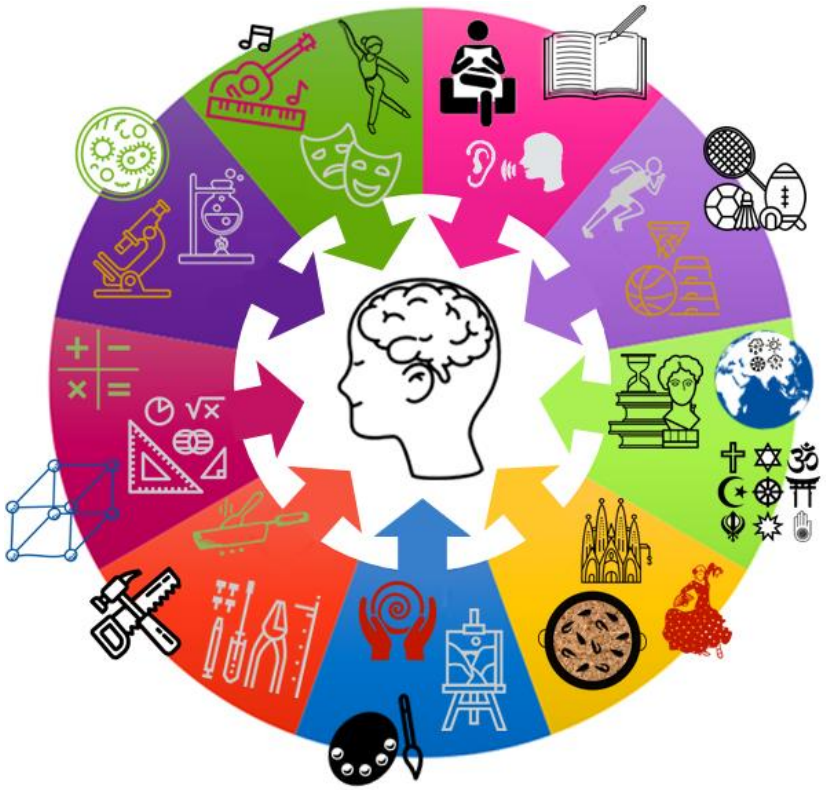
100% book - Year 10 Grammar

Aim to memorise 100% of the knowledge on these Knowledge Organisers.



Term 2

Swindon Academy 2023-24	
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."

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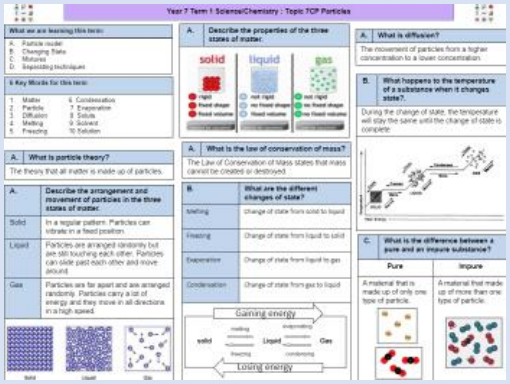
How to use your 100% book of Knowledge Organisers and Quizzable Organisers

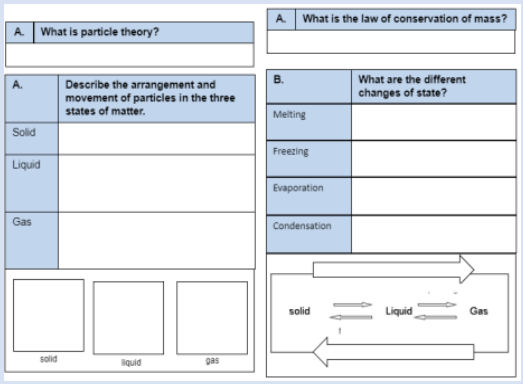
Knowledge Organisers



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!

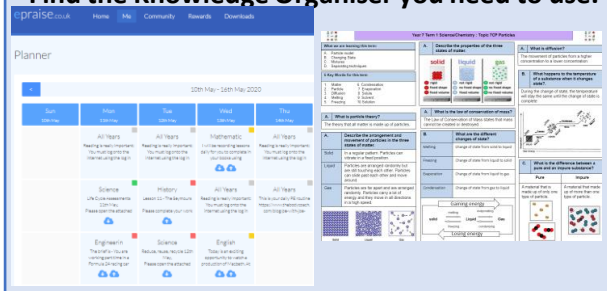
Expectations for Prep and for using your Knowledge Organisers

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?

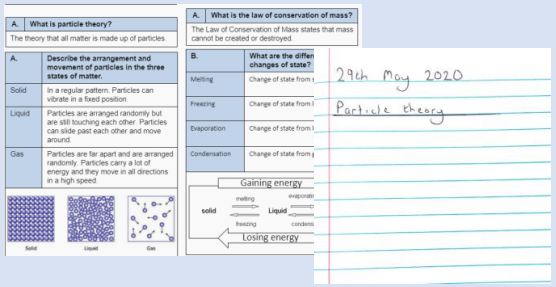
Step 1

Check Epraise and identify what words /definitions/facts you have been asked to learn. Find the Knowledge Organiser you need to use.



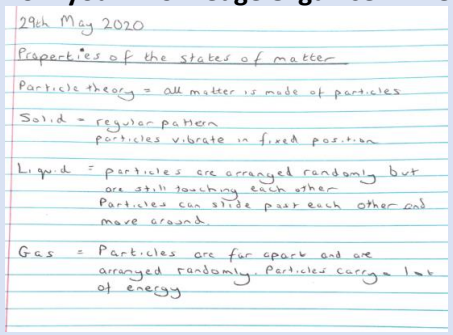
Step 2

Write today's date and the title from your Knowledge Organiser in your Prep Book.



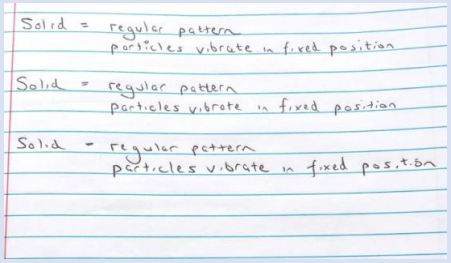
Step 3

Write out the keywords/definitions/facts from your Knowledge Organiser in FULL.



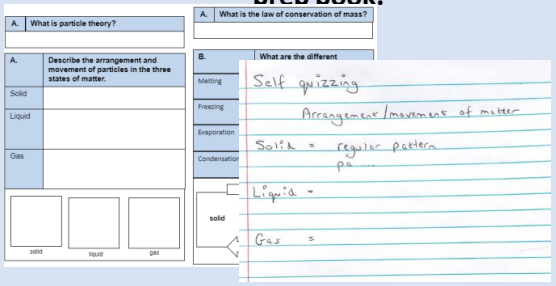
Step 4

Read the keywords/definitions/facts out loud to yourself again and again and write the keywords/definitions/facts at least 3 times.



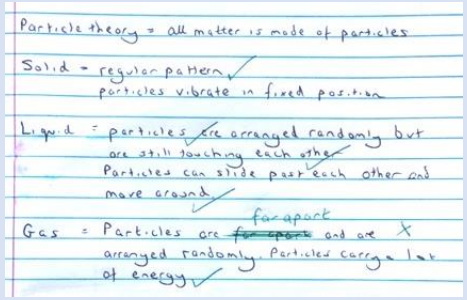
Step 5

Open your quizzable Knowledge Organiser. Write the missing words from your quizzable Knowledge organiser in your prep book.



Step 6

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.

ENGLISH –A Christmas Carol- Grammar

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 juxtaposes scenes of middle-class comfort and poverty to emphasise the close proximity and contrast of the different classes. It highlights the Christian concept of 'love thy neighbour'. The urban setting allows Dickens to exercise his fondness for hyperbole, with the exaggerated extremes of poverty 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 workhouses: essentially, prisons for the poor. Dickens hated this law. He spent 1843 touring factories and mines in England and wished to highlight the situation facing poor people. A Christmas Carol was published soon after – in December 1843.

Malthusian Theory
The reformation of The Poor Law was partially informed by the writings of Thomas Malthus. 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 argued 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: The protagonist is initially established as an archetypal villain who dismisses the goodwill and generosity associated with Christmas. After being forced to transform, he feels remorse for his avarice and becomes a symbol 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 downtrodden but loyal employee. His family are a symbol of Victorian poverty, cheerfulness in adversity, togetherness 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 juxtaposes the character of Scrooge and epitomises the concept of goodwill and forgiveness, refusing to be discouraged by his uncle's misery. People speak highly of Fred and his generosity, 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 spiritual representation of 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 too will experience the same guilt if he continues to deny people help.

The ghosts: The Ghost of Christmas Past is a symbol of childhood, truth and enlightenment. The Ghost of Christmas Present represents goodwill, plenty and the festival of Christmas. The Ghost of Christmas Yet to Come symbolises a catastrophic future for mankind.

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 unfairness within society through the juxtaposition of the poor and wealthy. Through Scrooge's refusal to give to charity and his exclamation that the poor should be in workhouses or die, Dickens illustrates the selfishness of the higher classes and the injustice of wealth distribution in Victorian society. The children, Ignorance and Want, personify the dangerous consequences of allowing poverty to continue.
Transformation and redemption	By establishing Scrooge as an archetypical villain, Dickens is able to emphasise the idea that everyone is capable of transformation and redemption. From starting as a greedy, avaricious miser, 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 seeking financial reward but having concern for others. Dickens highlights the importance of trying to make a difference- whether that be large financial contributions (Scrooge), smaller contributions (Fezziwig) or simply showing compassion and kindness to one another.

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

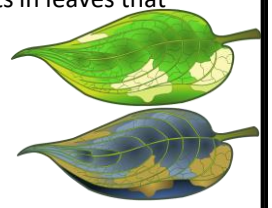
Stave	Chapters in the novella, but we normally associate staves with music, as if the **book** is a Christmas carol, and each chapter is part of the song. As Christmas carols are repetitive and easy to remember, it links to how Dicken's wishes his message to be remembered.
Intrusive Narrator	A narrator 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 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.
Allegorical figures	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	Foreshadowing is a literary device in which a writer gives an advance hint of what is to come later in the story.
Didactic	A type of literature that is written to inform or instruct the reader, especially in moral or political lessons.
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.

The Big Ideas	Notes
Dickens promotes a social responsibility **in which he argues that everyone must contribute.**	.
Dickens suggests that change is possible, and that **everyone has capacity to redeem themselves and reform.**	
Dickens illustrates the injustice of wealth distribution in Victorian society and **highlights the dangerous consequences of allowing poverty to continue**	
Dickens uses contrasting **characterisation** to demonstrate how we must be generous and socially responsible.	
Dickens uses **contrasts** in setting to highlight social injustice	

T2 Y10 Grammar Biology B4 Bioenergetics

Photosynthesis

Endothermic chemical reaction that takes place in chloroplasts in leaves that produces glucose and oxygen from carbon dioxide and water



carbon dioxide + water $\xrightarrow{\text{light}}$ oxygen + glucose

$6CO_2 + 6H_2O \xrightarrow{\text{light}} 6O_2 + C_6H_{12}O_6$

What do plants do with the glucose?

- Stored as starch
- Stored as fats and oils
- For making cellulose (for cell walls)
- For respiration
- For making amino acids (along with nitrates from soil)

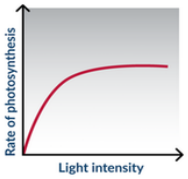
Testing the leaf for starch:

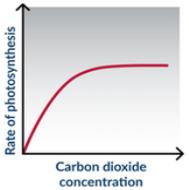
- Boil the leaf for 5 minutes to soften
- Put into heated ethanol to remove chlorophyll (turn off Bunsen burner!)
- Spread leaf on a white tile
- Add iodine
- In the places that contain starch the iodine will turn blue/black
- In a variegated leaf, only the parts containing chlorophyll turn blue black
- This shows chlorophyll is essential for photosynthesis

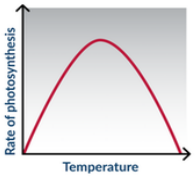
Factors the affect rate of photosynthesis

- Light
- Temperature
- CO_2 concentration

Whichever one is in the shortest supply is called the **limiting factor** – as it is the one limiting the rate of photosynthesis

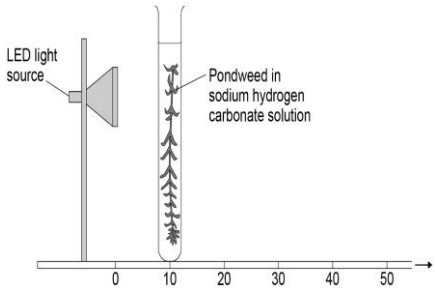






Increased light intensity increases the rate, but only up to a point, when CO_2 or temperature become limiting	Increased CO_2 conc increases the rate, but only up to a point, when light or temperature become limiting	Increased temperature increases the rate, but only up to a point, then the enzymes are denatured & rate drops

RP5 – Effect of light intensity on rate of photosynthesis



Independent variable: distance between lamp and plant (or light intensity)
Dependent variable – number of bubbles per second / rate of photosynthesis
Controls – temperature of solution, piece of pondweed

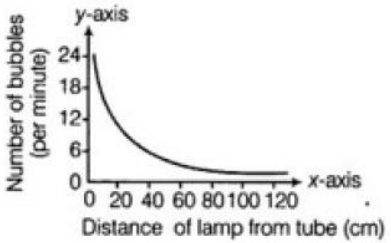
1. Measure 10cm length of pondweed and cut with scissors.
2. Place into beaker of 250ml $NaHCO_3$ solution. (this provides CO_2)
3. Place lamp 10cm away from pondweed – turn on lamp and leave for 2 minutes to adjust to light intensity.
4. Count number of bubbles produced in 60 seconds and record in table.
5. Repeat steps 3 and 4 for lamp distances of 20cm – 50cm at 10cm intervals.
6. Keep the temperature of the solution the same (LED light is used to not give off heat)

Inverse Square Law (HT only)

As distance of the lamp doubles the light intensity of the plant quarters

$$I = \frac{1}{d^2}$$

Typical results:



As the **distance** between the lamp and the pondweed **increases**, the **number of bubbles per minute decreases**

T2 Y10 Grammar Biology B4 Bioenergetics

Photosynthesis

1. What are the two reactants for photosynthesis?
2. What are the two products?
3. Where in a cell does this reaction happen?
4. Name two uses of glucose produced in photosynthesis.
5. What else is needed for plants to produce amino acids?
6. What chemical is used to test for starch?
7. Which parts of the leaf contain starch in a variegated leaf?

Factors the affect rate of photosynthesis

1. What are the three main factors that affect the rate of photosynthesis?
2. What is a 'limiting factor'?
3. Why does increasing the temperature above a certain point cause the rate to drop?
4. Describe the effect of increasing the concentration of CO_2 on the rate of photosynthesis

RP5 – Effect of light intensity on rate of photosynthesis

1. What is the independent variable in this investigation?
2. What needs to be kept the same?
3. What is the dependent variable?
4. Why is an LED lamp used rather than a regular lamp?
5. Why is sodium hydrogen carbonate solution used?
6. What is a good range and interval for the distance measurements?
7. Why is the plant left for 2 minutes every time the lamp is moved?
8. Describe the relationship between distance and the number of bubbles per minute

T2 Y10 Grammar Biology B4 Bioenergetics

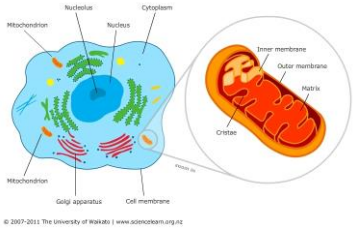
Respiration

Respiration is a chemical reaction that happens in the mitochondria of cells to release energy from glucose.
There are two types – Aerobic and Anaerobic.

Aerobic: - with oxygen

oxygen	+	glucose	→	carbon dioxide	+	water
$6O_2$	+	$C_6H_{12}O_6$	→	$6CO_2$	+	$6H_2O$

Organisms need energy for:
- chemical reactions to build larger molecules
- movement
- keeping warm.



Exercise

During exercise, more energy is needed so that muscles can keep contracting. This means more respiration is needed.

Increased breath depth - Get more oxygen into blood per breath and remove CO_2

Increased breathing rate - Get oxygen into blood quickly.

Increased heart rate - Get more oxygenated blood to muscles.

Heart beats harder - more blood is pumped with every beat.

During intense exercise, there is just not enough oxygen getting into the body.
The muscles start to respire anaerobically.
The build up of lactic acid can cause cramp/stitch.
(HT ONLY) When exercise is over, the lactic acid has to be oxidised to CO_2 and H_2O. The amount of oxygen needed to do this is called the oxygen debt

Anaerobic respiration

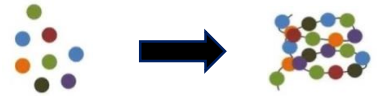
Respiration without oxygen

In animal cells = **glucose → lactic acid**
In plant/yeast cells = **glucose → ethanol + carbon dioxide**
In yeast, this is fermentation and is used in brewing and baking

	Aerobic	**Anaerobic**
Oxygen used?	Yes	No
Waste products	CO_2 and H_2O	Lactic acid (animals) Ethanol + CO_2 (plants/yeast)
Energy released	Lots	Much less

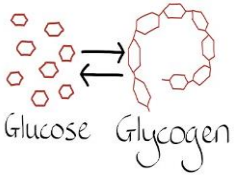
Metabolism

Metabolism is the sum of all the reactions in a cell or the body.
The 'metabolic rate' is the rate at which all of these reactions take place.
An example of a reaction = making proteins using amino acids from digestion.



amino acids **protein**

More examples:
- glucose → glycogen (in muscles/liver)
- respiration
- protein → urea
- glycerol and fatty acids → fats



T2 Y10 Grammar Biology B4 Bioenergetics

Respiration

1. What is respiration?
2. Where does respiration take place?
3. What does aerobic mean?
4. Give two uses for the energy released from respiration
5. What are the two types of respiration?
6. What are the reactants in respiration?
7. Write the equation for respiration below

Exercise

1. Describe two changes to breathing during exercise
2. Why does breathing need to change during exercise?
3. What happens to heart rate during exercise?
4. When does anaerobic respiration happen?
5. Which chemical builds up in muscles during anaerobic respiration?

Anaerobic respiration

1. What is anaerobic respiration?
2. What is 'fermentation'?
3. What are the waste products of anaerobic respiration in humans?
4. What are the waste products of anaerobic respiration in plants and yeast cells?
5. Which type of respiration releases most energy?

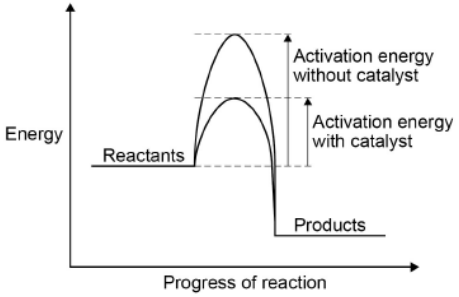
Metabolism

1. What is the metabolic rate?
2. Give two examples of metabolic reactions other than respiration
3. What is glucose stored as in muscles?
4. What are fats made of?

T2 Y10 Grammar Chemistry C6 Rates

Catalysts

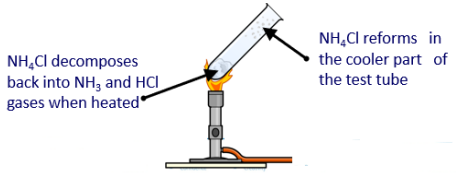
- Catalysts are substances that speed up chemical reactions without themselves being used up.
- They provide a different pathway for the reaction with a lower activation energy.
- Different reactions require different catalysts.



Reversible reactions

These are reactions in which the products can react to produce the original reactants
They are represented by the symbol ⇌
The direction of the reaction can be changed by changing the conditions
For example:

ammonium chloride $\underset{\text{cool}}{\overset{\text{heat}}{\rightleftharpoons}}$ ammonia + hydrogen chloride



If a reaction is exothermic in one direction, it is endothermic in the opposite direction.
The same amount of energy is transferred in each case.

hydrated copper sulfate (blue) $\underset{\text{exothermic}}{\overset{\text{endothermic}}{\rightleftharpoons}}$ anhydrous copper sulfate (white) + water

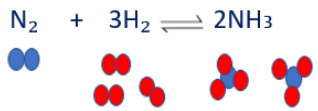
When a reversible reaction takes place in sealed apparatus, then a point occurs when the forward and backward reactions occur at the same rate. This is **equilibrium**

The effect of changing conditions on equilibrium (HT)

If a system is at equilibrium and a change is made to the conditions, then the system responds to counteract the change.
E.g. – if the temperature is increased, then the system will respond by increasing the rate of the endothermic reaction, to bring the temperature back down

If the concentration of the reactants is increased, then equilibrium will shift right and more products will be made.

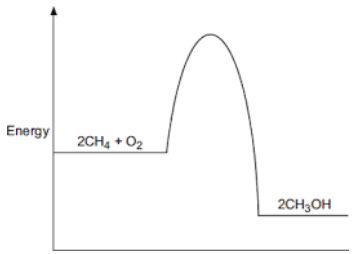
In gaseous reactions, a change in pressure will result in equilibrium shifting to the side that restores the pressure.
E.g. :



In this reaction, there are 4 moles of gas on the reactants side and only 2 on the product side
If the pressure is increased, equilibrium will shift right as there are fewer moles on the products side, and this will decrease the pressure.

T2 Y10 Grammar Chemistry C6 Rates

1. What is a catalyst?
2. How do they speed up reactions?
3. Draw on the energy level diagram below to show how it would change in the presence of a catalyst.



1. What is a reversible reaction?
2. What symbol is used in an equation to represent a reversible reaction?
3. If a reaction is endothermic in the forward direction, what does this tell us about the backward reaction?
4. If 300J of energy is absorbed during an endothermic reaction, how much will be released in the opposite direction?
5. What is equilibrium?

1. When a change is introduced into a closed system, what does the system respond in order to do?
2. If the temperature of a reaction mixture at equilibrium is increased, what would the change aim to do?
3. What sort of reaction would achieve a drop in temperature?
4. If the pressure is increased in a gaseous reaction, which way would equilibrium shift?

Side with fewest moles/side with most moles

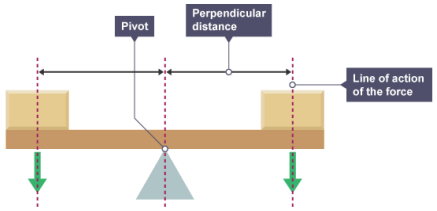
T2 Y10 Grammar Physics P5 Grammar Forces and motion

Moments

A force or a system of forces may cause an object to rotate. The turning effect of a force is called the moment of the force.

The size of the moment is defined by the equation:

moment of a force = force × distance

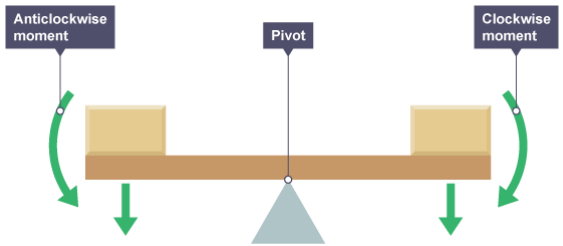


$M = F d$

Moment of a force, M, in newton-metres, Nm
Force, F, in newtons, N
Distance, d, is the perpendicular distance from the pivot to the line of action of the force, in metres, m.

Equation

If an object is balanced, the total clockwise moment about a pivot equals the total anticlockwise moment about that pivot.



Examples of forces which cause rotation

A force of 40 N is applied to a spanner to turn a nut. The perpendicular distance is 30 cm.

40 x 0.30 m = 12 Nm

A force of 15 N is applied to a door handle, 12 cm from the pivot. Calculate the moment of the force.

15 x 0.12 m = 1.8 Nm

Levers and Gears

A simple lever and a simple gear system can both be used to transmit the rotational effects of forces.

As effort is applied to rotate one end about the pivot. The opposite end is also rotated about the pivot in the same direction. This has the effect of rotating or lifting the load. ... The longer the lever, and the further the effort acts from the pivot, the greater the force on the load will be.

T2 Y10 Grammar Physics P5 Grammar Forces and motion

1. What is a moment?

2. What is the calculation for a moment?

3. What are the units for moment?

4. The total clockwise moment about a pivot =

5. If 50 N of force is applied at a distance of 30 cm, what's the moment?

6. The longer the leaver, the …. the force

T2 Y10 Grammar Physics P5 Grammar Forces and motion

Pressure

-Pressure is the force per unit area. The force is normal to the surface.
-The unit of pressure is Pascal (Pa), 1 Pa = N/m^2

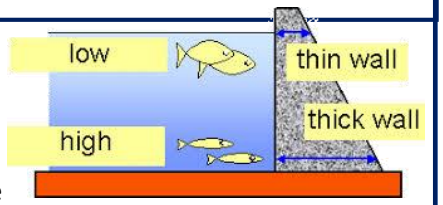
Pressure can be calculated using:

Pressure = Force ÷ area

P = F / A

Pascal (Pa) — Newtons (N) — $Metre^2$ (m^2)

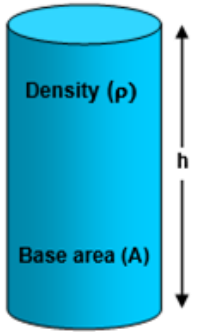
Pressure in liquids



-The pressure in a liquid increase with depth.

-A liquid flows until the pressure along the same horizontal level is constant.

-The pressure in a liquid depends on the density of the liquid. The greater the density the greater the pressure in the liquid.



-Pressure in a liquid also depends on the height of the column of liquid and the gravitational field strength the liquid is in.

Pressure on a liquid can be calculated using:

Pressure = height x density x gravitational field strength

P = h x ρ x g

Pascal (Pa) — metres (m) — Kilograms per $metre^3$ (m^3) — Newtons per kilogram (N/kg)

Atmospheric Pressure

-Atmospheric pressure is caused by air molecules colliding with surfaces.

-Atmospheric pressure decreases with altitude because there is less air at higher altitudes.

-The density of the atmosphere decreases with increasing altitude.

- Particles will move from areas of high pressure to areas of low pressure. An object between different pressure will experience a force e.g. the pressure inside the cabin of an aircraft is higher than the atmospheric pressure outside, therefore the aeroplane window experiences a force due to this pressure difference.

The force on a flat object due to pressure difference can be calculated using:

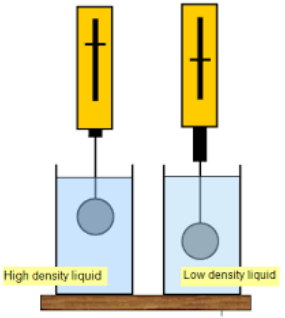
Force = pressure difference x area of the surface

Newtons (N) — Pascal (Pa) — $Metre^2$ (m^2)

Upthrust and Flotation

-Upthrust is an upward force on an object due to the fluid it is in, it is caused by the pressure of the fluid.

- The pressure at any point in a fluid depends on the density of the fluid and the depth of the fluid at that point.
- An object sinks if its weight is greater than the upthrust on it when its fully immersed.



T2 Y10 Grammar Physics P5 Grammar Forces and motion

1. What is the unit for pressure?

2. What is the equation that links area, force and pressure?

1. What happens to the pressure in a liquid as the depth increase?

2. How does the density of a liquid affect the pressure in the liquid?

3. What factors affect the pressure in a liquid?

4. What equation is used to find the pressure in a liquid?

1. What causes atmospheric pressure?

2. What is the relationship between atmospheric pressure and altitude?

3. What is the relationship between the density of the atmosphere and altitude?

4. How do calculate the force on a flat surface due to a difference in pressure?

1. What is upthrust?

2. When will an object sink?

GCSE Geography. Paper 2 : 1. Urban issues and challenges

1. Global pattern of urban change

The world's population is growing rapidly; currently 50% of us live in urban areas.	
Urbanisation	An increasing percentage of a country's population living in towns and cities.
HICs	Very slow rate of urbanisation. Already have high urban populations. Urbanisation happened earlier (during the industrial revolution).
NEEs	Fast rate of urbanisation due to industrialisation. Urban population is increasing rapidly.
LICs	Fast rate of urbanisation. Urban population is low as many still work in farming.

2. Factors affecting urbanisation

Rural-Urban migration	The movement of people from a rural area (countryside) to an urban area (towns and cities).
Push factors	Negative factors that make people leave an area *e.g.* drought, famine, war, few services.
Pull factors	Positive factors that attract people to an area *e.g.* better access to services, better paid jobs, access to electricity.
Natural Increase	When the birth rate is higher than death rate; the population grows. High in NEE cities as migrants are often young and health care is improving.

3. Megacities

Megacity	A city of more than 10 million people living there.
How many?	There are now 34. Rapidly increasing.
Where?	Most are in Africa and Asia.

4. Key terms

Social deprivation	The extent an individual or an area lacks services, decent housing, adequate income and employment.
Dereliction	Abandoned buildings and wasteland.
Urban Greening	Process of increasing and preserving open space in urban areas *i.e.* parks.
Urban sprawl	Unplanned growth of urban areas into surrounding rural areas.
Integrated Transport System	Different forms of transport are linked together to make it easy to transfer from one to another.
Brownfield	Land that has been used, abandoned and now awaits reuse; they are often found in urban areas.
Greenfield	A plot of land, often in rural areas or on the edges of urban areas that has not been built on before.
Commuter settlements	A place where people live but travel elsewhere for work *e.g.* Yate → Bristol.

5. Sustainable urban living

Sustainable urban living	Where people living, now, have the things they need, without reducing the ability of people in future to meet their needs.
Water conservation	Recycling grey water. ½ flush toilets. Rainwater harvesting on roofs. Permeable pavements- filters pollutants.
Energy conservation	Energy efficient appliances. Energy saving (south facing windows). Use of renewable energy sources.
Waste recycling	Recycling boxes in houses. Recycling facilities nearby. Encourage websites like 'Freecycle'.
Creating green space	Maintain green spaces around towns-Cools area, encourage exercise, happy.

6. Urban transport strategies used to reduce traffic congestion

Problems with congestion	↗ air pollution (global warming). Late for work, deliveries delayed. ↗ accidents, stress, asthma. In Bristol, 200 people die as a result of air pollution each year.
Beryl Bikes	Shared bikes in Bournemouth + Poole.
Oyster Cards	Quick and easy to pay for more than one type of public transport (London).
Park and ride	Car parks on the outskirts of a town, with buses into the city centre.
Congestion charge	Charge for entering the city centre at peak times.
Bus lanes	Stop buses being held in traffic.

GCSE Geography. Paper 2 : 1. Urban issues and challenges

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Urbanisation	
HICs	
NEEs	
LICs	

2. Factors affecting urbanisation

Rural-Urban migration	
Push factors	
Pull factors	
Natural Increase	

3. Megacities

Megacity	
How many?	
Where?	

4. Key terms

Social deprivation	
Dereliction	
Urban Greening	
Urban sprawl	
Integrated Transport System	
Brownfield	
Greenfield	
Commuter settlements	

5. Sustainable urban living

Sustainable urban living	
Water conservation	
Energy conservation	
Waste recycling	
Creating green space	

6. Urban transport strategies used to reduce traffic congestion

Problems with congestion	
Beryl Bikes	
Oyster Cards	
Park and ride	
Congestion charge	
Bus lanes	

GCSE Geography. Paper 2 : 1. Urban issues and challenges

7. Distribution of population and major cities in the UK

Population	66 million. Distribution is very uneven. 82% live in urban areas. Upland areas are sparsely populated.
Cities	Most in lowland areas and on coasts. London is the biggest city and the capital. It has 10% of the population. Cities reflect our industrial past (near raw materials *e.g.* Leeds near coal). Counter-urbanisation is a recent trend.

8. Location and importance of Bristol

Location	South west of the UK, on Bristol Channel. Near to junction of M4 & M5.
Importance within the UK	Largest city in the southwest. 8th most popular city for foreign tourists. 2 universities and 2 cathedrals.
Importance to wider world	Largest concentration of silicon chip manufacturing outside of California. International airport (links to Europe). Many TNCs located there (AirBus, BMW)

9. Impacts of migration on the growth and character of the city

National migration	1851 - 1891 population doubled as people arrived looking for work.
International migration	Now,international migration accounts for half of its growth. 50 countries. Many from Europe (Poland, Spain).
Impact on	Many cultural opportunities. Afro-Caribbean- strong community

10. Urban change in Bristol

- Population is growing rapidly.
- Population is more ethnically diverse.
- More under 16-year olds than of pensionable age.
- Electrification of railway to London (<70 minutes).
- Become more accessible (road, rail, air).

11. Opportunities created by urban change

Cultural mix	50 countries represented (food, art). St Paul's Carnival (attracts 40,000).
Recreation and entertainment	Underground music scene -Colston Hall. Entertainment (The Bristol Old Vic). 2 football teams (City, Rovers). Shopping Cribbs Causeway, Cabot Circus.
Employment	Highly tech. industries = jobs. 50 silicon businesses. Many TNCs. £100 million improved broadband.
Integrated transport system	Links different types of public transport Reduces congestion in the city. ↗ % people walking and cycling (57%).
Urban greening	> 90% live within 350m of park/water. 300 parks. 1/3 Bristol is open space. 2015 European Green Capital status.

12. An example of an urban regeneration project

Example	Why did it need regeneration?	What are the main features?	Successful?
Temple Quarter, Bristol	• Bristol surrounded by a green belt. • Brownfield site- rundown, ugly. • By Bristol Temple Meads Station- poor impression for new visitors. • Previously an industrial area.	• Enterprise Zone *e.g.* low rents. • Improve access *e.g.* ITS. • New bridge across River Avon (access to planned Bristol Arena). • Maintain historical features, cobbled streets- gives character • Brunel's Engine Shed £1.7mill.	✓ 4,000 new jobs by 2020 (17,000 by 2037) ✓ Attracts tourists. ✓ Redeveloped brownfield site ✗ Arena still not built

13. Challenges created by urban change

Urban deprivation	Some areas face social deprivation. 1/3 of people in Filwood are in very-low income households. Problems of crime, drug use, low quality housing, lack of transport.
Inequality in housing	Filwood- 50% in council housing. Stoke Bishop- millionaires (large villas)
Inequality in education	Filwood- 36% get top GCSE grades. Stoke Bishop- 94%.
Inequality in health	Filwood- Life expectancy 78 years. Stoke Bishop- 83 years.
Employment	Filwood- 1/3 16-24-year olds. Stoke Bishop- Just 3%.
Dereliction	Industrial buildings derelict (inner-city). Stokes Croft (many squatters).
Building on brown and greenfield	2006-13 94% housing on brownfield. Plan for 30,000 homes on brownfield. Temple Meads built on brownfield.
Waste disposal	>1/2 million tonnes of waste/year. (23% lower per head than UK average) ↗ recycling by 50%. Teach it in schools.
Urban sprawl	Greenbelt to prevent merge with Bath City extended to NW (Bradley Stoke). Led to destruction of greenfield sites. Yate- Commuter settlement.

GCSE Geography. Paper 2 : 1. Urban issues and challenges

7. Distribution of population and major cities in the UK

Population	
Cities	

8. Location and importance of Bristol

Location	
Importance within the UK	
Importance to wider world	

9. Impacts of migration on the growth and character of the city

National migration	
International migration	
Impact on character	

10. Urban change in Bristol

11. Opportunities created by urban change

Cultural mix	
Recreation and entertainment	
Employment	
Integrated transport system	
Urban greening	

12. An example of an urban regeneration project

Example	Why did it need regeneration?	What are the main features?	Successful?
Temple Quarter, Bristol			

13. Challenges created by urban change

Urban deprivation	
Inequality in housing	
Inequality in education	
Inequality in health	
Employment	
Dereliction	
Building on brown and greenfield	
Waste disposal	
Urban sprawl	

8. Introduction to Nigeria

Located just north of the equator, in west Africa.

Importance of Nigeria	
Global importance	NEE in 2014 > 21st largest economy. 5th largest contributor to UN peace keeping.
Local importance	Fastest growing economy in Africa. In 2014 they had the highest GDP.
Nigeria's context	
Political	Ⓟ Boko Haram have killed 17,000 people since 2002.
Environment	○ Rainforest- south > savanna- north.
Social	500 ethnic groups Literacy 61%, life expectancy 52 years
Cultural	Nollywood (2nd largest film industry).

9. Nigeria's changing industrial structure

Term	Definition
Industrial structure	The relative proportion of the workforce employed in different sectors of the economy (p, s, t, q).
Primary sector	Jobs that extract/collect natural resources. ↓ Decreasing due to mechanisation and industrialisation. This started rural to urban migration.
Secondary sector	Jobs making things. ↑ Increasing (industrialisation).
Tertiary	Jobs that provide a service. ↑ Increasing as people start to have more disposable income.

How does manufacturing stimulate economic development?

- Factories provide jobs > people have more disposable income > home market enlarges.
- Companies pay tax > government invests in infrastructure like roads > attracts more companies to invest. **Positive multiplier effect.**

10. Transnational corporations

Term	Definition
Transnational Corporation	Companies that operate in more than one country. (40 TNCs in Nigeria)
Host country	Country the TNC places its factories.
Footloose	Industries not tied to a certain location
Shell in Nigeria	
Advantages	+ 65,000 jobs = > disposable income. + 91% contracts to Nigerian companies (reduces economic leakage)
Dis-advantages	- Bodo oil spill 08/09. 11 million gallons of oil spilt over 20km^2.
Summary	National economic benefits vs local environmental costs in Bodo.

12. Impacts of economic development

Impact on the environment	70-80% forests destroyed. Bodo Oil spill (Shell 08/09). 10,000 illegal industries = air pollution. Loss of species (giraffes, 500 plants).
Impact on quality of life	Life expectancy ↑ from 46-52 years HDI from 0.47 to 0.53. BUT inequality has widened due to oil wealth and corruption.

13. Unilever in Nigeria

Advantages:	Disadvantages:
Unilever employs around 1500 people in Nigeria	Unilever is a British-Dutch company so some of the profit leaves Nigeria
40% of Unilever's profits go to Nigeria in Tax	Workers in factories earn very low wages and have poor working conditions
Unilever works with local communities to improve education and healthcare	.Manufacturing cause environmental problems such as water and air pollution

11. Nigeria's changing relationships

Political relationships	- Gained independence (UK in 1960). - Member of British Commonwealth.
Trading relationships	- Member of OPEC (oil). - Member of ECOWAS (Western Africa trading group). - Has strong links with China and USA.

International aid in Nigeria

Term	Definition
International aid	Money, goods and services given to help the QoL of **another** country.
Emergency aid	Usually follows a natural disaster or war. e.g. Food, water, shelter.
Develop-mental aid	Long term support by charities or governments to improve QoL. E.g. infrastructure, education, clean water
Aid in Nigeria	
What?	4% of aid given to Africa. UK gave £360 million in 2014.
Nets for life	Nets to prevent malaria. 82,500 given out in Abuja. ✓ Successful as community based.
Problems with aid	- Sometimes it isn't sustainable. - Corruption. - Can be tied (strings attached).

13. Shell in Nigeria

Advantages:	Disadvantages:
Employs 65,000 people in Nigeria	260,000 barrels of oil spilt a year in the Niger Delta
Social investment programs (e.g., 10 postgraduate scholarship)	Bodo oil spills in 2008 and 2009, 600,000 barrels of oil spilt
Brought in $17 billion in taxes	Oil bandits: 4.5 trillion barrels of oil lost

9. Introduction to Nigeria

Importance of Nigeria	
Global importance	
Local importance	
Political	
Environment	
Social	
Cultural	

10. Nigeria's changing industrial structure

Term	Definition
Industrial structure	
Primary sector	
Secondary sector	
Tertiary	

How does manufacturing stimulate economic development?

10. Transnational corporations

Term	Definition
Transnational Corporation	
Host country	
Footloose	
Shell in Nigeria	
Advantages	
Dis-advantages	-
Summary	

12. Impacts of economic development

Impact on the environment	
Impact on quality of life	

13. Unilever in Nigeria

Advantages:	Disadvantages:

11. Nigeria's changing relationships

Political relationships	-
Trading relationships	-

International aid in Nigeria

Term	Definition
International aid	
Emergency aid	
Develop-mental aid	
Aid in Nigeria	
What?	
Nets for life	
Problems with aid	

13. Shell in Nigeria

Advantages:	Disadvantages:

GCSE History : The Medical Renaissance in England c1500-1750

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.

B. Change and continuity in ideas about disease and illness in the Medical Renaissance.

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.	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.

D. Key People

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.

C.	The Great Plague
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),

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.

GCSE History : The Medical Renaissance in England c1500-1750

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**
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.

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	

Year 10 GCSE Religious Education KO - Islam Practices

Keywords	
Tawalla	Showing love for God and for those who follow Him
Tabarra	Disassociation with God's enemies
Khums	The obligation to pay one-fifth of acquired wealth
Lesser jihad	The physical struggle or holy war in defence of Islam
Greater jihad	The **daily** struggle and inner spiritual striving to live as a Muslim
Sunni	Muslims who believe in the successorship of Abu Bakr, Umar, Uthman and Ali as leaders after the Prophet Muhammad
Shi'a	Muslims who believe in the Imamah, leadership of Ali and his descendants
Niyyah	Intention during prayer - having the right intention to worship God
Du'a	A personal prayer that is done in addition to Salah e.g. asking Allah for help

What we are learning in this unit

A. The 5 Pillars and 10 Obligatory Acts
B. Salah
C. Sawm
D. Zakah
E. Hajj
F. Jihad
G. Id-ul-Adha
H. Id-ul-Fitr

A.	*5 Pillars of Islam and 10 obligatory acts*
What are the 5 pillars	• 5 key practices or duties for Muslims • Both Sunni and Shi'a keep these (Shi'a have them as part of the 10 obligations) • They are seen as pillars "holding up the religion" and are all of equal importance
What are the 10 obligatory acts	• There are 10 obligations for a Muslim according to the Shi'a branch of Islam. • These include prayer, fasting, almsgiving, pilgrimage, jihad, khums, directing others towards good, forbidding evil, tawalla and tabarra
Shahadah	• Shahadah is the first of the 5 pillars • It is the Muslim declaration of faith • ***"there is no God but Allah, and Muhammad is His messenger"*** • This is a statement that Muslims reject anything but Allah as their focus of belief • It also recognises that Muhammad has an important role and his life is an example to follow

	Jihad

Lesser Jihad	• Originated when Prophet Muhammad and early Muslims were being attacked and oppressed by the Meccans and had no choice but to engage
	• ***"Fight in the way of God those who fight against you but do not transgress"***
	• Conditions for declaration
	  • self-defense
	  • proportionate
	  • legitimate authority
	  • no harm to civilians

Greater Jihad	• A struggle within oneself to follow the teachings of Islam and be a better person • e.g. perform the Five Pillars, follow Sunnah and avoid temptation • ***"encourage what is right and forbid what is wrong"***

B.	*The 5 Pillars - Salah*
What is it?	• ***"Salah is a prescribed duty that has to be performed at the given time by the Qur'an"*** • ***Muslims pray 5 times per day and this allows them to communicate with Allah.*** • The prayers are done at dawn (fajr), afternoon • (zuhr), late afternoon (asr), dusk (maghrib) and night (isha) • Muslims face the holy city of Makkah when paying.
Wuzu	• The washing process to purify the mind and body for prayer • Muhammad said the key to Salah is cleanliness • Hands, arms, nose, mouth, head, neck and ears are cleaned as well as both feet up to the ankle.
Rak'ahs and recitations	• These are the movements that Muslims make during prayer • Takbir – raise hands to ears and say 'Allahu Akbar' • Qiyam – Standing, Muslims recite Surah • Then bow to the waist saying ***"Glory be to my Great Lord and praise be to Him"*** • Then sink to their knees saying ***"Glory be to my Lord, The Most Supreme...".***
Salah at home	• Salah is a big part of family life • Meals and other activities are usually scheduled to fit around prayer times • Families pray all together and might have a room set aside for prayer
Salah in the mosque	• All mosques have a qiblah wall which is to show where to face Makkah • Men and women pray in separate rooms at the Mosque
Jummah	• Jummah is congregational prayer held on a Friday at the mosque where the imam leads the prayer • Praying together as a community develops the feeling of unity amongst Muslims • Men are obliged to attend unless they are sick or too old • Women do not have to go – they may pray at home instead
Differences between Sunni and Shi'a	• Shi;a Muslims combine some prayers so they may only pray 3x a day • Shi'a use natural elements e.g. clay where their head rests

Year 10 GCSE Religious Education KO - Islam Practices

Keywords	
Tawalla	
Tabarra	
Khums	
Lesser jihad	
Greater jihad	
Sunni	
Shi'a	
Niyyah	
Du'a	

What we are learning in this unit

A. The 5 Pillars and 10 Obligatory Acts
B. Salah
C. Sawm
D. Zakah
E. Hajj
F. Jihad
G. Id-ul-Adha
H. Id-ul-Fitr

A.	*5 Pillars of Islam and 10 obligatory acts*
What are the 5 pillars	
What are the 10 obligatory acts	
Shahadah	

	Jihad
Lesser Jihad	
Greater Jihad	

B.	*The 5 Pillars - Salah*
What is it?	
Wuzu	
Rak'ahs and recitations	
Salah at home	
Salah in the mosque	
Jummah	
Differences between Sunni and Shi'a	

Year 10 GCSE Religious Education KO - Islam Practices

	The 5 Pillars - Zakah
The role of giving alms	• ***Muslims believe it is their duty to ensure Allah's wealth has been distributed equally as everyone is the same*** • The Qur'an commands to give to those in need
The significance of giving alms	• Giving 2.5% of savings/wealth to charity • Wealth can cause greed which is evil, so Zakah purifies wealth – wealth is given by God and must be shared • The Prophet Muhammad practiced Zakah as a practice in Medina • Given to the poor, needy and travellers • ***Sadaqah*** is giving from the heart out of generosity and compassion
Khums	• Shi'a Islam – one of the 10 obligatory acts • 20% of any profit earned by Shi'a Muslims paid as a tax • Split between charities that support Islamic education and anyone who is in need • ***"know that whatever of a thing you acquire, a fifth of it is for Allah, for the Messenger, for the near relative, and the orphans, the needy, and the wayfarer"***

	The 5 Pillars - Hajj
The role of pilgrimage	• A pilgrimage to Makkah which is compulsory for Muslims to take at least once as long as they can afford it and are healthy
The significance of pilgrimage	• God told Ibrahim to take his wife and son on a journey and leave them without food or water • Hajira ran up and down two hills in search of water, could not find any and prayed to God. Then water sprung from the ground. This is the Zamzam well • When Ibrahim returned he was commanded to build the Ka'ba as a shrine dedicated to Allah • Hajj is performed in the month of Dhu'l-Hijja
Actions	• Ihram – dressing in two pieces of white cloth • Circling the Ka'aba 7 times (tawaf) • Drinking water from the Zamzam well like Hajar • walking between Al-Safa and Al-Marwa hills seven times • Throwing stones at 3 pillars (jamarat) to represent casting out the devil and remembering Ibrahim throwing stones at the devil to drive him away • Asking Allah for forgiveness at Mt Arafat • Collecting pebbles at Muzdalifah

	The 5 Pillars - Sawm
The role of fasting	• Fasting during Ramadan (9th month in Muslim calendar) • Muslims give up food, drink, smoking and sexual activity in daylight hours • Pregnant people, children under 12, travellers and elderly people are exempt from fasting.
The significance of fasting	• Ramadan is believed to be the month that Prophet Muhammad began to receive revelations of the Qur'an • Helps Muslims to become spiritually stronger
Reasons for fasting	• Obeying God and exercising self-discipline • Develops empathy for the poor • Appreciation of God's gifts • Giving thanks for the Qur'an • Sharing fellowship and community with other Muslims
Night of power	• The night when the Angel Jibril first appeared to Muhammad and began revealing the Qur'an. • The most important event in history – ***"better than a thousand months" (Surah 97:3)*** • Laylat Al-Qadr is the holiest night of the year. Muslims try to stay awake for the whole night to pray and study for the Qur'an

	Id-ul-Adha, Id-ul-Fitr, Ashura
Id-ul-Adha Not an official holiday in UK	• ***Festival of sacrifice*** • Marks the end of Hajj and is a chance for whole Ummah to celebrate • ***Origins*** – Ibrahim's commitment to God in being willing to sacrifice his son, Ishmael. God was testing Ibrahim • ***Key events –*** new clothes, sacrificing an animal, visiting the Mosque. • People ask a butcher to slaughter a sheep for them and share the meat with the community
Id-ul-Fitr Public holiday in Muslim majority countries, not UK	• ***Festival of fast-breaking*** • Marks the end of Ramadan • ***Key events –*** Decorate homes with colourful light and banners, dress in new clothes, gather in Mosques, give gifts and money, give to the poor • ***Zakah ul-Fitr –*** donation to the poor so that everyone can eat a generous meal at the end of Ramadan.
Ashura	• Sunni celebration – many fast on this day which was established by Prophet Muhammad • Shi'a mourning – Husayn was murdered and beheaded. Muslims remember his death and betrayal • ***Key events –*** public displays of grief, day of sorrow, wear black, re-enactments of martyrdom, not a public holiday in Britain but Muslims may have day off school

Year 10 GCSE Religious Education KO - Islam Practices

	The 5 Pillars - Zakah
The role of giving alms	
The significance of giving alms	
Khums	

	The 5 Pillars - Sawm
The role of fasting	
The significance of fasting	
Reasons for fasting	
Night of power	

	The 5 Pillars - Hajj
The role of pilgrimage	
The significance of pilgrimage	
Actions	

	Id-ul-Adha, Id-ul-Fitr, Ashura
Id-ul-Adha Not an official holiday in UK	
Id-ul-Fitr Public holiday in Muslim majority countries, not UK	
Ashura	

GCSE Unit 7 SPANISH Knowledge organiser.
Topic Global Issues

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

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

7.1F 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

7.2G 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

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

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

GCSE Unit 7 SPANISH Knowledge organiser.
Topic Global Issues

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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

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1. la libertad
2. pensamientos
3. asistir a
4. el destrozo
5. violento/a
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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	_____
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salvar	_____

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a favor (de)	_____
la alimentación	feeding, nourishment,food
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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

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

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 no gubernamental)	NGO (non-governmental organisation)
_____	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)	_____
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_____	success

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_____	to move (something) further away
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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	_____

GCSE Unit 7 SPANISH Knowledge organiser. Topic Global Issues

Translation Practice. G – blue F – orange H - Green	
_____ agua	**I save** water
_____ transporte público	**I use** public transport
Uso pilas _____	I use **rechargeable** batteries
_____ al instituto a pie	**I go** to school by foot
_____ latas	**I recycle** cans
_____ el uso de productos químicos	**I avoid** the use of chemical products
Es necesario tomar _____ urgentes	It's necessary **to take** urgent measures
_____ que luchar	**We have** to fight
_____ que proteger el medio ambiente	**We must** protect the environment
_____ uso bolsas reciclables	I **always** use recyclable bags
_____ reciclar lo mucho que posible	**I try** to recycle as much as possible
No _____ nada	**I don't recycle** anything
_____ ayudar	**I want** to help
Me _____que hay tanta probreza	It **worries** me that there is so much poverty
Me _____ que hay gente sin comida	It **annoys** me that there are people without food
Me _____ de que tu hermana pueda ayudar	I'm **delighted** that your brother can help
Me _____ triste la situación	It **makes** me sad the situation
Nos ____ falta recursos	We are **missing** resources
Me _____ mucho	It **matters** to me a lot

Key Questions: Answer the following in your own words. Use these model answers	
¿Qué haces para ahorrar energía/agua?	Me importa ahorrar energía y agua. Normalmente me ducho en vez de bañarme. Siempre cierro los grifos. Intento no malgastar agua o energía. Me pongo un jersey en vez de ponerla calefacción y solo pongo el lavaplatos cuando el lavaplatos está lleno.
¿Qué cosas reutilizas?/reciclas? / ¿Usas papel reciclado?	Me preocupa el reciclaje. Me importa reutilizar cosas y reducir el malgasto de recursos. Uso pilas recargables y reutilizo bolsas de platico. Reciclo las latas, el papel, y el cartón, el plástico y el vidrio. Siempre separo la basura.
¿Qué deberías hacer para proteger el medio ambiente?	Hay muchas cosas que deberías hacer para proteger el medio ambiente. Deberías apagar las luces, el televisor y el ordenador. Tienes que cerrar las puertas en casa y debes reciclar las latas, las bolsas de plástico y el vidrio. Debes bañarte lo menos posible. Deberías usar el coche lo menos posible.
¿Qué vas a hacer para proteger el medio ambiente?	En el futuro voy a reciclar más. Siempre voy a reciclar las botellas de vidrio y de plástico. Voy a apagar el televisor y el ordenador cuando termino. Voy a ir lo más posible en bicicleta o a pie. Voy a ir en coche lo menos posible.
¿Qué hiciste ayer para proteger el medio ambiente?	Ayer reciclé la basura en casa. Ayer separé la basura en casa para mis padres. Ayer fui a colegio a pie en vez de ir en autobús/en coche. Ayer cerré las puertas y las ventanas en casa para conservar el calor en casa.
¿Qué es el problema del planeta que te preocupa más?	Lo que más me preocupa es la deforestación/el problema del tráfico/la sequía/las mareas negras/la contaminación del aire porque es importante evitar el cambio climático/porque causa huracanes/sequias/el calentamiento global/los incendios forestales/las enfermedades de los pulmones/afecta la flora y la fauna/ los animales/los seres humanos/amenaza el planeta//amenaza la vida humana/la vida de los animales.

Key Grammar	
Future Tense ('will…')	**All verb groups:** -é, -ás, -á, -emos, -éis, -án *With this tense, do NOT take the verb ending away but ADD it on to the infinitive.*
Forming the conditional ('would like to' tense). Always remove the –AR, -ER, -IR endings first	Remember the conditional ('would') tense endings for –AR, -ER, -IR verbs. They are: -AR, -ER, -IR: -ía, -ías, -ía, -íamos, -íais, -ían
Using the immediate future tense IR + A + INFINITIVE	Voy a casarme = I'm going to get married Va a discutir con su padre = He / She is going to argue with his/her father

COMPUTER SCIENCE - TERM 1 FUNDAMENTALS OF ALGORITHMS FUNDAMENTALS OF PROGRAMMING AND PROGRAMMING

Term	Definition
Abstraction	The process of removing all unnecessary details from a problem.
Algorithm	The sequence of steps required to carry out a specific task.
Assignment	Setting the value of a variable in a computer program.
Data	Units of information which is acted upon by instructions.
Decomposition	Breaking down a problem into smaller steps that are easier to work with and solve.
Flowchart	A diagram which shows the step by step flow of an algorithm.
Input	Data which is inserted into a system to be processed or stored.
Output	Data which is sent out of a system.
Process	An action taken by the program without input from the user.
Pseudocode	A method of writing an algorithm using plain English.
Variable	A memory location within a computer where values are stored

Data Type	Explanation	Example
Boolean	TRUE/FALSE or 1/0	TRUE or 1
Character	A single, alphanumeric character.	1 or A or!
Integer	Whole numbers	15
String	One or more alphanumeric characters.	1A!
Real - Float	Decimal numbers	15.5

Flowchart Symbol	Name	Usage
.-. Start/Stop	Terminator	The start or end of the algorithm.
Process	Process	An action which occurs during the algorithm.
w Input/ *M* * Output	Input/ Output	Data is either inputted to or outputted from the algorithm.
	Decision	A Yes/No, True/False decision.

Common Algorithms	Explained
Binary Search	Compares the search object to the middle point of a sorted list. If they are not equal, the half in which the target cannot lie is eliminated and the search continues on the remaining half, again taking the middle point to compare to the search object, and repeating this until the target value is found or the end is reached.
Bubble Sort	Sorts a list by continuously stepping through a list, swapping items until they appear in the correct order.
Linear Search	Compares the search object with each item in the list in order from the beginning until it is found or the end is reached.
Merge Sort	Sorts a list by repeatedly dividing a list into two until all the elements are separated individually. Pairs of elements are then compared, placed into order and combined. The process is then repeated until the list is recompiled in the correct order as a whole.

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.

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.
```

COMPUTER SCIENCE - TERM 1 FUNDAMENTALS OF ALGORITHMS FUNDAMENTALS OF PROGRAMMING AND PROGRAMMING

Term	Definition
	The process of removing all unnecessary details from a problem.
	The sequence of steps required to carry out a specific task.
	Setting the value of a variable in a computer program.
	Units of information which is acted upon by instructions.
	Breaking down a problem into smaller steps that are easier to work with and solve.
	A diagram which shows the step by step flow of an algorithm.
	Data which is inserted into a system to be processed or stored.
	Data which is sent out of a system.
	An action taken by the program without input from the user.
	A method of writing an algorithm using plain English.
	A memory location within a computer where values are stored

Data Type	Explanation	Example
	TRUE/FALSE or 1/0	
	A single, alphanumeric character.	
	Whole numbers	
	One or more alphanumeric characters.	
	Decimal numbers	

Flowchart Symbol	Name	Usage
.-.	Terminator	
Start/Stop		
Process	Process	
	Input/	
w Input/ ***M***	Output	
* Output		
	Decision	

Common Algorithms	Explained
	Compares the search object to the middle point of a sorted list. If they are not equal, the half in which the target cannot lie is eliminated and the search continues on the remaining half, again taking the middle point to compare to the search object, and repeating this until the target value is found or the end is reached.
	Sorts a list by continuously stepping through a list, swapping items until they appear in the correct order.
	Compares the search object with each item in the list in order from the beginning until it is found or the end is reached.
	Sorts a list by repeatedly dividing a list into two until all the elements are separated individually. Pairs of elements are then compared, placed into order and combined. The process is then repeated until the list is recompiled in the correct order as a whole.

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: <
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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)
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Press 1 for a greeting. Press 2 for a farewell Awaiting Input: 1
Hello User!
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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

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(userChoice = "Yes"

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

17. Business Aims & Objectives

Businesspeople like to use the term SMART objectives

Which Objective?	Explanation of Objective
Specific	Businesses set very specific targets that are very clear and to the point
Measurable	Businesses set measurable targets that can be measured. For example: Business set themselves specific sales targets over a set period.
Achievable	Businesses set realistic targets that are ambitious yet achievable.
Realistic	Businesses set realistic targets that will motivate employees at the same time they will be achievable
Time- Bound	Businesses set their targets over a period of time as this creates a sense of excitement and urgency.

18. Aims and Objectives in Business

Businesses have both financial and non-financial aims

Type of Objectives	Explanation
Financial Objectives	Profit. Sales. Market Share. Reduce costs.
Non-Financial Objectives	Social objectives. Independence. Control.

19. Business Revenue, Costs & Profits

Term	Definition
Fixed Costs	Costs that don't vary just because output varies for example 'rent'.
Profit (gross/net)	The difference between revenue and total costs; if the figure is negative the business is making a loss
Revenue	The total value of the sales made within a set period, such as a month.
Total Costs	All the costs for a set period, such as a month
Variable Costs	Costs that vary as output varies such as raw materials

20. Business Revenue, Costs & Profits

Term	Formulae
Sales Revenue	**Price x Quantity Sold**
Total Costs	**Variable costs + Fixed Costs**
(Gross) Profit	**Total Revenue – Total Costs**

21. Breaking Even

Term	Definition
Break - Even	The level of sales at which total costs are equal to total revenue. At this point the business is making neither a profit nor a loss.
Break-even Chart	A graph showing a company's revenue and total costs at all possible levels of output
Margin of Safety	The amount by which demand can fall before the business starts making losses

22. The Importance of Cash

Question	Answer
Why does Cash matter to a Business?	Cash matters because, without it, bills go unpaid and a business can fail. If you have no cash, you can't pay suppliers or employees.
Why is cash important to a business?	Cash is required to pay suppliers, employees or other costs. Typical overheads include: **Salaries/ Rent and Rates/ Utilities and Bills**
What is the difference between cash and profit?	Cash flow shows the immediate impact of a transaction on a company's bank account; profit shows the longer-term impact after costs have been taken into account.

23. The Importance of Cash (definitions)

Term	Definition
Cash	The money the firm holds in notes and coins, and in its bank accounts
Cash Flows	The movement of money into and out of the firm's bank account.
Insolvency	When a business lacks the ability to pay its debts
Overdraft	A short-term form of credit. A bank will allow a business to spend more money than it actually has.
Overdraft Facility	An agreed maximum level of overdraft

25. Short Term Sources of Finance

Term	Definition
Bank Overdraft	**If a company requires some short term finance they can negotiate to extend their overdraft facility with the bank**
Trade Credit	**When a supplier provides goods without immediate payment – This gives the business time to sell products in order to pay off the debt.**

24. Cash Flow Forecasts

Cash flow forecasting means predicting the future flows of cash into and out of a Business.

Successful cash flow forecasts require:

- **Accurate prediction of monthly sales**
- **Accurate predictions of when customers will pay for the goods they have bought**
- **Careful allowance of operating costs and the timing of payments**
- **Careful allowance for in flows and outflows of cash**

Key Term	Definition
Opening Balance	The amount of cash in the bank at the start of the month
Net Cash Flow	Cash inflow minus cash outflow over the course of a month
Negative Cash Flow	When cash outflows are greater than cash inflows
Closing Balance	The amount of cash left in the bank at the end of the month

26. Long Term Sources of FInance

Term	Definition
Crowdfunding	Raising Capital online from many small investors (but not through the stock market.
Share Capital	Raising finance by selling a share of the business, Shareholders have the right to question the directors and take profit out the firm.
Venture Capital	A combination of share capital and loan capital, provided by an investor.
Retained Profit	Profit kept within the Business that is used for business growth.

17. Business Aims & Objectives

Businesspeople like to use the term SMART objectives

Which Objective?	Explanation of Objective
Specific	
Measurable	
Achievable	
Realistic	
Time- Bound	

18. Aims and Objectives in Business

Businesses have both financial and non-financial aims

Type of Objectives	Explanation
Financial Objectives	
Non-Financial Objectives	

19. Business Revenue, Costs & Profits

Term	Definition
Fixed Costs	
Profit (gross/net)	
Revenue	
Total Costs	
Variable Costs	

20. Business Revenue, Costs & Profits

Term	Formulae
Sales Revenue	
Total Costs	
(Gross) Profit	

21. Breaking Even

Term	Definition
Break - Even	
Break-even Chart	
Margin of Safety	

22. The Importance of Cash	
Question	**Answer**
Why does Cash matter to a Business?	
Why is cash important to a business?	
What is the difference between cash and profit?	

23. The Importance of Cash (definitions)	
Term	**Definition**
Cash	
Cash Flows	
Insolvency	
Overdraft	
Overdraft Facility	

25. Short Term Sources of Finance	
Bank Overdraft	
Trade Credit	

24. Cash Flow Forecasts	
Cash flow forecasting means predicting the future flows of cash into and out of a Business.	
Key Term	**Definition**
Opening Balance	
Net Cash Flow	
Negative Cash Flow	
Closing Balance	

26. Long Term Sources of FInance	
Term	Definition
Crowdfunding	
Share Capital	
Venture Capital	
Retained Profit	

KS4 FOOD AND NUTRITION KNOWLEDGE ORGANISER

Name: Date:

Macronutrients, fibre and water

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

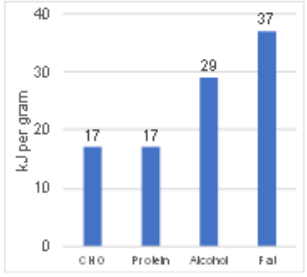
Macronutrients are measured in grams (g).

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.

KS4 FOOD AND NUTRITION KNOWLEDGE ORGANISER

Micronutrients

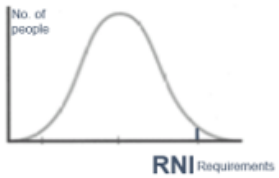
Micronutrients are needed in the body in tiny amounts. They do not provide energy, but are required for a number of important processes in the body.

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

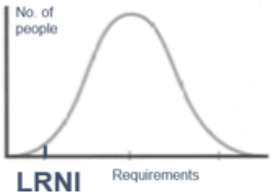
Micronutrients are measured in milligrams (mg) and micrograms (µg) with 1mg = 0.001g and 1µg = 0.001mg.

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.

KS4 FOOD AND NUTRITION KNOWLEDGE ORGANISER

QUIZ

Macronutrients
Macronutrients provide energy. The macronutrients are:
- .
- .
- .

Macronutrients are measured in…… ( ).

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

There are two main groups of micronutrients:
- .
- .

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

Key terms
Dietary reference values:

Essential amino acids:

Macronutrients:

Protein complementation:

Reference Intakes:

Protein
Made up of building blocks called ……..
There are ….. amino acids found in protein.
Eight amino acids have to be provided by the diet (called…….. amino acids).

Sources:
Animal sources:

Plant sources:

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:
-

-

Protein complementation
Different food…

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:
- .
- .
- .
- .
- .

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:
-
-
-

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 –

Recommendations
- Total carbohydrate – around…….of daily food energy.
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Recommendations
<35% energy, Saturated fat <11% energy.
A high saturated fat intake is linked with high blood cholesterol levels.

Sources:

Key terms
Micronutrients:
.

Lower Reference Nutrient Intake (LRNI):

Reference Nutrient Intake (RNI):

Year 10 PRODUCT DESIGN Term 1

What we are learning this term:

A. Scales of Production
B. Production Methods
C. Impact on Enterprise
D. Anthropometric Data
E. Impact on People
F. Impact on Design
G. Ergonomics

A. Scales of Production

Type	How Many?	Examples
One-off Production	**1**	• Towers /bridges • Bespoke house • Custom made clothes
Batch Production	**10s-1000s**	• Baked Foods • Limited Edition • Socks • Chairs
Mass Production	**10,000s – 100,000s**	• Cars • Bottles • Microchips • Plain shirts
Continuous Production	**100,00s+**	• Energy • Water • Paper • Plastic

B. Production Methods

Flexible Manufacturing Systems (FMS)

This is where **automated** machines are adaptable and can produce different products if needed.

Lean Manufacturing

This is where waste and energy is kept to a minimum. This saves money and resources in production, as well as helping minimise the **environmental impact** of producing products.

Just-in-Time (JIT) Manufacturing

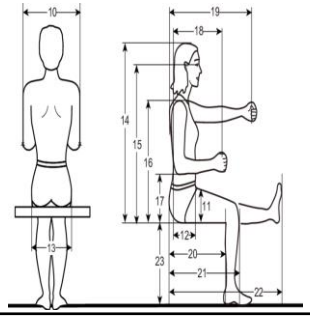
This is where manufacturers only order materials, parts, etc, when needed. This can be used in any **scale of production** but its particularly useful for one-off production.

C. Impact on Enterprise

Crowdfunding	A way of raising money from large numbers of people to launch a new product through websites.
Virtual marketing and retail	Promotion of products online and sharing experiences, reviews and recommendations.
Cooperatives	A business that is owned and managed by it's workers, all working towards a common goal.
Fair trade	An organisation that helps workers have fair trading and working conditions in developing countries

D. Anthropometric Data

The study of human measurements to ensure the products and environments are the correct size for the intended user.



E. Impact on People

Technology Push	When technological discoveries are used to drive the development or creation of a product
Market Pull	When products are developed or created to meet the needs of society or a gap in the market.
Universal Design	When designs are focused on serving the broadest range of users possible, rather than trying to address individual accessibility or inclusion objectives.
Inclusive Design	When the designer focuses on exploring ways of serving a full spectrum of people, regardless of age, gender, and disability.
User Centred Design (USD)	When designers focus on the end-user's wants and needs in each phase of the design process.

F. Impact on Design

Planned obsolescence	Designing products that will have a limited life and that will become obsolete and require to be replaced, such as disposable razors.
Design for Maintenance	Designing products that are more durable and have spare parts available to mend and maintain them, such as a push bike.
Design for Disassembly	When a product has reached the end of its life it can be taken apart and parts reused or recycled, such as a school seat.
Environmental Design	Designing products to be more sustainable and improving the overall environmental impact of a product, such as paper straws.

G. Ergonomics

This is the consideration that leads to a product being designed in a way that makes it easy to use. Such as a person sitting at their computer desk or the type of water bottle they use.

Year 10 PRODUCT DESIGN Term 1

What we are learning this term:

A. Scales of Production
B. Production Methods
C. Impact on Enterprise
D. Anthropometric Data
E. Impact on People
F. Impact on Design
G. Ergonomics

A. Scales of Production

Type	How Many?	Examples
One-off Production		
Batch Production		
Mass Production		
Continuous Production		

B. Production Methods

Flexible Manufacturing Systems (FMS)

.

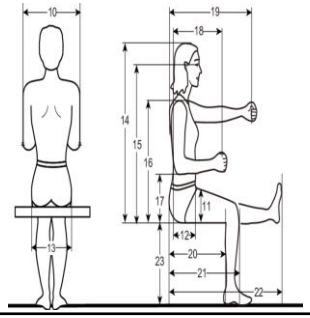
Lean Manufacturing

Just-in-Time (JIT) Manufacturing

C. Impact on Enterprise

Crowdfunding	
Virtual marketing and retail	
Cooperatives	
Fair trade	

D. Anthropometric Data



E. Impact on People

Technology Push	
Market Pull	
Universal Design	
Inclusive Design	
User Centred Design (USD)	

F. Impact on Design

Planned obsolescence	
Design for Maintenance	
Design for Disassembly	
Environmental Design	

G. Ergonomics

Year 10 PRODUCT DESIGN Term 2

What we are learning this term:

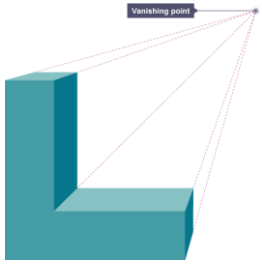
A. One-Point Perspective B. Two-point Perspective C. Isometric Drawing
D. Exploded Drawing E. Oblique Drawing F. CAD G. Orthographic Drawing

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

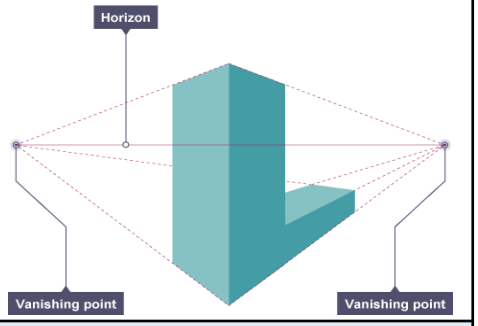
Single-point perspective shows an object from the front in a realistic way. The front view goes back towards a vanishing point on the horizon.



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

B. Two-point Perspective Drawing

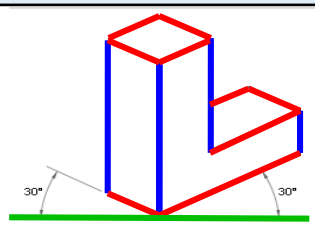
Two-point perspective shows an object from the side with two vanishing points. It gives the most realistic view of a product as it shows the item edge on, as we would see it. It is often used to produce realistic drawings of an object.



Commonly used by architects to show realistic building ideas.

C. Isometric Technical Drawing

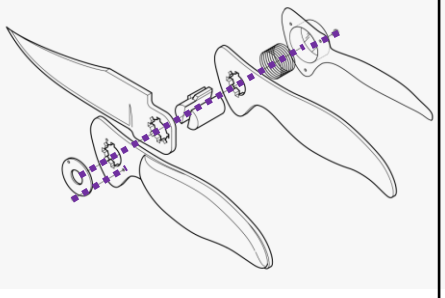
Made up of a series of parallel **vertical lines** and parallel **30-degree lines**. But no **horizontal lines.**



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

D. Exploded Technical Drawing

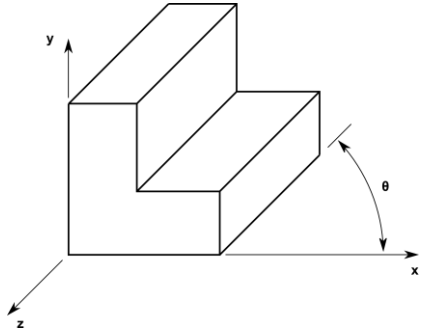
Exploded technical drawing is an Isometric drawing of all the parts and components of an object.



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

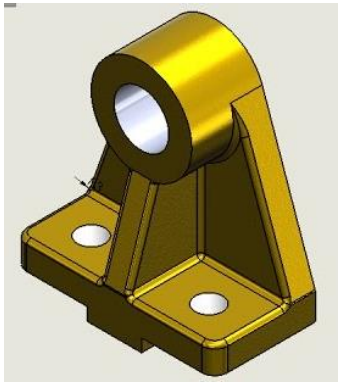
Consists of an object where the front view is drawn flat with height and width of the object draw to the correct lengths. Diagonal lines are drawn at 45-degrees.



Commonly used by engineers for drafting ideas.

F. CAD (Computer Aided Design)

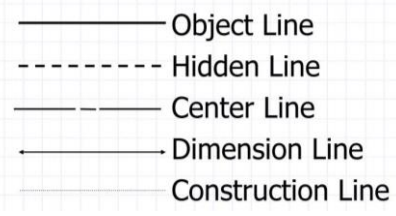
This is designing using a computer using a software such as 2D Design or Solidworks.



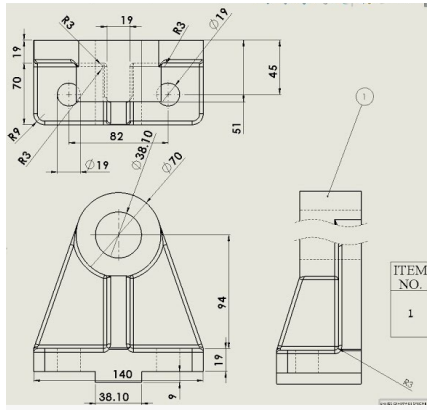
Commonly used to model, test and develop an idea before manufacture.

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.



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



Year 10 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

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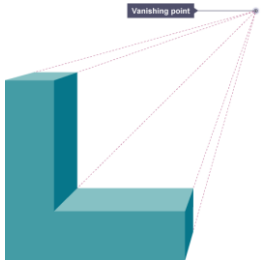

B. Two-point Perspective Drawing

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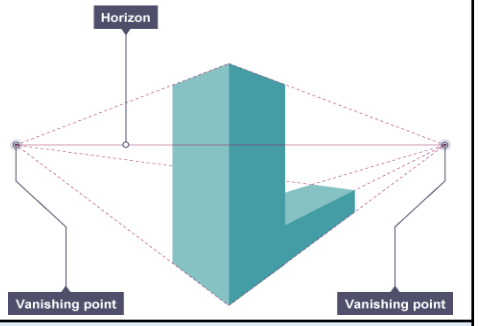
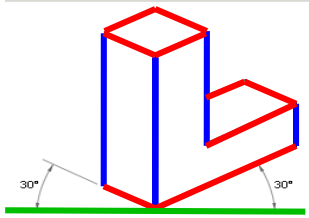
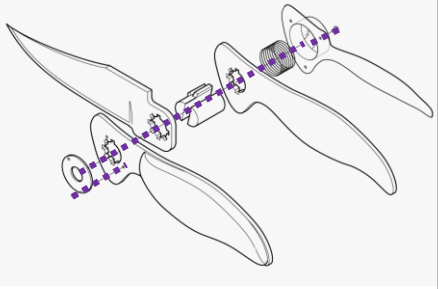


C. Isometric Technical Drawing



D. Exploded Technical Drawing



E. Oblique Technical Drawing

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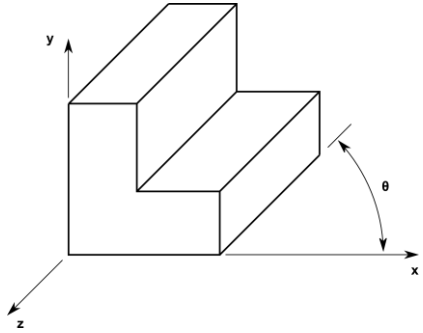
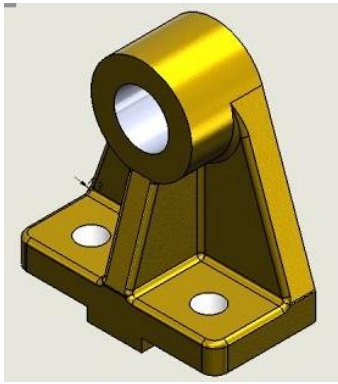
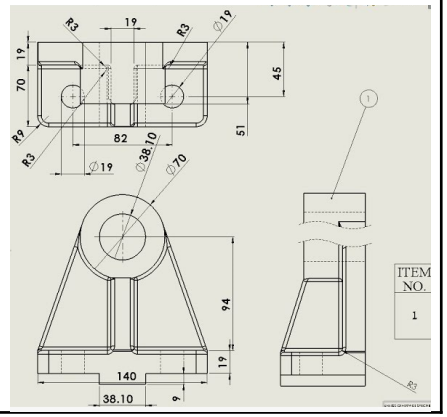


F. CAD (Computer Aided Design)



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

Object Line
Hidden Line
Center Line
Dimension Line
Construction Line



Year 10 Cambridge National- Media and Sport- Term 2

What we are learning this term:

- ***A. How media can increase exposure of minority sports***
- ***B. How it provides an increase in promotional opportunities***
- ***C. How it educates its audience***
- ***D. How media increases income for sports***
- ***E. How the media inspires people to participate***
- ***F. How it provides competition between sports***

Main assessment objectives

Learning outcome: Understand the positive effects that media can have on sport

A. Key question from Assessment objectives?

Key word	Key definition
Minority sport	A sport that is not very popular
Promotional opportunities	The opportunity to promote a brand or business
Income	Money generated
Participation	Taking part in sport
Exposure	Greater publicity from the media
Media rights	The rights to share media
Investment	Money invested into projects/equipment
Role models	A person looked to by others as an example

A. What sports are minority sports in the UK but maybe not in other parts in the world?

American football- USA
Table tennis- China
Badminton- Asia
Ice Hockey- Canada

C. How might a club get more spectators?

1. Cheap tickets for children or older people
2. Alternative formats of the game

How may the media increase participation?	How might the media educate people?
1. Success in Olympics 2. When certain sports are on- Wimbledon 3. Creation of positive role models	1. Develop a better understanding about rules and tactics

A. Give 5 examples of minority sports in the UK

1. Archery
2. Squash
3. Ultimate frisbee
4. Lacrosse
5. Water polo

A. How can clubs promote themselves through the media?

1. Many cubs now have social media accounts
2. Some football clubs have their own TV channels
3. Increased interaction with fans.

MUTV

G. *How can an increased income improve a sport or club*

Sport(3)	1. Bigger prize money for tournaments 2. More teams in tournaments 3. Higher participation levels
Club *(4)*	1. Build new facilities 2. Invest in new equipment 3. Buy better players 4. Employ more coaches/experts

Key information

Sky sports channels	Skysports Golf Skysorts Cricket Skysports F1
Social media accounts	Real Madrid FC have 200+million followers on Twitter
Educating the audience	Through analysis in highlights
Increase income	Through media rights
Rises in participation	Cycling participation rises around the time of the Olympics
Positive role models	Usain Bolt Nicola Adams Mo Farah
Exposure of minority sports	Increased TV time. Highlights on BBC Sport
MNF	Monday night football provides key analysis to help educate people
Jargon Buster	ITV racing explain specific words related to horseracing
Ashes Zone	Give demonstrations on how to play shots properly and different bowling techniques
Golf swing analysis	Allows you to track your ball and analysis your swing
Serve Analysis	Gives a slow-motion analysis of how to serve effectively

Year 10 Cambridge National- Media and Sport- Term 2

What we are learning this term:

- **A.** ***How media can increase exposure of minority sports***
- **B.** ***How it provides an increase in promotional opportunities***
- **C.** ***How it educates its audience***
- **D.** ***How media increases income for sports***
- **E.** ***How the media inspires people to participate***
- **F.** ***How it provides competition between sports***

Main assessment objectives

Learning outcome: Understand the positive effects that media can have on sport

A. Key question from Assessment objectives?

	Key definition
	A sport that is not very popular
	The opportunity to promote a brand or business
	Money generated
	Taking part in sport
	Greater publicity from the media
	The rights to share media
	Money invested into projects/equipment
	A person looked to by others as an example

A. What sports are minority sports in the UK but maybe not in other parts in the world?

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How may the media increase participation?	How might the media educate people?

A. Give 5 examples of minority sports in the UK

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A. How can clubs promote themselves through the media?

MUTV

G. *How can an increased income improve a sport or club*

Sport(3)

Club *(4)*

Key information

	Skysports Golf Skysports Cricket Skysports F1
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	Allows you to track your ball and analysis your swing
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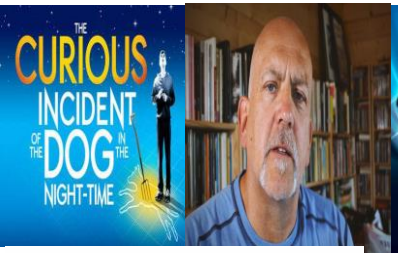
YEAR 10 BTEC DRAMA KNOWELDGE ORAGNISER – COMPONENT ONE



FRANTIC ASSEMBLY

A.	*Component 1 – Key focus*

In this component, you will develop your understanding of drama by examining the work of the practitioners: Willy Russel, Frantic Assembly, John Godber and Stephen Haddon. The practitioners cover the genres: Epic Theatre, Comedy and physical visual storytelling. You will explore the processes used to create performance by working through the processes yourselves. At the same time you will research the job roles and responsibilities within the industry that enable shows to happen.

You will experience a range of work across the discipline of drama by viewing recorded and/or live work. We will aim to go to live shows in Bristol, London and the surrounding area in order to absorb as many different styles as possible.
While this is primarily a theoretical study of the performing arts practical investigations, students will be working at developing practical skills through workshops and links with Component 2 Developing Skills and Techniques in the Performing Arts, to engage in primary exploration of specific repertoire.

C.	**Key question from Assessment objectives**	
	1. What are physical skills 2. What are interpretive skills 3. How do we use these skills practically? 4. How do we IMPROVE on these skills?	1. What is a professional work 2. What is a practitioner 3. How do we analyse a performance 4. What are a practitioner's creative intentions

What we are learning this term:

A. Understanding professional works
B. What is a professional work
C. What is a practitioner
D. How do we analyse a performance
E. What are physical skills
F. What are interpretive skills
G. Three different performance styles / genres

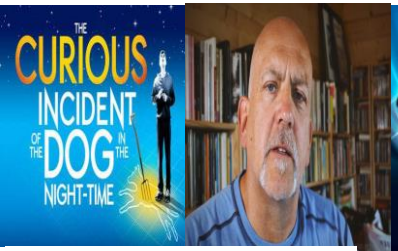
G.	**Key learning aims from Component 1**
Learning aim A: Examine professional practitioners' performance work	**A1: Professional practitioners' performance material, influences, creative outcomes and purpose** Examine live and recorded performances in order to develop understanding of practitioners' work with reference to influences, outcomes and purpose. Focus on thematic interpretation of particular issues and how artists communicate their ideas to an audience. How do the different roles and responsibilities in theatre collaborate to produce shows?
Learning aim B: Explore the interrelationships between constituent features of existing performance material	Processes used in performance ●Responding to stimuli to generate ideas for performance material. ●Exploring and developing ideas to develop material. ●Discussion with performers. ●Setting tasks for performers. ●Sharing ideas and intentions. ●Providing notes and/or feedback on improvements.

E.	**Keywords**
Practitioners	A professional theatre maker who creates in a specific style led by a specific theatre ideology.
Performance material	The practical work that a practitioner creates for performance.
Creative Intentions	The ideas behind the choreography, why the choreographer choose to create the work.
Review	Look over your current work and the work of others and be able to review and comment on your own and others practice
Analyse/ Evaluate	Watch and then analyse your own performance and the work of others and giving comments and judgements on what you see
Influences	How the practitioner has been influenced by others, their experiences, their training and how this has affected the work they create.
Physical skills	The physical attributes that an actor uses, stamina, strength, flexibility, control, to dance with technical accuracy.

A.	**Key question – What is the artistic purpose of a performance work?**

When watching a professional performance, the key questions you need to think about are the following…
How do we Explore artistic purpose?
Explore artistic purpose (across all three disciplines/styles) including:
to educate
to inform
to entertain
to provoke
to challenge viewpoints
to raise awareness
to celebrate.

YEAR 10 BTEC DRAMA KNOWELDGE ORAGNISER – COMPONENT ONE



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While this is primarily a theoretical study of the performing arts practical investigations, students will be working at developing practical skills through workshops and links with Component 2 Developing Skills and Techniques in the Performing Arts, to engage in primary exploration of specific repertoire.

What we are learning this term:

A. Understanding professional works
B. What is a professional work
C. What is a practitioner
D. How do we analyse a performance
E. What are physical skills
F. What are interpretive skills
G. Different performance styles / genres

G.	Key learning aims from Component 1
Learning aim A: Examine professional practitioners' performance work	**A1: Professional practitioners' performance material, influences, creative outcomes and purpose** Examine live and recorded performances in order to develop understanding of practitioners' work with reference to influences, outcomes and purpose. Focus on thematic interpretation of particular issues and how artists communicate their ideas to an audience. How do the different roles and responsibilities in theatre collaborate to produce shows?
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C.	Key question from Assessment objectives	
	1. What are physical skills 2. What are interpretive skills 3. How do we use these skills practically? 4. How do we IMPROVE on these skills?	1. What is a professional work 2. What is a practitioner 3. How do we analyse a performance 4. What are a practitioner's creative intentions

E.	Keywords
Practitioners	
Performance material	
Creative Intentions	
Review	
Analyse/ Evaluate	
Influences	
Physical skills	

A.	Key question – What is the artistic purpose of a performance work?

When watching a professional performance, the key questions you need to think about are the following…
How do we Explore artistic purpose?
Explore artistic purpose (across all three disciplines/styles) including:

Year 10 Engineering Term 2

What we are learning this term:

A. Health & Safety
B. Manufacturing processes
C. Isometric
D. Marking and measuring tools
E. Materials and properties

A. Health & Safety

Risk Assessment	A risk assessment is the analysis of the risks involved when using equipment or performing a process.
Signage	Signage is the word used for all the signs that you may see in a workshop environment. sowing how to translate and understand the signs in a workshop is vital when dealing with potentially dangerous equipment and processes.

Mandatory sign- Specific instruction on behaviour

Prohibition sign- Prohibiting or actions

Warning sign- Giving warning of hazard or danger

No danger sign- Information on exits, first aid etc

B. Manufacturing processes

Pillar drill

Pillar drills are free standing machine tools that use high powered motors to rotate drill bits at varying speed

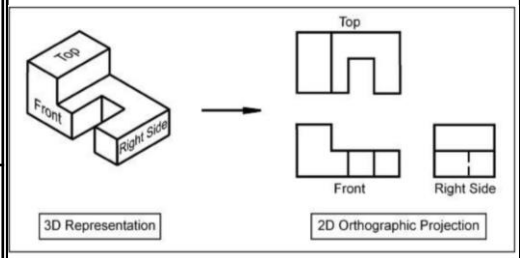
Milling machine

A milling machine is a device that rotates a circular cutting tool that has a number of cutting edges. The workpiece is held in a vice or similar device clamped to a table that can move in directions. X, Y & Z axis

Centre lathe

A centre lathe is used to manufacture cylindrical product /objects and is 'turned' to create different shapes. Different cutting tools can be used such as **facing**, **parting** and **knurling.**

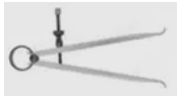
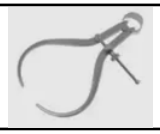
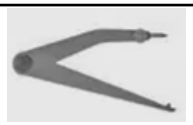
C. Isometric



Isometric Drawing — 2D Orthographic Projection

⌀12	The symbol ø on this dimension represents **Diameter** – so it is telling us how wide the circle is overall.
R25	The letter R on this dimension tells us the **Radius** of the curve or circle – the distance from the centre to the outside

D. Marking and measuring tools

	**Inside calliper** – Used by placing it inside the object to be measured and expanding the arms. Measures the inside of a hollow space.
	**Outside calliper** – Used by closing the arms on to the outside of the object to be measured. Wide arms allow it to reach around protruding parts of the object.
	**Dividers -** The ends of these legs are very sharp, so it can scratch into surfaces. Is used for measuring, transferring, or marking off distances onto materials.
	**Odd-leg or "jenny" calliper** – One leg has a scratching tool while the other has a notch. This allows the user to hook the tool to the edge of a workpiece and slide it along to make marks equidistant from the edge.
	**Vernier Calliper –** The most versatile calliper. Can measure depth, inside measurements, and outside measurements of objects. May also have a digital display.

E. Materials and properties

Strength	Ability of a material to withstand compression, tension and shear
Hardness	Ability to withstand impact without damage
Toughness	Materials that are hard to break or snap are tough & can absorb shock
Malleability	Being able to bend or shape easily would make a material easily malleable
Ductility	Materials that can be stretched are ductile
Elasticity	Ability to be stretched and then return to its original shape

Year 10 Engineering Term 2 (Unit 1)

What we are learning this term:

A. Health & Safety
B. Manufacturing processes
C. Orthographic
D. Tools & Equipment
E. Materials and properties

A. Health & Safety

Risk Assessment	
Signage	

_____ sign-
Specific instruction on behaviour

_____sign-
Prohibiting or actions

_____ sign-
Giving warning of hazard or danger

_____sign-
Information on exits, first aid etc

B. Manufacturing processes

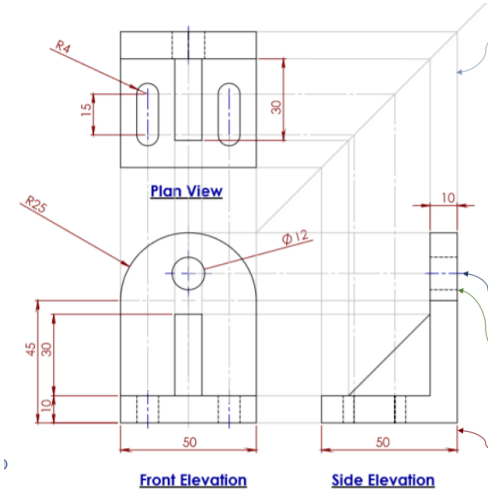
Pillar drill

Milling machine

Centre lathe

C. Orthographic

The study of human measurements to ensure the products and environments are the correct size for the intended user.



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R25	

D. Tools & Equipment

	
	
	
	
	

E. Materials and properties

Strength	
Hardness	
Toughness	
Malleability	
Ductility	
Elasticity	

Year 10 BTEC Health and Social Care- Component 1: Human Lifespan Development. LAA

What we are learning this term:

A. Key words
B. What are the main life stages
C. What are the 4 areas of growth and development (PIES)?
D. How do Humans develop physically (P)?

A.	Key words for this Unit
Characteristics	Something that is typical of people at a particular life stage.
Life stages	Distinct phases of life that each person passes through.
Growth	Increased body size such as height, weight.
Development	Involves gaining new skills and abilities such as riding a bike.
Gross motor development (**G**)	Refers to the development of large muscles in the body e.g. Legs
Fine motor development **(F)**	Refers to the development of small muscles in the body e.g. Fingers
Language development	Think through and express ideas
Contentment	An emotional state when people feel happy in their environment, are cared for and well loved
Self-image	How individuals see themselves or how they think others see them
Self-esteem	How good or bad an individual feels about themselves and how much they values their abilities.
Informal relationships	Relationships formed between family members
Friendships	Relationships formed with people we meet in the home or in situations such as schools, work or clubs
Formal relationships	relationships formed with non-family/friends – such as teachers and doctors.
Intimate relationships	romantic relationships.

B	What are the main life stages?	
Age Group	**Life Stage**	**Developmental Characteristics and Progress**
0-2 years	Infancy	Sill dependent on parents but growing quickly and developing physical skills.
3-8 years	Early Childhood	Becoming increasingly independent, improving thought processes and learning how to develop friendships.
9-18 years	Adolescence	Experiencing puberty, which bring physical and emotional changes.
19-45 years	Early Adulthood	Leaving home, making own choices about a career and may start a family.
46-65 years	Middle Adulthood	Having more time to travel and take up hobbies as children may be leaving home; beginning of the aging process.
65+ years	Later Adulthood	The aging process continues, which may affect memory and mobility.

C	What are the 4 areas of growth and development (PIES)?
Physical Development (P) 	P = growth patterns and changes in the mobility of the large and small muscles in the body that happen throughout life.
Intellectual Development (I) 	I = how people develop their thinking skills, memory and language.
Emotional Development (E) 	E = how people develop their identity and cope with feelings.
Social Development (S) 	S = describes how people develop friendships and relationships.

D.	How do humans develop physically (P)?
0-2	• Gross Motor Development (G) = life head, roll over, sit unaided, walk holding onto something, walk unaided, climb stairs, kick and throw, walk upstairs, jump. • Fine Motor Development (F) = hold a rattle for short time, reach for an item, pass item from one hand to other, hold between finger and thumb, scribble, build a tower, use a spoon, draw lines and circles, turn page of a book.
3-8	• G = ride a tricycle, catch a ball with two hands, walk backwards and step to the side, bounce a ball, run on tiptoes, ride a bike, catch a ball with one hand, balance along a thin line. • F = hold a crayon to make circles and lines, thread small beads, copy letters and shapes with a pencil, make detailed models with construction bricks, joined up writing, use a needle to sew.
9-18	• Girls = puberty starts at 10-13 years, breasts grow, hips widen, menstruation begins, uterus and vagina grow. • Boys = voice deepens, muscles and strength increase, erections, facial hair, produce sperm. • Both = pubic and underarm hair, growth spurts.
19-45	• Physically mature, sexual characteristics are fully formed, peak of physical fitness, full height, women at most fertile. • Later in the life stage people may put on weight, hair turn grey and men may lose hair, women's menstrual cycle was slow down
46-65	• People may put on weight, hair turn grey and men may lose hair, women's menstrual cycle was slow down. • Women go through the menopause – when menstruation ends and they can no longer become pregnant. • Men may continue to be fertile throughout life but decrease in sperm production in this life stage.
65+	• Women's hair becomes thinner, men may lose most of their hair, skin loses elasticity and wrinkles appear, nails hard and brittle, bones weaken, higher risk of contracting infections disease and illness. • Stamina, reaction time, muscle and senses (hearing, sight, taste) all reduce.

Year 10 BTEC Health and Social Care- Component 1: Human Lifespan Development. LAA

What we are learning this term:

A. Key words
B. What are the main life stages
C. What are the 4 areas of growth and development (PIES)?
D. How do Humans develop physically (P)?

A.	**Key words for this Unit**
Characteristics	
Life stages	
Growth	
Development	
Gross motor development (**G**)	
Fine motor development **(F)**	
Language development	
Contentment	
Self-image	
Self-esteem	
Informal relationships	
Friendships	
Formal relationships	
Intimate relationships	

B	**What are the main life stages?**	
Age Group	**Life Stage**	**Developmental Characteristics and Progress**
0-2 years		
3-8 years		
9-18 years		
19-45 years		
46-65 years		
65+ years		

C	**What are the 4 areas of growth and development (PIES)? Explain them.**
Physical Development (P) 	
Intellectual Development (I) 	
Emotional Development (E) 	
Social Development (S) 	

D.	**How do humans develop physically (P)?**
0-2	
3-8	
9-18	
19-45	
46-65	
65+	

Year 10 BTEC Health and Social Care- Component 1: Human Lifespan Development. LAA

What we are learning this term:

E. How do humans develop intellectually (I)?
F. How do humans develop emotionally (E)?
G. How do humans develop socially (S)?

E. *How do humans develop intellectually (I)?*

Infancy 	At birth brains are already well developed. Infants use all of their senses to learn about the world around them. Infancy is a time of rapid intellectual development. At 3 months infants can remember routines. At 9-12 months infants are developing their memory. At 12 months to 2 years infants understand processes and how things work. Language begins to develop during this stage.
Early childhood 	At 3-4 years of age children become more inquisitive and enjoy exploring objects and materials. They ask lots of questions and enjoy solving simple problems. At 5-6 years old children's memory is becoming well developed. This helps them to talk about the past and anticipate the future.
Adolescence 	During this time abstract thought is developed – thinking logically and solving complex problems are possible by the end of this life stage. Adolescents may find it difficult to understand the consequences of their actions but they are developing empathy – seeing things from another's point of view.
Early and Middle Adulthood 	By these life stages most adults have a good range of general knowledge. They use this knowledge and experience to solve problems that they come across in their personal and work lives.
Later adulthood 	During this life stage people continue to learn and develop intellectually, however, their speed of thinking and memory may decline. This may affect their ability to think through problems and make logical decisions.

F. How do humans develop emotionally (E)?

Infancy and Early Childhood	Adolescence and adulthood
Bonding and Attachment Bonding and attachment describe the emotional ties an individual forms with others. It starts in the first year of life between infants and their main carer because that person fulfils the infants needs which makes them feel safe and secure.	**Self-image and Self-esteem** Self-image is heightened during adolescence because of the physical changes we experience. Our self-esteem can change from day to day based on a variety of factors including employment and health status.
Security For infants and young children, security is mainly the feeling of being cared for, being safe and loved – it is closely linked with attachment.	**Security** Adolescence may feel insecure because of puberty. Adults may feel insecure about relationships, job security of income. Later in life adults may feel insecure about staying in their own home or going into a care home. Feeling secure helps us cope better with everyday situations.
Contentment Infants and young children are content if they have had enough food, love, are clean and dry and all other needs are met.	**Contentment** When people feel discontented with aspects of their life – for example, relationships or work – their emotions can be negatively affected.
Independence Independence is to care for yourself and make your own decisions. Infants are completely dependent on their carer. As children enter early childhood they develop more independence – feed self and get dressed. However, children still need a lot of help from their carer.	**Independence** Adolescence are dependent on their parents but are beginning to enjoy more independence and freedom to make their own choices. Adults enjoy living independently and controlling their own lifestyle and environment. Later in adulthood people become more dependent on others again.

G. How do humans develop socially (S)?

Life Stage	Types of relationships and social development
Infancy	• Solitary Play - From birth to 2 years, infants tend to play alone although they like to be close to their parent or carer; they may be aware of other children but not play with them.
Early childhood	• Parallel Play - From 2 to 3 years, children enjoy playing next to other children but are absorbed in their own game; they are not socialising or playing with other children. • Cooperative or social play – from 3 years upwards, children start to play with other children; they have developed social skills that help them to share and talk together; they often make up games together, such as being a shopkeeper and customer.
Adolescence	• People become more independent and build more informal and formal relationships. • Social development closely linked to emotions. • Often strongly influenced by peers – 'peer group pressure'.
Early adulthood	• Increased independence means greater control of decisions about informal relationships. • People may be developing emotional and social ties with partners and their own children. • Social life often centred on the family but social skills are required to build and maintain formal relationships.
Middle adulthood	• Children have often left home, but there are likely to still be strong family relationships. • Social circles may expand through travel, spending more time on hobbies or joining new groups.
Later adulthood	• Retired by this stage and so may enjoy more social time with family and friends or join new groups. • However, later in the life stage people may begin to feel isolated if they struggle to get out or if partners and friends pass away.

Year 10 BTEC Health and Social Care- Component 1: Human Lifespan Development. LAA

What we are learning this term:

E. How do humans develop intellectually (I)?
F. How do humans develop emotionally (E)?
G. How do humans develop socially (S)?

E.	***How do humans develop intellectually (I)?***
Infancy 	
Early childhood 	
Adolescence 	
Early and Middle Adulthood 	
Later adulthood 	

F.	**How do humans develop emotionally (E)? Explain each.**
Infancy and Early Childhood	**Adolescence and adulthood**
Bonding and Attachment	**Self-image and Self-esteem**
Security	**Security**
Contentment	**Contentment**
Independence	**Independence**

G.	**How do humans develop socially (S)?**
Life Stage	Types of relationships and social development
Infancy	
Early childhood	
Adolescence	
Early adulthood	
Middle adulthood	
Later adulthood	

Year 10 BTEC Health and Social Care- Component 1: Human Lifespan Development. LAA

What we are learning this term:

H. Key words
I. How do physical factors affect development?
J. How does lifestyle affect development?
K. How do social and cultural factors affect development?
L. How do relationships and isolation affect development?
M. How do economic factors affect development?

H	Key words:
Genetic inheritance	Genes the person inherits from their parents
Genetic disorders	Health conditions that are passed on from parent to child through their genes. e.g. cystic fibrosis
Lifestyle Choices	Include the food you eat and how much exercise you do. They also include whether you smoke, drink alcohol or take illegal drugs.
Appearance	The way that someone or something looks
Factor	A circumstance, fact, or influence that contributes to a result
Gender role	The role and responsibilities determined by a person's gender.
Culture	ideas, customs, and social behaviour.
Role models	Someone a person admires and strives to be like.
Social Isolation	Lack of contact with other people
Material possessions	Things that are owned by an individual
Economic	To do with person's wealth and income.

I. How do physical factors affect development?

	Genetic Disorders	Disease and Illness
Physical Development	A person's physical build can affect physical abilities. Inherited diseases may affect strength and stamina needed to take part in exercise.	May affect the rate of growth in infancy and childhood. Could affect the process of puberty. Could cause tiredness and/or mobility problems. Could limit of prevent participation in physical activity.
Intellectual Development	Some genetically inherited diseases may result in missed schooling, or have a direct impact on learning – conditions such as Edward's syndrome impact learning.	School, college, university, work or training could be missed. Memory and concentration could be affected.
Emotional Development	Physical appearance affects how individuals see themselves (self-image), and how others respond to them impacts on their confidence and wellbeing.	May cause worry and/or stress. Individuals may develop negative self-esteem. Could lead to feelings of isolation.
Social Development	Physical characteristics or disease may affect opportunities or confidence in building friendships and becoming independent.	May cause difficulty in having opportunities to socialize with other and build wider relationships.

J. How does lifestyle affect development?

Lifestyle choices include**;** diet, exercise, alcohol, smoking, sexual relationships and illegal drugs, appearance.

Positive lifestyle choices lead to:
- Healthy hair, skin, nails and teeth
- Positive self-image
- Energy and stamina
- Good health
- Emotional security

Negative lifestyle choices lead to:
- Being overweight or underweight
- Lack of energy
- Ill health
- Negative self-image
- Sexually transmitted diseases (STDs)
- Unplanned pregnancy

Our **appearance** includes: body shape, facial features, hair and nails, personal hygiene and our clothing.
Our appearance can affect the way we view ourselves- self-image

Positive self-image:
- Feel good about yourself.
- Healthy hair, skin, nails and teeth
- Big social circle.
- High self-esteem.
- High self-confidence.

Negative self-image
- Low self-esteem
- Low self-confidence
- Can lead to eating disorders e.g. anorexia
- Can lead to anxiety or depression
- Can lead to self-harm
- Negative impact on building relationships- social circle decreases.

Year 10 BTEC Health and Social Care- Component 1: Human Lifespan Development. LAA

What we are learning this term:

H. Key words
I. How do physical factors affect development?
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H	Key words:
Genetic inheritance	
Genetic disorders	
Lifestyle Choices	
Appearance	
Factor	
Gender role	
Culture	
Role models	
Social Isolation	
Material possessions	
Economic	

I. How do physical factors affect development?

	Genetic Disorders	Disease and Illness
Physical Development		
Intellectual Development		
Emotional Development		
Social Development		

J. How does lifestyle affect development?

Lifestyle choices include**;** diet, exercise, alcohol, smoking, sexual relationships and illegal drugs, appearance.

Positive lifestyle choices lead to:

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Negative lifestyle choices lead to:

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Our **appearance** includes: body shape, facial features, hair and nails, personal hygiene and our clothing.
Our appearance can affect the way we view ourselves- self-image

Positive self-image:

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Negative self-image

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Year 10 BTEC Health and Social Care- Component 1: Human Lifespan Development. LAA

What we are learning this term:

K. How do social and cultural factors affect development?
L. How do relationships and isolation affect development?
M. How do economic factors affect development?

K How do social and cultural factors affect development

Development can be influenced by the persons **culture or religion** because it affected their:
- **Values**: how they behave
- **Lifestyle choices**: diet, appearance

Positive affects of a persons culture/religion:	Negative affects of a persons culture/religion:
• A sense of security and belonging from sharing the same values and beliefs with others. • Good self-esteem through being accepted and valued by others	• Feeing discriminated against by people who do not share their religion/culture which leads to low self-image • Feeing excluded and isolated because their needs like diet, are not catered for.

Community refers to: local area where people live, school, religious group or hobby clubs. They have common values and goals.

Belonging to a community:	Not belonging to a community:
• Brings sense of belonging essential for emotional development. • Building and maintaining relationships- social development • Feeling of security. • Increases self-image and self-confidence	• Minimal contact with others- isolation • Anxiety leading to depression • Making negative lifestyle choices • Feeling less secure • Difficulty in building relationships • Slow self-image and self-confidence

Traditionally, men and women had distinctive responsibilities and expectations which for their gender called **gender roles**. However, nowadays UK equality legislation stops people being discriminated against because of their gender.

What happens when people face discrimination because of gender:
- They might be excluded from a group
- They may be refused promotion at work
- They may be expected to carry out a particular role
- They may be paid less.

L How do relationships and isolation affect development?

1	In adolescence, young people often argue with parents because they want more independence- negative affect on family relationships- can lead to isolation from them.
2	In later life, older people might need to rely on their children for support. This then has a positive affect on their development because all their need are catered for.
3	Relationships are important because they provide emotional security, contentment and positive self- esteem.
4	The breakdown of personal relationships can have a negative effect on persons PIES development: Low self-esteem, loss of confidence, stress.
5	Isolation can happen when individuals do not have the opportunity of regular contact with others. They have no one to share their feelings, thoughts and worries with resulting in feeling insecure and anxious.
6	Isolation can happen because they live alone, are unemployed or retired, are discriminated against or have an illness or a disability.
7	People have role models- infants learn by copying others, and adolescence base their identity on their role models. Role models can influence how people see themselves compared to others and their lifestyle chices0 can be positive or negative.

M How do economic factors affect development

Having enough money gives individuals and their families feeling of content and security →	Not having enough money causes stress and anxiety.
Having enough money means that the whole family is eating healthy. →	Not having enough money can mean that the family is not about to eat well balanced diet, and this has a negative effect on their physical development

Elderly people rely on state pension to live which is not enough and have to cut down on travel, shopping, bills, therefore it speeds their aging process and lead to health decline.

Living in good housing with open spaces:	Living in a poor housing with cramped and damp conditions:
• Feeling good about themselves • Be more likely to stay healthy, • Space to take exercise • Feel safe ad secure • Warmth	• Have low self-esteem and self-image • Be more likely to experience ill health • Be lesson likely to exercise • Anxious and stressed.
Material possession like a new phone or coat has a positive effect on the persons development because they might have more friends as they look nicer, high self-image. →	Not having a phone or the newest trainers can have a negative affect in the persons self-image and self-esteem. They might feel isolated from others.

Year 10 BTEC Health and Social Care- Component 1: Human Lifespan Development. LAA

K How do social and cultural factors affect development

Development can be influenced by the persons **culture or religion** because it affected their:
- **Values**: how they behave
- **Lifestyle choices**: diet, appearance

Positive affects of a persons culture/religion:	Negative affects of a persons culture/religion:
•	•
•	•

Community refers to:

Belonging to a community:	Not belonging to a community:
•	•
•	•
•	•
•	•
•	•

Traditionally, men and women had distinctive responsibilities and expectations which for their gender called **gender roles**. However, nowadays UK equality legislation stops people being discriminated against because of their gender.

What happens when people face discrimination because of gender:
-
-
-
-

What we are learning this term:

K. How do social and cultural factors affect development?
L. How do relationships and isolation affect development?
M. How do economic factors affect development?

L How do relationships and isolation affect development?

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M How do economic factors affect development

Having enough money….	Not having enough money ……
•	•
•	•

Having enough money means that….	Not having enough money can mean that…
•	•
•	•

Elderly people rely on state pension to live which is not enough and have to cut down on travel, shopping, bills, therefore it speeds their aging process and lead to health decline.

Living in good housing with open spaces:	Living in a poor housing with cramped and damp conditions:
•	•
•	•
•	•
•	•
•	•

Material possession like a new phone or coat has a positive effect on the persons development because…..	Not having a phone or the newest trainers can have a negative affect on…. Because….
•	•
•	•
•	•

Year 10 BTEC Health and Social Care- Component 1: Human Lifespan Development. LAB

What we are learning this term:

N. What are life events?
O. How do people deal with life events?
P. How is dealing with life events supported?

N.	What are life events?
Life Events	Life events are expected or unexpected events that can affect development. Examples include starting nursery, getting married or becoming ill.
Expected Life Events	Expected life events are life events that are likely to happen. Examples include starting primary school aged four and secondary school aged 11.
Unexpected Life Events	Unexpected life events are events which are not predictable or likely to happen. Examples could include divorce and bereavement (the death of a loved one).
Physical Events	Physical events are events that make changes to your body, physical health and mobility. Examples include illnesses such as diabetes and injuries and accidents such as car accidents.
Relationship Changes	Relationship changes could be new relationships such as the birth of a sibling, a new friendship or romantic relationship. Relationship changes can also be changes to existing relationships such as divorce.
Life Circumstances	Life circumstances are different situations that arise in our life that we must deal with. Examples include redundancy (losing a job), moving house or retirement (finishing work in later adulthood).

O.	How do people deal with life events?
Individual	• The effects of life events vary from person to person based on how they deal with their new situation. • Some people react to able to react to life events positively, others find it more difficult due to a range of factors.
Factors	• Factors that may affect how people cope with life events: age, other life events happening at the same time, the support they have, their disposition (their mood, attitude and general nature), their self-esteem, their resilience (how quickly they recover).
Adapting	• Adapt – to adjust to new conditions or circumstances. • Expected on unexpected life events can often force people to make changes to their lives. Individuals must find their own way to adapt to the changes that life throws at them.
Resilience	• Resilience – a person's ability to come to terms with, and adapt to, events that happen in life. • Resilience is stronger in people who have a positive outlook on life, accept that change happens, has supportive family and friends and plans for expected life events.
Time	• Sometimes people need a long time to adapt to unexpected life events. • It can take time for people to move on from and accept difficult changes in their life.

P.	How is dealing with life events supported?
Types of Support	**How this helps individuals deal with life events**
Emotional Support	Emotional support is needed to help individuals deal with all life events – expected and unexpected. Having someone to talk to helps people feel secure and adapt to change. Sometimes individuals can find this support in family and friends or professionals to process difficult life events – such as bereavement.
Information and Advice	Life events, particularly unexpected ones, can cause people to feel like they do not know what to do. Information and advice can help people to have a better understanding of their situation, which allows them to deal with it more successfully. Information and advice help them know where to go for help, the choices than are available to them and how to make healthy choices.
Practical Help	• Financial help – an individual may need money to help them adapt to a life change i.e. money to pay for a stair lift if their mobility has been effected. • Childcare – an individual may need support looking after their children i.e. a lone parent after a divorce that needs to go to work. • Transport – an individual may need support with transport if they have mobility problems i.e. a car could be adapted to support a person who has had an accident and can no longer walk.
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.
Professional 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.

Year 10 BTEC Health and Social Care- Component 1: Human Lifespan Development. LAB

What we are learning this term:
N. What are life events?
O. How do people deal with life events?
P. How is dealing with life events supported?

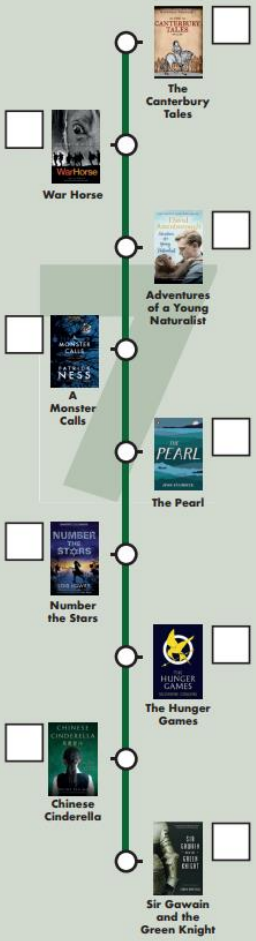
N.	What are life events?
Life Events	
Expected Life Events	
Unexpected Life Events	
Physical Events	
Relationship Changes	
Life Circumstances	

O.	How do people deal with life events?
Individual	
Factors	
Adapting	
Resilience	
Time	

P.	How is dealing with life events supported?
Types of Support	**How this helps individuals deal with life events**
Emotional Support	
Information and Advice	
Practical Help	
Informal Support	
Professional Support	
Voluntary Support	

SWINDON ACADEMY READING CANON

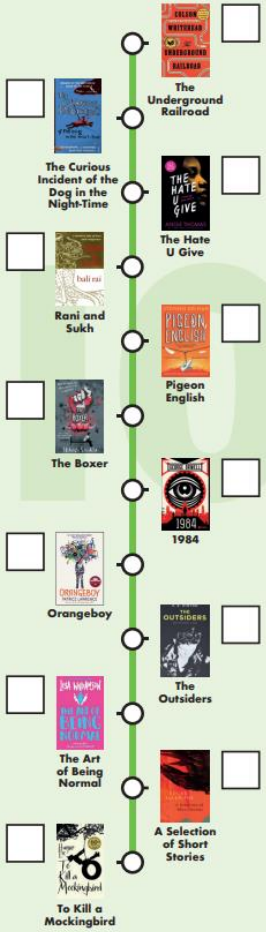
Year 7



Year 8

Year 9

Year 10



#ReadingisPower