgatory (a place of suffering where the souls of sinners were trapped).

2. Key Characters

Ebenezer Scrooge: He is initially established as a villain who is dismisses the generosity associated with Christmas and refuses to help others. After being forced to change, he feels remorse for his avarice and becomes a symbol of Christmas spirit. Scrooge demonstrates that anyone can change.

Bob Cratchit: Bob is Scrooge's loyal employee. His family live in poverty but remain cheerful, love one another and demonstrate the Christmas Spirit. Bob shows pity for Scrooge, and provides a contrast to Scrooge's isolation and meanness.

Fred: Scrooge's nephew. He demonstrates Christmas cheer and refuses to be discouraged by his Scrooge's misery. Fred shows that Scrooge has chosen isolation and forgives Scrooge in Stave Five.

Marley's Ghost: Marley's ghost shows the reader Scrooge's potential fate. The chains that drag him down symbolize the guilt caused by his failure to help people in need. Marley's ghost warns Scrooge that he will experience the same fate if he does not change.

The ghosts: The Ghost of Christmas Past is a symbol of childhood, truth and realisation
The Ghost of Christmas Present represents goodwill, plenty and the festival of Christmas.
The Ghost of Christmas Yet to Come symbolises what will happen if Scrooge does not change.

Belle: The woman that Scrooge was engaged to when he was a young man. Belle broke off the engagement between her and Scrooge because he was not the man she had fallen in love with- now he loved money too much.

3. Central Themes

Social injustice	Dickens highlights the unfairness within society through the poor and wealthy characters. Scrooge's refusal to give to charity and his view that the poor should be in workhouses or die shows the selfishness of the higher classes. The children, Ignorance and Want, demonstrate what could happen if poverty continues.
Transformation and redemption	The character of Scrooge emphasises the idea that everyone is capable of transformation and redemption. From starting as a greedy man, Scrooge is able to reflect upon his actions and to understand that he must live his life helping others to avoid Marley's fate.
Social responsibility	Dickens felt that every individual had a responsibility for those around them. Marley's Ghost conveys the message of the novella when he cries, 'Mankind was my business' demonstrating that the proper 'business' of life is not about making money but is about having concern for others. Just like Scrooge realises at the end, we must realise that we should help others and be kind to them.

4. Key Vocabulary

Avarice	Extreme greed of possessions or money
Salvation	Saving someone from harm or destruction
Miserly	someone who is greedy and does not like spending money
Callous	Mean or cruel
Antithesis	The exact opposite of something
Epiphany	A moment of sudden understanding
Redemption	The act of being saved or freed from sin or error
Benevolence	Kind and helpful towards others
Philanthropic	Showing concern for others by being charitable
Misanthropic	Someone who has a hatred for other people
Penitence	sincere regret for wrong or evil things that you have done
Remorse	a strong feeling of sadness and regret about something wrong that you have done
Deprivation	When someone is unable to have the things they need or want
Despotism	exercising power in a cruel and controlling way
Capitalism	A political system in which property, business, and industry are owned by private individuals and not by the government

5. Key Terminology, Symbols and Devices

Stave	Chapters in the novella, but we normally associate staves with music, as if the **book** is a Christmas carol, and each chapter is part of the song. As Christmas carols are repetitive and easy to remember, it links to how Dicken's wishes his message to be remembered.
Circular structure	Circular narratives cycle through the story one event at a time to end back where the story originated.
Allegory	A story that can be interpreted to reveal a hidden meaning, typically a moral or political one.
Foreshadowing	Foreshadowing is a literary device in which a writer gives an advance hint of what is to come later in the story.
Semantic Field	A set of words that are related in meaning. Dickens frequently uses semantic fields of warmth and coldness that are associated with the characters.

1. Context

Writer: _____
(1812-1870)
Dates: First published in _____
Genre: Allegorical; a ghost story.
Era: _____
Set: V_____n London
Structure: The novella is divided into _____ staves (chapters).

Biography of Dickens
- Born in Portsmouth in 1812
- When Dickens was 12, his father was sent to _____n as he was unable to _____.
- His _____were sent with him, whilst Dickens _____. In order to help his family, Dickens had _____school and work in a factory s_____.
- Dickens dedicated his life to writing works that revealed the _____.

Christmas:
Dickens grew concerned that, due to _____, society had lost sight of _____ _____ (Christian morals, f_____). He felt that Christmas was the perfect time to _____. He also knew that Christmas would be a popular topic so it would _____ – therefore enabling his message to reach a _____

London and inequality:
Dickens j_____ scenes of middle-class _____ and _____to emphasise the close proximity and contrast of the different _____. It highlights the _____ concept of 'love _____'. The urban setting allows Dickens to exercise his fondness for h_____e, with the exaggerated extremes of _____ adding to the effect of the 'plight of the poor'.

The Poor Law, 1834
In order to deter poor people from claiming financial help, the government made claimants live in _____: essentially, _____. Dickens _____ this law. He spent 1843 touring _____in England and wished to highlight the situation facing _____people.

Malthusian Theory
The reformation of The Poor Law was partially informed by the writings of Thomas Malthus. Malthus argued that if _____, population would i_____ and eventually the number of people would be ____. As a result, Malthus argued it was important not to _____ the poor or improve their standards of living, but to allow them to die

The Supernatural: Victorian society was fascinated by the supernatural, including _____. However, this belief in the supernatural was also heavily influenced by the _____, with the belief that ghosts were _____s who were trapped in purgatory (a place of suffering where the souls of sinners were trapped).

2. Key Characters

Ebenezer Scrooge: The protagonist is initially established as an _____who dismisses the _____ and generosity associated with Christmas. After being forced to transform, he feels r_____ for his a_____ and becomes a s_____l of Christmas spirit. Scrooge embodies the relentless capitalist spirit of the time, but also demonstrates that everyone has the capacity to reform.

Bob Cratchit: Bob is Scrooge's d_____but _____employee. His family are a s_____ of Victorian poverty, c_____ in a_____, t_____ and Christmas Spirit. Bob shows pity for Scrooge, and provides a contrast to Scrooge's isolation and meanness. His son, Tiny Tim, is an emblem for noble poverty; he accepts his disability without complaint.

Fred: Fred j_____ the character of Scrooge and e_____ the concept of g_____and f_____, refusing to be discouraged by his uncle's misery. People speak _____ of Fred and his g_____, in contrast to how they speak of Scrooge. Fred shows that Scrooge has chosen isolation and shows forgiveness to Scrooge, welcoming him in Stave Five.

Marley's Ghost: Marley's ghost is the s_____ representation of Scrooge's potential fate. The chains that drag him down s_____the _____caused by his f_____ to help people in_____. Marley's ghost warns Scrooge that he too will experience _____.

The ghosts: The Ghost of Christmas Past is a symbol _____The Ghost of Christmas Present represents _____. The Ghost of Christmas Yet to Come symbolises _____.

Belle: The woman that Scrooge was engaged to when he was a young man. Belle's role is crucial in Scrooge's transformation, as the scenes show Scrooge what he might have had in his life if he had not been so avaricious. Through the character of Belle, Dickens sets emotional love directly against Scrooge's love of money and suggests that avarice can lead to a deprivation of kindness, love and empathy.

3. Central Themes

Social injustice	Dickens highlights the u_____ within society through the j_____ of the _____ and w_____. Through Scrooge's refusal to give to charity and his exclamation that the poor should be in workhouses or die, Dickens illustrates the se_____ of the higher _____s and the i_____e of wealth distribution in Victorian society.
Transformation and redemption	By establishing Scrooge as an archetypical v_____, Dickens is able to emphasise the idea that _____. From starting as a greedy, avaricious miser, Scrooge is able to reflect upon his actions and to understand that he _____
Social responsibility	Dickens felt that every individual had a re_____. Marley's Ghost conveys the message of the novella when he _____, 'M_____ was my bu_____s' demonstrating that the proper 'business' of life is not about seeking financial reward but having concern for others..

4. Key Vocabulary

	Extreme greed of possessions or money
	Saving someone from harm or destruction
	someone who is greedy and does not like spending money
	Mean or cruel
	The exact opposite of something
	A moment of sudden understanding
	The act of being saved or freed from sin or error
	Kind and helpful towards others
	Showing concern for others by being charitable
	Someone who has a hatred for other people
	sincere regret for wrong or evil things that you have done
	a strong feeling of sadness and regret about something wrong that you have done
	When someone is unable to have the things they need or want
	exercising power in a cruel and controlling way
	A political system in which property, business, and industry are owned by private individuals and not by the government

5. Key Terminology, Symbols and Devices

	Chapters in the novella, but we normally associate staves with music, as if the **book** is a Christmas carol, and each chapter is part of the song. As Christmas carols are repetitive and easy to remember, it links to how Dicken's wishes his message to be remembered.
	A narrator who interrupts the story to provide a commentary to the reader on some aspect of the story or on a more general topic. In 'A Christmas Carol' the narrator helps to shape our impressions of Scrooge.
	Circular narratives cycle through the story one event at a time to end back where the story originated.
	A story that can be interpreted to reveal a hidden meaning, typically a moral or political one.
	An **allegorical** figure is a **character** that serves two purposes: first, they are an important person in the story in their own right, and, second, they represent abstract meanings or ideas.
	Foreshadowing is a literary device in which a writer gives an advance hint of what is to come later in the story.
	A type of literature that is written to inform or instruct the reader, especially in moral or political lessons.
	A set of words that are related in meaning. Dickens frequently uses semantic fields of warmth and coldness that are associated with the characters.

Pure substances

Pure = single element or compound – not mixed with any other substance.

Testing to see if a substance is pure:

- Pure substances have specific melting and boiling points

- Compare your data to a library of known values.

E.g. Water has a boiling point of 100°C, if it is above or below this, it is not pure.

Formulations

Formulation = a mixture that is designed as a useful product.

- Components mixed carefully to get the required **properties**.

Examples of formulations:
- Fuels
- Cleaning agents
- Paints
- Medicines
- Alloys
- Fertilisers
- Food

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1. What is a pure substance?
2. How can you test that a substance is pure?

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1. What is a formulation?
2. Give 3 examples of formulations.

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1. What is chromatography used for?
2. What determines how far the substance travels?
3. What is the mobile phase in paper chromatography?
4. What is the stationary phase in paper chromatography?
5. How would you be able to identify a pure substance on a chromatogram?
6. Draw and label a diagram of the experiment to Investigate how many different colours there are in food colouring using paper chromatography.

Chromatography

- Technique used to separate mixtures of **soluble substances**.
- How soluble a substance is determines how far it travels across paper.
More soluble = travels further (higher up paper)

Mobile phase
- **Solvent** is the mobile phase
- The substances dissolve in the solvent
-    The solvent then moves through the stationary phase.
Stationary phase
- Does not move. The paper is the stationary phase.

spot of mixture

solvent

Important – start line on paper must be drawn in **pencil** as pencil is **insoluble** and **will not run**
The spot and start line must be **above the solvent line** so the colours won't just wash into the solvent in the beaker.

Y is a mixture as it contains 2 substances (2 spots)

X is a mixture as it contains 3 substances (3 spots)

Z is pure as it only contains one substance (1 spot)

X   Y   Z

Three samples (x, y and z)
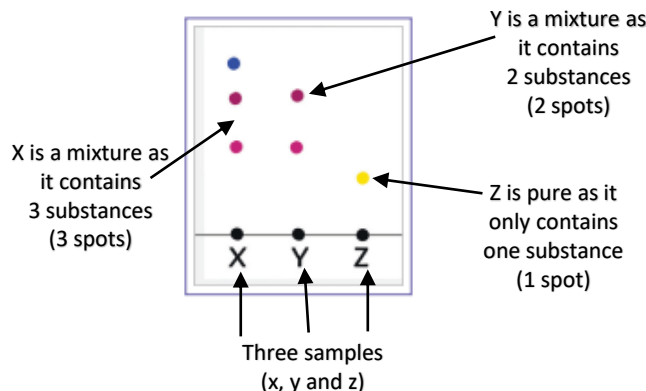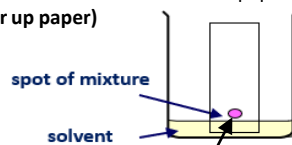
Rf Values

This is the ratio of the distance moved by a substance to the distance moved by the compound

$$R_f = \frac{distance\ travelled\ by\ substance}{distance\ travelled\ by\ solvent}$$

- Should always be between 0 and 1.

- Each substance has a unique Rf value.

- Can compare Rf values to a library of known substances

- Can identify unknown substances.

Solvent Front

10cm

8cm

Blue   Green   Yellow   Black

Pencil Line
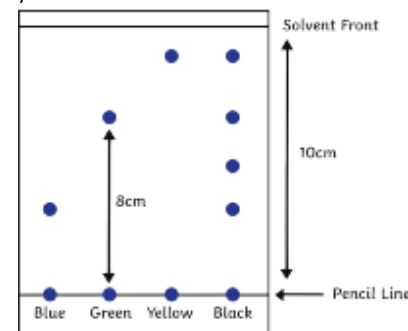
Rf value of green:

8cm / 10cm = 0.8

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1. How do you calculate the Rf value?
2. Rf values should always be between…
3. Use a ruler to measure the distance the solvent moved in the diagram below.
4. Use a ruler to measure how far the yellow spot moved
5. Calculate the Rf value for yellow

Solvent Front

Pencil Line

Blue   Green   Yellow   Black
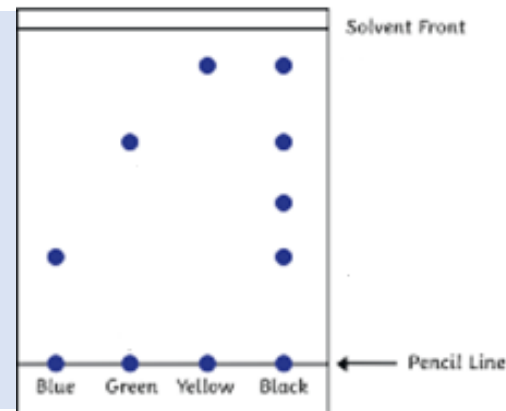
Science T2 Y11 C4.12 – Mainstream Foundation – Chemical Analysis

Required Practical – Paper Chromatography

Aim: Investigate how paper chromatography can be used to separate and distinguish between coloured substances.

Method
1) Using a ruler, measure 1cm from bottom of chromatography paper and draw a line across the paper with a **pencil**.

2) Using a pipette, drop small spots of each ink onto pencil line (leave a gap so do not merge).

3) Pour solvent into a beaker, do not fill solvent above the pencil line on the paper.

4) Place chromatograph paper into beaker and allow solvent to move up the paper.

5) Remove paper just before solvent reaches top of the paper and leave to dry

6) Calculate R_f values of all the spots using the equation below:

$$R_f = \frac{distance\ travelled\ by\ substance}{distance\ travelled\ by\ solvent}$$

Common questions
Q1) Why is a pencil used instead of a pen?
A1) Ink in the pen would move up the paper with the substances.

Q2) Why do you not fill the solvent above the line?
A2) Substances would wash off into the solvent instead of rising up the paper

Q3) Why might water not work as a solvent?
A3) Some substances are **insoluble** in water.

Identification of the Common Gases

Test for hydrogen – Place a **burning** splint at the opening of a test tube. If hydrogen gas is present, it will burn with a **squeaky-pop sound.**

Test for Oxygen – Place a **glowing** splint inside a test tube. The splint will **relight** in the presence of oxygen.
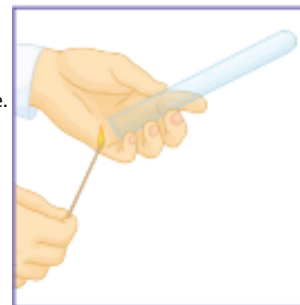
Test for Carbon Dioxide –Bubble the gas through the lime water – if the gas is carbon dioxide, the limewater turns **cloudy**.

Carbon Dioxide Gas
Limewater
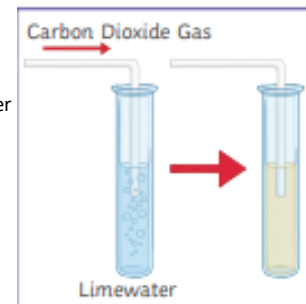
Test for Chlorine – **Damp litmus paper** is held over the of gas. If the tube contains chlorine, the litmus paper becomes **bleached** and **turns white**.

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1. Describe how you would carry out paper chromatography to separate and identify the different colours in food dye.

2. Why is a pencil used instead of a pen?

3. Why do you not fill the solvent above the pencil line?

4. Why might water not work as a solvent?

---

1. Describe the tests and the positive results for:

a) Hydrogen
b) Carbon dioxide
c) Oxygen
d) Chlorine

Early Atmosphere vs modern atmosphere:

Gas	Levels in earth's early atmosphere	Percentage in air today
Nitrogen	None	78
Oxygen	None	21
Others – CO_2 and argon	Very High	1
Water vapour	Very high	Varies – but usually only around 1%
Ammonia	High	None

We think that the atmosphere on Earth was once like that of Mars or Venus is today

When Earth was formed it was so hot it was molten on the surface, and the atmosphere was full of toxic gases like methane and ammonia.

We cannot be sure about exactly what the Earth's early atmosphere as we have no evidence from so long ago

How did the atmosphere change?

1. Volcanoes released nitrogen, carbon dioxide and water vapour
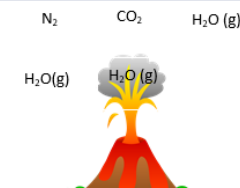
2. The earth cooled and solidified
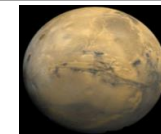
3. Water vapour in the atmosphere condensed and feel as rain

4. Oceans, lakes and rivers formed

5. Carbon dioxide from the air dissolved in the oceans
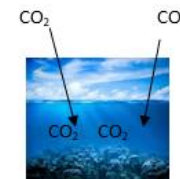
6. Some of this reacted to form sedimentary rocks like limestone

7. Algae and then plants evolved, removing carbon dioxide from the air and produced oxygen by photosynthesis

Carbon dioxide + water → glucose + oxygen

$$6CO_2 + 6H_2O \rightarrow C_6H_{12}O_6 + 6O_2$$
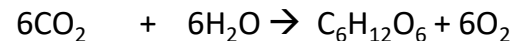
8. Many early plants and marine organisms were buried and decayed underground, locking up carbon in fossil fuels like coal (plants) and oil (animals)

1. Name two gases that were present in large quantities in Earth's early atmosphere

2. What is the most abundant gas in today's atmosphere?

3. Which two planets do we think Earth's early atmosphere was similar to?

4. Why can we not be sure about the Earth's early atmosphere?

5. Give two differences between the early atmosphere and today's atmosphere.

6. The data for today's atmosphere is shown on the chart below:

Use the table on page 1 to name:
Gas A
Gas B
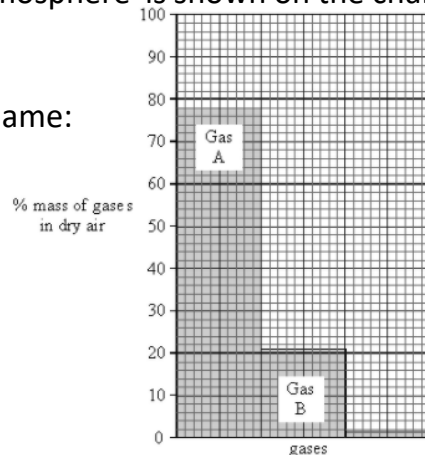
1. How did nitrogen form in the atmosphere?

2. How did water vapour levels decrease?

3. Name 2 ways carbon dioxide was removed from the early atmosphere before plants evolved.

4. Which organisms were the first to photosynthesise?

5. Why did oxygen levels rise?

6. Write the equation for photosynthesis

7. What is 'locked up carbon'?

8. Describe how carbon dioxide in the air ended up in rocks like limestone

9. How was coal formed?

The greenhouse effect

The greenhouse layer is a layer of gases in the atmosphere made of:
- carbon dioxide
- methane
- water vapour

The greenhouse effect
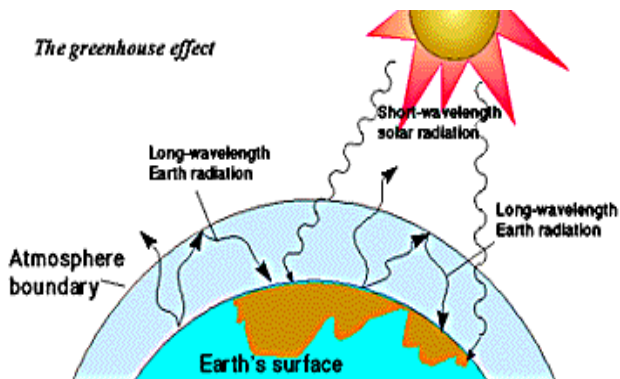
1. Short wavelength infrared radiation from the sun reaches Earth
2. Some energy is absorbed by the Earth
3. Longer wavelength IR is reflected by the Earth
4. Longer wavelength IR cannot get through the greenhouse layer as easily so some is trapped, warming the Earth

The thicker the layer of gases, the more heat is trapped

Global warming

The greenhouse layer is getting thicker, because:
- CO_2 released from fossil fuels to generate electricity
- CO_2 released from fossil fuels in vehicles
- Methane released from cattle
- Methane released from rotting landfill sites

Many scientists believe that human activities are causing the warming of the Earth.

Potential consequences:
- Melting ice caps
- Loss of habitats for animals and plants
- Damage to coral reefs caused by warmer oceans
- Changes to animal migration patterns
- Extreme weather patterns – more hurricanes, heat waves, droughts, snow and ice
- Difficulty growing crops so reduced food supply

Carbon footprint

The total amount of CO_2, CH_4 and water vapour released by of a product or service.
E.g for a concert:
- electricity in performance
- Fossil fuels used by people travelling there
- Plastics used and disposed of in refreshments etc

Carbon footprints can be reduced by recycling, reducing energy use or eating vegetarian diets but this is hard to get people to do.

Pollutants :

Pollutant	Source	Effects
Carbon dioxide	Combustion	Global warming
Carbon monoxide	Incomplete combustion of fuels	Toxic gas, can be fatal
Sulfur dioxide	Traces of sulfur in coal react with oxygen when burned	Acid rain
Nitrogen oxides	Hot engines provide the energy for N_2 to react with O_2	Acid rain
particulates	Incomplete combustion	Global dimming, breathing problems

The greenhouse effect

1. What is the 'greenhouse' layer?

2. Name the 3 greenhouse gases

The greenhouse effect

Short-wavelength solar radiation

Long-wavelength Earth radiation

Long-wavelength Earth radiation

Atmosphere boundary

Earth's surface
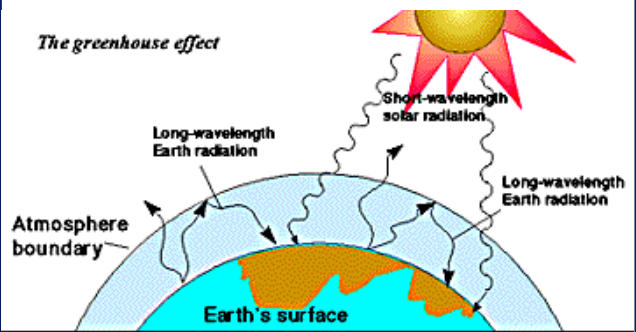
1. What sort of radiation is emitted from the sun?

2. How is the wavelength of the radiation reflected from Earth different than that from the sun?

3. Why is some heat trapped?

4. What is the relationship between the thickness of the layer and the amount of heat trapped?

Global warming

1. Name two human activities that release CO_2

2. Name two sources of methane

1. Name two impacts of global warming on animals

2. Why might coral reefs be damaged by global warming?

3. Why might our food supply be under threat?

Carbon footprint

1. What is the 'carbon footprint'?

2. Name two ways a person can reduce their carbon footprint.

3. Why is it difficult to get people to reduce their carbon footprint?

Pollutants :

Pollutant	Source	Effects
Carbon dioxide		Global warming
	Incomplete combustion of fuels	Toxic gas, can be fatal
Sulfur dioxide		
Nitrogen oxides		Acid rain
particulates		

Earth's Resources

We use Earth's resources to provide **warmth, shelter, food and transport**.

E.g.:
- metals from the Earth's crust to build buildings and cars
- Timber and oil to burn for warmth
- Crop plants for food
- Products from crude oil to serve as fuels in cars, trains and planes

Finite resources – ones that will run out as they are being used much faster than they can be replaced, e.g. oil

Renewable resources – resources that will not run out, e.g. wood, wind etc.

Chemistry plays an important part in finding improvements or alternatives to current resources.

Natural	Improved or replaced by….
Wood for furniture	Plastic/polymers
Food crops	Fertilisers/artificially grown foods such as Quorn
Oil for fuel	Ethanol/hydrogen fuel cells
Rubber for tyres	Polymers

Reducing the use of resources

Metals, glass, ceramics, building materials and most plastics are produced from limited resources.

The energy for the processes involved in making/extracting raw materials also comes from limited resources – e.g. oil.

We can reduce the use of limited resources by reducing use, reusing materials and recycling materials at the end of their life.

Reduce, reuse, recycle.

E.g.
- Glass bottles can be reused.
- Metals can be melted down and recast and so recycled.
- Scrap steel can be added to extracted iron to reduce the amount of iron that has to be extracted in the blast furnace.

Tyres can be melted and made into asphalt for roads or playground matting

The metal body is crushed, melted and used in industry

The battery can be broken up, the acid inside neutralised and the rest recycled
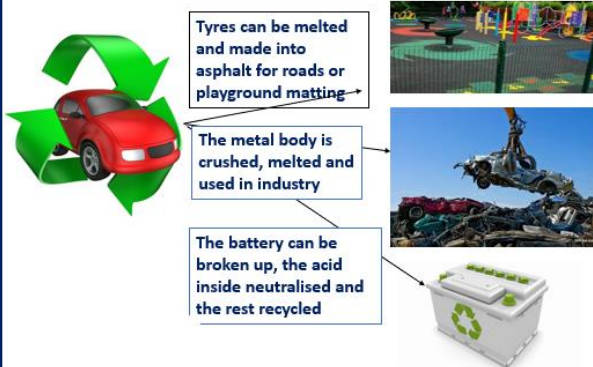
Evaluating methods to reduce, reuse, recycle

Advantages	Disadvantages
Fewer resources such as mines and quarries are needed to extract finite materials	Requires collection and transport of items – involving staff, vehicles and use of fuel
Crude oil does not need to be extracted – avoids high energy costs for fractional distillation etc.	Materials, such as metals, very often have to be separated from other materials first
Less greenhouse gases produced.	Some metals need melting before being reused – energy costs.
Less items in landfill	

Vocabulary:
Potable
Finite
Desalination
Effluent
sustainable

---

1. What are the 4 main uses of the Earth's materials?

2. What is a renewable resource?

3. What is a finite resource?

4. Give an example of a finite resource

5. Give an example of a renewable resource

6. Give an example of a natural product that has been replaced by modern chemistry or farming.

---

1. Give three ways we can reduce our use of limited resources.

2. Give an example of a product that can be reused

3. What has to be done to metals before they can be recast?

4. How is scrap iron used to reduce the amount of iron needing to be extracted.

---

1. State two advantages of recycling.

2. State two disadvantages of recycling.

Life-Cycle Assessments (LCA)

- These assess the environmental impact of a product in these stages:

Stage 1 – extracting raw materials needed to make products.
- Energy cost and effect on habitats of extraction
- Are the raw materials finite/renewable?

Stage 2 – Manufacturing and packaging product
- How much energy and resources are needed?
- What waste products/pollution are released?
- Transportation of goods from factors to user need considering.

Stage 3 – Use of product during its lifetime
- E.g. a car has a significant impact as needs filled up with petrol which is a finite resource.

Stage 4 – Disposal at end of product's life.
1) Landfill – high environmental impact
2) Incineration – burning of product
3) Recycling – e.g. batteries contain metals that are harmful to environment –
recycling means no new compounds need to be taken out of the ground.

Stage 1
Extracting raw materials and fostering them.

Life Cycle Assessment

Stage 2
Manufacturing and packaging of product.

Stage 3
Use of the product during it's lifetime.
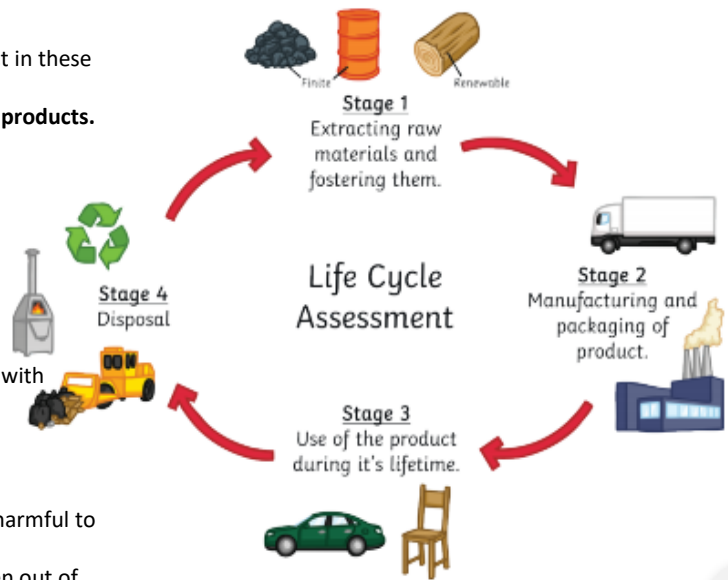
Stage 4
Disposal

1. What does LCA stand for?

2. What does an LCA assess?

3. What are the 4 stages that are assessed in an LCA?

4. Suggest one environmental impact of extraction of raw materials such as metals or oil.

5. Name two ways products are disposed of at the end of their 'life'

Example LCA for plastic vs paper bags:

Stage of Life Cycle Assessment	Plastic Bag	Paper Bag
Stage 1 – raw material	Uses finite resource. Process of fractional distillation, cracking and polymerisation all require energy.	Made from trees/recycled paper. Making paper from trees required more energy than recycled paper. Less energy than plastic bags.
Stage 2 – Manufacture	Cheap to make	More expensive to make
Stage 3 – Use	Low environmental impact as can be re-used many times. Much stronger product.	Only be reused a limited number of times – short lifetime.
Stage 4 - disposal	Do not biodegrade easily in landfill.	Paper bags degrade easily in landfill sites.

- Different people have different opinions and so depends on who completes the LCA. Bias may be added.
- Some companies may only discuss some of environmental impacts of their product.
- Accurate numerical values should be used where possible – for example to show how much energy has been used.

1. Why might an LCA be inaccurate?

2. What are the raw materials for a
a) paper bag
b) plastic bag

3. Why might the disposal of a plastic bag have a greater environmental impact than the disposal of a paper one?

Science T2 Y11 C4.14 – Mainstream Foundation The Earth's resources

Potable Water
- Water is **essential** for life.
- **Potable water is** water that is safe to drink.
- Potable water is not pure as it contains some dissolved substances.

In the UK – rain water provides water with low levels of dissolved substances that collects in the ground and in lakes and rivers. This is fresh water.

Most potable water is produced by:
1) Choosing an appropriate source of fresh water
2) Passing the water through filter beds
3) Sterilising to kill bacteria

Sterilising agents used for potable water include:
- Chlorine
- Ozone
- Ultraviolet light

Desalination of Sea Water
- **Potable** water can be made from sea water through desalination.
- Required a lot of **energy** to **remove salt** in sea water.
Can be done by:
Distillation
- Sea water heated until it boils
- Steam is **condensed** to make potable water
- Requires a lot of **energy**

Reverse Osmosis
- Water put under **high pressure** and passed through **membrane** with tiny holes in.
- Holes allow water through but not salt/ions
- Very **expensive**
- Produces **large volumes** of waste water.

1. What is potable water?

2. What is fresh water?

3. Where does fresh water collect in the UK?

4. After finding an appropriate source of water, what two stages are needed to make it potable?

5. What are the 3 methods of sterilising water?

6. Why is water treated with chlorine?

Waste Water Treatment
- Waste water needs to be treated before being released back into environment
Pollutants can be present in waste water including:
- Human waste contains harmful **bacteria** and nitrogen – can harm aquatic ecosystems.
- Industrial waste can contain **toxic** substances
- Agricultural waste water can contain **fertilisers** or **pesticides** – disrupt ecosystems.

Sewage treatment involves:
1) Screening and grit removal to remove large particles

2) Sedimentation – allows tiny particles to settle – produces sewage sludge and effluent (liquid that remains on the top)

3) Sewage sludge is digested anaerobically by specific bacteria

4) Effluent is treated with aerobic bacteria to reduce volume of solid waste.

1. How can potable water be made from sea water?

2. Give a disadvantage of this technique.

3. Describe the process of distillation.

4. Describe the process of reverse osmosis.
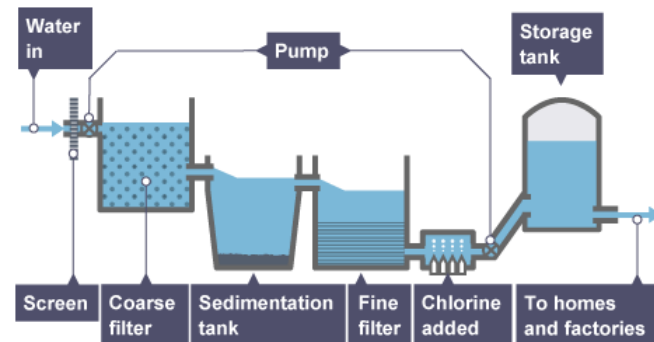
1. State three pollutants that may be present in waste water.

2. Complete the table to explain the steps in treating waste water.

Step	Explanation
Screening	
Sedimentation	
Anaerobic digestion	
Aerobic digestion	

Analysing the pH of Water Samples
- Test pH of each water sample using pH probe or universal indicator.
- Compare to pH chart if using universal indicator

Analysis the Mass of Dissolved Solids
1) Measure out 50 cm³ of water sample using measuring cylinder.

2) Take the mass of evaporating basin using top pan balance.

3) Heat the sample in the evaporating basin gently until all liquid evaporates.

4) Let the evaporating basin cool

5) Re-take the mass of the evaporating basin.

6) Calculate the mass of the solid left behind by doing: final mass – initial mass.

7) Repeat with different water samples (e.g. rainwater, salt water, spring water)

1.   Label the diagram below to show how to purify salt water.
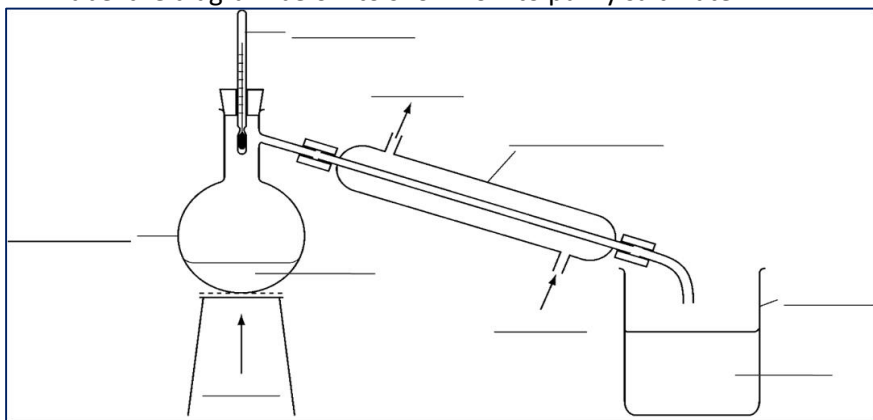
Bunsen, water sample, water, beaker, condenser, water in, water out, thermometer, round bottom flask

2. What is the name of this technique?
3.   What two changes of state happen during this?
4. Describe the water that is collected in the beaker

Distillation of water Sample

thermometer
distillation flask
clamp
steam
salt water
Bunsen burner
clamp stand
cooling water
Liebig condenser
cold water in
condensed water
receiving flask
distilled water

1)   Set up apparatus as shown in picture with the sample of water in the round bottom flask.

2)   Heat water sample until it boils gently.

3)   Water vapour enters the tube at the side (condenser)

4)   There is cold water surrounding the tube

5)   The water vapour cools and condenses and collects in the flask.

6)   The water collected should be **pure**.

1. Write a method of how to investigate the mass of solids in different samples of water.

Year 11 OCR A Term 1 – People of the world

A.	How can we measure development?
Life expectancy	The average lifespan of someone born in that country
Birth rate	Number of live births per 1000 per year
GDP per capita	An average of the national gross domestic product per person per year in $
Literacy rate	Percentage of people over the age of 15 who can read and write
Death rate	Number of deaths per 1000 people per year
HDI	Measures life expectancy, education and income per capita. Scored 0-1, 0 is low.
Internet users	Percentage of people who have access to the internet

A.	How can we measure development?	
	POSITIVE	NEGATIVE
Life expectancy W	Shows condition of healthcare and quality of services	Does not consider political factors such as war
Birth rate	Shows development of healthcare (e.g., contraception)	Does not consider how long babies survive in the country
GDP per capita	Shows how wealthy a country's population is (quality of life)	Very small/ large populations can disrupt data (e.g. China)
Literacy rate	Shows the quality of education received in a country	Does not consider other factors that disrupt education (e.g. water collection)
Death rate	Shows the quality of healthcare/ disease/ food/water	Can be disrupted if country has an elderly population (Japan)
HDI	Uses a combination of measures= more accurate	
Internet users	Shows the development of infrastructure in a country	Does not consider the quality of this infrastructure

D.	How does aid promote and hinder development?
Promote	Aid can help a country improve it's healthcare, communications rapidly by using ready developed technology from more developed nations. It can also help a country recover quickly after a natural disaster.
Hinder	Aid can hinder a country's development by encouraging dependence on money from more developed nations. If a government is corrupt, money given in aid could be used in the wrong places (e.g. armament). Tied aid can put a country into more debt as they spend money buying goods from wealthy nations,

B.	What has caused uneven development?
Natural resources	Fuel sources (oil, gas) can be traded. Access to clean, safe water
Colonialism	One country goes into another country and claims they are in power. They can steal their raw materials.
Industrialisation	Factories are built, increasing trade and increasing economic development
Trade	Can be fair or unfair. Helps a country increase their economy.
Climate	Extreme climate (too hot or too cold) will limit industry and affect health

C.	The different types of aid
Aid	When a country or organisation gives resources to another country (e.g. Money, products or technologyp
Bi lateral aid	International aid given by one country to another. Often has 'strings' attached.
Multilateral aid	Given by many different countries or charity organisations (e.g. Oxfam, red cross)
Short-term aid	Aid given to support a country following a disaster (e.g. after an earthquake)
Long-term aid	Aid given over a long period of time to support a country's development (e.g. Oxfam goat aid)

	Factors contributing to Nigeria's economic growth
Imports	Goods coming into a country
Exports	Goods leaving a country
International investment	When one country (e.g. UK) funds businesses in another country (e.g. Nigeria)
Population structure	The 'make-up' of the population. E.g how old or young/ males and females.
Employment structure	How the workforce is divided up (primary/ secondary/ tertiary)

E.	What is Nigeria like?

Nigeria's environmental,/ political/ economic context

- Nigeria is an EDC in west Africa. It borders Niger to the north and Benin to the west. Nigeria lies on the Atlantic Ocean.
- Nigeria has a tropical climate in the South (near the Niger delta) and semi-desert climate in the North.
- Nigeria was colonised by the UK and became independent in 1960
- It has high levels of international migration due to jobs in the oil industry
- Agriculture in Nigeria provides a stable food supply for much of West Africa
- Nigeria has had a stable government since 2015

What has enabled Nigeria to develop?

- **With a population of 182 million, Nigeria has** the largest population of any African country.
- Nigeria has grown mainly through the export of raw materials such as oil, oil palm and cocoa.
- They export
- In 2014 it has the **highest GDP in Africa**

Year 11 OCR A Term 1 – People of the world

A.	How can we measure development?
Life expectancy	
Birth rate	
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Internet users	

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	POSITIVE	NEGATIVE
Life expectancy		
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GDP per capita		
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Death rate		
HDI		x
Internet users		

B.	What has caused uneven development?
Natural resources	
Colonialism	
Industrialisation	
Trade	
Climate	

C.	The different types of aid
Aid	
Bi lateral aid	
Multilateral aid	
Short-term aid	
Long-term aid	

D.	How does aid promote and hinder development?
Promote	
Hinder	

E.	What is Nigeria like?
Nigeria's environmental,/ political/ economic context	
What has enabled Nigeria to develop?	

	Factors contributing to Nigeria's economic growth
Imports	
Exports	
International investment	
Population structure	
Employment structure	

Where is Rio?

Rio de Janeiro is located in South America. It is located in south Brazil. It borders the Atlantic Ocean.

G.	Why is Rio de Janeiro a global city?
	• Until 1960 Rio was the capital of Brazil however this has not changed to Brasilia. Rio is still very important. • Brazil is in an Emerging Developing Country. This means that it is experiencing rapid economic growth • Rio is a mega-city. This means it has a population of over 10 million people. • The exact population of Rio is unknown however it is over 18 million. • Rio is the cultural capital of Brazil with an annual carnival and over 50 museums. It is also a UNESCO World Heritage Site. • In 2014 the world cup took place in Rio • In 2016 Rio hosted the Olympics.

F.	What is Rostow's model?
Human Influence	• Currently Nigeria is in stage 3. This is where secondary industries dominate. • In the future Nigeria may develop to stage 4 • They will do this by becoming more self-reliant by improving education. • This will lead to increase in tertiary employment such as nursing and IT support.

H.	Where do people in Rio come from?
	• Migration accounts for 65% of urban growth in Rio de Janeiro. Largely people come from Europe, in particular Portugal because they speak Portuguese in Rio. • However, large numbers of people come from other parts of Brazil including the Amazon Basin because there are better jobs, higher income, improved medical care and education. • People also travel from other countries in South America- Argentina/ Bolivia due to the cultural opportunities in Rio. • Many people come from the USA and UK. These are largely people who are highly skilled and are attracted due to the growing secondary and tertiary industry (specifically in oil exploration). • Many people come from China and Japan, this is because Rio de Janeiro has a growing finance and banking industry which is well paid.

I.	How has migration influenced the character and way of life within Brazil?

Copacabana Beach: The beaches in Brazil are stunning and so are the natural surroundings. Rio is one of the most visited cities in the southern hemisphere. It is a UNESCO world Heritage Site which means that it should be protected from environmental harm.

Crime and government: Due to over population, there are not many jobs which means that many people must resort to crime. As a result, gangs often rule over the favelas. Police have been sent in to pacify these slum areas (make peaceful) with the aim to improve quality of life for people living there.

K.	
Sustainable Management in Rio- Transport	Due population growth, means that the use of cars has grown by 40% in the last 10 years. They have expanded the public transport system which is a metro that runs under the bay and connects various parts of Rio. More and more people are using the metro system and buses; however, they are no extremely busy as there aren't enough services to go around. They have also put tolls into the city centre, this means that traffic is reduced because people don't want to pay. Lastly, they have made busy roads one way in rush hour. Car use has reduced slightly, however many still use cars for their own safety.
Sustainable Management in Rio- Housing	Hillsides were secured and new health and education facilities were built in these areas, however the budget of US$1Billion is probably not going to be enough to do this in every Favela. It has also led to rent rising and many people can't afford to live in their old homes.
Sustainable Management in Rio- Waste	As we saw before, the largest problems concerning waste disposal are in the Favelas. Many are built on steep slopes and have few proper roads meaning that it is difficult for waste collection lorries to get through. Imagine if rubbish in Swindon wasn't collected every week – it would pile up outside our houses, attracting rats and foxes. It would also really smell. The waste in Rio does the same, it builds up and pollutes the water system spreading diseases like Cholera. To reduce this, a power plant has been set up near the University or Rio which uses methane gas from rotting rubbish to produce energy. This is more environmentally friendly than a lot of electricity production, however it does release some methane which is a greenhouse gas. It consumes 30 tonnes of rubbish a day (that's 2 busses) and produces electricity for 1000 homes. However, because of the methane gas it can be a stinky business.

Positive impacts of urbanisation	Negative impacts of urbanisation
• Employment opportunities in banking, finance and insurance. • Good infrastructure (roads) which link different areas together. • Better quality of life • More jobs in secondary and tertiary sectors	• 40% of people living in favelas do not have a job. • Due to unemployment there's not much tax being paid by a large proportion of the population. • Not enough houses – 40% of population live in favelas (illegal squatter settlements). • Only 50% of people have access to healthcare. • Air pollution – 5,000 deaths/year

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- Many people come from _____, this is because Rio de Janeiro has a growing _____industry which is well paid.

I.	How has migration influenced the character and way of life within Brazil?

Copacabana Beach: The beaches in Brazil are stunning and so are the natural surroundings. Rio is one of the most visited cities in the southern hemisphere. It is a UNESCO world Heritage Site which means that it should be protected from environmental harm.

Crime and government: Due to _____, there are not many _____ which means that many people must resort to _____As a result, _____ often rule over the _____. Police have been sent in to pacify these slum areas (make_____) with the aim to improve quality of life for people living there.

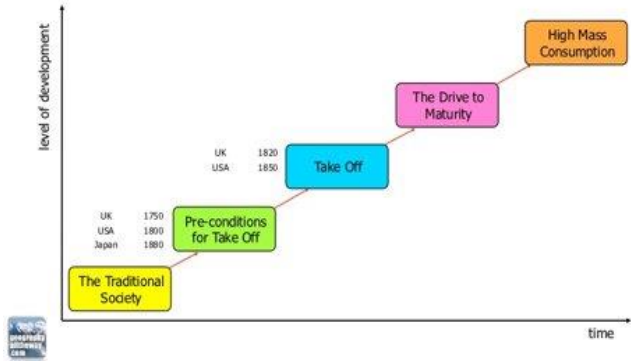| K.	
Sustainable Management in Rio- Transport	Due population growth, means that the use of c___ has grown by ___ in the last ___years. They have expanded the _____system which is a m_____ that runs under the bay and connects various parts of Rio. More and more people are using the _____and buses; however, they are now extremely busy as there _____. They have also put tolls into the city centre, this means that traffic is _____. Lastly, they have made _____one way in rush hour. Car use has reduced slightly, however many still use cars for their own safety.
Sustainable Management in Rio- Housing	Hillsides were secured and new _____s were built in these areas, however the budget of US\$1Billion is probably not going to be enough to do this in every Favela. It has also led to _____and many people can't afford to live in their old homes.
Sustainable Management in Rio- Waste	As we saw before, the largest problems concerning _____are in the Favelas. Many are built on _____and have few _____meaning that it is difficult for _____lorries to get through. Imagine if rubbish in Swindon wasn't collected every week – it would pile up outside our houses, attracting _____. It would also _____. The waste in Rio does the same, it builds up and pollutes the water system spreading _____. To reduce this, a _____has been set up near the _____which uses _____from _____environmentally friendly than a lot of electricity production, however it does release some methane which is a greenhouse gas. It consumes _____of rubbish a day (that's 2 busses) and produces electricity for 1000 homes. However, because of the _____it can be a stinky business.

Positive impacts of urbanisation

- Employment opportunities in _____.
- Good infrastructure (_____.
- Better _____
- More jobs in _____ sectors

Negative impacts of urbanisation

- 40% of people living in f___s do not _____
- Due to un___t there's not much ___ being paid by a large proportion of the population.
- Not enough _____s – 40% of population live in ___s (illegal squatter settlements).
- Only 50% of people have access to h_____e.
- Air p_____ion – 5,000 deaths/year

What we are learning this term:

2.1 Ideas about the cause of disease and illness
2.2 Approaches to treatment and prevention
2.3 Key Individuals and dealing with the Great Plague in London (1665)

A.	Can you define these key words?
apothecary	A person who mixes herbal remedies and treated patients as an alternative to a doctor as they were cheaper.
barber surgeon	Barbers and surgeons who also performed minor operations such as the removal of warts
Dissection	Criminals sentenced to death had their bodies cut open (dissected) by physicians and medical students.
iatrochemistry	Chemical cures for a disease.
humanism	A belief that humans could make up their own minds when it came to discovering the truth around them.
transference	The idea that an illness or disease could be transferred to something else.
quack doctor	Somebody who did not have any medical qualifications but sold their services as a doctor or apothecary.

C.	The Great Plague (2.3)
What is the Great Plague?	Bubonic plague – outbreak in 1665 from June to November. One in five people died. Last serious outbreak of the disease in England.
Causes	Sent by God, unusual planet alignments, Miasma (sewage and rubbish in cities, people thought the foul fumes were held in the soil and escaped during warmer weather- seemed logical as the plague was worse in the summer months)
Treatments	Sweating out the disease – sit in thick woollen clothes by the fire. Transference was tried (strap chicken to buboes). Quack doctors mixed herbal remedies.
Prevention	Pray and repent sins, carry a pomander, chew/smoke tobacco, light fires, wear masks (plague doctors), fasting, quarantining, banning of large crowds, searchers appointed, streets cleaned, stray animals killed, plague water (apothecaries),

B. Change and continuity in ideas about disease and illness in the Medical Renaissance. (2.1-2.2)

Causes	Prevention	Treatments
The Theory of the Four Humours – Although many physicians were starting to challenge Galen's ideas, most people continued to believe that illness was caused by an imbalance of humours.	Lifestyle advice – Physicians still gave advice from the Regimen Sanitatis. People were advised to practice moderation in all things – that meant avoiding too much exhaustion, fatty foods, strong alcohol and laziness. Bathing became less fashionable because people thought syphilis was caught from bathing in public bathhouses.	Transference – a popular new theory that disease could be transferred to something else. E.g. rubbing warts with an onion to 'transfer' the warts to the onion. People also tried to transfer illness to live animals, such as sheep or chickens.
Miasma – Most people still believed that miasmata caused disease (spread by bad smells/air) – especially popular during epidemics.	Purifying the air –Miasma was still widely believed so people continues to clan the air. Sewage and rubbish were picked up from streets and bonfires were lit in public to ward off foul smells.	Hospitals – greater emphasis on curing not caring (unlike in medieval). Number of hospitals decreased significantly due to the Dissolution of the Monasteries. Pest houses were a new type of hospital that cared only for plague or pox victims – limits risk of infecting others.
Astrology – although not as popular as in the Medieval period, people still believed that astrology influenced disease. Some blamed the 1665 plague on unusual planet alignments.	Role of the government – Took a more active role in preventing disease. Homeowners were fined for not cleaning the street outside their house, criminals would pick up rubbish as a punishment.	Chemical cures – alchemy led to the new science of medial chemistry. This involved looking for chemical cures rather than relying on herbs or humoural theory. New remedies such as mercury and antimony were used to purge the body and they encouraged sweating and vomiting.
Religion – Most people now realised that God did not send disease. Although, in desperate times (epidemics) they still turned to religion.		Herbal remedies – Continued to be used but were now chosen because of their colour or shape e.g, yellow herbs were used to treat jaundice (yellowing of the skin). New herbs appeared from the New World and were used to treat disease e.g. Ipecac (dysentery) and cinchona bark (malaria).
		Humoural Treatments – Despite new approaches many people still believed in humoural treatments like purging and bloodletting.

D. Key People (2.3)		
Sydenham	**Vesalius**	**Harvey**
Known as the 'English Hippocrates' he refused to rely on medical books and instead believed that physicians should closely observe and record their patient's symptoms. Using this method, he was able to prove that measles and scarlet fever were separate diseases, even though he couldn't identify the microbes that caused each. This laid the foundations for future individuals to take a more scientific approach to medicine.	His 1543 book On the Fabric of the Human Body included many detailed drawings of the human body. He carried out dissections on executed criminals and found approximately 300 mistakes in Galen's work. Vesalius encouraged other doctors to carry out dissections rather than relying on old books, laying the foundation for others to investigate the human body in more detail.	Discovered the circulation of the blood. Stated that the heart acted as a pump, pumping blood around the boy in a one-way system. This disproved Galen's theory that blood was made in the liver and burned up by the body. However, his discovery had a limited impact on medicine at the time as it offered no practical use in the treatment of disease.

E.	Improved Communications (2.1)
Printing Press	In 1440 Johannes Gutenberg created the world's first printing press. By 1500, there were hundreds of presses in Europe. This new printing press enabled information to be spread accurately and quickly. Text no longer had to be copied by hand, meaning there were fewer mistakes and inconsistencies. It also meant that scientists could publish their work and share it across Europe much faster than when the work had to be copied by hand. The printing press also took book copying out of the hands of the Church. This meant that a much wider variety of subjects were written about, whereas before most books were about religious topics. The Church was no longer able to prevent ideas they disapproved of being published. For example, physicians could now publish works criticising Galen.
Royal Society	Scientists wanted to talk to each other about their new discoveries and share new ideas. This led to the founding of the Royal Society. The Royal Society met for the first time at Gresham College in London in 1660. Its aim was to promote the sharing of scientific knowledge and encourage argument over new theories and ideas. In 1662, the society received its royal charter from Charles II, who has a keen interest in science. The support of the king gave the society credibility: if the king approved if and supported them, clearly they were doing something right. It also raised their profile. More people sent their work in to be published or were willing to donate money to support the scientific work of the Royal Society. In 1665 the Society began publishing their scientific journal, *Philosophical Transactions*. It was the world's first scientific journal , and it continues to be published today. The society also offered funding for translations of European scientific texts. It encouraged its member to write their report sin English instead of Latin to make it more accessible. The Royal Society made it possible for physicians and scientists to access and study each other's research. It was therefore very important in the development of new medical ideas.

F.	Care in the community and in hospitals (2.2)
Hospitals	Hospitals – greater emphasis on curing not caring (unlike in medieval). As a patient in a hospital you could expect a good diet, a visit from a physician and medication (own apothecary usually on site) Number of hospitals decreased significantly due to the Dissolution of the Monasteries. This dramatically changed the availability of hospital care in England as the vast majority of hospitals were connected to the Church and so few were able to stay open following the dissolution. Some smaller hospitals opened up to fill the gaps left by the dissolution of the monasteries, funded by charities, but there was a big change in the amount of medical treatment provided by hospitals. Many hospitals reopened without their religious sponsors. However, it took a long time for the amount of hospitals to return to what it had been before the dissolution of the monasteries.
Pest Houses (plague houses, poxhouses)	Pest houses were a new type of hospital that cared only for plague or pox victims – limits risk of infecting others. These hospitals specialized in one particular disease. Versions of these had existed in the Middle Ages e.g. lazar houses for people suffering with leprosy. There was a growing understanding that disease could be transmitted from person to person so these new hospitals began to crop up. They provided a much-needed service. Traditional hospitals would not admit patients who were contagious, but people suffering from serious, contagious diseases had to go somewhere or risk infecting their families.
Community Care	In spite of changes to hospitals, most sick people continued to be cared for at home. Local communities were very close-knit which meant that there were plenty of people around to give advice and share remedies. Women continued to play an important role in the care of the sick. We don't know a great deal about these women, but we know that a lot of them were prosecuted by the London College of Physicians for practicing medicine without a licence. They usually mixed and sold simple herbal remedies. Reports suggest they were very popular likely because they were cheaper than going to a licensed physician or apothecary.

What we are learning this term:

1.1 Ideas about the cause of disease and illness
1.2 Approaches to treatment and prevention
1.3 Key Individuals and dealing with the Great Plague in London (1665)

A.	*Can you define these key words?*
apothecary	
barber surgeon	
Dissection	
iatrochemistry	
humanism	
transference	
quack doctor	.

C.	The Great Plague (1.3)
What is the Great Plague?	
Causes	
Treatments	
Prevention	

B. Change and continuity in ideas about disease and illness in the Medical Renaissance. (1.1-1.2)

Causes	Prevention	Treatments

D. Key People (2.3)		
Sydenham	Vesalius	Harvey

E.	Improved Communications (2.1)
Printing Press	
Royal Society	

F.	Care in the community and in hospitals (2.2)
Hospitals	
Pest Houses (plague houses, poxhouses)	
Community Care	

What we are learning this term:

1.1 Ideas about the cause of disease and illness
1.2 Approaches to treatment and prevention
1.3 Key Individuals and dealing with the Great Plague in London (1665)

A.	*Can you define these key words?*
apothecary	
barber surgeon	
Dissection	
iatrochemistry	
humanism	
transference	
quack doctor	.

C. The Great Plague (1.3)

What is the Great Plague?
Bubonic plague – outbreak in 1665 from June to November. One in _____ people died. _____ serious outbreak of the disease in England.

Causes
Sent by God, unusual planet _____, Miasma (sewage and rubbish in cities, people thought the foul fumes were held in the soil and _____ during warmer weather- seemed logical as the plague was worse in the _____ months)

Treatments
_____ out the disease – sit in thick woollen clothes by the fire. _____ was tried (strap _____to buboes). Quack doctors mixed herbal remedies.

Prevention
Pray and repent sins, carry a _____, chew/ smoke _____, light fires, wear _____ (plague doctors), fasting, _____, banning of large crowds, searchers appointed, streets _____, stray animals killed, plague _____ (apothecaries),

B. Change and continuity in ideas about disease and illness in the Medical Renaissance. (1.1-1.2)

Causes	Prevention	Treatments
The Theory of the Four _____ – Although many physicians were starting to challenge _____ ideas, most people continued to believe that illness was caused by an _____ of humours.	Lifestyle advice – Physicians still gave advice from the _____ _____. People were advised to practice moderation in all things – that meant avoiding too much _____, fatty foods, strong alcohol and laziness. _____ became less fashionable because people thought _____ was caught from bathing in public bathhouses.	_____ – a popular new theory that disease could be transferred to something else. E.g. rubbing warts with an _____ to 'transfer' the warts to the onion. People also tried to transfer illness to live animals, such as sheep or chickens.
Miasma – Most people still believed that miasmata caused disease (spread by bad _____/_____) – especially popular during _____	_____ the air –Miasma was still widely believed so people continues to clan the air. Sewage and _____ were picked up from streets and _____ were lit in public to ward off foul smells.	Hospitals – greater emphasis on _____ not caring (unlike in medieval). Number of hospitals _____ significantly due to the Dissolution of the Monasteries. Pest houses were a new type of hospital that cared only for _____ or pox victims – limits risk of _____ others.
_____ – although not as popular as in the Medieval period, people still believed that astrology influenced disease. Some blamed the _____ plague on unusual _____ alignments.	Role of the _____ – Took a more active role in preventing disease. Homeowners were _____ for not cleaning the street outside their house, _____would pick up rubbish as a punishment.	_____ cures – alchemy led to the new science of medial _____. This involved looking for chemical cures rather than relying on herbs or humoural theory. New remedies such as _____ and antimony were used to purge the body and they encouraged sweating and vomiting.
Religion – Most people now realised that _____ did not send disease. Although, in _____ times (epidemics) they still turned to religion.		_____ remedies – Continued to be used but were now chosen because of their _____ or shape e.g, yellow herbs were used to treat jaundice (yellowing of the skin). New herbs appeared from the _____ _____ and were used to treat disease e.g. Ipecac (dysentery) and cinchona bark (malaria).
		Humoural Treatments – Despite new approaches many people still believed in humoural treatments like _____ and _____.

D. Key People (2.3)		
Sydenham	**Vesalius**	**Harvey**
Known as the 'English _____' he refused to rely on _____ books and instead believed that physicians should closely observe and record their patient's _____. Using this method, he was able to prove that measles and _____fever were separate diseases, even though he couldn't identify the _____ that caused each. This laid the foundations for future individuals to take a more _____ approach to _____	His 1543 book On the Fabric of the _____Body included many detailed _____ of the human body. He carried out _____ on executed _____ and found approximately _____ mistakes in Galen's work. Vesalius encouraged other doctors to carry out dissections rather than relying on old _____, laying the _____ for others to _____ the human body in more detail.	Discovered the _____ of the _____. Stated that the heart acted as a _____, pumping blood around the boy in a one-way system. This _____ Galen's theory that blood was made in the _____and burned up by the body. However, his discovery had a _____ impact on medicine at the time as it offered no _____ use in the treatment of disease.

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Hospitals	Hospitals – greater emphasis on curing not _____ (unlike in medieval). As a patient in a hospital you could expect a good diet, a visit from a_____and medication (own _____ usually on site) Number of hospitals _____ significantly due to the Dissolution of the _____. This dramatically changed the availability of hospital care in England as the vast majority of hospitals were connected to the _____ and so few were able to stay open following the dissolution. Some smaller hospitals opened up to fill the gaps left by the dissolution of the monasteries, funded by _____, but there was a big change in the amount of medical _____ provided by hospitals. Many hospitals reopened without their religious _____. However, it took a long time for the amount of hospitals to return to what it had been before the dissolution of the monasteries.
Pest Houses (plague houses, poxhouses)	Pest houses were a new type of hospital that cared only for plague or pox victims – limits risk of _____ others. These hospitals _____ in one particular disease. Versions of these had existed in the Middle Ages e.g._____houses for people suffering with _____. There was a growing understanding that disease could be _____ from person to person so these new hospitals began to crop up. They provided a much-needed service. Traditional hospitals would not admit patients who were _____, but people suffering from serious, contagious diseases had to go somewhere or risk infecting their families.
Community Care	In spite of changes to hospitals, most sick people continued to be cared for at home. Local _____ were very close-knit which meant that there were plenty of people around to give advice and share _____. _____continued to play an _____ role in the care of the sick. We don't know a great deal about these women, but we know that a lot of them were prosecuted by the London College of Physicians for practicing medicine without a _____. They usually mixed and sold simple _____ remedies. Reports suggest they were very popular likely because they were _____ than going to a licensed physician or apothecary.

A.	*Can you define these key words?*
Key word	**Key definition**
Forgiveness	Pardoning someone for wrongdoing
Greed	Going to war to gain land or natural resources such as oil
Holy War	A war that is fought for religious reasons, usually backed by a religious leader
Just War	A Christian theory that asks whether a war is fought justly
Justice	Bringing about what is right and fair, according to the law or God's will
Pacifism	A belief that all forms of violence are wrong, commonly held by Quakers
Conflict	A serious disagreement
Jihad	The struggle to defend against that which threatens Islam/ the internal struggle to defend against temptation that might lead you away from God
Protest	A public expression of disapproval, often in a big group, can be peaceful or violent
Reconciliation	Restoring friendly relationships after a war or conflict
Retaliation	Deliberately harming someone as a response to them harming you
Self-Defence	Protecting yourself or others from harm
Terrorism	Using violence in order to further a political or religious message

What we are exploring this term: Pacifism . Protest. Terrorism. Weapons of mass destruction Just war

C	**Is violent protest or terrorism acceptable?**	
	1. A small minority of Christians may say yes if it truly brings an end to suffering- love thy neighbour and 'free the oppressed' 2. A small minority of Muslims may agree due to the duty of jihad to defend the faith against true oppression. 3. A humanist may agree in a rare occasion if it truly had the best consequences for humanity as a whole 4. Hindus may point to their warrior class to justify a god given right to fight if needed	1. Most Christians consider terrorist acts of violence to be wrong, as Jesus did not accept violence. He said 'put your sword pack in its place' when his disciple tried to protest against his arrest. 2. Muslims do not agree with terrorism because terrorist acts of violence are considered to be wrong and against the wishes of God, especially as the victims are usually innocent people. There is no justification for terrorist acts in the teachings of Islam- Qur'an says that innocents much not be harmed. 3. Humanists might say that it does not help human wellbeing as it created disorder and fear. As such the consequences are rationally seen to be not worth it. 4. Hindus might argue that all violence is wrong (Ahimsa) as it causes bad karma and keeps us in the cycle of samsara

E	**Is pacifism wrong? Yes**	*No*
	1. The Muslim duty of Jihad suggests pacifism can be wrong 2. Christians are called to 'free the oppressed' and 'protect the weak and needy 3. Humanists may argue that pacifism is not reasonable or realistic in a world of violence and may not help humanity protect each other	1. It works- see Ghandi and Martin Luther King 2. Christians believe 'blessed are the peacemakers' 3. Muslims believe that greater Jihad is the struggle to defend the faith against the internal struggle to fall from the right path 4. Innocent people should not be harmed in all religions and pacifism is the only way to truly ensure this

D	*What are the rules of the just war theory?*	*Can just war theory make war fair?*	
	1. There must be a just cause such as to defend 2. Intentions must be to do good and overcome evil 3. War must be started by legitimate authority 4. Innocents must not be harmed 5. Force and damage must be proportionate to the good done by the war 6. War must be the last resort 7. There must be a reasonable chance of success	1. Yes as it protects innocents 2. Yes as it allows us the right to self defence 3. Yes as it has to be the last resort so it is really is the only option left 4. It will mean the war is for a good/fair reason and not pointless greed 5. It means nuclear weapons can't be used	1. No as innocents will always be harmed in war 2. A 'legitimate' authority could still be corrupt 3. You never know the harm of war until many years later so you can't calculate whether it is proportionate 4. You cannot know whether it will be successful until you have fought it 5. For success someone will have to use a greater force so the 'proportionate ' rule will never be followed

B.	*Religious and non religious beliefs about weapons of mass destruction*
1	It is wrong to damage the environment which is God's perfect creation. It would be a form of blasphemy to destroy God's Sacred work.
2	They hurt many innocent people and this is against all religious teachings. Lif e is a sacred God given gift and only God has the right to take life.
3	For humanists, if their use means we can end more human suffering than the weapons cause, then there might be a possible circumstance in which they could be deemed acceptable.

A.	Can you define these key words?
Key word	**Key definition**
Forgiveness	
Greed	
Holy War	
Just War	
Justice	
Pacifism	
Conflict	
Jihad	
Protest	
Reconciliation	
Retaliation	
Self-Defence	
Terrorism	

What we are exploring this term: Pacifism . Protest. Terrorism. Weapons of mass destruction Just war

C	Is violent protest or terrorism acceptable?	
	1.	1.
	2.	2.
	3.	3.
	4,	4.

E	Is pacifism wrong? Yes	No
	1.	1.
	2.	2.
		3.
	3.	4.

D	What are the rules of the just war theory?	Can just war theory make war fair?	
	1. 2. 3. 4. 5. 6. 7.	1. 2. 3. 4. 5.	1. 2. 3. 4. 5.

B.	Religious and non religious beliefs about weapons of mass destruction
1	
2	
3	

GCSE Unit 7 SPANISH Knowledge organiser.
Topic Global Issues

Key Verbs

Reciclar To recycle	Ir To go	Apagar To turn off	Hacer – to do/make	Encender To turn on
Reciclo I recycle	Voy I go	Apago I turn off	Hago I do	Enciendo I turn on
Reciclas You recycle	Vas You go	Apagas You turn off	Haces You do	Enciendas You turn on
Recicla Sh/e recycles	Va s/he goes	Apaga He/she turns off	Hace s/he does	Encienda He/she turns on
Reciclamos We recycle	Vamos They go	Apagamos We turn off	Hacemos We do	Encendemos We turn on
Reciclan They recycle	Van They go	Apagan They turn off	Hacen They do	Enciendan They turn on

What we are learning this term:

A. Talking about reusing things, reducing waste and recycling
B. Talking about ways of protecting the environment
C. Talking about poverty
D. Talking about homelessness

6 Key Words for this term

1. la libertad	4. el destrozo
2. pensamientos	5. violento/a
3. asistir a	6. la culpa

7.1F Protegiendo el medio ambiente

la basura	rubbish
la bombilla (de bajo consumo)(low-energy) light bulb	
el combustible	fuel
combatir	to fight, to combat
la contaminación atmosférica	air pollution
desaparecer	to disappear
el desastre	disaster
desconectar	to disconnect, to unplug, switch off
deshacer	to undo
los desperdicios	rubbish, refuse, waste
la especie	species
incluso	even
inquietante	worrying
luchar	to struggle, fight
la medida	measure, means
medioambiental	environmental
el motor	engine
los residuos	refuse, waste, rubbish
salvar	to save

7.1G Reutilizar, reducir, reciclar

ahorrar	to save
la basura	rubbish
la bolsa de plástico	plastic bag
el cartón	cardboard
cerrar	to shut, to close,to turn off (tap)
el contenedor	container
en vez de	instead of
intentar	to try to
la lata	tin, can
el malgasto	waste
el papel (reciclado)	(recycled) paper
la papelera	wastepaper basket
la pila	battery
el plástico	plastic
ponerse	to put on (clothes)
los productos químicos	chemicals, chemical products
el proyecto	project
recargable	rechargeable
reciclar	to recycle
reutilizar	to reuse
la Tierra	Earth
tirar	to pull, to throw away
tratar de	to try to
el vidrio	glass

7.2G Los necesitados

a favor (de)	in favour (of)
la alimentación	feeding, nourishment,food
la asistencia médica	medical care
asistir a	to attend
buscar	to look for
contribuir	to contribute
la creencia	belief
la culpa	blame, fault
la enfermedad	illness
en contra	against
estar dispuesto/a a	to be prepared to, to be ready to
faltar	to be lacking, to be missing
fresco	fresh
hace(n) falta	to be necessary, to need
la libertad (de pensamiento)	freedom (of thought)
merecer	to deserve
necesitar	to need
perder	to lose
perezoso/a	lazy
querer	to love

7.2F Los "sin techo"

el destrozo	damage, destruction
escoger	to choose
la falta	lack
formar parte de	to be part of
el/la gamberro/a	hooligan, lout, troublemaker
maltratar	to mistreat, to ill-treat
los niños de la calle	street children
la ONG (organización no gubernamental)	NGO (non-governmental organisation)
la pobreza	poverty
recoger	to pick up
robar	to steal, rob
el vertedero	rubbish dump, tip
la violencia	violence
violento/a	violent

7.2H Es importante ayudar a los demás

el agua corriente (fem.)	running water
bastar	to be enough
la comisaría	police station
consumir	to consume
la corriente	(electric) current, electricity supply
crear	to create
la criminalidad	crime
cualquier(a)	any
el empleo	job
el/la encargado/a	person in charge
el éxito	success

7.1H Problemas ecológicos

acercarse a	to approach
el agujero	hole
la aldea	(small) village
alejar	to move (something) further away
alejarse de	to move further away from
amenazar	to threaten
arruinar	to ruin
el atasco	traffic jam, hold-up
el ave (marina) (fem.)	(sea) bird
el calentamiento global	global warming
la capa de ozono	ozone layer
el casco	helmet, hull (of ship)
el centenar	about a hundred
la central eléctrica	power station
la circulación	traffic
constituir	to constitute
cortar	to cut, to cut off
el efecto invernadero	greenhouse effect
extender	to spread, to stretch
frenar	to brake, to put a stop to
el humo	smoke
el huracán	hurricane
el incendio	fire
la lluvia	rain
la mancha	stain
la marea negra	oil slick
la muerte	death
el nivel	level
el petrolero	oil tanker
el/la pescador/a	fisherman/fisherwoman

Key Verbs

Reciclar _____	Ir To go	Apagar To turn off	Hacer – _____	_____ To turn on
_____ I recycle	Voy I go	Apago _____	_____ I do	_____ I turn on
Reciclas _____	Vas _____	_____ You turn off	Haces _____	Enciendas _____
_____ Sh/e recycles	Va s/he goes	Apaga He/she turns off	Hace _____	_____ He/she turns on
Reciclamos _____	Vamos They go	Apagamos We turn off	Hacemos We do	Encendemos _____
Reciclan They recycle	Van They go	Apagan They turn off	_____ They do	_____ They turn on

What we are learning this term:

A. Talking about reusing things, reducing waste and recycling
B. Talking about ways of protecting the environment
C. Talking about poverty
D. Talking about homelessness

6 Key Words for this term

1. la libertad	4. el destrozo
2. pensamientos	5. violento/a
3. asistir a	6. la culpa

7.1G Reutilizar, reducir, reciclar

ahorrar _____
la basura _____
la bolsa de plástico _____
el cartón _____
_____ to shut, to close, to turn off (tap)
el contenedor _____
_____ instead of
intentar _____
la lata _____
_____ waste
el papel (reciclado) _____
la _____ wastepaper basket
la _____ battery
el _____ plastic
ponerse to _____
los _____ chemicals, chemical products
el proyecto _____
_____ rechargeable
_____ to recycle
reutilizar to _____
la _____ Earth
_____ to pull, to throw away
tratar de _____
el _____ glass

7.1F Protegiendo el medio ambiente

la basura _____
la bombilla (de bajo consumo)(low-energy) light bulb
el _____ fuel
_____ to fight, to combat
la contaminación atmosférica
desaparecer to _____
el desastre _____
_____ to disconnect, to unplug, switch off
deshacer _____
los _____ rubbish, refuse, waste
la especie _____-
_____ even
inquietante _____
_____ to struggle, fight
la _____ measure, means
medioambiental _____
_____ engine
_____ refuse, waste, rubbish
salvar _____

7.2G Los necesitados

a favor (de) _____
la alimentación feeding, nourishment, food
la asistencia médica _____
_____ to attend
_____ to look for
contribuir to _____
la _____ belief
la culpa _____
la enfermedad _____
en contra _____
estar dispuesto/a a to be prepared to, to be ready to
_____ to be lacking, to be missing
fresco _____
_____ to be necessary, to need
la libertad (de pensamiento)
_____ to deserve
necesitar to _____
_____ to lose
perezoso/a _____
_____ to love

7.2F Los "sin techo"

el _____ damage, destruction
escoger to _____
la falta _____
formar parte de _____
_____ hooligan, lout, troublemaker
_____ to mistreat, to ill-treat
los niños de la calle _____
la ONG (organización NGO (non-governmental organisation)
   no gubernamental)
_____ poverty
_____ to pick up
_____ to steal, rob
_____ rubbish dump, tip
la violencia _____
violento/a v_____

7.2H Es importante ayudar a los demás

el agua corriente _____
_____ to be enough
la _____ police station
consumir to _____
la _____ (electric) current, electricity supply
_____ to create
la criminalidad _____
cualquier(a) _____
_____ job
el/la encargado/a _____
_____ success

7.1H Problemas ecológicos

acercarse a to _____
el agujero _____
la aldea _____
_____ to move (something)
further away
_____ to move further away from
_____ to threaten
arruinar to _____
el _____ traffic jam, hold-up
el ave (marina) (fem.) _____
el calentamiento _____
   global
la _____ ozone layer
el _____ helmet, hull (of ship)
el _____ about a hundred
la central eléctrica _____
la circulación _____
c_____ to constitute
_____ to cut, to cut off
el efecto invernadero _____
_____ to spread, to stretch
_____ to brake, to put a stop to
el humo smoke _____
el huracán _____
el _____ fire
la lluvia _____
la mancha _____
la marea negra _____
la _____ death
el nivel _____
el petrolero _____
el/la pescador/a _____

Key Verbs

Reciclar To recycle	Ir To go	Apagar To turn off	Hacer – to do/make	Encender To turn on
Reciclo I recycle	Voy I go	Apago I turn off	Hago I do	Enciendo I turn on
Reciclas You recycle	Vas You go	Apagas You turn off	Haces You do	Enciendas You turn on
Recicla Sh/e recycles	Va s/he goes	Apaga He/she turns off	Hace s/he does	Enciende He/she turns on
Reciclamos We recycle	Vamos They go	Apagamos We turn off	Hacemos We do	Encendemos We turn on
Reciclan They recycle	Van They go	Apagan They turn off	Hacen They do	Enciendan They turn on

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6 Key Words for this term

1. la libertad	4. el destrozo
2. pensamientos	5. violento/a
3. asistir a	6. la culpa

7.1F Protegiendo el medio ambiente

la basura	rubbish
la bombilla (de bajo consumo)(low-energy) light bulb	
el combustible	fuel
combatir	to fight, to combat
la contaminación atmosférica	air pollution
desaparecer	to disappear
el desastre	disaster
desconectar	to disconnect, to unplug, switch off
deshacer	to undo
los desperdicios	rubbish, refuse, waste
la especie	species
incluso	even
inquietante	worrying
luchar	to struggle, fight
la medida	measure, means
medioambiental	environmental
el motor	engine
los residuos	refuse, waste, rubbish
salvar	to save

7.1G Reutilizar, reducir, reciclar

ahorrar	to save
la basura	rubbish
la bolsa de plástico	plastic bag
el cartón	cardboard
cerrar	to shut, to close,to turn off (tap)
el contenedor	container
en vez de	instead of
intentar	to try to
la lata	tin, can
el malgasto	waste
el papel (reciclado)	(recycled) paper
la papelera	wastepaper basket
la pila	battery
el plástico	plastic
ponerse	to put on (clothes)
los productos químicos	chemicals, chemical products
el proyecto	project
recargable	rechargeable
reciclar	to recycle
reutilizar	to reuse
la Tierra	Earth
tirar	to pull, to throw away
tratar de	to try to
el vidrio	glass

7.2G Los necesitados

a favor (de)	in favour (of)
la alimentación	feeding, nourishment,food
la asistencia médica	medical care
asistir a	to attend
buscar	to look for
contribuir	to contribute
la creencia	belief
la culpa	blame, fault
la enfermedad	illness
en contra	against
estar dispuesto/a a	to be prepared to, to be ready to
faltar	to be lacking, to be missing
fresco	fresh
hace(n) falta	to be necessary, to need
la libertad (de pensamiento)	freedom (of thought)
merecer	to deserve
necesitar	to need
perder	to lose
perezoso/a	lazy
querer	to love

7.2F Los "sin techo"

el destrozo	damage, destruction
escoger	to choose
la falta	lack
formar parte de	to be part of
el/la gamberro/a	hooligan, lout, troublemaker
maltratar	to mistreat, to ill-treat
los niños de la calle	street children
la ONG (organización no gubernamental)	NGO (non-governmental organisation)
la pobreza	poverty
recoger	to pick up
robar	to steal, rob
el vertedero	rubbish dump, tip
la violencia	violence
violento/a	violent

7.2H Es importante ayudar a los demás

el agua corriente (fem.)	running water
bastar	to be enough
la comisaría	police station
consumir	to consume
la corriente	(electric) current, electricity supply
crear	to create
la criminalidad	crime
cualquier(a)	any
el empleo	job
el/la encargado/a	person in charge
el éxito	success

7.1H Problemas ecológicos

acercarse a	to approach
el agujero	hole
la aldea	(small) village
alejar	to move (something) further away
alejarse de	to move further away from
amenazar	to threaten
arruinar	to ruin
el atasco	traffic jam, hold-up
el ave (marina) (fem.)	(sea) bird
el calentamiento global	global warming
la capa de ozono	ozone layer
el casco	helmet, hull (of ship)
el centenar	about a hundred
la central eléctrica	power station
la circulación	traffic
constituir	to constitute
cortar	to cut, to cut off
el efecto invernadero	greenhouse effect
extender	to spread, to stretch
frenar	to brake, to put a stop to
el humo	smoke
el huracán	hurricane
el incendio	fire
la lluvia	rain
la mancha	stain
la marea negra	oil slick
la muerte	death
el nivel	level
el petrolero	oil tanker
el/la pescador/a	fisherman/fisherwoman

Key Verbs

Reciclar _____	Ir To go	Apagar To turn off	Hacer – _____	_____ To turn on
_____ I recycle	Voy I go	Apago _____	_____ I do	_____ I turn on
Reciclas _____	Vas _____	_____ You turn off	Haces _____	Enciendas _____
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Reciclamos _____	Vamos They go	Apagamos We turn off	Hacemos We do	Encendemos _____
Reciclan They recycle	Van They go	Apagan They turn off	_____ They do	_____ They turn on

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6 Key Words for this term

1. la libertad	4. el destrozo
2. pensamientos	5. violento/a
3. asistir a	6. la culpa

7.1G Reutilizar, reducir, reciclar

ahorrar _____
la basura _____
la bolsa de plástico _____
el cartón _____
_____ to shut, to close,to turn off (tap)
el contenedor _____
_____ instead of
intentar _____
la lata _____
_____ waste
el papel (reciclado) _____
la _____ wastepaper basket
la _____ battery
el _____ plastic
ponerse to _____
los _____ chemicals, chemical products
el proyecto _____
_____ rechargeable
_____ to recycle
reutilizar to _____
la _____ Earth
_____ to pull, to throw away
tratar de _____
el _____ glass

7.1F Protegiendo el medio ambiente

la basura _____
la bombilla (de bajo consumo)(low-energy) light bulb
el _____ fuel
_____ to fight, to combat
la contaminación atmosférica
desaparecer to _____
el desastre _____
_____ to disconnect, to unplug,
switch off
deshacer _____
los _____ rubbish, refuse, waste
la especie _____-
even
inquietante _____
_____ to struggle, fight
la _____ measure, means
medioambiental _____
_____ engine
_____ refuse, waste, rubbish
salvar _____

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a favor (de) _____
la alimentación feeding, nourishment,food
la asistencia médica _____
_____ to attend
_____ to look for
contribuir to _____
la _____ belief
la culpa _____
la enfermedad _____
en contra _____
estar dispuesto/a a to be prepared to, to be ready to
_____ to be lacking, to be missing
fresco _____
_____ to be necessary, to need
la libertad (de pensamiento)
_____ to deserve
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_____ to lose
perezoso/a _____
_____ to love

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_____ hooligan, lout, troublemaker
_____ to mistreat, to ill-treat
los niños de la calle _____
la ONG (organización NGO (non-governmental organisation) no gubernamental)
_____ poverty
_____ to pick up
_____ to steal, rob
_____ rubbish dump, tip
la violencia _____
violento/a v_____

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la _____ police station
consumir to _____
la _____ (electric) current, electricity supply
_____ to create
la criminalidad _____
cualquier(a) _____
_____ job
el/la encargado/a _____
_____ success

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_____ to move further away
from
_____ to threaten
arruinar to _____
el _____ traffic jam, hold-up
el ave (marina) (fem.) _____
el calentamiento _____
global
la _____ ozone layer
el _____ helmet, hull (of ship)
el _____ about a hundred
la central eléctrica _____
la circulación _____
c_____ to constitute
to cut, to cut off
el efecto invernadero _____
_____ to spread, to stretch
_____ to brake, to put a stop
to
el humo smoke
el huracán _____
el _____ fire
la lluvia _____
la mancha _____
la marea negra _____
la _____ death
el nivel _____
el petrolero _____
el/la pescador/a _____

1. Types of Production

There are three main types of production:

Type of Production	Explanation
Job Production	Job production is one-off production for a one-off order. It is tailored-made to the specific requirements of a single customer. This can be a very costly method production however this means that the business has increased flexibility in terms of the product produced.
Batch Production	Batch production involves producing a limited number of the same item. This method of production is cheaper than job production however this method of production is not as flexible.
Flow Production	Flow production is continuous output of identical products. This is the cheapest method of production as production becomes fully automated. However this affords the business no flexibility in terms of product differentiation.

2. Types of Production (Advantages and Disadvantages)

There are three main types of production:

Type of Production	Advantages and Disadvantages
Job Production	**Advantages:** Highly flexible; gives the customer exactly what they want. **Disadvantages:** High production costs. Skills may be in short supply, making it hard for the business to grow
Batch Production	**Advantages:** Gain some cost advantages from producing several items at once...yet still able to offer customers the colour/size they want **Disadvantages:** May be limited scope for automation, making production costs far higher than with flow production. Not as flexible as job production.
Flow Production	**Advantages:** Can automate production fully, making it highly cost effective (which should be good for customers as well as suppliers). Many customers value consistency, and flow will provide an identical product each time. **Disadvantages:** Likely to be expensive to set up and inflexible to use; could be a disaster if a product life cycle proves much shorter than expected. Lacks flexibility in terms of meeting individual customer needs.

3. Managing Stock – Key Definitions

Term	Explanations
Bar Gate Stock Graph	A diagram used to manage stock.
Buffer (stock)	The minimum stock level always held to avoid running out.
Just in Time (JIT)	When new supplies must arrive 'just in time' moments before they are required.
Stock	Items held by a firm for use or sale, for example components for manufacturing or sellable products for a retailer

Managing Stock well is vital to the success of a business. Successful stock management requires the right balance between reliability and cost. **Too little stock and customers will feel let down. Too much stock and high costs will force high prices. Without stock, sales cannot happen. Manufacturers and retailers need to make sure they supply the right amount of goods to keep the shelves full.**

4. Procurement – Working with Suppliers	
There are five main factors at the heart of a relationship between a company and its suppliers:	
Quality	Suppliers must supply high quality products to businesses, suppliers will struggle to maintain a good relationship with a company if they are not supplying good durable products. First and fore most suppliers must supply high quality materials to businesses.
Delivery	Suppliers must deliver on time to clients, there is little point supplying at the right price and with the right product, if the product doesn't arrive on time. Failing to deliver supplies on time can bring manufacturing to a halt or leave shops with empty shelves.
Availability	Suppliers must be available and able to cope with varying orders in a timely fashion and sometimes within a short timeframe. Suppliers must be flexible and aware of the needs of their customers.
Cost	Cheaper supplies mean lower variable costs and higher profit margins. Therefore, the price charged by a supplier will be a key factor in the relationship between a firm and its suppliers. Price to highly and firms may look to alternative suppliers, price to low and firms may question the quality of merchandise. Pricing is key to the relationship between supplier and firm.
Trust	Trust is key for the relationship between firm and supplier. Most business transactions are on credit and not cash – therefore suppliers have to be able to trust that a firm will make a profit and be able to pay them back in cash.

5. Placing Strategy – Managing Quality within a Business	
Type of Quality Control	**Explanation:**
Quality Control	Quality control is a system of inspection to try to make sure that customers don't experience a poor-quality product or service. Such controls may include Factory Inspectors at the end of a production line checking the quality of a product
Quality Assurance	Quality Assurance describes the system put into place by a company to assure quality within the production system. Every member of staff will have responsibilities to quality assure products. Over time this should lead to quality products as people become better at their roles.
Quality Culture	Quality culture means the general attitudes and behaviours among staff within a workplace is focussed on high quality production. Quality culture describes motivated, punctual, diligent and invested employees who care about the business and strive to improve it.

6. The Sales Process	
Term	**Definition**
Customer Engagement	The attempt to make a customer feel part of something rather than an outsider.
Customer Feedback	Comments, praise or criticisms given to the company by its customers
Post-Sales Service	Service received after the purchase is completed because something has gone wrong or as a way of promoting customer engagement
Product Knowledge	How well staff know all the features of the products and service issues surrounding the products.

7. Customer Service

Great Customer Service is pivotal to any successful business, but there is far more than that to the sales process. To succeed in sales, a business must make sure it provides:

Component of Customer Service	Term
Product Knowledge	Customers expect that staff will be sufficiently well trained and well-motivated to have good knowledge of the products and services being offered. In order to ensure staff, have good product knowledge, certain things are essential: **Good Training** – if businesses provide good training to staff, then staff will be knowledgeable about products and therefore will be able to improve the customer experience **Loyal Staff** – The longer staff stay working in a job the better they become. If staff only stay three to six months, they will never develop a rich understanding of the products and services that the business provides. Well managed businesses pay fairly and treat staff with respect. **Committed Staff** – Committed and enthusiastic staff are crucial to the smooth running of any business. This is affected by the quality of recruitment, the standard of training and the overall culture that exists within the company's workforce.
Speedy and Efficient Service	**Good customer service is designed for the customer not the company.** **Efficient service:** Gets products to customers exactly when you want them Gets products to customers in good condition If there is anything wrong - it will be sorted out as soon as possible and considerately
Customer Engagement	**In the world of social media, it becomes possible to try to keep customers engaged with the business on a regular basis.** **Companies engage customers in a variety of ways:** E-Mail Social Media (Facebook and Instagram) Post Text Television/Web advertisements. **It is vital that customers feel up to date and informed about any product innovations**
Responses to Customer Feedback	How companies respond to customer feedback is vital, providing great customers service where people feel listened too ensures customers continue to come back and buy products from the business. It can cost a lot of money to persuade new customers to come advertising is expensive and it's affects are hard to judge. Building up a reputation for responding to customer feedback can travel by word of mouth and this is much cheaper.

1. Types of Production

There are three main types of production:

Type of Production	Explanation
Job Production	
Batch Production	
Flow Production	

2. Types of Production (Advantages and Disadvantages)

There are three main types of production:

Type of Production	Advantages and Disadvantages
Job Production	Advantages: Disadvantages:
Batch Production	Advantages: Disadvantages:
Flow Production	Advantages: Disadvantages:

3. Managing Stock – Key Definitions

Term	Explanations
Bar Gate Stock Graph	
Buffer (stock)	
Just in Time (JIT)	
Stock	

Managing Stock well is vital to the success of a business. Successful stock management requires the right balance between reliability and cost. **Too little stock and customers will feel let down. Too much stock and high costs will force high prices. Without stock, sales cannot happen. Manufacturers and retailers need to make sure they supply the right amount of goods to keep the shelves full.**

4. Procurement – Working with Suppliers

There are five main factors at the heart of a relationship between a company and its suppliers:

Quality	
Delivery	
Availability	
Cost	
Trust	

5. Placing Strategy – Managing Quality within a Business

Type of Quality Control	Explanation:
Quality Control	
Quality Assurance	
Quality Culture	

6. The Sales Process

Term	Definition
Customer Engagement	
Customer Feedback	
Post-Sales Service	
Product Knowledge	

7. Customer Service

Great Customer Service is pivotal to any successful business, but there is far more than that to the sales process. To succeed in sales, a business must make sure it provides:

Component of Customer Service	Term
Product Knowledge	
Speedy and Efficient Service	
Customer Engagement	
Responses to Customer Feedback	
Excellent Post Sales Service	

Term	Definition
Arithmetic Operator	A mathematical character to perform a calculation. Example: +
Array	A set of values, of the same data type, stored in sequence. A list.
Casting	Setting or changing the data type of a variable.
Concatenation	Connecting strings of characters together.
Condition	A statement which is either true or false. A computation depends on whether a condition is true or false.
Constant	A value which does not change whilst the program is running.
Element	An individual item in an array. A value in a list.
File	Anything you can save. Document, piece of music, data etc.
Identifier	A name, usually for part of the program such as a constant, variable, array etc.
IF Statement - **Selection**	A statement that lets a program select an action depending on whether it is true or false.
Loops - **Iteration**	Repeating an action, activity or section within a program.
Operator	A character which determines what action is to be considered or determined. Example: =
Relational Operator	An operator which compares two values. Example: <
Subroutine	A section of code written outside of the main program. Covers procedures and functions.
Variable	A memory location within a computer where values are stored.

Term	Definition
Fibre-Optic Cable	A cable that carries data transmitted as light.
File Sharing	Sharing access to files via a network.
Hub / Switch	A piece of hardware used in Computer Networks to connect multiple devices.
LAN - Local Area Network	A network that covers a small area, e.g. a school or office.
Modem	Meaning modulator/ demodulator allowing computers to connect to a network via a telephone line.
Network	A group of two or more computers connected together and communicating with each other.
NIC – Network Interface Card	A circuit board installed in a computer allowing it to connect to a network.
PAN - Personal Area Network	A network of personal devices, such as Bluetooth etc.
Router	A device for connecting multiple networks together.
WAN - Wide Area Network	A network which spans across a large geographical area. Multiple buildings, national, internet. Etc.
Wired	A connection which requires wires/ cables to transmit data.
Wireless	A connection which does not require wires and transmits data using radio signals.
WAP - Wireless Access Point	A device which connects computers to a network with a wireless connection.

Cybersecurity Terms	Definition
Adware	Software which causes advertising popups.
Anti-virus	Software which scans storage devices for malware and attempts to remove them.
Biometrics	Authentication technique which relies on physical characteristics like fingerprints.
Hacking	Gaining unauthorised access to a system.
Keylogger	Software which records all keystrokes on a computer keyboard.
Malware	Software which is designed to cause damage or harm to a computer system or its user's interests.
Patch	An update to a piece of software. Usually to fix bugs or improve it.
Pharming	Cyberattack which redirects a user from a genuine website to a fake one.
Phishing	An email which pretends to be from a legitimate source such as a bank to gain personal information.
Ransomware	Malware which encrypts a user's files then demands a ransom to decrypt them.
Social Engineering	Tricking people into giving away sensitive information.
Spyware	Malware which collects information about the user and their activities.
Trojan	Malware which appears legitimate but performs malicious activity when running.
Virus	Malware which replicates itself and damages computer systems and files.

Variable	A memory location within a computer where values are stored.

Input/Output and Calculation

```
userInputName = nput("Enter your name: ") userNum =
int(input("Enter an integer: ")) userDec = float(input("Enter a
decimal number: "))

calculation = userNum + userDec

print("Hello", userInputName, "the result is", calculation)

Enter your name: Mr. Weston Enter an integer: 3 Enter a decimal
number: 15.2 Hello Mr. Weston the result is 18.2
```

IF Statements

```
print("Press 1 for a greeting. Press 2 for a farewell.") userChoice =
int(input("Awaiting Input: "))

if userChoice == 1: print("Hello User!")

elif userChoice == 2: print("Goodbye User!")

else:
    printf'Error - T or '2' not detected.")_
```

```
Press 1 for a greeting. Press 2 for a farewell Awaiting Input: 1
Hello User!
>>>
Press 1 for a greeting. Press 2 for a farewell Awaiting Input: 2
Goodbye User!
>>>
Press 1 for a greeting. Press 2 for a farewell
Awaiting Input: 3
Error - '1' or '2' not detected.
```

LOOPS

```
(userChoice = "Yes"

while userChoice == "Yes":
    userChoice = input ("Do you want to repeat this? ")
```

```
userCount = int(input("How many times do you want to use this
    loop? "))
forx in range (1, userCount+1): print("You asked for this many.")
```

```
Do you want to repeat this? Yes Do you want to repeat this? Yes
Do you want to repeat this? No thank you.
How many times do you want to use this loop? 3 You asked for
this many.
You asked for this many.
You asked for this many.
```

Term	Definition
	A mathematical character to perform a calculation. Example: +
	A set of values, of the same data type, stored in sequence. A list.
	Setting or changing the data type of a variable.
	Connecting strings of characters together.
	A statement which is either true or false. A computation depends on whether a condition is true or false.
	A value which does not change whilst the program is running.
	An individual item in an array. A value in a list.
	Anything you can save. Document, piece of music, data etc.
	A name, usually for part of the program such as a constant, variable, array etc.
	A statement that lets a program select an action depending on whether it is true or false.
	Repeating an action, activity or section within a program.
	A character which determines what action is to be considered or determined. Example: =
	An operator which compares two values. Example: <
	A section of code written outside of the main program. Covers procedures and functions.
	A memory location within a computer where values are stored.

Term	Definition
	A cable that carries data transmitted as light.
	Sharing access to files via a network.
	A piece of hardware used in Computer Networks to connect multiple devices.
	A network that covers a small area, e.g. a school or office.
	Meaning modulator/demodulator allowing computers to connect to a network via a telephone line.
	A group of two or more computers connected together and communicating with each other.
	A circuit board installed in a computer allowing it to connect to a network.
	A network of personal devices, such as Bluetooth etc.
	A device for connecting multiple networks together.
	A network which spans across a large geographical area. Multiple buildings, national, internet. Etc.
	A connection which requires wires/ cables to transmit data.
	A connection which does not require wires and transmits data using radio signals.
	A device which connects computers to a network with a wireless connection.

Cybersecurity Terms	Definition
	Software which causes advertising popups.
	Software which scans storage devices for malware and attempts to remove them.
	Authentication technique which relies on physical characteristics like fingerprints.
	Gaining unauthorised access to a system.
	Software which records all keystrokes on a computer keyboard.
	Software which is designed to cause damage or harm to a computer system or its user's interests.
	An update to a piece of software. Usually to fix bugs or improve it.
	Cyberattack which redirects a user from a genuine website to a fake one.
	An email which pretends to be from a legitimate source such as a bank to gain personal information.
	Malware which encrypts a user's files then demands a ransom to decrypt them.
	Tricking people into giving away sensitive information.
	Malware which collects information about the user and their activities.
	Malware which appears legitimate but performs malicious activity when running.
	Malware which replicates itself and damages computer systems and files.

Variable	A memory location within a computer where values are stored.

Input/Output and Calculation

```
userInputName = nput("Enter your name: ") userNum =
int(input("Enter an integer: ")) userDec = float(input("Enter a
decimal number: "))

calculation = userNum + userDec

print("Hello", userInputName, "the result is", calculation)

Enter your name: Mr. Weston Enter an integer: 3 Enter a decimal
number: 15.2 Hello Mr. Weston the result is 18.2
```

IF Statements

```
print("Press 1 for a greeting. Press 2 for a farewell.") userChoice =
int(input("Awaiting Input: "))

if userChoice == 1: print("Hello User!")

elif userChoice == 2: print("Goodbye User!")

else:
    printf'Error - T or '2' not detected.")_
```

```
Press 1 for a greeting. Press 2 for a farewell Awaiting Input: 1
Hello User!
>>>
Press 1 for a greeting. Press 2 for a farewell Awaiting Input: 2
Goodbye User!
>>>
Press 1 for a greeting. Press 2 for a farewell
Awaiting Input: 3
Error - '1' or '2' not detected.
```

LOOPS

```
(userChoice = "Yes"

while userChoice == "Yes":
    userChoice = input ("Do you want to repeat this? ")
```

```
userCount = int(input("How many times do you want to use this
    loop? "))

forx in range (1, userCount+1): print("You asked for this many.")
```

```
Do you want to repeat this? Yes Do you want to repeat this? Yes
Do you want to repeat this? No thank you.
How many times do you want to use this loop? 3 You asked for
this many.
You asked for this many.
You asked for this many.
```

How you are assessed

Assessment Objectives:
Each component is marked based on 4 assessment objectives: You will be assessed on how effectively you meet the criteria set out in each objective.

6 Key Words for this term

1	Observe	4	context
2	Develop	5	inspiration
3	Critical understanding	6	juxtaposition

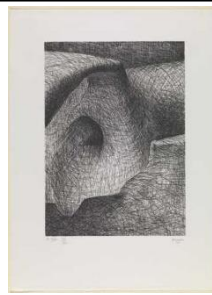| A.	What three techniques will you develop next in your project?

G.	Assessment objectives A01, A02
A01	Assessment Objective 1 AO1 Is about developing ideas from a starting point through to a final outcome. This is achieved by responding in sketch format by taking inspiration from a variety of artists.
AO2	Assessment Objective 2 AO2 is about refining your ideas through the selection of appropriate media, materials, techniques and processes, and should be linked to the artists you have studied. You should be annotating your work showing clearly these connections

G.	Have you explored the following techniques
Drawing	
Etching	
Collage	
Painting	
Sculpture	
Installation	
Photography	
Inks	

G.	Assessment objectives A03 , A04
A03	Assessment Objective 3 A03 is about recording your ideas, observations and insights. These can be visual shown through your use of materials, media and processes. As well as the way you develop your ideas, skills and techniques with written annotation.
A04	Assessment Objective 4 A04 is about presenting a personal, informed and meaningful response, from your initial research through to your final piece. This should be visible through suitable source material and media, the connections you made to your chosen artist and your ability to select appropriate media. You work should be seen as a visual 'journey' from your starting point through to your final piece, that demonstrates your understanding of your particular area of study.

Key questions
If you are looking at an image and don't know how to respond to it break it down into its individual parts.

What colour is it? - could you make a response just looking at its colour or shape?
How does it make you feel? Could that trigger an instinctive/ expressive response
Could you respond to the shape or texture?
Could you delve deeper into the social or historical context of the piece of artwork?
Your key areas of focus should be on figuring out how you can turn your piece of artwork into something else. Your GCSE is a series of developments and experiments leading up to your exam

Year 11 PRODUCT DESIGN Term 2

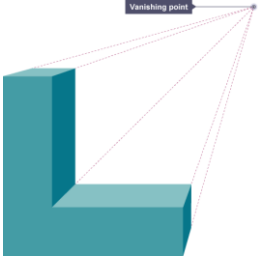## What we are learning this term:

A.   One-Point Perspective   B. Two-point Perspective   C. Isometric Drawing
D. Exploded Drawing   E. Oblique Drawing   F. CAD   G. Orthographic Drawing

Design Strategies Introduction.

Design strategies are used to create technical drawings, to show an object in 3D on a 2D page.
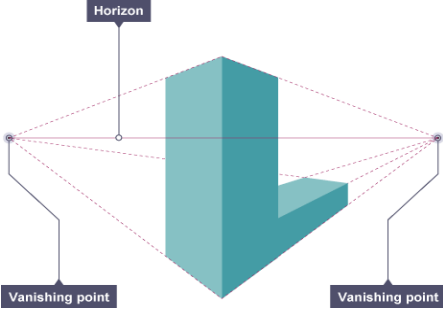Perspective drawings show an object getting smaller in the distance. The rest are done to scale.

A.   One-point Perspective Drawing

Single-point perspective shows an object from the front in a realistic way. The front view goes back towards a vanishing point on the horizon.

Commonly used by interior designers to a show a view into a room.

B.   Two-point Perspective Drawing
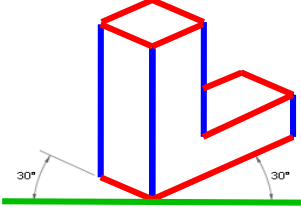
Two-point perspective shows an object from the side with two vanishing points. It gives the most realistic view of a product as it shows the item edge on, as we would see it. It is often used to produce realistic drawings of an object.

Commonly used by architects to show realistic building ideas.

C.   Isometric Technical Drawing
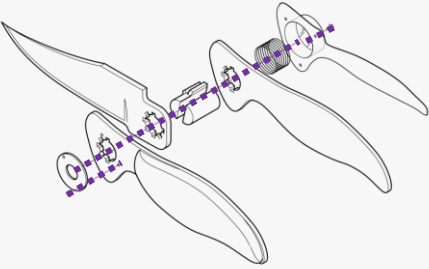
Made up of a series of parallel **vertical lines** and parallel **30-degree lines**. But no **horizontal lines.**

Used by architects and engineers to communicate their ideas to the client and manufacturer.

D.   Exploded Technical Drawing
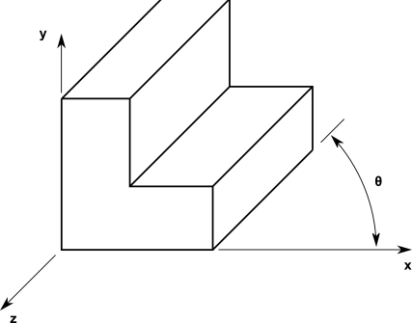
Exploded technical drawing is an Isometric drawing of all the parts and components of an object.

All parts are shown separately so you can see all aspects. **Dashed lines** indicate where everything goes and in what order.

E.   Oblique Technical Drawing

Consists of an object where the front view is drawn flat with height and width of the object draw to the correct lengths.
Diagonal lines are drawn at 45-degrees.

Commonly used by engineers for drafting ideas.

G.   Orthographic Projection – 2D **NOT** 3D Drawing Strategy!

This shows 2D views of a 3D object from different angles – front, plan and end.
Lines are dimensions have specific meaning to avoid confusion.

- Object Line
- Hidden Line
- Center Line
- Dimension Line
- Construction Line

Commonly used in industry to help the manufacturer understand the design.

F.   CAD (Computer Aided Design)

This is designing using a computer using a software such as 2D Design or Solidworks.

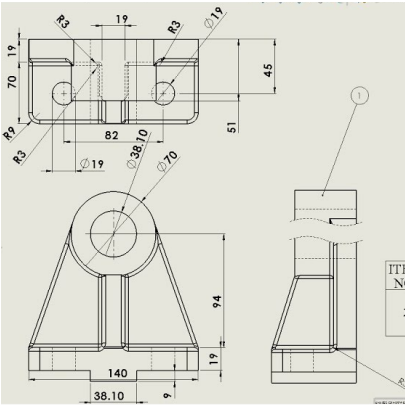Commonly used to model, test and develop an idea before manufacture.

What we are learning this term:

A. One-Point Perspective   B. Two-point Perspective   C. Isometric Drawing
D. Exploded Drawing   E. Oblique Drawing   F. CAD   G. Orthographic Drawing

Design Strategies Introduction.

Design strategies are used to create technical drawings, to show an object in 3D on a 2D page. Perspective drawings show an object getting smaller in the distance. The rest are done to scale.

A.	One-point Perspective Drawing

Commonly used by interior designers to a show a view into a room.

B.	Two-point Perspective Drawing

Commonly used by architects to show realistic building ideas.

C.	Isometric Technical Drawing

Used by architects and engineers to communicate their ideas to the client and manufacturer.

D.	Exploded Technical Drawing

All parts are shown separately so you can see all aspects. **Dashed lines** indicate where everything goes and in what order.

E.	Oblique Technical Drawing

Commonly used by engineers for drafting ideas.

G.	Orthographic Projection – 2D <u>NOT</u> 3D Drawing Strategy!

Object Line
Hidden Line
Center Line
Dimension Line
Construction Line

Commonly used in industry to help the manufacturer understand the design.

F.	CAD (Computer Aided Design)

Commonly used to model, test and develop an idea before manufacture.

Name: Date:

Macronutrients, fibre and water

Macronutrients
Macronutrients provide energy. The macronutrients are:
- carbohydrate;
- protein;
- fat.

Macronutrients are measured in grams (g).

Alcohol
Alcohol is not considered a nutrient, but is a source of energy in the diet.

The government recommends no more than 14 units of alcohol per week for both men and women.

Energy from food
- Energy intake is measured in joules (J) or kilojoules (kJ), but many people are more familiar with Calories (kcal).
- Different macronutrients, and alcohol, provide different amounts of energy.

	Energy per gram
Carbohydrate	16kJ (3.75 kcals)
Protein	17kJ (4 kcals)
Alcohol	29kJ (7kcals)
Fat	37kJ (9 kcals)
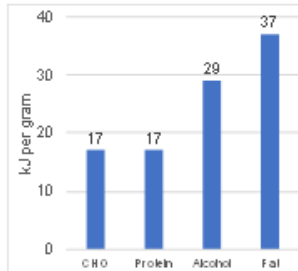
Protein
- Made up of building blocks called amino acids.
- There are 20 amino acids found in protein.
- Eight amino acids have to be provided by the diet (called essential amino acids).

The essential amino acids are isoleucine, leucine, lysine, methionine, phenylalanine, threonine, tryptophan and valine.
In young children, additional amino acids, e.g. histidine and tyrosine, are sometimes considered to be essential (or 'conditionally essential') because they may be unable to make enough to meet their needs.

Recommendations
- 0.75g/kg bodyweight/day in adults.

Sources:
Animal sources: meat; poultry; fish; eggs; milk; dairy food.

Plant sources: soya; nuts; seeds; pulses, e.g. beans, lentils; mycoprotein.

Protein complementation
Different food contains different amounts and combinations of amino acids.

Vegans and vegetarians can get all the amino acids they need by combining different protein types at the same meal. This is known as protein complementation.

Examples are:
- rice and peas;
- beans on toast;
- hummus and pitta bread;
- bean chilli served with rice.

Carbohydrate
All types of carbohydrate are compounds of carbon, hydrogen and oxygen. They can be divided into three main groups according to the size of the molecule.

These three types are:
- monosaccharides (e.g. glucose);
- disaccharides (e.g. lactose);
- polysaccharide (e.g. sucrose).

The two types main of carbohydrate that provide dietary energy are starch and sugars. Dietary fibre is also a type of carbohydrate.

Starchy carbohydrate is an important source of energy.

Starchy foods - we should be choosing wholegrain versions of starchy foods where possible.

Recommendations
- Total carbohydrate - around 50% of daily food energy.
- Free sugars include all sugars added to foods plus sugars naturally present in honey, syrups and unsweetened fruit juice (<5% daily food energy).
- Fibre is a term used for plant-based carbohydrates that are not digested in the small intestine (30g/day for adults).

Fibre
- Dietary fibre is a type of carbohydrate found in plant foods.
- Food examples include wholegrain cereals and cereal products; oats; beans; lentils; fruit; vegetables; nuts; and, seeds.

Dietary fibre helps to:
- reduce the risk of heart disease, diabetes and some cancers;
- help weight control;
- bulk up stools;
- prevent constipation;
- improve gut health.

Fat
Sources of fat include:
- saturated fat;
- monounsaturated fat;
- polyunsaturated fat.

Fats can be saturated, when they have no double bonds, monounsaturated, when they have one double bond, or polyunsaturated, when they have more than one double bond.

Recommendations
- <35% energy, Saturated fat <11% energy.

A high saturated fat intake is linked with high blood cholesterol levels.

Sources:
Saturated fat: fatty cuts of meat; skin of poultry; butter; hard cheese; biscuits, cakes and pastries; chocolate.
Monounsaturated fat: edible oils especially olive oil; avocados; nuts.
Polyunsaturated fatty acids: edible oils especially sunflower oil; seeds; margarine; spreadable fats made from vegetable oils and oily fish.

Dietary reference values (DRVs) are a series of estimates of the energy and nutritional requirements of different groups of healthy people in the UK population. They are not recommendations or goals for individuals.

Reference Intakes are guidelines for the maximum amount of energy (calories), fat, saturated fat, sugars and salt consumed in a day (based on a healthy adult female).

Key terms
Dietary reference values: Estimated dietary requirements for particular groups of the population.
Essential amino acids: 8 of the different amino acids found in proteins from plants and animals that have to be provided by the diet.
Macronutrients: Nutrients needed to provide energy and as the building blocks for growth and maintenance of the body.
Protein complementation: combining different protein types at the same meal to ensure all EAAs are ingested.
Reference Intakes: Guidelines for the maximum amount of nutrients consumed.

Hydration
- Aim to drink 6-8 glasses of fluid every day.
- Water, lower fat milk and sugar-free drinks including tea and coffee all count.
- Fruit juice and smoothies also count but should be limited to no more than a combined total of 150ml per day.

20% of water is provided by food such as soups, yogurts, fruit and vegetables.

The other 80% is provided by drinks such as water, milk and juice.

Drinking too much water can lead to 'water intoxication' with potentially life threatening hyponatraemia.

This is caused when the concentration of sodium in the blood gets too low.

Micronutrients

Micronutrients are needed in the body in tiny amounts. They do not provide energy, but are required for a number of important processes in the body.

There are two main groups of micronutrients:
- vitamins;
- minerals and trace elements.

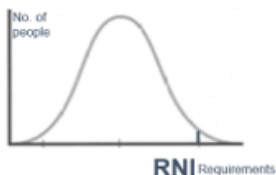Micronutrients are measured in milligrams (mg) and micrograms (µg) with 1mg = 0.001g and 1µg = 0.001mg.

Micronutrient recommendations

The recommendations for vitamins and minerals are based on the **Reference Nutrient Intake (RNI).**

When looking at low intakes of micronutrients, the Lower Reference Nutrient Intake (LRNI) is used.
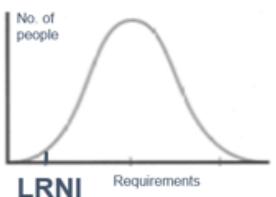
For more information, go to: https://bit.ly/36KUnji

Micronutrient recommendations
People have different requirements for each micronutrient, according to their:
- age;
- gender;
- physiological state (e.g. pregnancy).

Vitamins
Vitamins are nutrients required by the body in small amounts, for a variety of essential processes.

Most vitamins cannot be made by the body, so need to be provided in the diet.

Vitamins are grouped into:
- fat-soluble vitamins (vitamins A, D, E and K);
- water-soluble vitamins (B vitamins and vitamin C).

Minerals
Minerals are inorganic substances required by the body in small amounts for a variety of different functions.

The body requires different amounts for each mineral.

Some minerals are required in larger amounts, while others are needed in very small amounts and are called 'trace elements'.

Vitamins

Nutrient	Function	Sources
Vitamin A	Helps the immune system to work as it should and with vision.	Liver, cheese, eggs, dark green leafy vegetables and orange-coloured fruits and vegetables.
B vitamins	Thiamin, riboflavin, niacin, folate, and vitamin B12 have a range of functions within the body.	Different for each B Vitamin.
Vitamin C	Helps to protect cells from damage and with the formation of collagen.	Fruit (especially citrus fruits), green vegetables, peppers and tomatoes.
Vitamin D	Helps the body to absorb calcium & helps to keep bones strong.	Oily fish, eggs, fortified breakfast cereals and fat spreads.
Vitamin E	Helps to protect the cells in our bodies against damage.	Vegetable and seed oils, nuts and seeds, avocados and olives.
Vitamin K	Needed for the normal clotting of blood and is required for normal bone structure.	Green vegetables and some oils (rapeseed, olive and soya oil).

Minerals

Nutrient	Function	Sources
Calcium	Helps to build and maintain strong bones and teeth.	Dairy, calcium-fortified dairy-alternatives, canned fish (where soft bones are eaten) and bread.
Iron	Helps to make red blood cells, which carry oxygen around the body.	Offal, red meat, beans, pulses, nuts and seeds, fish, quinoa, wholemeal bread and dried fruit.
Phosphorus	Helps to build strong bones and teeth and helps to release energy from food.	Red meat, poultry, fish, milk, cheese, yogurt, eggs, bread and wholegrains.
Sodium	Helps regulate the water content in the body.	Very small amounts found in foods. Often added as salt.
Fluoride	Helps with the formation of strong teeth and reduce the risk of tooth decay.	Tap water, tea (and toothpaste).
Potassium	Helps regulate the water content in the body and maintain a normal blood pressure.	Some fruit and vegetables, dried fruit, poultry, red meat, fish, milk and wholegrain breakfast cereals.
Iodine	Helps to make thyroid hormones. It also helps the brain to function normally.	Milk, yogurt, cheese, fish, shellfish and eggs.

Key terms
Micronutrients: Nutrients needed in the diet in very small amounts.
Lower Reference Nutrient Intake (LRNI): is the amount of a nutrient that is enough for only the small number of people who have low requirements (2.5%). The majority of people need more.
Reference Nutrient Intake (RNI): the amount of a nutrient that is enough to ensure that the needs of nearly all the group (97.5%) are being met. The RNI is used for recommendations on protein, vitamins and minerals.

Vitamin D
Vitamin D is a pro-hormone in the body. It can be obtained in two forms:
- ergocalciferol (vitamin D_2);
- cholecalciferol (vitamin D_3).

Vitamin D_3 is also formed by the action of sunlight. Different to most vitamins, the main source of vitamin D is synthesis in the skin following exposure to sunlight. The wavelength of UVB during the winter months in the UK does not support vitamin D synthesis.

Frayer Model Key Words	
Protein	A macronutrient that is essential to building muscle mass.
Fat	A macronutrient which supplies the body with energy.
Carbohydrates	A macronutrient that is required by all animals. It is made in plants by the process of photosynthesis.
Vitamin	Vitamins are split into two categories, water soluble and fat soluble. Fat soluble vitamins (A, D E, and K) dissolve in fat. Water soluble vitamins (the B group and vitamin C) dissolve in water.
Nutritional	Providing or obtaining the food necessary for health and growth.
Energy	The strength and vitality required for sustained physical or mental activity.

What we are learning this term:

A. *The values that can be promoted through sport*
B. *The Olympic and Paralympic values*
C. *Initiatives that promote values through sport*
D. *The important of etiquette and sporting behaviour*
E. *The use of performance enhancing drugs*

A.	Key question from Assessment objectives?
Key word	**Key definition**
Etiquette	A code of polite behaviour
Enhancing	To improve something
Initiatives	A scheme to try and improve something
Reputation	The opinions about something
Creed	A belief in something
Inclusion	Making sure everyone has an equal opportunity
Sportsmanship	Fair and generous behaviour
Gamesmanship	Winning by bending the rules

A.	*What is the Olympic creed?*

"The most important thing is not to win but to take part, just as the most important thing in life is not to triumph but the struggle. The essential thing is not to have conquered, but to have fought well."

Pierre De Coubertin- Founder of the modern Olympic games

Main assessment objectives

Learning outcome: Know about the role of sport in promoting values

C.	*What is the difference between sportsmanship and gamesmanship?*

Sportsmanship is the unwritten rules that players play by, whereas gamesmanship is bending the rules to gain an advantage

What is spectator etiquette?

1. Quiet at Wimbledon during rallies
2. Quiet during snooker
3. Quiet during national anthems
4. Clapping for a new batsman in cricket

A.	What are the values that can be promoted through sport?

1. Team spirit
2. Fair play
3. Citizenship
4. Tolerance
5. Inclusion
6. National pride
7. Excellence

A.	What are the Olympic and Paralympic values?

1. Respect
2. Excellence
3. Friendship
4. Courage
5. Determination
6. Inspiration
7. Equality

G.	*Performance enhancing drugs*

Why do athletes use them?

Pressure to succeed as an individual
Pressure to succeed as a nation
Pressure from sponsors

Why they shouldn't be used?

Long term health issues
Consequences when found guilty
Unfair advantage

What is WADA?

World Anti Doping Agency
The organisation is charge of drug testing across the world

How do they carry out drug testing?

Blood sample
Hair sample
Nail sample

WORLD ANTI-DOPING AGENCY

	Sporting values
Team spirit	Learning how to work together and support others
Fair play	Learning the importance of playing by the rules
Citizenship	Involved in your local community through sport
Tolerance and respect	Developing understanding of different countries and culture through sport
Inclusion	Initiatives to get under-represented social groups involved in sport
National pride	Supporters and performers unite behind a country in international events
Excellence	Striving to be the best you can be in your favourite sport

Values that can be promoted through sport

What we are learning this term:

A. *The values that can be promoted through sport*
B. *The Olympic and Paralympic values*
C. *Initiatives that promote values through sport*
D. *The important of etiquette and sporting behaviour*
E. *The use of performance enhancing drugs*

A.	Key question from Assessment objectives?	
Key word	**Key definition**	
	A code of polite behaviour	
	To improve something	
	A scheme to try and improve something	
	The opinions about something	
	A belief in something	
	Making sure everyone has an equal opportunity	
	Fair and generous behaviour	
	Winning by bending the rules	

A.	*What is the Olympic creed?*

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C.	*What is the difference between sportsmanship and gamesmanship?*

Sportsmanship is the unwritten rules that players play by, whereas gamesmanship is bending the rules to gain an advantage

What is spectator etiquette?

1
2
3
4

A.	What are the values that can be promoted through sport?

1
2
3
4
5
6
7

A.	What are the Olympic and Paralympic values?

1
2
3
4
5
6
7

G.	*Performance enhancing drugs*

Why do athletes use them?

1
2
3

Why they shouldn't be used?

1
2
3

What is WADA?

1
2

How do they carry out drug testing?

1
2
3

WORLD ANTI-DOPING AGENCY

Sporting values

	Learning how to work together and support others
	Learning the importance of playing by the rules
	Involved in your local community through sport
	Developing understanding of different countries and culture through sport
	Initiatives to get under-represented social groups involved in sport
	Supporters and performers unite behind a country in international events
	Striving to be the best you can be in your favourite sport

Values that can be promoted through sport

Unit 1: The Music Industry

BTEC

What we are learning during this unit:

A. Job Roles in the Music Industry
B. Employment Patterns
C. Record Labels (Pros and Cons)
D. Venues / Health and Safety / Security
E. Unions/Agencies/Trade Bodies
F. Publishing (Pros and Cons)

6 Key Words for this term

1	Employment	4	Responsibility
2	Major	5	Union
3	Independent	6	Publishing

A. Job Roles in the Music Industry

Key word	Key definition
✓ Musician	*Plays an instrument or voice*
✓ Composer	*Writes music e.g. films*
✓ Songwriter	*Writes songs*
✓ Record producer	*Directs recording sessions*
✓ Conductor	*Directs an orchestra / ensemble*
✓ Live Sound Technician	*Monitors sound at live events*
✓ Roadie	*Moves equipment /sets up*
✓ Instrument Technician	*Fixes stuff like guitars/drums*
✓ Artistic Manager	*The boss of the artist/band!*
✓ Venue Manager	*Responsible for health/safety*
✓ Studio Manager	*Book recordings/H&S*
✓ Promoter / Marketer	*Sells tickets to live events!*
✓ A&R	*Finds new talent to sign to labels*
✓ Sound Engineer	*Records the music in studio*
✓ Session Musician	*Plays in recordings or live shows*
✓ Mastering Engineer	*Perfects finished recording*
✓ Manufacturer	*Makes the CD's to sell*
✓ Music Journalist	*Writes about music / reviews*
✓ Blogger/Vlogger	*Blogs about music / reviews*
✓ Broadcaster	*E.g. Radio Presenters*
✓ Software Programmer	*Codes musical software*
✓ DJ	*Mixes/plays live music*
✓ Retailer	*Sells merchandise!*
✓ Distributer	*Gets finished CD's to shops to sell (now also done online!)*
✓ Stylist	*Works on the band/artist image*
✓ Accompanist	*Attends auditions, plays for a solo musician e.g. piano*

B. Employment Patterns

Fulltime	5 days a week, Contract (holidays/sick pay and pension)
Part time	1-4 days a week, Contract like full time.
Freelance	Self-employed, no long-term contracts! No work = no pay
Permanent Vs Casual	Permanent = guaranteed work / security whereas casual is not secure, varies but does give more flexibility

C. Record Labels (pros and cons)

Major	Independent
e.g. Warner, Sony, Universal	*Smaller labels*
Pros = lots of money, links with companies to promote and publish, lots of contacts, get the best deals for manufacturing, good links with advertising and media to promote and market artist/band	Pros = individual style of artist is important, more control over music, closer relationships, contracts more artist friendly
Cons = difficult to stand out, less control over your music, contracts can be unfair	Cons = not as much money, less publicity and promotion, not as organised/connected, less media contacts

D. Venues/Health and Safety/Security

Large Venue = Arena
Small Venue = school hall/pub

Health and Safety

Risk Assessment = to identify and minimise risks
HSE = health and safety executive

Security

ID/Bags/Crowd Control

E. Unions/Agencies/Trade Bodies

Agencies

MCPS / PRS
Mechanical-Copyright Protection Society and the Performing Right Society. *Collects royalties for musicians for physical formats like CD (MCPS) and live music (PRS)*

PPL = Phonographic Performance Limited. *Licenses the right to perform recorded music*

Unions

Unions provide support for lots of people, they provide things like advice for freelancers on NI/TAX, handling disputes, and support in negotiating contracts

MU = Musicians Union
Equity
BECTU = Broadcasting Entertainment Cinematograph Theatre Union

Trade bodies

MPG = *Music Producers Guild*
Represents people involved in producing recorded music

PLASA = *Professional Lighting and Sound Association*
Represents those who work/supply technologies

APRS = *Association of Professional Recording Services*
Represents those who work in the audio industry, e.g. recording studios/producers

F. Publishing (pros and cons)

Major	Self-Publishing
Remember: Publishing Company = Composition OWNERSHIP	
Pros = good distribution, payment often upfront (in advance), marketing and promotion is good	Pros = no need for an agent, send work directly, done on social media, more in control of editing, stepping stone to a larger company
Cons = signed through an agent (which means they take a cut!), harder to get published when the company is huge, more editing done on your work so less control	Cons = less money, less marketing and promotion

BTEC

Unit 1: The Music Industry

What we are learning during this unit:

A. Job Roles in the Music Industry
B. Employment Patterns
C. Record Labels (Pros and Cons)
D. Venues / Health and Safety / Security
E. Unions/Agencies/Trade Bodies
F. Publishing (Pros and Cons)

6 Key Words for this term

1 E_____   4 R_____
2 M_____   5 U_____
3 I_____   6 P_____

A. Job Roles in the Music Industry

Key word	Key definition
✓ M_____	*Plays an instrument or voice*
✓ C_____	*Writes music e.g. films*
✓ S_____	*Writes songs*
✓ Record p_____	*Directs recording sessions*
✓ C_____	*Directs an orchestra / ensemble*
✓ L_____	*Monitors sound at live events*
✓ Technician	*Moves equipment /sets up*
✓ R_____	*Fixes stuff like guitars/drums*
✓ I_____ Technician	*The boss of the artist/band!*
✓ Artistic M_____	*Responsible for health/safety*
✓ V_____ Manager	*Book recordings/H&S*
✓ S_____ Manager	*Sells tickets to live events!*
✓ P_____ / Marketer	*Finds new talent to sign to labels*
✓ A&_	*Records the music in studio*
✓ Sound E_____	*Plays in recordings or live shows*
✓ Session M_____	*Perfects finished recording*
✓ M_____ Engineer	*Makes the CD's to sell*
✓ M_____	*Writes about music / reviews*
✓ Music J_____	*Blogs about music / reviews*
✓ B_____/Vlogger	*E.g. Radio Presenters*
✓ B_____	*Codes musical software*
✓ S_____ Programmer	*Mixes/plays live music*
✓ D__	*Sells merchandise!*
✓ R_____	*Gets finished CD's to shops to sell (now also done online!)*
✓ D_____	
✓ S_____	*Works on the band/artist image*
✓ A_____	*Attends auditions, plays for a solo musician e.g. piano*

B. Employment Patterns

	__ days a week, Contract (holidays/sick pay and pension)
	___ days a week, Contract like full time.
	Self-employed, no long-term c_____! No work = no p____
	P_____ = guaranteed work / security whereas casual is not secure, varies but does give more flexibility

C. Record Labels (pros and cons)

M_____	I_____
e.g. _____	*Smaller labels*
Pros = lots of money, links with companies to promote and publish, lots of contacts, get the best deals for manufacturing, good links with advertising and media to promote and market artist/band	Pros = individual style of artist is important, more control over music, closer relationships, contracts more artist friendly
Cons = difficult to stand out, less control over your music, contracts can be unfair	Cons = not as much money, less publicity and promotion, not as organised/connected, less media contacts

D. Venues/Health and Safety/Security

L_____ Venue = _____
S_____ Venue = _____

Health and Safety

_____ = to identify and minimise risks
HSE = health and safety _____

Security

_____

E. Unions/Agencies/Trade Bodies

Agencies

MCPS / PRS

_____and the Performing Right S_____. *Collects royalties for musicians for physical formats like CD (MCPS) and live music (PRS)*

PPL = Phonographic Performance Limited. *Licenses the right to perform recorded music*

Unions

Unions provide support for lots of people, they provide things like advice for freelancers on _____, handling disputes, and support in _____

MU = Musicians Union
Equity
BECTU = Broadcasting Entertainment Cinematograph Theatre Union

Trade bodies

_____ = *Music Producers Guild*
Represents people involved in producing recorded music

_____ = *Professional Lighting and Sound Association*
Represents those who work/supply technologies
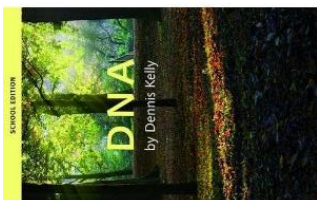
_____ = *Association of Professional Recording Services*
Represents those who work in the audio industry, e.g. recording studios/producers

F. Publishing (pros and cons)

M_____	S_____
Remember: Publishing Company = Composition O_____	
Pros = good distribution, payment often upfront (in advance), marketing and promotion is good	Pros = no need for an agent, send work directly, done on social media, more in control of editing, stepping stone to a larger company
Cons = signed through an agent (which means they take a cut!), harder to get published when the company is huge, more editing done on your work so less control	Cons = less money, less marketing and promotion

What we are learning this term:

A. How to develop our understanding of set design.
B. How to apply the Stanislavski system to character development.
C. How to interpret the director's creative intention in DNA.
D. How to reflect, analyse and evaluate our development.

Who is Dennis Kelley?

Dennis Kelly is renowned in the theatre for writing gritty and sometimes controversial plays, and has been writing consistently for theatre, film and television throughout the past 20 years. Kelly has written over 20 plays to date and continues to create gripping work. He received great acclaim for co-writing the book for Matilda the Musical with Tim Minchin, which won several awards, transferred to the West End in 2011 and toured the globe.

Other Plays by Dennis Kelley

1. Matilda
2. Love and Money
3. Orphans
4. Debris
5. Osama the Hero

Key Words:

Synchronisation – movement or speech that happens at the same time.
Physical & Visual Theatre - a form of theatre that puts emphasis on movement rather than dialogue
Chorus - those who perform vocally in a group as opposed to those who perform singly.
Soundscape – layered voices and sounds to create a location or atmosphere **Abstract** – representational and symbolic, not life-like or naturalistic
Sequence – an order of events/movements **Pattern** – a repeated phrase/sequence of movements
Naturalism - 'A slice of life' on stage. Naturalistic performances should aim to look like real life and do not acknowledge the audience.
Motivation - the reason a character does anything **Revelations** – when information is disclosed
Thought-tracking - Actors speak the thoughts of the characters they are representing. This is a useful way of finding out more about a character's reactions to other characters of the events they are experiencing. Other characters cannot hear the thought tracking, only the audience.
Climax – is a play or a specific scene's point of highest tension and drama
Narrative – the storyline and character's trajectory
The story Motif – A symbolic movement that captures the essence of a character or moment **Symbol** – is something which stands for, or represents something else.
Symbols -are often used in drama to deepen its meaning and remind the audience of the themes or issues it is discussing.
Essence Machine – A group performance that combines symbolic movement and sound to capture the essence of a something – this could be anything, for example, a character, a place, a feeling.

Key learning aims from Component 2

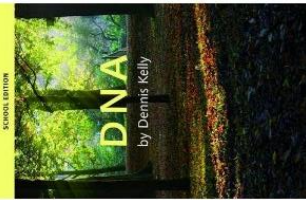|	
Learning aim A: Develop skills and techniques for performance	A1: Development of physical, vocal and interpretative skills. Introduction to developing skills and techniques; participation in naturalism workshops as well as exploring symbolic and abstract performance.
Learning aim B: Apply skills and techniques in rehearsal and performance	B1: Interpretation of two sections of DNA through a mixture of naturalism techniques inspired by Stanislavski to enter the minds of the teenagers. Minimalism, fantasy and symbolism to explore different ideas for production. Development of skills, techniques and interpretive skills leading to final performance in front of a live audience.
Learning aim C: Review own development and performance	C1: Review own development of skills and techniques for performance Evaluation of development of skills, responding to teacher/peer feedback and observations, identifying strengths and areas for development, setting actions and targets for improvement, referring to professional working practices.

	Keywords linked to Assignment Brief
Physical skills	The physical attributes you need to be able to practically move with technical accuracy. Rehearsal – Practising to improve your performance.
Performance skills	The performance attributes you need to be able to practically perform applying confidence, a character, a narrative etc.
Reflect	Look over your current work and the work of others and be able to reflect and comment on your own and others practice. How does reflection lead to improvement?
Analyse	Watch and then analyse your own, and the group, performance by seeing where your strengths and weaknesses are and how these can be improved.
Apply	How you can then physically apply the physical and performance skills to a live performance to make a successful practical performance.

Component 2 – Key focus

This component is designed to give students a practical overview of the skills, techniques and practices required for the discipline of drama. You will explore the technique naturalism and apply them to the play: DNA. You will apply Stanislavski's naturalism to a section of the DNA script and perform to an audience. Through a series of workshops and rehearsals you will explore the different scenes of DNA as well as the direction's creative intention. Using symbolism, naturalism, minimalism and fantasy you will explore the motivations behing these characters and their heinous crime.

What we are learning this term:

A. How to develop our physical and visual story telling techniques.
B. The Frantic Assembly devising process through rehearsals.
C. How to interpret the director's creative intention in A Curious Incident of a Dog in the Night-time.
D. How to reflect, analyse and evaluate our development.

DNA by Dennis Kelly (SCHOOL EDITION)

Who is Dennis Kelley?	Other Shows by Dennis Kelley

Key Words:

Synchronisation – _____
Physical & Visual Theatre - a form of _____

Chorus - those who perform _____

Soundscape – layered_____
Abstract – _____

Sequence – an order of
_____

Naturalism - 'A slice of life' on stage. Naturalistic
_____

Motivation - the _____

Thought-tracking - Actors
_____
. This is a useful way of finding out
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to other characters of the events they are experiencing. Other characters cannot hear the thought tracking, only the audience.
Climax – is a play or a specific scene's point of
_____
and drama
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e and _____
The story Motif – A _____
that captures the essence of a character or moment Symbol – is something which stands for, or represents something else.
Symbols -are often used in drama to
_____
and remind the audience of the themes or issues it is discussing.
Essence Machine – A
_____
that combines symbolic movement and sound to capture the essence of a something – this could be anything, for example, a character, a place, a feeling.

Expand your knowledge and understanding!
https://www.bbc.co.uk/teach/class-clips-video/plot-overview-dna-by-dennis-kelly/zf6kjhv
Quirky Bird Theatre Company
The National Theatre Performance 2008

Key learning aims from Component 2

Learning aim A: Develop skills and techniques for performance	
Learning aim B: Apply skills and techniques in rehearsal and performance	
Learning aim C: Review own development and performance	

	Keywords linked to Assignment Brief
Physical skills	
Performance skills	
Reflect	
Analyse	
Apply	

Component 2 – Key focus

This component is designed to give students a practical overview of the skills, techniques and practices required for the discipline of drama. You will explore the technique naturalism and apply them to the play: DNA. You will apply Stanislavski's naturalism to a section of the DNA script and perform to an audience. Through a series of workshops and rehearsals you will explore the different scenes of DNA as well as the direction's creative intention. Using symbolism, naturalism, minimalism and fantasy you will explore the motivations behing these characters and their heinous crime.

Year 11 BTEC Health and Social Care- Component 3: Health and Wellbeing. LAA

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What we are learning in LAA:
A. Key words
B. Definitions of health and wellbeing
C. Genetic inheritance

A.	**Key words for this Unit**
Genetic inheritance	The genes a person inherits from their parents
Predisposition	Someone is more likely to suffer from a particular condition
Chronic	Gradual illness that is long term (longer than 3 months) and generally can be treated but not cured
Acute	A short-term illness that can be cured
Monitor	To check progress over a period of time.
Person-Centred	Planning care around the wants and needs of a service user
Bereavement	The process of coming to terms with the death of someone close.
Circumstances	Events that change your life, over which you have no control
Physiological	Relates to how a person and their bodily parts function normally.
Interpret	understand an action, mood, or way of behaving as having a particular meaning
Collaboratively	Working well together with other poeple or services
Obstacles	Difficulties a person might face when they implement a plan.
Goal	What you want to achieve in the long term
Norm	Something that is usual, typical or standard
Targets	Challenges to help you reach your goal

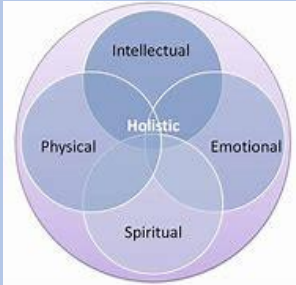| B		**Definitions of heath and well-being**
Positive Definition		Looks at how physically fit and mentally stable a person is. You have a positive attitude towards health and wellbeing if you realise that there is something you can do to improve your health and wellbeing and do it.
Negative definition		Looks at the absence of physical illness, disease, and mental distress. You have a negative attitude towards your health and wellbeing if you: • Base your attitude on not having anything wrong with you. • Continues as you are- Inc. keeping bad habits like smoking. • Assume that because you currently feel fine you will stay healthy in the future.
Holistic definition		It is a combination of physical health and social and emotional wellbeing. It is not just the absence of disease or illness; it looks at all aspects of a person's health and wellbeing. You have a holistc attitude towards health and wellbeing if you look after your:
		• **Physical Health:** Be meeting the needs we have to keep our bodies working as well as they can, e.g. Food, water, shelter, warmth, clothing, rest, exercise and good personal hygiene.
		• **Intellectual health:** By meeting the needs we have to develop and keep our brains working as well as possible; these include mental stimulation to keep us motivated and interested.
		• **Emotional aspects of wellbeing:** By meeting the needs we have that make us feel happy and relaxed, e.g. being loved, respected and secure. Knowing how to deal with negative emotions, having positive self-concept and being respected by others.
		• **Social aspects of wellbeing**: By meeting the needs we have to help us develop and enjoy good relationships with others, including mixing with others in appropriate environments and having access to leisure facilities/ activities.

C.	**Genetic inheritance**		
Inherited physical Characteristics		**Genes and environment**	
• Children inherit their physical; characteristics from their parents e.g. height, skin and eye colour and hair type and colour. • These characteristics can affect social and emotional welling because they influence a person's self-concept (self-image and esteem).		• Chromosomes carry genes that determine aspects of persons physical makeup. • Gene is a section of DNA that carries a code. Different versions of a gene are called **alleles** (they can be faulty). • Environmental factors such as diet, also influence physical appearance. For example, a person may not grow to their full, genetically determined height if they do not have enough food.	
Allele type	Dominant: If a gene is dominant a child inheriting it from only one birth parent will have the condition, e.g Huntington's disease.	Effects of inherited disorders	• Physical health: Body systems, growth and mobility • Intellectual welling: learning, thinking, problem solving and decision making. • Emotional wellbeing: how people feel about themselves. • Social wellbeing: the ability to build relationships and maintaining them.
	Recessive: If the gene is recessive a child would only develop the condition if it was inherited from both birth parents, e.g. Cystic fibrosis.		

What we are learning in LAA:
A. Key words
B. Definitions of health and wellbeing
C. Genetic inheritance

A.	Define the key words for this Unit
Genetic inheritance	
Predisposition	
Chronic	
Acute	
Monitor	
Person-Centred	
Bereavement	
Circumstances	
Physiological	
Interpret	
Collaboratively	
Obstacles	
Goal	
Norm	
Targets	

B		Definitions of heath and well-being
Positive Definition		
Negative definition		
Holistic definition		**Definition:**
		• **Physical Health:**
		• **Intellectual health:**
		• **Emotional aspects of wellbeing:**
		• **Social aspects of wellbeing**:

C.		Genetic inheritance	
Inherited physical Characteristics		**Genes and environment**	
• •		• • •	
Allele type	Dominant:	Effects of inherited disorders	• • • •
	Recessive:		

Year 11 BTEC Health and Social Care- Component 3: Health and Wellbeing. LAA

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What we are learning in LAA:

D. Balanced diet
E. Chronic and acute illness
F. What are the effect of exercise?
G. What are the effect of excessive substance use?

D.	Balanced diet
What is a balanced diet?	• Diet that contains the correct nutrients in the right proportions to keep out bodies and minds healthy. • It is also a lifestyle choice • Choosing to eat too much or too little might make us less able to take all the opportunities that life offers.
Overweight or underweight may:	A person over weight or under weight may: • Be prone to illness and conditions • Have their life expectancy reduced • Be less able to exercise effectively • Miss out on learning experiences • Miss out on some sporting activities • Be less successful in job interviews • Feel embarrassed and self-conscious about their appearance in social situations.
Essential parts of a healthy diet:	• Fats (saturated and unsaturated) • Carbohydrates (sugars and starches) • Minerals • Vitamins • Proteins
Est well guide says you should eat:	• Eat at least 5 portions of a variety of fruit and vegetables every day. • Base meals on potatoes, bread, rice, pasta or other starchy carbohydrates; choosing wholegrain versions where possible. • Have some dairy or dairy alternatives (such as soya drinks); choosing lower fat and lower sugar options. • Eat some beans, pulses, fish, eggs, meat and other proteins (including 2 portions of fish every week, one of which should be oily). • Choose unsaturated oils and spreads and eat in small amounts. • Drink 6-8 cups/glasses of fluid a day.
If you eat more than you need:	• The body will store food as fat and this can lead to: • Obesity, heart disease, high blood pressure, Strokes, Tooth decay or cancer
If you eat less than you need	• The body does not get enough nutrients to grow and develop properly and this can lead to: • Eating disorders, stunned growth, anaemia, heart failure, depression, tiredness, cancer or rickets.

E	Chromic or Acute Illness

Chronic illness- Illness comes on gradually, is long term (more than 3 months) and generally can be treated but not cured. E.g Asthma, Diabetes, epilepsy, bipolar disease, Alzheimer's disease	**Acute illness-** Illness comes on quickly, is short term and can be cured. E.g. Cold, flue, broken bones, heartburn, appendicitis or Diarrhoea.

Some chronic conditions are acute but may develop because of chronic conditions. For example: osteoporosis (a chronic condition that weakness bones) masking their bones fragile and more likely to break. Broken bones are then an acute condition.

Possible negative effects of chronic illness	
Physical: • poor rate of growth • Unusual physiological change during puberty • Restricted movement	Emotional: • Negative self-concept • Stress • Decision making
Intellectual: • Disturbed learning because of missing school • Difficulties in thinking and problem solving • Memory problems.	Social • Isolation • Loss of independence • Difficulties developing relationships

F.	What are the effect of exercise?
Positive effects of exercise	**Physical:** maintain a healthy weight, reduce BMI, boosting energy levels. Improved flexibility, stamina, endurance and stronger bones and muscles. Reduce risk of heart disease and diabetes. **Intellectual**: improved brain function like mentor and thinking skills. **Emotional:** improves confidence and mood and reduces stress. Aid relaxation and sleep and lead to better self concept. **Social**: encourages social interaction, reducing isolation and improving social skills.
Negative effects of exercise	**Physical:** Obesity and associated health problems. **Intellectual**: Reduced pain performance, hard to concentrate and retain information. **Emotional:** poor self-concept and reduced ability to cope with stress. **Social:** Fewer opportunities for social interactions.

G.	What are the effect of excessive substance use?
Negative effects of excessive alcohol consumption	**Physical:** Alcohol dependence, damage to major organs: liver, heart, kidneys, pancreas. Cancers: mouth, throat, oesophagus, liver, breast. Infertility and impotence, weight gain. **Intellectual**: difficulty in making decisions, depression and anxiety, chance of stroke and brain damage, impaired brain development of unborn baby. **Emotional**: poor self-concept, poor judgement leading to a risk of accidents and unsafe sex, can have an impact on relationships, depression. **Social**: breakdown of relationships, domestic violence, social isolation

Year 11 BTEC Health and Social Care- Component 3: Health and Wellbeing. LAA

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What we are learning in LAA:

D. Balanced diet
E. Chronic and acute illness
F. What are the effect of exercise?
G. What are the effect of excessive substance use?

D.	Balanced diet
What is a balanced diet?	
Overweight or underweight may:	
Essential parts of a healthy diet:	
Est well guide says you should eat:	
If you eat **more** than you need:	
If you eat **less** than you need	

E	Chromic or Acute Illness	
Chronic illness-		**Acute illness-**
Explanation:		

Possible negative effects of chronic illness	
Physical:	Emotional:
Intellectual:	Social

F.	What are the effect of exercise?	
Positive effects of exercise	**Physical:** **Intellectual**:. **Emotional**: **Social**:
Negative effects of exercise	**Physical:** **Intellectual**:. **Emotional**: **Social**:

G.	What are the effect of excessive substance use?
Negative effects of excessive alcohol consumption	**Physical:** **Intellectual**:. **Emotional**: **Social**:

Year 11 BTEC Health and Social Care- Component 3: Health and Wellbeing. LAA

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What we are learning in LAA:

H. The effects of social interactions on wellbeing
I. What are the effects of stress on health and wellbeing
J. What are the hazards of smoking
K. What are the effects of personal hygiene

H.	The effects of social interactions on wellbeing
Social integration	When people feel they belong to a group and can interact with others. Social interactions can happen between family members and friends, work colleagues, school learners, members of a community or interest groups.
Social isolation	Occurs when people do not have regular contact with others. This may be because they don't go out much because of physical illness, reduced mobility or unemployment. They might have a difficulty in communicating if they have a mental illness, depression or learning difficulties. Lastly, a person might be discriminated against because of culture, religion or disability.

Positive effects of relationships	**Physical:** physical support and day to day care and practical assistance. **Intellectual:** shared experiences, supported learning and thinking **Emotional:** unconditional love, security and encouragement, positive self-concept, feeling content, ability to build relationships with people outside the family, independence and confidence. **Social:.** Companionship, social circle increases.
Negative effects of social isolation	**Physical:** poor lifestyle choices like smoking and drinking, poor diet that can cause eating disorders. **Intellectual:** reduced ability to use thinking skills, missing school/work **Emotional:** feelings insecure, depression, anxiety, negative self-concept, feeling of hurt, loneliness and distrust, lack of independence, difficulty in controlling emotions. **Social:** difficulties in building relationships as lack skills.

I.	What are the effects of stress on health and wellbeing		
Physical effects	**Intellectual effects**	**Emotional effects**	**Social effects**
Increased heartbeat Increased breathing rate Tense muscles Sweaty palms Dry mouth High blood pressure Loss of appetite Sleeplessness Digestive problems	Forgetfulness Poor concentration Difficulty in making decisions	Difficulty in controlling emotions Feeling insecure Negative self-concept Feeling anxious and frightened Loss of confidence	Difficulty in making friends and building relationships Breakdown of close relationships Social isolation

J.	What are the hazards of Smoking

Heart disease and poor circulation mean:
- increased blood pressure
- increased risk of heart attack
- narrowing of the arteries.

Carbon monoxide causes:
- decreased oxygenation
- poor growth
- extra work for the heart
- increased risk of thrombosis.

Exposure in childhood means that children:
- are prone to chest infections and asthma
- tend to be smaller and weaker
- do less well at school.

Irritant particles cause:
- bronchitis
- emphysema
- asthma
- smoker's cough.

The hazards of smoking

Exposure in pregnancy causes:
- smaller babies
- more stillbirths
- more miscarriages.

Nicotine causes:
- addiction
- increased blood clotting leading to thrombosis.

Conditions such as:
- stroke
- gum disease.

Tar causes cancers of the nose, throat, tongue, lungs, stomach and bladder.

Smokers':
- breath and clothes smell of smoke
- hands and nails are nicotine stained
- faces often become wrinkled from the effects of smoking.

K.	What are the effects of Personal Hygiene?
Positive effects of good personal hygiene	• Helps prevent the spread of infection • Improves self-concept • Reduces number of bacteria that lives on us. **You must:** • Brush you teeth • Shower daily or bath • Wash your hair regularly • Keep fingernails and toenails clean and trimmed
Negative effects of poor personal hygiene	**Physical:** catching and spreading disease like food poisoning, sore throat, meningitis and athlete's foot. Bad body odour, bad breath and tooth decay. **Emotional:** loss of friendships and social isolation. Might be bullied and poor self-concept. **Social:** low social interactions as people don't want to be friends with someone that neglects their hygiene. Social isolation.
When caring for others:	• Bad hygiene can stop effect communication. • Negative effect on the person being cared for and their health and wellbeing- pass on infection • Discomfort for the person being cared for because of the odour or visible dirt under fingernails.

Year 11 BTEC Health and Social Care- Component 3: Health and Wellbeing. LAA

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What we are learning in LAA:

H.   The effects of social interactions on wellbeing
I.   What are the effects of stress on health and wellbeing
J.   What are the hazards of smoking
K.   What are the effects of personal hygiene

J.	What are the hazards of Smoking- draw out the mind map in the space below:

H.	The effects of social interactions on wellbeing
Social integration	
Social isolation	

Positive effects of relationships	**Physical:** **Intellectual:.** **Emotional:** **Social:**
Negative effects of social isolation	**Physical:** **Intellectual**:. **Emotional**: **Social**:

I.	What are the effects of stress on health and wellbeing		
Physical effects	**Intellectual effects**	**Emotional effects**	**Social effects**

K.	What are the effects of Personal Hygiene?
Positive effects of good personal hygiene	• • • **You must:** • • • •
Negative effects of poor personal hygiene	**Physical:** **Emotional**: **Social**:
When caring for others:	• • •

Year 11 BTEC Health and Social Care- Component 3: Health and Wellbeing. LAA

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What we are learning in LAA:

L. What are the barriers to seeking help.
M. What are the effects of unexpected life events on health and wellbeing
N. What are the effects of economic factors (e.g, income) on health and wellbeing
O. What are the effects of expected life events on health and wellbeing

L.	What are the barriers to seeking help.
Culture	Accessing HSC services can be influenced by values, traditions, way of life and beliefs of the society or group. • Some may have received discrimination when accessing other services. • Some may not speak English well enough. • Values and traditions not understood e.g. eye contact means respect in some cultures but not others. • Some cultures a woman must be treated only by a female professional. • Alternative therapies are used in some cultures
Gender	Research shows that men are lesson likely to talk about their health and wellbeing than woman. This is because men are: • Often less open about their feelings • Sometimes reluctant to appear vulnerable by asking for help • Not aware of poor health signs as health campaigns target women's health more • Unhappy to be examined by a female health worker.
Education	Research shows that people who are better educated are more likely to seek help. This is because: • They like to research symptoms and know when help is needed • Understand the importance of early diagnosis and treatment • Know how and where to access services.
Stigma	In some cultural groups there is a stigma attached to certain condition like depression. Stigma is a word used to describe something that people feel embarrassed about. Therefore, they wouldn't seek help.

M.	What are the effects of unexpected life events on health and wellbeing		
Life event	**Positive Effects:**		**Negative Effects:**
Imprisonment	• Depression • Loss of contact with family and friends • Social isolation • Restrictions on physical activity		• Opportunity to study • Improvement in health through balanced diet, lack of alcohol, reduced use of nicotine
Redundancy	• Poor self-concept • Anxiety about finances • Fewer opportunities		• Opportunities to study or train for a new job • More time to spend with family and friends
Exclusion or dropping out of education	• Loss of contact with friends • Social isolation • Poor self-concept • Lack of learning opportunities		• Catalyst for change of behaviour • Opportunities for more suitable study or work situation

N.	What are the effects of economic factors (e.g, income) on health and wellbeing	
	Positive Effects:	**Negative Effects:**
Physical	• Better financial resources can result in good housing conditions and healthy diet • Manual jobs may improve muscle tone and stamina.	• Low wages can affect diet ad housing, leading to poor health. • Manual jobs can cause muscular and skeletal problems • Desk jobs lead to less activity and weight gain.
Intellectual	• Better financial resources can result in more leisure time for intellectual activities • Work, education or training helps to develop problem solving and thinking skills	• Some people work very long hours to improve their financial position, leading to less leisure time and reduced learning opportunities. • Being unemployed can result in poor mental health.
Emotional	• A well-paid job gives a feeling of security. • Being financially secure promotes positive self-concept	• Financial worried can result in stress and breakdown of relationships. • Unemployment or low-status work can lead to low self-concept
Social	• Better financial resources provide opportunities for socialising. • Work gives opportunities for socialising with colleagues.	• Lack of financial resources reduces opportunities for socialising. • Unemployment reduces opportunities for relationships, leading to social isolation.

O.	What are the effects of expected life events on health and wellbeing	
Life event	**Positive Effects:**	**Negative Effects:**
Starting school, college or uni	• Build new relationships • Extend knowledge and learning • Develop new skills • Improve confidence	• Anxiety about new routines and meeting new people • Insecurity about leaving parents and other families
Start a new job or career	• Develop independence • Improve thought processes • Improve self-concept	• Stress about learning new skills and routines • Anxiety about meeting new people
Moving to a new house or area	• Excitement • Develop new friendships and relationships	• Unhappiness at loss of old life • Stress of moving • Social isolation
Retirement	• Reduced stress • Time to socialise with family and friends • Opportunities for leisure of physical activities	• Loss of relationships with colleagues • Possible loss of fitness and mobility • Loss of intellectual stimulation and status

What we are learning in LAA:

L. What are the barriers to seeking help.
M. What are the effects of unexpected life events on health and wellbeing
N. What are the effects of economic factors (e.g, income) on health and wellbeing
O. What are the effects of expected life events on health and wellbeing

L.	What are the barriers to seeking help.
Culture	
Gender	
Education	
Stigma	

M.	What are the effects of unexpected life events on health and wellbeing	
Life event	Positive Effects:	Negative Effects:
Imprisonment		
Redundancy		
Exclusion or dropping out of education		

N.	What are the effects of economic factors (e.g, income) on health and wellbeing	
	Positive Effects:	Negative Effects:
Physical		
Intellectual		
Emotional		
Social		

O.	What are the effects of expected life events on health and wellbeing	
Life event	Positive Effects:	Negative Effects:
Starting school, college or uni		
Start a new job or career		
Moving to a new house or area		
Retirement		

Year 11 BTEC Health and Social Care- Component 3: Health and Wellbeing. LAA

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What we are learning in LAB:

A. Physiological health indicators
B. What are health indicators?
C. Interpreting lifestyle data

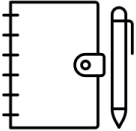| A.	Physiological health indicators
Pulse	**Resting pule rate** is measured when a person has been still for about 5 minutes. Health reading for an adult is 60-100 bpm. **Pulse rate during exercise:** 220bpm minus the person's age.
Blood pressure	• This is the pressure exerted by blood against the artery walls. • It is measured in millimetres of mercury (mm Hg) and is shown in two numbers: • Systolic pressure: (the top number) is the maximum pressure in the blood vessels as the heart pushes out blood. • Diastolic pressure: (the bottom number) as the minimum pressure in the vessels when the heart relaxes between the beats.
Peak flow	• Measured how quickly you can blow air out of your lungs. • it is measured in litters per min (L/min).
BMI	• Measures the amount of fat on your body in relation to your height to tell you if your weight is healthy.

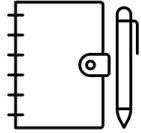| B.	• What are health indicators?
Importance of understanding indicators	• Detect health problems at an early stage • Track improvements or deterioration in health • Make recommendations about health and treatments • Give advice about future health risks • Support individuals to make different lifestyle choices.
What are lifestyle indicators?	• These indicators can be used to assess risks to an individual's health and wellbeing now and in the future. • Professionals collect information about lifestyle choices by asking about a person's: • Weekly alcohol consumption • Smoking habits • Levels of physical activity and exercise.
What are physiological indicators?	• They show how well the body's systems are functioning. • Health professionals check a person's heath by taking measurements. • They compare the results with published guidance.

C.	Interpreting lifestyle data
Interpreting data on smoking	• Smoking causes around 96,000 deaths in the UK annually. • Smoker under the age of 40 are 5 times more likely to have a heart attack than non-smoker. • Smoking causes 80% of deaths from lung cancer, 80% of bronchitis and 14% of deaths from heart disease. • More than 25% of all cancer deaths are caused by smoking. • On average a smoker will die 10 years earlier than a non-smoker. • Smokers are more likely to develop facial wrinkles. • Smoking is a cause of impotence and can lead to sperm abnormalities.
Interpreting data on alcohol	• Strongly linked to at least 7 types of cancer • Alcohol-related liver disease accounts for 37% of liver disease and deaths. • 2/3s of cases of chronic pancreatitis are caused by heavy drinking • You are between 2 and 5 times more likely to have an accident or injury • Each drink per day increases the risk of breast cancer in woman between 7-13% • Men and woman should not drink more than 14 units a week and not all in one go.
Interpreting data on inactivity	• Increased risk of breast cancer by 17.8% and colon cancer by 18.7% • Increased risk of type 2 diabetes by 13%. • Increased risk of coronary heart disease by 10.5% • Leads to obesity and joint pain • 16.9% of all premature deaths are caused by inactive lifestyle. • Active people have a lower risk of premature death. • People who are inactive visit their GP more often and they spend 38% more time in hospital.

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What we are learning in LAB:

A. Physiological health indicators
B. What are health indicators?
C. Interpreting lifestyle data

A.	Physiological health indicators
Pulse	**Resting pule rate** : **Pulse rate during exercise:**
Blood pressure	• • • •
Peak flow	• •
BMI	•

B.	• **What are health indicators?**
Importance of understanding indicators	
What are lifestyle indicators?	
What are physiological indicators?	

C.	Interpreting lifestyle data
Interpreting data on smoking	
Interpreting data on alcohol	
Interpreting data on inactivity	

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What we are learning in LAC:
A. What is a person-centred approach
B. Health improvement plan
C. Recommended action to meet health and wellbeing improvement goals
D. SMART targets for health improvement plan
E. Sources of support

A.	What is a person-centred approach.
Person-centred approach	A holistic approach that puts the individual at the heart of health care planning, so that the whole range of physical, intellectual, emotional and social health needs are met.
When planning for health improvements include:	• The needs: physical, intellectual, emotional and social. • The wishes: likes, dislikes, choices and desired health goals. • Circumstances: illness or disability, access to facilities, previous experiences, family and relationships, responsibilities.
Benefits of person-centred approach:	• Will feel involved • Is more likely to trust a health professional who listen to them • Will feel more secure • Is more likely to follow the plan and achieve the targets • Will take responsibility for their own health.

B.	Health improvement plan
What is it?	Health and welling improvement plans are often based on an individual's physiological and lifestyle indicators. Plans should be person-centred and include goals, actions and targets and possible sources of support.
The plan will identify:	• The health issues and goal • The recommended actions to take • A set of targets for health improvement • The supports that are needed • Possible obstacles to progress and way to overcome them.
Positive effects of a health improvement plan	• Be fitter • Loose weight • Have improved self-concept • Lower blood pressure, healthier heart • Reduced risk of cancer • Taking control of their health outcomes and reaching health goals

C.	Recommended action to meet health and wellbeing improvement goals

To lower blood pressure:
• Eat five or more portions of fruit and veg a day
• Cut out salt
• Use relaxation techniques to reduce stress
• Join a gym
• Drink water alongside alcohol to reduce consumption

To reduce BMI:
• Reduce fat and sugar intake
• Do not exceed the recommended daily calories intake
• Get off the buss a stop early and walk the rest of the way
• Drink water instead of sugary drinks.

To increase peak flow reading:
• Half the number of cigarettes smoked each day
• Use nicotine replacement therapies
• Join an exercise or dance class.

To reduce pulse rate and improve recovery time after exercise:
• Walk for half and hour at lunchtime
• Drink decaffeinated drinks
• Take up a physically active hobby
• Join a yoga group.

D.	SMART targets for health improvement plan
Specific	The target must be clearly stated. It should say exactly what you mean, such as to 'lose 2 kg in weight in a week'. The target should be clear and not open to any misunderstanding.
Measurable	A target of to 'lose weight' is too vague. A specific amount must be stated so you can prove you have met your target.
Achievable/ attainable	If you are following a health and wellbeing improvement plan you must feel it is possible to achieve it. If you do not, you will probably give up before you have even started. An achievable target is to 'lose 1kg this week'. An unachievable target would be to 'lose 20kg this week'.
Realistic	The target set must be realistic in that you must be able to physically do it. It is not realistic to expect a person who is older and not very fit to run for 30 minutes a day to help weight loss, but it is realistic to ask the same of a fitter, younger person.
Time-related	The target must have a deadline, so that you know when you need to achieve the target by, and progress can be assessed.

E.	Sources of support
Informal support	Informal support is the support an individual receives from partners, family and friends. It is usually the first form of support an individual experiences after and expected or unexpected life event. Informal support can provide reassurance, encouragement, advice, a sense of security, someone to talk through options with and practical help.
Professions (formal) support	Formal support may be provided by statutory care services (the state), private care services and charitable organizations. Professional support may include counsellors, teachers, careers advisers, occupational therapists, social workers and health specialists. Professional support may be needed to help people with a health condition, regain mobility, deal with life changes and emotions, get advice and information or change their lifestyle.
Voluntary support	Organizations offering voluntary support are charities, community groups and religious groups. At voluntary support services, many staff are volunteers (they work for free), but they also employ qualified people who are paid by donations. Community groups work at a local level to meet the needs of people living in a specific neighbourhood i.e. foodbanks. Religious groups are formed by people who share the same religious or spiritual beliefs but they help all people in need regardless of their beliefs and background i.e. a church run soup kitchen for the homeless.

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What we are learning in LAC:		C.	Recommended action to meet health and wellbeing improvement goals

A. What is a person-centred approach
B. Health improvement plan
C. Recommended action to meet health and wellbeing improvement goals
D. SMART targets for health improvement plan
E. Sources of support

To lower blood pressure:	To reduce BMI:
To increase peak flow reading:	To reduce pulse rate and improve recovery time after exercise:

A.	What is a person-centred approach.
Person-centred approach	
When planning for health improvements include:	
Benefits of person-centred approach:	

D.	SMART targets for health improvement plan
Specific	
Measurable	
Achievable/ attainable	
Realistic	
Time-related	

B.	Health improvement plan
What is it?	
The plan will identify:	
Positive effects of a health improvement plan	

E.	Sources of support
Informal support	
Professions (formal) support	
Voluntary support	

F.	What are the potential obstacle to implementing plans?
Emotional/ psychological- Lack of motivation	• A conflict between choices such as worrying that giving up smoking could result in weight gain • Other priorities in a person's life- such as getting married or bereavement. • Having negative attitude- believing change will be too difficult • Lack of progress for example losing eight quickly in the first weeks but then slowing down. • Having a blip- thinking there is no point in continuing the plan after briefly returning to an old lifestyle.
Emotional/ psychological- Low Self-concept	• People with low self-concept don't value themselves, • Feel powerless to change their lifestyle or that there's no point in starting because the task seems too big. • Some thin that because they were unsuccessful in other aspects of their life, they won't achieve their health goals. • They may not feel they have support and approval from family and friends even if they really do.
Emotional/ psychological- Acceptance of the current state	• People my accept their present health problems or lifestyle choices, as it Is easier to stay the same than to make changes. • Have no incentive to make a change because they do not understand the health risks. • Have no desire to change, for example, if they are happy with their weight or don't want to give up smoking.
Time constraints	People find that they do not have the time to achieve their health improvements targets because of: • Care of young children, family members that are not well. • Regular and additional work and study commitments • Domestic chores • Medical appointments
Availability of resources	Financial obstacles: • Gym memberships, entry fee for a swimming pool • Cost of attending exercise classes • Cost of travel to the gym. pool or to attend health appointments • Higher costs of some healthy foods. • Lack of and the cost of exercise equipment
Unachievable targets	• Expectations too high • Targets are not suitable for the individual • Targets are not clear • Fear of not being able to meet targets • There are too many targets • Not being in the right frame of mind to commit • Timing is wrong/poor to the plan, e.g. due to depression.
Lack of support	• Diet- find it difficult if a person on a healthy eating plan is surrounded by others that eat junk food or tempted by the chocolate and biscuits in the cupboard, Family and friends go out for meals instead of doing other activities. • Smoking- friends and family smoking and offering them cigarettes. Lacking will power to quit. • Alcohol consumption- someone that is used to drinking with family and friends will find it difficult to stop without their support. It would be hard to quit if the family and friends drink wine with their meals, friends centre a night out around heavy drinking at pubs and clubs.
Ability, disability and addiction	• Understand what they need to do • Learn how to make the required changes in their lives. • Any places the person uses are wheelchair accessible • Any exercise advised is wheelchair friendly. • If stop smoking, then can put on weight- put people off. • Like the way alcohol makes them feel but cant admit that they have a problem

G.	What are the possible obstacles to accessing services?		
Type of obstacle	**Possible obstacles**	**Suggestions to overcome obstacles**	
Geographical	• Service is difficult to get to because of poor bus or train services.	• Arrange hospital transport • Suggest telephone helplines or internet support groups.	
Financial	• Charges to use the services • Time off from work would mean loss of pay	• Check for entitlements, such as medicines and treatments • Direct the person to advice on benefits and employee rights.	
Psychological	• Fear of being judged because there is stigma around a health problem (mental health, obesity)	• Talk about concerns and reassure • Direct the person to a charity that supports people with a particular health problem.	
Physical	• Difficulty getting into the buildings where the service is provided (no wheelchair access). • No where to park near the service	• Be aware of services that are adapted for easy access • Ask a friend or family member to drop the person off at the service	
Personal needs	• Communication difficulties because of pool language skills, sensory or learning disability . • Concern that cultural needs are not understood	• Provide support services that meet the person's needs, such as a BSL signer, interpreter, advocate • Use anti-discriminatory practice and encourage others to do so	
Resources	• Limits on services, such as support aids and equipment • Staff shortages, leading to long waits for appointments and support.	• Suggest sources of second-hand equipment • Look for alternative strategies, for example an exercise DVD if there are no places at an exercise class.	

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F.	What are the potential obstacle to implementing plans?
Emotional/ psychological- Lack of motivation	
Emotional/ psychological- Low Self-concept	
Emotional/ psychological- Acceptance of the current state	
Time constraints	
Availability of resources	
Unachievable targets	
Lack of support	
Ability, disability and addiction	

G.	What are the possible obstacles to accessing services?	
Type of obstacle	Possible obstacles	Suggestions to overcome obstacles
Geographical		
Financial		
Psychological		
Physical		
Personal needs		
Resources		

Planning Item	Purpose	Contents	Example
Mood board	Central focus of ideas, in one place. Generate ideas for a client to meet their approval. Used to share ideas and concepts.	Images Colours Text – Fonts, colours, styles, keywords Textures – Fabrics and other materials Digital – Sound and video clips	
Mind Map / Spider Diagram	Generate and outline ideas quickly. Develop and show links between thoughts, aspects and processes. Show a range of ideas and connections between them.	Central node with main theme. Sub-nodes with interconnecting lines/branches. Text. Images can also be used.	
Visualisation Diagram	Plan the layout of a still image in a visual manner. Shows how the finished item may look so that changes can be made if needed. Provides the graphic designer with information needed to create. To show a client what the product will look like.	Multiple images and graphics showing size and position. Colours and colour scheme. Position and style of text. Fonts to be used. Annotations providing more detail.	
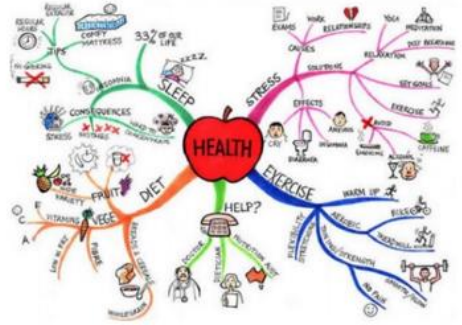
Storyboard	Provide a visual representation of a how a media project will look. Provide a graphical illustration of a sequence of movements. Provide guidance on what scenes to film or create. Help visualise the characters and the scenes.	Images. Locations. Camera shot types and angles. Camera movement. Shot length and timings. Lighting. Sound.	
Script	Identify the location where the action takes place. Identify who will be in the scene. Provide stage directions for actors and production crew. Provide dialogue for actors.	Set locations. Scene descriptions. Scene/stage directions. Camera shot types. Camera movement. Sounds and sound effects. Names of actors/ characters. Dialogue.	

Requirements	Purpose	Content
Client	Clear statement of what is to be created / produced. Provides the developer / creators with an outline of expectations and constraints (timescale).	Statement of product. Purpose of the product. Target Audience Content Timescale Restrictions House Style (Colours/ themes)
Target Audience	Identifies who the final product is intended for. Provides the developer/ creators with the necessary information for them to design the product to appeal to the Target Audience.	Age Gender Location – Local, National, International Ethnicity – Background, Culture, Race, Religion, Language

Research	Definition	Examples
Primary Sources	Information is obtained firsthand from an original source.	Autobiography First hand account Diary Interview Video Footage Photo Official Records
Secondary Sources	Information is obtained second hand where somebody else has created the data.	Biography Second hand account History textbook Magazine Article Report Other people's products News Broadcast

Planning Item	Purpose	Contents	Example
Mood board			
Mind Map / Spider Diagram			
Visualisation Diagram			

Storyboard			
Script			

Requirements	Purpose	Content
Client		
Target Audience		

Research	Definition	Examples
Primary Sources		
Secondary Sources		