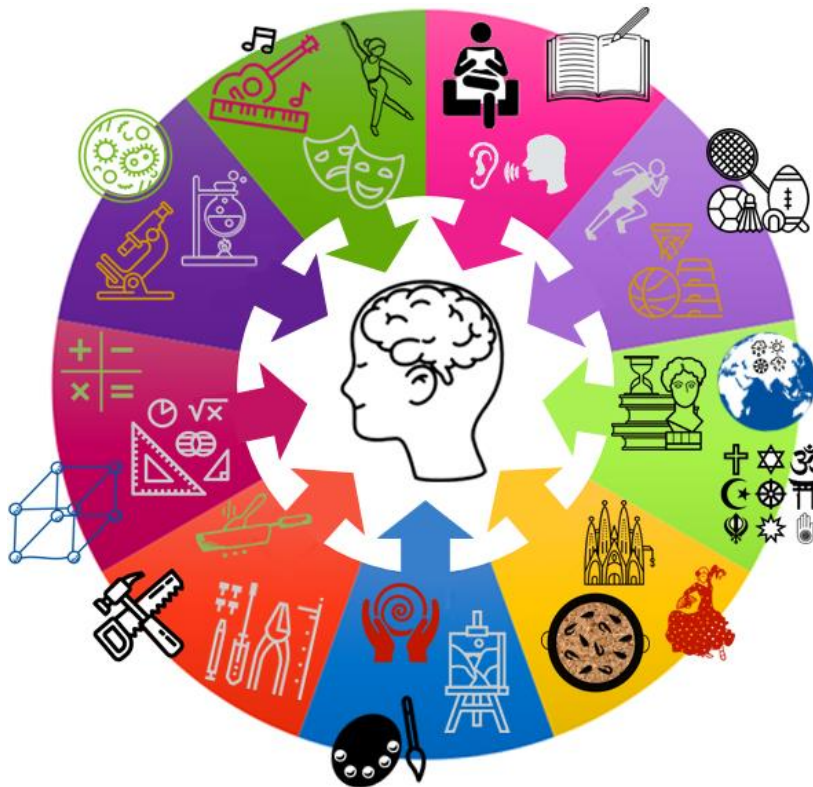


100% book - Year 10 Booster 10C/3

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



Term 4

Swindon Academy 2022-23

Name:

Tutor Group:

Tutor & Room:

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

If you are determined to learn, no one can stop you."

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

Knowledge Organisers

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

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

Quizzable Knowledge Organisers

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

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

Top Tip

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

Expectations for Prep and for using your Knowledge Organisers

1. Complete all prep work set in your subject prep book.
2. Bring your prep book to every lesson and ensure that you have completed all work by the deadline.
3. Take pride in your prep book – keep it neat and tidy.
4. Present work in your prep book to the same standard you are expected to do in class.
5. Ensure that your use of SPAG is accurate.
6. Write in blue or black pen and sketch in pencil.
7. Ensure every piece of work has a title and date.
8. Use a ruler for straight lines.
9. If you are unsure about the prep, speak to your teacher.
10. Review your prep work in green pen using the mark scheme.

How do I complete Knowledge Organiser Prep?

Step 1

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

The image shows the Epraise website interface. On the left is a 'Planner' for the week of 20th May to 26th May 2020, with columns for Sun, Mon, Tue, Wed, Thu, and Fri. On the right is a 'Knowledge Organiser' for 'Particle Theory'. It contains various sections: 'What is particle theory?', 'What is the law of conservation of mass?', 'What are the different states of matter?', 'What are the differences between the states of matter?', and 'What is the difference between a solid, liquid and gas?'. Each section includes text and diagrams of particle arrangements.

Step 2

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

This image shows a printed page from the knowledge organiser. Handwritten in blue ink at the top right is the date '29th May 2020' and the title 'Particle theory'. The page content includes:

- A. What is particle theory?** The theory that all matter is made up of particles.
- A. Describe the arrangement and movement of particles in the three states of matter.**
 - Solid:** In a regular pattern. Particles can vibrate in a fixed position.
 - Liquid:** Particles are arranged randomly but are still touching each other. Particles can slide past each other and move around.
 - Gas:** Particles are far apart and are arranged randomly. Particles carry a lot of energy and they move in all directions in a high speed.
- B. What are the different changes of state?**
 - Melting: Change of state from solid to liquid.
 - Freezing: Change of state from liquid to solid.
 - Evaporation: Change of state from liquid to gas.
 - Condensation: Change of state from gas to liquid.
- Energy changes:**
 - Gaining energy: melting, evaporation, boiling.
 - Losing energy: freezing, condensation.

 At the bottom, there are diagrams for 'Solid', 'Liquid', and 'Gas' showing particle arrangements.

Step 3

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

Handwritten notes on lined paper:

- 29th May 2020
- Properties of the states of matter
- Particle theory = all matter is made of particles
- Solid = regular pattern particles vibrate in fixed position
- Liquid = particles are arranged randomly but are still touching each other Particles can slide past each other and move around.
- Gas = Particles are far apart and are arranged randomly. Particles carry a lot of energy

Step 4

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

Handwritten notes on lined paper repeating definitions:

- Solid = regular pattern particles vibrate in fixed position
- Solid = regular pattern particles vibrate in fixed position
- Solid = regular pattern particles vibrate in fixed position

Step 5

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

This image shows a printed page from the quizzable knowledge organiser. Handwritten answers in blue ink are:

- A. What is particle theory?** (blank)
- A. Describe the arrangement and movement of particles in the three states of matter.** (blank)
- B. What are the different changes of state?**
 - Melting: Self quizzing
 - Freezing: Arrangement/movement of matter
 - Evaporation: Solid = regular pattern
 - Condensation: pa
- Energy changes:**
 - Gaining energy: (blank)
 - Losing energy: (blank)

 At the bottom, there are boxes for 'Solid', 'Liquid', and 'Gas'.

Step 6

Check your answers using your Knowledge Organiser. Repeat Steps 3 to 5 with any questions you got wrong until you are confident.

Handwritten notes on lined paper with corrections:

- Particle theory = all matter is made of particles
- Solid = regular pattern ✓ particles vibrate in fixed position
- Liquid = particles are arranged randomly but are still touching each other ✓ Particles can slide past each other and move around ✓
- Gas = Particles are far apart and are arranged randomly. Particles carry a lot of energy ✓

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

ENGLISH –Poetry cluster 3: The Problem with Power- Sets 6-7

Poem	Context	Events in the poem	Message	Form/ structure
Kamikaze-Beatrice Garland	<ul style="list-style-type: none"> During WW2, the term 'kamikaze' was used for Japanese fighter pilots who were sent on suicide missions. They were expected to crash their planes into enemy warships. The word 'kamikaze' literally translates as 'divine wind'. Flying a kamikaze mission was portrayed as a great honour by the Japanese government. It was claimed that there were many volunteers, although some have argued that not every kamikaze soldier would have been willing. By the end of the war, nearly 4,000 kamikaze pilots had died. 	<ul style="list-style-type: none"> The narrator of this poem is a kamikaze pilot's daughter. Unlike many of his comrades, this pilot turns back from his target and returns home. The poem explores the moment that the pilot's decision is made and sketches out the consequences for him over the rest of his life. Not only is he shunned by his neighbours, but his wife refuses to speak to him or look him in the eye. His children gradually learn that he is not to be spoken to and begin to isolate and reject him. 	<ul style="list-style-type: none"> The poem explores the conflict between personal and national duty and suggests that individual desire and extreme patriotism cannot be achieved together. Through the pilot, Garland may be expressing how it is not honour that gives life meaning, but rather being with loved ones. The poem explores the impossible situation that the pilots were put in by those in power- dying in glory or being shamed and rejected by your family. It also deals with the lasting effects that war can inflict on people, families, and communities. This poem not only deals with the kamikaze pilot's own story, but the implications for those around him. 	Kamikaze is a narrative poem. It begins as a report, summarising another conversation or story told by someone else. Sections of the poem are presented in italics as first-person narrative, where the storyteller speaks directly for herself. This has the effect of heightening the sense of sadness she feels.
Checking Out Me History- John Agard	<ul style="list-style-type: none"> Since the early 17th century, the country of Guyana has been colonised and controlled by the Dutch, French and British. The indigenous population spoke Arawak, but the British introduced English as the language of the government, courts and education system. For centuries, nations would repress the culture and identity of the countries that they colonised. They did this to control the population and get rid of any rebellion against the colonisers. Born in Guyana in 1949, Agard moved to Britain in 1977 and sees the culture as both an insider from living there and an outsider from moving to Britain 	<ul style="list-style-type: none"> The poem focuses on the omission of indigenous history and discusses how colonized people were forced to learn about <i>British</i> history—which had little to do with their actual lives. Not only does the poem call attention to the oppressive nature of colonial education, but it also praises important figures who were left out—figures such as Toussaint L'Ouverture, the leader of the Haitian revolution. The poem suggests the curriculum deliberately blinded colonized people to their own histories, and argues that in order to understand their own identity they must learn their own history. 	<ul style="list-style-type: none"> Knowledge should not be denied to anyone. No one has the right to oppress others by denying them facts about their past. This can lead to feelings of inferiority and there should be more equality in the world. History is important and there is power in knowing your heritage and culture. People should never exclude this from you – especially if it is replaced with less relevant examples. There is a sense of caution in this poem in relation to believing what you are told. We are reminded that we should always seek the truth for ourselves and question what others choose to teach us. The education system has power to mould our thinking and we should be aware of this. There is a warning that, when people are denied knowledge, they can become bitter and angry, and this could lead to rebellion, protests and uprisings. 	The open form highlights Agard's rebellion against the status quo and the restrictions of a colonial curriculum. His use of italics separates and celebrates the important historical figures from the history he was a taught. The sing-song rhyme scheme holds a bitterness and anger that he was taught trivial things whilst his own history was omitted.
The Émigrée-Carol Rumens	<ul style="list-style-type: none"> Carol Rumens was born in South London in 1944 Published her own poems and translations of Russian poems She has a 'fascination with elsewhere' The Émigrée is not autobiographical poem, but is inspired by living in London (a diverse society) The poem sympathises with people who have been exiled Emigrants are people who have left the country of their birth to settle elsewhere in the world. 	<ul style="list-style-type: none"> A displaced person pictures the country and the city where they were born. The city and country are never named in order to increase the relevancy to as many people who have left their homelands as possible. The speaker's home country appears to be war-torn, or under the control of a dictatorial government that has banned the language the speaker once knew. Despite this, the émigrée's childhood memories are filled with light and happiness. Though there is a clear sense of fondness for the place, there is also a more threatening tone in the poem, suggesting that not all of her memories are happy and that the country she has emigrated to is not always welcoming. 	<ul style="list-style-type: none"> Rumens presents the importance of empathy and sympathy. She reminds us of how traumatic conflict can be and that people are forced to make heart-breaking decisions when they live under cruel leadership. The poem highlights the importance of belonging and is a celebration of diversity – we should make people feel welcome when they move to a new home. Memories are shown to be powerful and to have a strong hold over us with the ability to bring both pain and comfort. The past can be difficult to escape and can restrict us from moving forward in life. There is also a sense of the power of the media – their portrayal of immigrants can lead to a lack of sympathy in society; it is important we do not become insensitive to the pain that can lead to people moving to a new home. 	The use of enjambment reflects the chaos and confusion of her situation. The poem consists of two stanzas with eight lines and a third stanza with nine lines. The added line in the final stanza could suggest she doesn't want to let her memories go, stop writing about her homeland or give up her past.
Storm on the Island-Seamus Heaney	<ul style="list-style-type: none"> For many centuries, there has been conflict in Northern Ireland. The majority of Northern Ireland's population were unionists, who wanted to remain within the United Kingdom. Most of these were Protestant Christians. Seamus Heaney was a Catholic born in Northern Ireland in 1939. Catholics were seen as the underclass and were discriminated against by the government and police. This resulted in strong political and guerrilla warfare movements in an attempt to overthrow British rule and re-unite Ireland. 	<p>There are two interpretations of this poem- literal and metaphorical.</p> <p>Literal: The narrator describes how well prepared they are for the storm. The storm attacks the island. As the poem progresses, the narrator's confidence decreases, and they begin to worry.</p> <p>Metaphorical: Heaney uses the storm as a metaphor for the conflict in Northern Ireland. The 'Islanders' suffer under enemy occupation with quiet resignations.</p>	<ul style="list-style-type: none"> Heaney portrays nature as a powerful force that humans should fear and not attempt to control. Heaney presents the idea that life under constant enemy occupation can leave people accepting this presence with sadness, but stop trying to do anything about it. He warns that the enemy can appear reasonable, but can quickly turn in to a dangerous threat – this threat may not always be physical; the gradual erosion of human rights and liberties is just as perilous. 	Heaney's use of iambic pentameter may appear strange given its use in traditional British poems. However he subverts the traditional structure by swapping the stressed and unstressed syllables on certain lines, resisting the regularity of British control.
Tissue-Imtiaz Dharker	<ul style="list-style-type: none"> Imtiaz Dharker was born in Pakistan but grew up in Scotland. Her poetry often deals with themes of identity, the role of women in society and the search for meaning. Tissue is from her poetry collection called 'The terrorist at my table'. Most of the poems in that collection relate to religion, terrorism and global politics. 	<ul style="list-style-type: none"> Tissue explores the varied uses of paper and how they relate to life. It is written from the point of view of someone looking out at the conflict and troubles of the modern world; destruction, war and politics, money and wealth as well as issues like terrorism and identity. The poem remarks how nothing is meant to last. 	<ul style="list-style-type: none"> Human power is ephemeral. No matter how much we try to build structures to display our power, nature will always outlast it. Our relationship with paper is unhealthy. We rely on it too much to make records, document ownership and build debt. Instead, we should realise that the significance of human life will outlast the records we make of it on paper or in buildings. Human life is fragile, and not everything can last. We must understand our fragility and should not try to build our lives through making recordings or building with blocks and bricks, we should focus on living. 	The poem has an irregular structure and no rhyme scheme reflecting the irregularity of life and the lack of and predictability. The fragile structure is symbolic of the fragile nature of our lives.

ENGLISH –Poetry cluster 3: The Problem with Power

Key Vocabulary

Key Vocabulary		Poem	Context	Events in the poem	Message	Form/ structure
Patriotism		Kamikaze-Beatrice Garland	<ul style="list-style-type: none"> During _____, the term 'kamikaze' was used for... <p>They were expected to...</p> <p>The _____ made the Kamikaze missions sound like...</p> <p>It was claimed that...</p>	<ul style="list-style-type: none"> The narrator of this poem is... The poem explores the moment... His neighbours _____ and his wife... His children and grandchildren... 	<ul style="list-style-type: none"> The poem explores the conflict... Through the pilot, Garland may be expressing how... The poem explores... It also deals with the... 	<p>Kamikaze is a ...</p> <p>Sections of the poem are presented in...</p>
			Checking Out Me History-John Agard	<ul style="list-style-type: none"> Since the early _____, the country of _____ For centuries, nations would ... They did this to... Born in... 	<ul style="list-style-type: none"> The poem focuses on how... Not only does the poem call attention to the how oppressive colonial education was, but it also... The poem suggests the curriculum deliberately... 	<ul style="list-style-type: none"> Knowledge should not be... There is a sense of... There is a warning that,...
Dominate		The Émigrée-Carol Rumens	<ul style="list-style-type: none"> Carol Rumens was born... Published her own... She has a 'fascination with... The Émigrée is not autobiographical poem, but... The poem sympathises with ... Emigrants are... 	<ul style="list-style-type: none"> An emigrant... The speaker's home country appears to be... Despite this, the émigrée's childhood memories are... 	<ul style="list-style-type: none"> Rumens presents the importance of... The poem highlights the importance of... Memories are shown to be... 	<p>The use of enjambment reflects the...</p> <p>The poem consists of...</p>
Defiance						
Isolated						
Dictatorial		Storm on the Island-Seamus Heaney	<ul style="list-style-type: none"> For many centuries, ... The majority of Northern Ireland's population were ... Seamus Heaney was... 	<p>There are two interpretations of this poem- _____ and _____.</p> <p>_____ : The narrator describes how well prepared they are for...</p> <p>_____ : Heaney uses the storm as a metaphor for...</p>	<ul style="list-style-type: none"> Heaney portrays nature as... Heaney presents the idea that life under... He warns that the enemy can ... 	<p>Heaney's use of _____</p> <p>_____ may appear</p>
Nostalgia						
Fragility		Tissue-Imtiaz Dharker	<ul style="list-style-type: none"> Imtiaz Dharker was... Tissue is from... 	<ul style="list-style-type: none"> Tissue explores... It is written from the point of view of ... The poem remarks how... 	<ul style="list-style-type: none"> Human power... Our relationship with paper is ... Human life is... 	

T4 Y10 C3.8 Mainstream Rate and extent of chemical change

Rate of reaction.

Measuring the rate of anything always involves a **measurement of time**

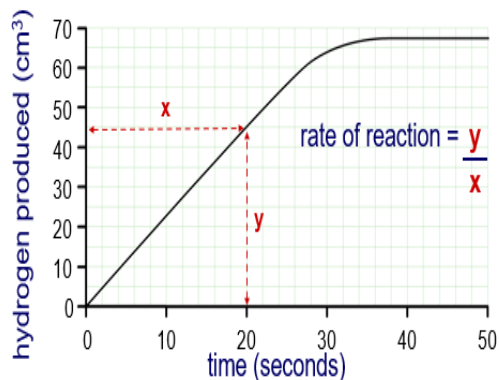
The rate of a chemical reaction can be found using:

$$\text{rate} = \frac{\text{quantity of reactant used}}{\text{time}}$$

$$\text{rate} = \frac{\text{quantity of product formed}}{\text{time}}$$

Quantities for reactants or products are measured in **mass in g** or by **volume in cm³**

Rate calculations can be done from tables of data or graphs:



Volume of hydrogen produced = 45cm³

Time taken = 20 seconds

Rate = $\frac{45}{20}$ cm³/s

20 s

rate = 2.25 cm³/s

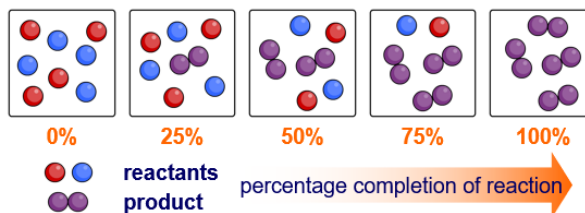
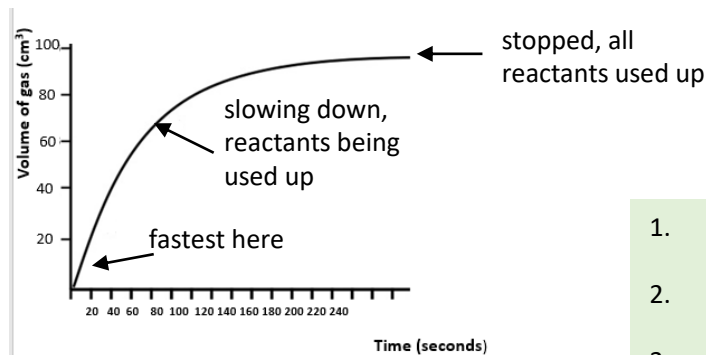
The progression of a chemical reaction

For a reaction to take place, reactant particles have to collide.

The rate of a reaction depends on the **frequency of collisions** and **the energy with which the particles collide**.

The minimum amount of energy needed to start a reaction is called the **activation energy**.

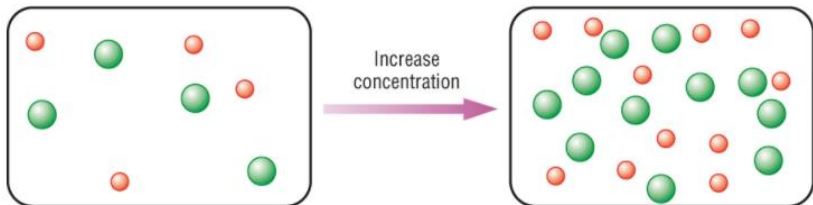
A reaction is always **fastest at the beginning** and slows down over time as the reactants get used up and the frequency of collisions decreases.



1. Give two ways of calculating the rate of a reaction
2. What does a rate calculation always have to include?
3. What are solid reactants or products measured in?
4. What are liquid or gaseous products measured in?
5. How is the rate calculated from a graph?
6. What point in a reaction is the fastest?
7. Why does a reaction slow down as it progresses?
8. Why do reactions stop?
9. What two factors affect the rate of a reaction?

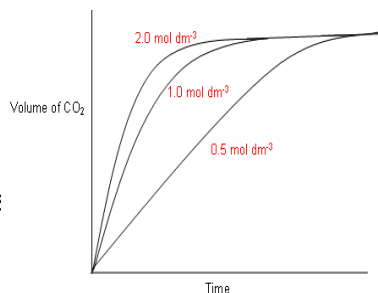
T4 Y10 C3.8 Mainstream Rate and extent of chemical change

The effect of concentration

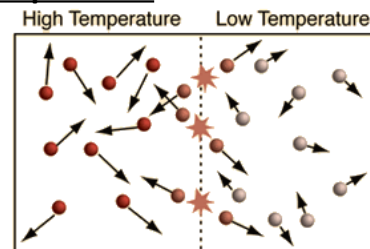


Concentration means number of particles per cm^3
 Increasing the concentration of any of the reactants increases the rate of the reaction

This is because there are more particles per cm^3 so there are **more frequent collisions**, increasing the rate.

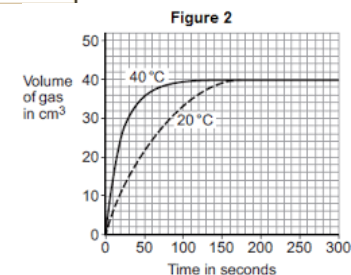


The effect of temperature



Increasing the temperature of the reactants increases the rate of the reaction.

This is because the particles have more kinetic energy and therefore move faster, so there are **more frequent collisions**, increasing the rate.

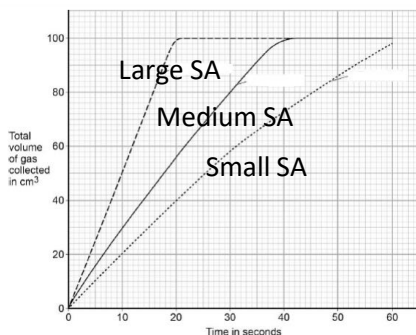


The effect of surface area

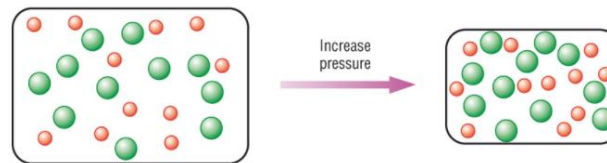


The smaller the pieces of a solid, the higher the surface area
 Increasing the surface area of solid reactants increases the rate of reaction.

This is because there is a greater area available for collisions to occur so there are **more frequent collisions**, increasing the rate.

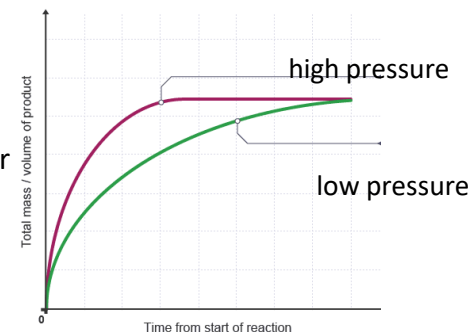


The effect of pressure



Increasing the pressure of gaseous reactions increases the rate of the reaction.

This is because the same number of particles are now in a smaller volume, so there are **more frequent collisions**, increasing the rate.

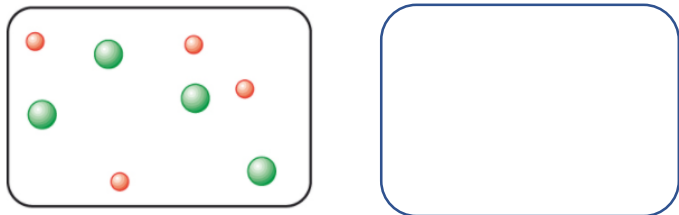


In all cases, the overall amount of product is the SAME, the end point of the reaction is just reached faster

T4 Y10 C3.8 Mainstream Rate and extent of chemical change

The effect of concentration

1. In the box below, draw a reaction involving a higher concentration of the green reactant molecules.



2. What happens to the rate of a reaction if you increase the concentration?

The effect of temperature

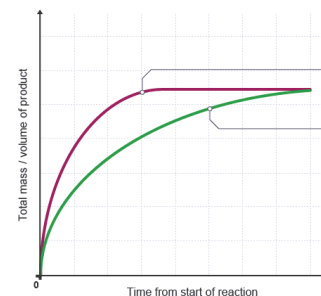
1. Describe how increasing the temperature affects the rate of a reaction.
2. Explain why this happens in terms of particles.

The effect of surface area

1. Reactions involving what sort of reactant are affected by surface area?
2. What type of piece has a large surface area?

The effect of pressure

1. Reactions involving what type of reactants are affected by pressure?
2. Label the diagram with 'low pressure' and 'high pressure'

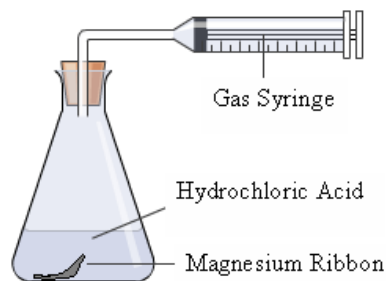


What happens to the overall amount of product if you change the rate of a reaction?

T4 Y10 C3.8 Mainstream Rate and extent of chemical change

Experiment 1

Using volume of gas collected over time as a measure of the rate



Independent variable: concentration of HCl

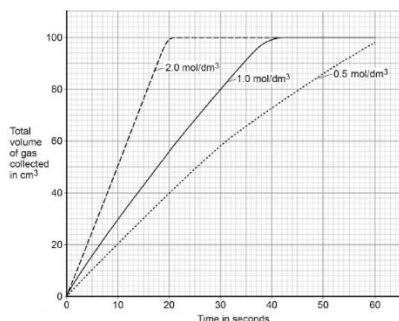
Dependent variable : Volume of gas produced / min

Control variables : volume of HCl, mass of Mg, temperature of acid

Method

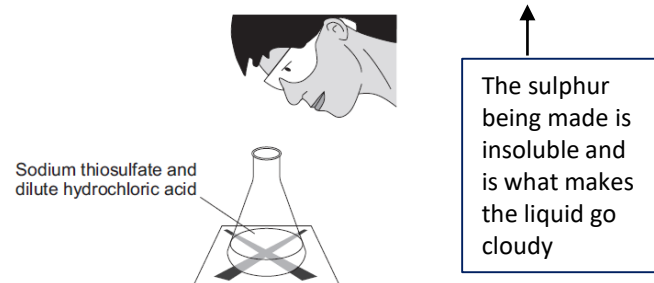
1. Measure 20cm³ 0.5M HCl into a conical flask.
2. Insert 2 x 2cm pieces of Mg and attach a gas syringe
3. Start a stopwatch and measure the volume of gas collected every 20 seconds until the reaction is over.
4. Repeat using different concentrations of HCl.

An increase in the concentration leads to an increase in the rate of the reaction, but the same volume of product overall



Experiment 2

Investigating the effect of changing the concentration of HCl on the rate of reaction



Independent variable: concentration of HCl

Dependent variable : Time taken for the cross to disappear

Control variables : volume of HCl, volume of sodium thiosulphate, temperature of both solutions, concentration of sodium thiosulphate

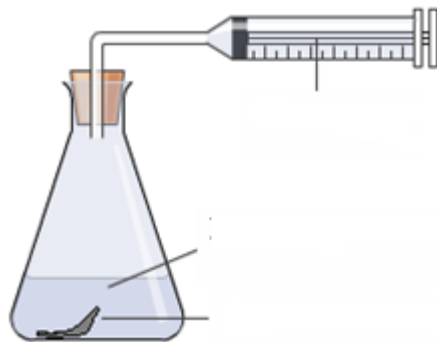
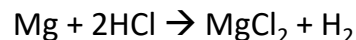
Method

1. Use a measuring cylinder to put 10 cm³ sodium thiosulfate solution into the conical flask.
2. Put the conical flask on the black cross.
3. Put 10 cm³ of 0.5M hydrochloric acid into the 10 cm³ measuring cylinder.
4. Put this acid into the flask. At the same time swirl the flask gently and start the stopwatch.
5. Look down through the top of the flask. Stop the stopwatch when you can no longer see the cross. Record the time.
6. Repeat steps 1-5 using different concentrations of HCl – 1M, 1.5M, 2M and 2.5M

T4 Y10 C3.8 Mainstream Rate and extent of chemical change

Experiment 1

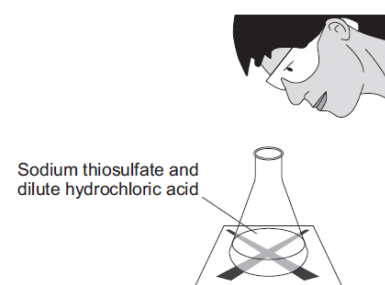
Using volume of gas collected over time as a measure of the rate



1. Label the diagram to show the equipment and chemicals used in this investigation
2. What is the independent variable?
3. Name two control variables.
4. What is a sensible volume of HCl to use?
5. Which piece of equipment, essential for a rate calculation, is not shown?

Experiment 2

Investigating the effect of changing the concentration of HCl on the rate of reaction

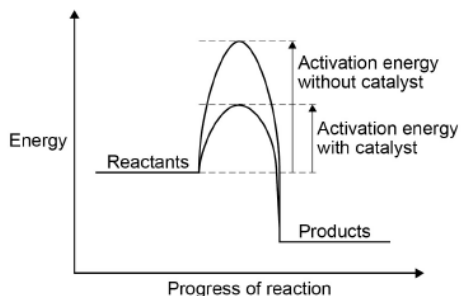


1. What is the dependent variable in this reaction?
2. Why does the solution go cloudy?
3. Name two control variables.

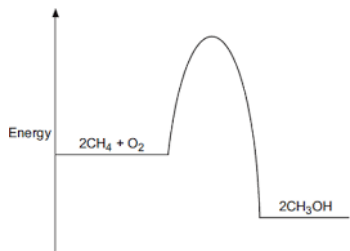
T4 Y10 C3.8 Mainstream Rate and extent of chemical change

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.

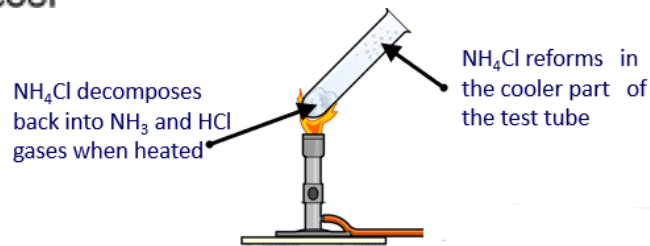
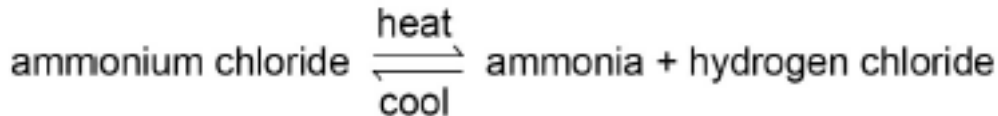


1. What is a catalyst?
2. How do they speed up reactions?
3. Draw on the energy level diagram below to show how it would change in the presence of a catalyst.

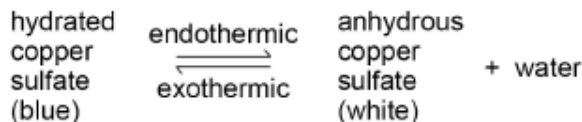


Reversible reactions

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



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.



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**.

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?

T4 Y10 C3.9 Mainstream – Organic Chemistry

Crude oil

Crude oil = a mixture of **hydrocarbons**.

- It is a **non-renewable resource (fossil fuel)**
- Made from remains of dead sea creatures **compressed** over millions of years

Hydrocarbons - molecules containing **hydrogen** and **carbon only**.

Two types of hydrocarbons are **alkanes** and **alkenes**.
The hydrocarbons in crude oil are mostly alkanes.

Alkanes

- Alkanes = **saturated** hydrocarbons.
- Held together by **single covalent bonds**.
- General formula = C_nH_{2n+2}
- Have different boiling points – longer the chain, higher the boiling point

You need to remember the names, and formulas of the first 4 alkanes.










Name of Alkane	Structural Formula	Molecular Formula
methane	$\begin{array}{c} \text{H} \\ \\ \text{H}-\text{C}-\text{H} \\ \\ \text{H} \end{array}$	CH_4
ethane	$\begin{array}{c} \text{H} \quad \text{H} \\ \quad \\ \text{H}-\text{C}-\text{C}-\text{H} \\ \quad \\ \text{H} \quad \text{H} \end{array}$	C_2H_6
propane	$\begin{array}{c} \text{H} \quad \text{H} \quad \text{H} \\ \quad \quad \\ \text{H}-\text{C}-\text{C}-\text{C}-\text{H} \\ \quad \quad \\ \text{H} \quad \text{H} \quad \text{H} \end{array}$	C_3H_8
butane	$\begin{array}{c} \text{H} \quad \text{H} \quad \text{H} \quad \text{H} \\ \quad \quad \quad \\ \text{H}-\text{C}-\text{C}-\text{C}-\text{C}-\text{H} \\ \quad \quad \quad \\ \text{H} \quad \text{H} \quad \text{H} \quad \text{H} \end{array}$	C_4H_{10}

Fractional Distillation

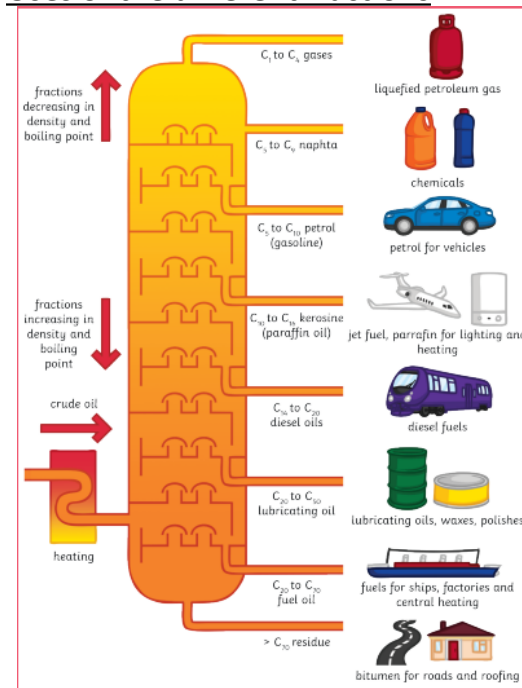
- Used to **separate** the mixtures of hydrocarbons in **crude oil**.

Steps in Fractional Distillation

1. Crude oil enters **fractioning column** and is heated to boiling point so the hydrocarbons evaporate.
2. It is **cooler** at the **top** of the fractionating column and **hotter** at the **bottom**.
3. Vapours rise up the column and, as they rise, they cool
4. The different hydrocarbons condense at different **boiling points**
5. The different 'fractions' have different properties

Short-Chain Molecules	Increasing Chain Length	Long-Chain Molecules
		
thin	As chain length increases, the boiling point of the hydrocarbon chains also increases.	thick
		
		
	Flammability is a measure of how easily a substance burns.	

Uses of the different fractions



Supply and demand

Product	Supply in tonnes	Demand in tonnes
petrol	100	300
diesel	200	100
heating oil	250	50

After fractional distillation, we find:

- we have more of the long chain hydrocarbons than we need
- There are not enough short chain hydrocarbons.
- Short chain are more useful as they are more flammable so can be used as fuels.

T4 Y10 C3.9 Mainstream – Organic Chemistry

- | | | |
|---|--|---|
| <ol style="list-style-type: none">1. What is crude oil?2. What is a hydrocarbon?3. What type of hydrocarbons are alkanes?4. State the general formula for alkanes.5. Name the first four alkanes.6. What sort of bonding is found in hydrocarbons? | <ol style="list-style-type: none">1. What is the name for the process that results in the separation of the fractions of crude oil?2. What happens to the boiling point of hydrocarbons as the chain length increases?3. What happens to the viscosity of hydrocarbons as the chain length increases?4. What does flammable mean?5. What are the two changes of state that occur during fractional distillation?6. Which physical property is used to separate the fractions? | <ol style="list-style-type: none">1. What is one use for the hydrocarbons that are between 14 and 20 carbons long?2. What is the range of lengths of hydrocarbons in fuel oil?3. What are the smallest hydrocarbons used for?4. What happens to the flammability of hydrocarbons as the chain length increases?5. What is the range of hydrocarbon lengths found in petrol?6. What is the problem with supply and demand of the different hydrocarbon chains? |
|---|--|---|

T4 Y10 C3.9 Mainstream – Organic Chemistry

Cracking

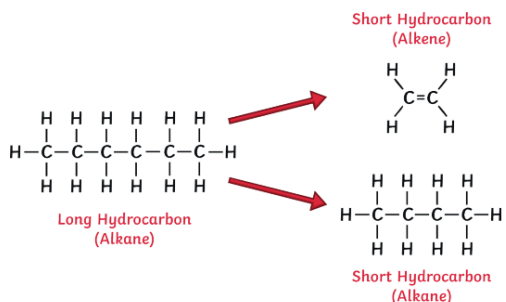
- This is done to solve the problem of having too many long chain hydrocarbons and not enough short ones
- Long hydrocarbons are **broken down** into smaller, more useful hydrocarbons.
- Short chain hydrocarbons are more useful as they are more flammable

Two types of cracking: catalytic and steam cracking.

Catalytic cracking – needs a **high temperature** and a **catalyst**.

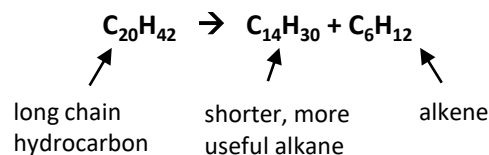
Steam cracking – **high temperature and steam**

- Cracking produces a **short-chain alkane** and an **alkene**.



Cracking equations

Same number of carbon and hydrogen atoms on both sides of the equation:



Alkenes

- Alkenes are **unsaturated** hydrocarbons.
- Contain carbon-carbon **double bonds**.

Test for Alkenes

Use bromine water to test for alkenes.

If an alkene is present, the bromine water turns from orange/brown to colourless.

Alkanes do not react with bromine water.

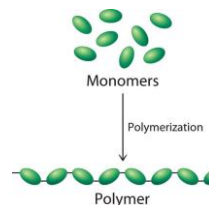


Uses for alkenes:

- Can be used as fuels
- Can be used as a starting material for other chemicals
- Can be used to make polymers (e.g. plastic)

Polymers

- Polymers are large molecules made of many repeating units (monomers)
- Alkenes (small molecules) are joined together to make polymers



Poly(ethene) – plastic bags/drinks bottles

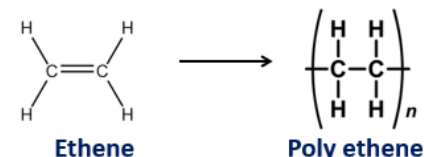
Poly(propene) – strong tough plastics

Drawing and naming polymers

1. Redraw the **monomer given**, but without the double bond. Make sure to copy all other elements exactly.
2. Put brackets around the monomer and extend joining bonds out through the brackets on both sides
3. Add an 'n' at the bottom right of the bracket
4. To name the polymer, you put **poly** in front of the monomer name

E.g.:

Draw and name the polymer made from the monomer ethene:



Combustion of Hydrocarbons

Combustion means burning.

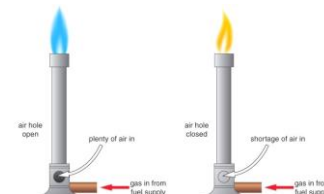
Complete combustion - when there is a good supply of **oxygen** for a fuel to burn.

Fuel + oxygen → carbon dioxide + water

Incomplete combustion - **not enough oxygen**

Products are **carbon monoxide** and water.

Carbon monoxide = poisonous gas



T4 Y10 C3.9 Mainstream – Organic Chemistry

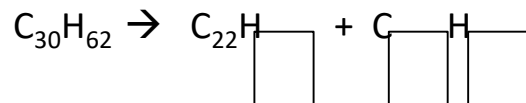
1. What is cracking?

2. Why is cracking done?

3. What are the two types of cracking?

4. What conditions are needed for catalytic cracking?

5. Complete this cracking equation by putting numbers in the boxes:



6. What two types of hydrocarbons are formed during cracking?

1. Why are alkanes called 'unsaturated'?

2. Which chemical is used to test for alkenes?

3. What is the colour change for a positive alkene test?

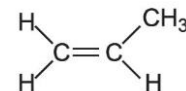
4. Give two uses for alkenes

5. What are polymers?

6. What is the name for the small molecules that make up polymers?

1. What is the name of the polymer formed from the monomer butene?

2. Draw the polymer made from the monomer propene given below:



3. Name the polymer made in question 2

4. What is combustion?

5. When does incomplete combustion happen?

6. What are the waste products of complete combustion?

7. Which toxic gas is formed during incomplete combustion?

T4 Y10 B3.10 Mainstream – Homeostasis and Response

The nervous system

Job is to **detect** stimuli (changes in environment) and **respond** if needed. Consists of:

Receptors



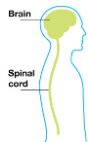
Specialised cells that detect stimuli, found in sense organs and internally

Neurons



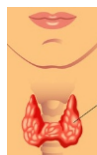
3 types – sensory, relay and motor
Carry **impulses** joining all parts of the nervous system

Co-ordination Centres



Brain, spinal cord, pancreas.
Coordinates the response

Effectors



Organs that bring about a response

muscle or gland

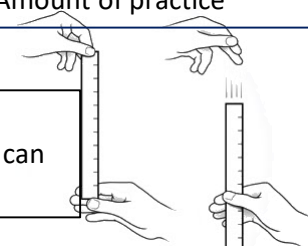
RP 6 - Investigation into the effect of a factor on human reaction time.

1. Person A holds out hand with a gap between thumb and finger.
2. Person B holds ruler with the zero at the top of person A's thumb.
3. Person B drops ruler without telling Person A and Person A must catch it.
4. The distance on the ruler level with the top of person A's thumb is recorded
5. Repeat this ten times.
6. Repeat steps 1-5 after a factor has been changed
7. Use conversion table to convert ruler measurements into reaction time.

The 'factor' could be...

- Caffeine consumption
- Hours of sleep
- Alcohol consumption
- Amount of practice

A computer reaction test can also be used.

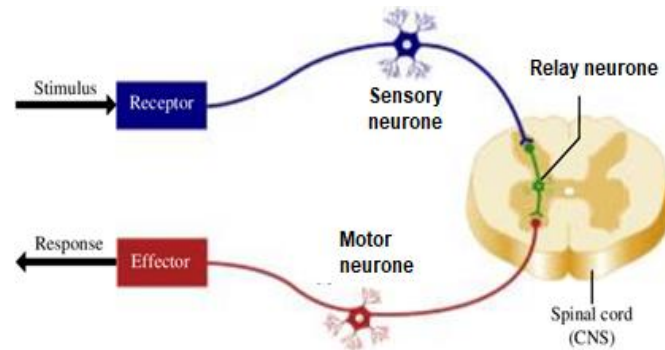
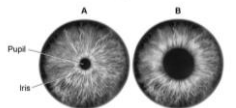


Control variables : distance above the hand, distance between finger and thumb, hand used (dominant or non-dominant, all other factors listed in the box above except the one being changed.

Reflexes

A reflex is an automatic, rapid response
Reflexes do not involve the conscious part of the brain, so cannot be overridden
The response might be brought about by:

- muscle - e.g. pupil being constricted with bright light or knee jerk response
- gland – e.g. mouth watering or tears being released when something gets in your eye



Reflex Arc

stimulus → receptor → **sensory neurone** → **relay neurone** → **motor neurone** → effector → response

Example

Hot pan → pain receptors → **sensory neurone** → **relay neurone** → **motor neurone** → hand muscles → release pan

T4 Y10 B3.10 Mainstream – Homeostasis and Response

1. What are the two main jobs of the nervous system?

2. What are receptors?

3. What are stimuli?

4. Name the 3 types of neurone?

5. What are the 3 coordination centres?

6. What is an effector?

7. What are the 2 types of effector?

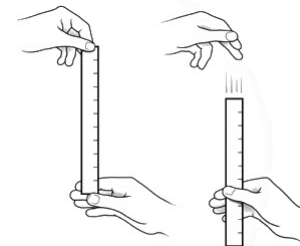
1. Where should the ruler be held at the start of the investigation?

2. What could be used instead of a ruler drop test?

3. If you are testing the hypothesis 'The amount of sleep a person has affects their reaction time' what would be the:

- independent variable
- Dependent variable
- 2 control variables

4. How is the distance the ruler travels converted into a reaction time?



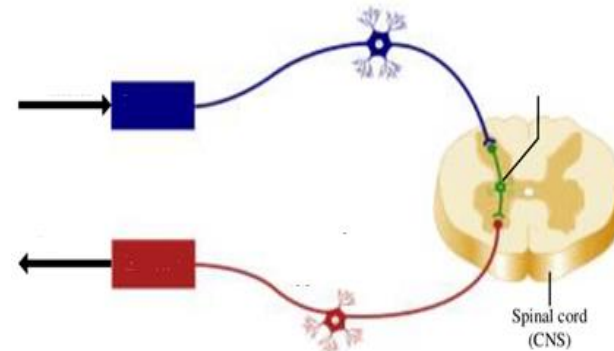
1. What is a reflex?

2. Which part of the nervous system is NOT involved in a reflex?

3. Give an example of a reflex reaction

4. Label the diagram using the labels below:

- relay neurone
- sensory neurone
- motor neurone
- effector
- receptor
- stimuli



Reflex Arc

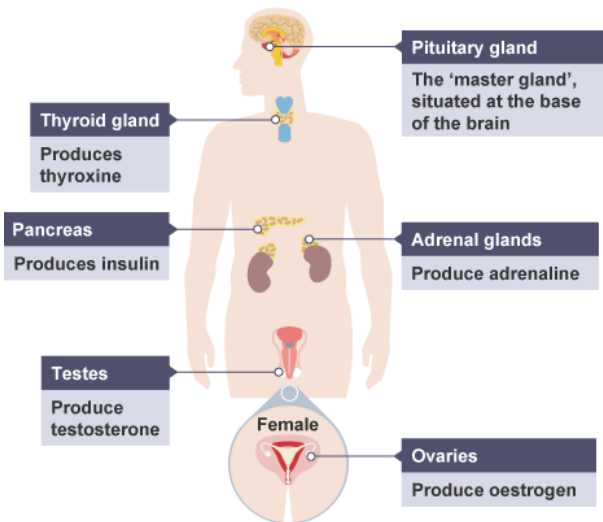
Complete the gaps to show the order of a reflex reaction:

stimulus → → **sensory neurone** → → **motor neurone** → → response

T4 Y10 B3.11 – Mainstream Homeostasis and Response

Hormonal responses

Hormones are chemicals released by glands
They are carried in the bloodstream.
Hormonal responses are slower than nervous responses but they last longer.



Homeostasis

This means keeping internal conditions (of the body or a cell) constant to ensure optimum functioning. In humans, this includes regulating:

- temperature
- water levels
- blood glucose concentration

Homeostasis can involve nervous or hormonal responses.

Receptors detect changes in the body
Coordination centres (brain, pancreas, spinal cord etc) receive and process information
Effectors carry out responses to return to normal

Blood glucose concentration

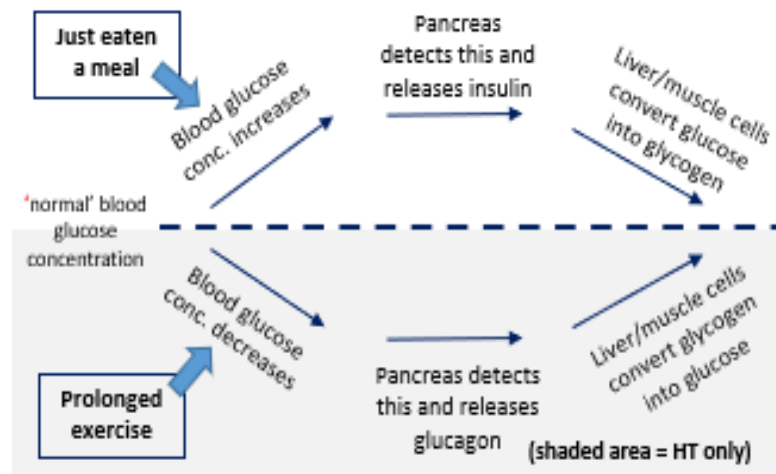
Blood glucose is monitored by the **pancreas**.

If glucose levels rise, the pancreas releases **insulin** into the blood.

This is a message to the liver to remove glucose and store it as **glycogen**.

If blood glucose is too low, **glucagon** is released.

The liver responds by breaking down glycogen into glucose and releasing it into the blood.



Diabetes

There are two types – Type 1 and Type 2
Both result in a lack of control over blood glucose levels

	Type 1	Type 2
Cause	No insulin is made by the pancreas	Insulin is made, but the liver and muscle cells do not respond
Treatment	Injections of insulin Pancreatic transplant	Controlling carbohydrate intake Losing weight

HT only

Negative feedback is when the release of something brings the levels back towards acceptable levels, it maintains a steady state.

E.g. if blood glucose increases, insulin is released to bring blood glucose back towards the normal range.

T4 Y10 B3.11 – Mainstream Homeostasis and Response

Adrenaline and thyroxine (HT only)

Adrenaline is produced by the **adrenal glands**.

It is produced in times of fear or stress.

It **increases heart rate** to ensure **more oxygen and glucose** to the cells to prepare for the 'fight or flight' response.

Thyroxine is produced by the **thyroid gland**.

It is involved in regulating **metabolic rate** and growth and development.

Puberty

Females – **Oestrogen** is the main female reproductive hormone produced in the ovary. At puberty, eggs begin to mature, and one is released approximately every 28 days. This is called ovulation.

Males – **Testosterone** is the main male reproductive hormone produced by the testes and it stimulates sperm production.

Name of contraception	Description	+	-
Condoms/diaphragm	Barrier	Very effective, condom protects against STIs	Unreliable if not used properly
Oral Contraception (pill)	Hormonal (oestrogen or progesterone, stops FSH so no eggs mature)	Very effective	Must remember to take everyday, can have side effects
Injection/implant/skin patch	Slow-releasing hormone	Long lasting	Side effects such as heavy periods
Intrauterine Device (IUD or Coil)	Barrier method. Can also contain hormones	Long lasting (up to 5 years)	Side effects such as heavy periods
Surgical Sterilisation	Tying or cutting of sperm ducts/ oviducts.	Almost 100% effective	Difficult or impossible to reverse

Menstrual Cycle

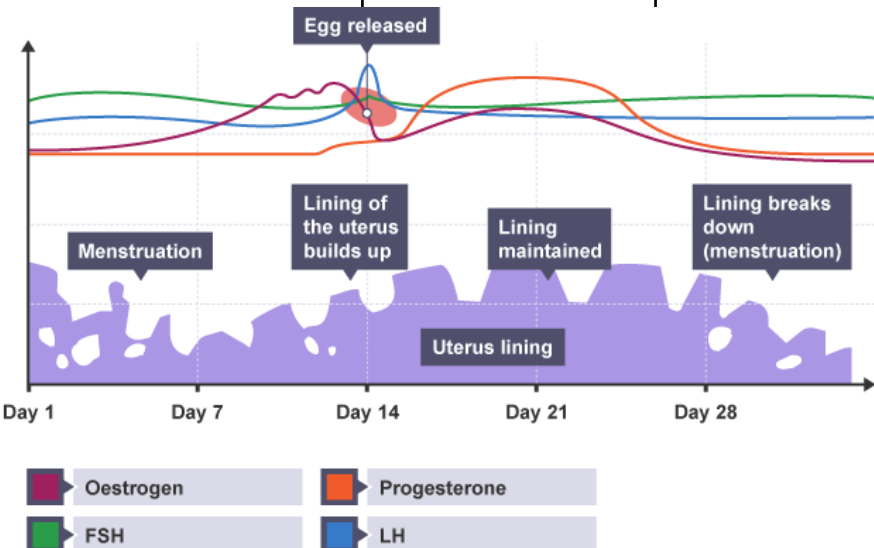
The menstrual cycle is controlled by several hormones:

FSH – from the pituitary. Causes an egg to mature in the ovary

LH – from the pituitary. Causes ovulation

Oestrogen and progesterone are involved in maintaining the lining of the womb.

HT – Oestrogen also feeds back to the pituitary to stop producing FSH.



Infertility (HT only)

Fertility drugs LH and FSH can be given to increase the number of eggs released and increase the change of fertilisation. .

IVF

- Woman takes a dose of FSH and LH - stimulates the maturation of several eggs.
- Eggs are collected and fertilised by sperm from the male
- Fertilised eggs develop into embryos.
- One or two embryos inserted into the female's uterus.

Negatives:

- very emotionally/ physically stressful
- success rates are not high
- can lead to multiple births (twins, etc.)
- Many embryos are not used & destroyed



What we are learning this term:

- A. The UK is connected to many other countries and places.
- B. The UK is a diverse and unequal society which has geographical patterns.
- C. There are different causes and consequences of development within the UK.
- D. The UK's population is changing.
- E. There are causes for and consequences of urban trends in the UK.
- F. Cities have distinct challenges and ways of life, influenced by its people, culture and geography.

6 Key Words for this term

- | | |
|------------------------|-------------------------|
| 1. Trade | 4. Suburbanisation |
| 2. Deindustrialisation | 5. Counter-urbanisation |
| 3. Infrastructure | 6. Re-urbanisation |

A.	The UK is connected to many other countries and places.
1. Trade	The movement of goods and services across the world.
2. Imports	Products brought into a country
3. Exports	Products taken out of a country.
4. Trade deficit	When a country imports more than they export.
6. Tariffs	Tax that must be paid on imports or exports.

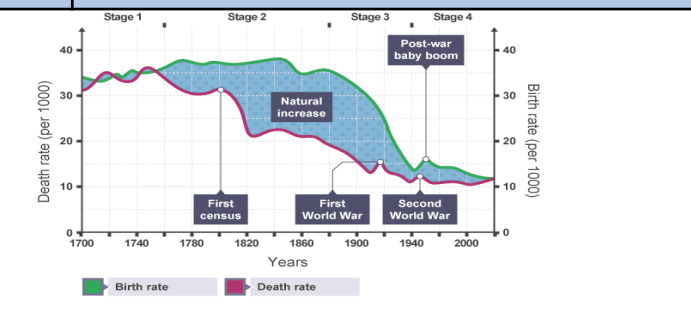
B.	The UK is a diverse and unequal society which has geographical patterns.
1. Tertiary sector	Employment in the services industry such as education or healthcare.
2. Quaternary sector	Employment is research, technology and media.
3. Disposable income	The money people have to live on once their taxes, pensions and rent have been paid.
4. Diversity	Differences within society. For example, race, levels of education and wealth.

C. There are different causes and consequences of development within the UK.

North-south divide	The difference in wealth in the UK between North and South.
Deindustrialisation	The closing down of factories and industry in an area.
Geographical location	The south of England is closer to London so there are more job opportunities.
Economic change	Deindustrialisation in the North led to mines and factories closing down. This led to widespread unemployment.
Infrastructure	Transport, services and communications are better in the South meaning it is easier to travel to Europe.
Government policy	The government invest more in the south because it is closer to London. This can lead to improved infrastructure, education and healthcare.

How has Swindon experienced economic growth?	How has Swindon experienced economic decline?
<ol style="list-style-type: none"> Great Western Railway was opened in 1843 providing many jobs and connecting Swindon to London and Bristol. Honda was built in 1985 and has attracted many other car companies such as BMW and Jaguar. The old train sheds were converted into the Outlet centre which attracts tourists. 	<ol style="list-style-type: none"> GWR yard was closed in 1986 meaning that 40% of Swindon lost their jobs. Honda closed in 2019 because it was cheaper to produce cars abroad. Over 3,000 jobs lost. Low levels of employment mean that people have less disposable income to spend in local businesses.

D. The UK's population is changing.



1. Demographic transition model (DTM).	Shows the changes in population over time by measuring birth rate and death rate.
2. Ageing population	Growing proportion of people above the age of 60.
3. Economically active	Proportion of the population who are employed and pay taxes.
4. Immigration	Inward movement of people to the UK.

D. The UK's population is changing

<i>Causes of an ageing population (2)</i>	<ol style="list-style-type: none"> Improved healthcare. People living more active lifestyles.
Positive effects of an ageing population (2)	<ol style="list-style-type: none"> Skilled workforce More money spent in leisure facilities or resorts.
Negative effects of an ageing population (2)	<ol style="list-style-type: none"> Cost of healthcare is high. Elderly people do not work so do not pay taxes.
Government responses to an ageing population (2)	<ol style="list-style-type: none"> Pension age raised to encourage people to continue working. Increased investment in care homes and healthcare.



What we are learning this term:

- A. The UK is connected to many other countries and places.
- B. The UK is a diverse and unequal society which has geographical patterns.
- C. There are different causes and consequences of development within the UK.
- D. The UK's population is changing.
- E. There are causes for and consequences of urban trends in the UK.
- F. Cities have distinct challenges and ways of life, influenced by its people, culture and geography.

6 Key Words for this term

- | | |
|----|----|
| 1. | 4. |
| 2. | 5. |
| 3. | 6. |

A. The UK is connected to many other countries and places.

- | | |
|------------------|--|
| 1. Trade | |
| 2. Imports | |
| 3. Exports | |
| 4. Trade deficit | |
| 6. Tariffs | |

B. The UK is a diverse and unequal society which has geographical patterns.

- | | |
|----------------------|--|
| 1. Tertiary sector | |
| 2. Quaternary sector | |
| 3. Disposable income | |
| 4. Diversity | |

C. There are different causes and consequences of development within the UK.

- | | |
|-----------------------|--|
| North-south divide | |
| Deindustrialisation | |
| Geographical location | |
| Economic change | |
| Infrastructure | |
| Government policy | |

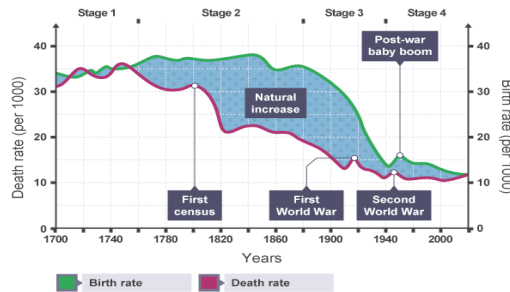
How has Swindon experienced economic growth?

- 1.
- 2.
- 3.

How has Swindon experienced economic decline?

- 1.
- 2.
- 3.

D. The UK's population is changing.



- | | |
|--|--|
| 1. Demographic transition model (DTM). | |
| 2. Ageing population | |
| 3. Economically active | |
| 4. Immigration | |

D. The UK's population is changing

Causes of an ageing population (2)

- 1.
- 2.

Positive effects of an ageing population (2)

- 1.
- 2.

Negative effects of an ageing population (2)

- 1.
- 2.

Government responses to an ageing population (2)

- 1.
- 2.



D. The UK's population is changing			
Immigration in the 21 st century.		1. International migration has increased in the 21 st century due to increase in job opportunities, high quality education and global conflict. 2. Immigrants come from all over the world including Poland, India and Pakistan.	
Positive impacts of migration on the UK		Negative impacts of migration on the UK	
Social (2)	1. Different cultures including food, music and fashion. 2. They bring skills that may be in short supply in the UK.	Social (2)	1. People may feel that they are taking local jobs and houses. 2. Can lead to cultural conflict
Economic (2)	1. Workers pay taxes which can be invested into the community. 2. Immigrants are often highly skilled and well educated (e.g. doctors)	Economic (2)	1. Extra costs for healthcare and education. 2. Money may be sent home and not spend in the local community,

E. There are causes for and consequences of urban trends in the UK		E. There are causes for and consequences of urban trends in the UK	
Urban	Towns and cities	Causes of suburbanisation (3)	1. Overcrowding in cities. 2. Improved transport links into inner-city areas. 3. Land may be cheaper outside of the city.
Rural	Countryside and villages		
Urbanisation	The growing proportion of people moving to cities		
Suburbanisation	The outward spread of cities into surrounding green areas.	Causes of counter-urbanisation (3)	1. Overcrowding in cities. 2. People want a more peaceful lifestyle. 3. Poor air quality in cities.
Counter-urbanisation	The movement of people from urban to rural areas.		
Re-urbanisation	Improving inner city areas to attract people and businesses.	Causes of re-urbanisation (3)	1. Government investment. 2. Counter-urbanisation. 3. Inner city decline.

E. There are causes for and consequences of urban trends in the UK					
Consequences of suburbanisation		Consequences of counter-urbanisation		Consequences of re-urbanisation	
Social (2)	1. Increased traffic congestion. 2. Longer commutes.	Social (2)	1. Housing prices in countryside increases. 2. Crowded public services	Social (2)	1. over-crowding. 2. Housing prices increase
Economic (2)	1. Commute is more expensive. 2. Shops in city centres close.	Economic (2)	1. House prices increase in countryside. 2. Inner-city decline	Economic (2)	1. Housing prices increase. 2. Office space is expensive.
Environmental (2)	1. Poor air quality. 2. Green areas destroyed	Environmental (2)	1. More traffic congestion. 2. Pressure on local water supply	Environmental (2)	1. Increased traffic in cities. 2. Air pollution

D. Cities have distinctive challenges and ways of life, influenced by its people, culture and geography. (CASE STUDY OF BRISTOL)	
Location	South-west England. Near the Bristol Channel 1.5 hours from London
Importance within the UK and wider world	1. Two universities 2. UK's 8 th largest tourist destination 3. Home of Airbus and Rolls Royce 4. Home of Aardman Animations
Migration	1. Population has doubled between 1851 and 1891. 2. 50 countries are represented in Bristol 3. St Paul's carnival brings music from African and Caribbean communities.
Challenges: Housing availability	1. Average house price is £350,000 2. Highest homeless population in the UK
Challenges: Transport provision	1. UK's most congested city. 2. Poor public transport links
Challenges: Waste management	1. High amount of food waste. 2. Half a million tonnes of waste per year.
Sustainable strategies: Housing	Brabazon housing estate with provide over 2,500 new affordable homes. • Successful because it uses brownfield sites. • Unsuccessful because the homes are still expensive
Sustainable strategies: Transport	Voi electric scooters. Park and ride to connect the suburbs to the inner city. • Successful because it reduces CO2 emissions. • Unsuccessful because the park and ride is unreliable.
Sustainable strategies: Waste	'Slim my waste, feed my face' initiative to cut down on food waste. • Successful because it has led to food being recycled • Unsuccessful because it is not well monitored.



D. The UK's population is changing			
Immigration in the 21 st century.		1. 2.	
Positive impacts of migration on the UK		Negative impacts of migration on the UK	
Social (2)	1. 2.	Social (2)	1. 2.
Economic (2)	1. 2.	Economic (2)	1. 2.

E. There are causes for and consequences of urban trends in the UK		E. There are causes for and consequences of urban trends in the UK	
Urban		Causes of suburbanisation (3)	1. 2. 3.
Rural			
Urbanisation			
Suburbanisation		Causes of counter-urbanisation (3)	1. 2. 3.
Counter-urbanisation			
Re-urbanisation		Causes of re-urbanisation (3)	1. 2. 3.

E. There are causes for and consequences of urban trends in the UK					
Consequences of suburbanisation		Consequences of counter-urbanisation		Consequences of re-urbanisation	
Social (2)	1. 2.	Social (2)	1. 2.	Social (2)	1. 2.
Economic (2)	1. 2.	Economic (2)	1. 2.	Economic (2)	1. 2.
Environmental (2)	1. 2.	Environmental (2)	1. 2.	Environmental (2)	1. 2.

F. Cities have distinctive challenges and ways of life, influenced by its people, culture and geography. (CASE STUDY OF BRISTOL)	
Location	1. 2. 3.
importance within the UK and wider world	1. 2. 3. 4.
Migration	1. 2. 3.
Challenges: Housing availability	1. 2.
Challenges: Transport provision	1. 2.
Challenges: Waste management	1. 2.
Sustainable strategies: Housing	<ul style="list-style-type: none"> • Successful because • Unsuccessful because
Sustainable strategies: Transport	<ul style="list-style-type: none"> • Successful because • Unsuccessful because
Sustainable strategies: Waste	<ul style="list-style-type: none"> • Successful because • Unsuccessful because



What we are learning this term:		B.	Why did the Munich Putsch fail?
A.	How did the Nazi Party appeal to people in the early 1920s	1 – Bavarian Leaders	Hitler had captured the 3 Bavarian leaders in a Beer Hall on the 8 th November 1923. He forced them to say that they would support his plan to overthrow the Weimar Republic. However, they were let go by Ludendorff (army general) and so took away their support and warned the army
B.	Why did the Munich Putsch fail	2 – Army	Hitler wrongly believed that the army in Bavaria would stand with him and would support his uprising against the government. This was not the case and instead the army stood against Hitler and his SA which was only 1,000 men.
C.	Why was there little support for the Nazis between 1923-29	3 – Bavarian People	Again Hitler had wrongly assumed that the people of Bavaria would be angry enough with the Weimar Republic to want to stand with him against the government. He did have 2,000 volunteers but they were most likely paid to support Hitler so were not loyal
D.	How did the Nazis appeal to people between 1929-33	4 – Hitler	Hitler himself was a factor in why the Putsch failed. Instead of giving up when he had lost the support of the Bavarian leaders he continued with the revolt and as a result he ended being arrested and the NSDAP was banned.
E.	Why did Hitler come to power in 1933		
6 Key Words for this term		C.	
1	Nationalism – A political outlook which aims to make the nation stronger and more independent	What is the main difference between two interpretations about the Nazi Party during the Lean Years (1923-29)?	
2	Socialism – A political outlook which states that country's land, industries and wealth should all belong to the workers of that country	1.	Party Reorganisation – By the time Hitler was released from prison he had come to realise that the best way for the Nazis to get into power would be to do it democratically and to be voted into the Reichstag. This led to Hitler reorganizing the Nazi Party to make it more of a focused political party
3	Lebensraum – This a German word which means living space	2.	Mein Kampf – During his time in prison Hitler had the chance to write Mein Kampf which set out his key political beliefs. This book sets out his extreme racist views and ideas on Nationalism, Socialism, totalitarianism and traditional German values
4	Putsch – German word for uprising, usually violent	3.	Party Headquarters – The Nazi Party was mainly based in Munich and it was organised into a mini state with Hitler as the leader and different departments for all aspects of government. Hitler also managed to get big industrialists to invest in the Nazi party
5	Fuhrer – A leader who exercises power cruelly	4.	Bamberg Conference – This conference took place in early 1926 and its aim was to address the split between the Nationalist and Socialist sections of the Nazi party. This conference confirmed that the Nazi Party was mainly nationalist, and Hitler's control of the party was now clear
6	Autarky – The act of a country being self-sufficient and not relying on other countries	5.	Limited Support – In the years 1923-29, the Nazi party struggled to gain strong support due to Stresemann's economic and international recovery for the Weimar Republic and the appointment of ex Field-Marshal of the army Paul von Hindenburg as President.
		D.	
		How did the Nazis appeal to the people between 1929 and 1933?	
A.	What is the main difference between two interpretations about the appeal of the Nazi Party in the early 1920s?	1 Wall Street Crash	In October 1929, the stock market in Wall Street (New York) started to crash which meant that the price of stocks and shares fell dramatically.
Hitler in the Army	During WWI Hitler had fought for Germany and had even received two Iron Crosses for bravery. He was disappointed when the war ended and Germany had lost	2 Depression	Following the Wall Street Crash, American banks were running out of money and so they ask Germany to pay back the money they had loaned them in 1923
Spy	Hitler was employed by the army to spy on political groups. He came across the DAP which was a right-wing group. He liked the party's message and decided to join	3. Unemployment	Unemployment rose once again as Germany was running low on money as so businesses had to close and imports and exports slowed down as other countries had also been hit by the Wall Street Crash
25 Point Programme	Hitler become second in command of the DAP and along with Anton Drexler wrote the 25 Point Programme which outlined the groups beliefs	4. Chancellor Brüning	Brüning tried to sort the problem of unemployment by increasing taxes to pay for unemployment benefit and reducing the time limit for how long people could claim it for. This pleased no one and he lost support and control of the Reichstag and began to rule using Article 48 instead.
Speeches	Hitler begins to give speeches for the DAP from June 1920 and he was a very passionate speaker and he helped to increase the party's membership to 1,100 members	5 Communists	The failure of the government meant that people began to turn to extremist parties such as the communists. The working class believed that the communists would support them and would defend their jobs
Leader	In July 1921 Hitler pushed Drexler out and became the head of the DAP. He changed the name to the Nationalist Socialist German Workers Party (NSDAP or NAZIS)	6 Nazis	More people began to turn towards the Nazi party as Hitler was seen as the middle and upper classes defence against communism and the Hitler also seemed to be a strong leader who would restore law and order and get rid of the Treaty of Versailles.
		E.	
		How useful are two sources for an enquiry into the way Hitler became chancellor in 1933?	
		1 Hindenburg	President of the Weimar Republic who never really supported the democratic republic. Did not trust Hitler and refused to make him Chancellor even when the Nazis were the majority party. Was persuaded by von Papen that he could control Hitler
		2 Franz von Papen	Became Chancellor in May 1932 but he was not a strong leader and Hitler tried to persuade Hindenburg to make him Chancellor but he refused and instead Kurt von Schleicher was made Chancellor out of desperation
		3 Kurt von Schleicher	Originally suggested that Hindenburg made von Papen Chancellor and then turned his back on him. Tried to rule but he lacked support and tried to create a military dictatorship which Hindenburg refused to support
		4 Hitler	Hitler had managed to grow the Nazis support between 1929 and 1932 to the point where they were the largest political party in the Reichstag and therefore believed he should be Chancellor and constantly told Hindenburg this. Did not become Chancellor until January 1933, after Hindenburg had been assured by von Papen that he could control him. Both underestimated Hitler.



What we are learning this term:		B.	Why did the Munich Putsch fail?
<p>A. How did the Nazi Party appeal to people in the early 1920s</p> <p>B. Why did the Munich Putsch fail</p> <p>C. Why was there little support for the Nazis between 1923-29</p> <p>D. How did the Nazis appeal to people between 1929-33</p> <p>E. Why did Hitler come to power in 1933</p>		1 – Bavarian Leaders	
		2 – Army	
		3 – Bavarian People	
		4 – Hitler	
6 Key Words for this term			
1 Nationalism –		C.	What is the main difference between two interpretations about the Nazi Party during the Lean Years (1923-29)?
2 Socialism –		<p>1. Party Reorganisation –</p> <p>2. Mein Kampf –</p> <p>3. Party Headquarters –</p> <p>4. Bamberg Conference –</p> <p>5. Limited Support –</p>	
3 Lebensraum –			
4 Putsch –			
5 Fuhrer –			
6 Autarky –		D.	How did the Nazis appeal to the people between 1929 and 1933?
		1 Wall Street Crash	
A.	What is the main difference between two interpretations about the appeal of the Nazi Party in the early 1920s?	2 Depression	
Hitler in the Army		3. Unemployment	
		4. Chancellor Bruning	
Spy		5 Communists	
		6 Nazis	
25 Point Programme		E.	How useful are two sources for an enquiry into the way Hitler became chancellor in 1933?
		1 Hindenburg	
Speeches		2 Franz von Papen	
		3 Kurt von Schleicher	
Leader		4 Hitler	



Keywords		What we are learning in this unit		B.	The 5 Pillars - Salah		
Tawalla	Showing love for God and for those who follow Him	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		What is it?	<ul style="list-style-type: none"> “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. 		
Tabarra	Disassociation with God’s enemies			A.	5 Pillars of Islam and 10 obligatory acts	Wuzu	<ul style="list-style-type: none"> 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.
Khums	The obligation to pay one-fifth of acquired wealth			What are the 5 pillars	<ul style="list-style-type: none"> 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 	Rak’ahs and recitations	<ul style="list-style-type: none"> 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...”
Lesser jihad	The physical struggle or holy war in defence of Islam			What are the 10 obligatory acts	<ul style="list-style-type: none"> 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 	Salah at home	<ul style="list-style-type: none"> 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
Greater jihad	The daily struggle and inner spiritual striving to live as a Muslim			Shahadah	<ul style="list-style-type: none"> 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 	Salah in the mosque	<ul style="list-style-type: none"> All mosques have a qiblah wall which is to show where to face Makkah Men and women pray in separate rooms at the Mosque
Sunni	Muslims who believe in the successorship of Abu Bakr, Umar, Uthman and Ali as leaders after the Prophet Muhammad			Jumma	<ul style="list-style-type: none"> Jumma 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 		
Shi’a	Muslims who believe in the Imamah, leadership of Ali and his descendants			Differences between Sunni and Shi’a	<ul style="list-style-type: none"> 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 		
Niyah	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						
		<i>Jihad</i>					
Lesser Jihad		<ul style="list-style-type: none"> 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 <ul style="list-style-type: none"> self-defense proportionate legitimate authority no harm to civilians 					
Greater Jihad		<ul style="list-style-type: none"> 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” 					



Keywords		What we are learning in this unit		B.	The 5 Pillars - Salah		
Tawalla		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		What is it?			
Tabarra				A.	5 Pillars of Islam and 10 obligatory acts	Wuzu	
Khums				What are the 5 pillars		Rak'ahs and recitations	
Lesser jihad				What are the 10 obligatory acts		Salah at home	
Greater jihad				Shahadah		Salah in the mosque	
Sunni				<i>Jihad</i>		Jummah	
Shi'a						Lesser Jihad	
Niyah						Greater Jihad	
Du'a			Differences between Sunni and Shi'a				



The 5 Pillars - Zakah	
The role of giving alms	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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 - Sawm	
The role of fasting	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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

The 5 Pillars - Hajj	
The role of pilgrimage	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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

Id-ul-Adha, Id-ul-Fitr, Ashura	
Id-ul-Adha Not an official holiday in UK	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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



<i>The 5 Pillars - Zakah</i>	
The role of giving alms	
The significance of giving alms	
Khums	

<i>The 5 Pillars - Sawm</i>	
The role of fasting	
The significance of fasting	
Reasons for fasting	
Night of power	

<i>The 5 Pillars - Hajj</i>	
The role of pilgrimage	
The significance of pilgrimage	
Actions	

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

**GCSE Unit 9 SPANISH Knowledge organiser.
Topic My Studies**



What we are learning this term:

- A. Giving your opinion about different subjects
- B. Talking about your studies
- C. Talking about your school life and daily routine
- D. Talking about school rules and uniform
- E. Translating into English

6 Key Words for this term

- | | |
|----------------|------------------|
| 1. asignaturas | 4. suspender |
| 2. notas | 5. licienciatura |
| 3. aprobar | 6. elegir |

9.1G El instituto y las asignaturas

el arte dramático drama
 la asignatura subject
 la carrera career, university course
 las ciencias science
 la clase class
 la cocina cooking, food technology
 continuar to continue, carry on
 los deberes homework
 dejar to drop
 el dibujo art
 difícil difficult, hard
 divertido/a fun
 la educación física PE
 Escoger to choose
 el español Spanish
 estudiar to study
 fácil easy
 el francés French
 la geografía geography
 la historia history
 el inglés English
 las matemáticas maths
 práctico/a practical
 próximo/a next
 la selección choice
 Útil useful

9.1F ¿Cómo ser buen estudiante?

abrir to open
 Afectar to affect
 el apoyo support
 aprender to learn
 los apuntes notes
 asistir a to attend
 la biblioteca library
 el/la compañero/a classmate
 completar to complete
 Consultar to consult
 el debate discussion
 los deberes homework
 el diccionario dictionary
 la duda doubt, query
 el ejercicio exercise
 entender to understand
 la escuela school
 Esperar to hope, to wait, to expect
 el examen, exámenes exam, exams
 la excursión trip
 faltar a clase to miss lessons
 la frase sentence
 Intentar to try
 interrumpir to interrupt
 el instituto school
 levantar la mano to raise your hand
 la literatura literature
 llevar to take, to carry, to wear
 mejorar to improve
 mirar to look at
 el mundo world
 necesitar to need
 la nota grade
 ofrecer to offer
 el ordenador computer
 organizar to organise
 la palabra word
 la pantalla screen
 participar to take part
 pedir to ask for, to request
 pegado/a a glued to
 perder to lose, miss
 la pizarra blackboard
 la pizarra interactiva smartboard
 Preguntar to ask
 el/la profesor(a) teacher
 el progreso progress
 la prueba test
 Repasar to revise

Key Verbs

Aprobar To pass	Elegir To choose	Suspender To fail	Estudiar To study	Pensar To think
Apruebo I pass	Eligo I choose	Suspendo I fail	Estudio I study	Pienso I think
Apruebas You pass	Eliges You choose	Suspendes You fail	Estudias You study	Piensas You think
Aprueba He/she/it passes	Elige He/she/it chooses	Suspende He/she/it fails	Estudia He/she/it studies	Piensa He/she/it thinks
Aprobamos We pass	Elegimos We choose	Suspendemos We fail	Estudiamos We study	Pensamos We think
Aprueban They pass	Eligen They choose	Suspenden They fail	Estudian They study	Piensan They think

9.1F ¿Cómo ser buen estudiante?

el repaso revision
 responsable responsible
 resultar en to end up with, to lead to
 saber to know
 sacar buenas / to get good / bad grades
 malas notas
 serio/a serious
 las tareas homework
 el trabajo work, piece of work
 la tutoría tutorial
 Usar to use
 el vocabulario vocabulary

9.1H ¿Qué tal el instituto?

preocupar to worry
 la sala de informática IT room
 sencillo/a simple
 Sentirse to feel
 usar to use
 el viaje journey
 la zona área

9.1H ¿Qué tal el instituto?

el/la alumno/a pupil
 antiguo/a old
 asustado/a frightened
 asustar to frighten
 el atasco traffic jam, blockage
 atento/a attentive
 el aula (fem.) classroom
 ayudar to help
 buscar to look for
 cambiar to change
 cansado/a tired
 conocer to meet, to get to know
 contento/a glad, happy
 contestar to answer
 el curso school year, course
 los deberes homework
 deteriorado/a dilapidated, shabby
 distinto/a different
 la emoción excitement
 emocionante exciting
 encima on top
 encontrar to find
 explicar to explain
 feo/a ugly
 el gimnasio sports hall, gym
 hambriento/a hungry
 el idioma language
 inmenso/a immense
 el laboratorio laboratory
 largo/a long
 mejor better
 nervioso/a anxious, nervous
 el patio del recreo the school yard, playground
 la pregunta question

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6 Key Words for this term

- | | |
|----------------|-----------------|
| 1. asignaturas | 4. suspender |
| 2. notas | 5. licenciatura |
| 3. aprobar | 6. elegir |

9.1G El instituto y las asignaturas

el arte dramático _____
 _____ subject
 _____ career, university course
 las ciencias _____
 _____ class
 _____ cooking, food technology
 _____ to continue, carry on
 los deberes _____
 dejar _____
 _____ art
 _____ difficult, hard
 divertido/a _____
 la educación física _____
 _____ to choose
 el español _____
 _____ to study
 fácil _____
 el francés _____
 la _____ geography
 la _____ history
 _____ English
 las matemáticas _____
 práctico/a _____
 _____ next
 la selección _____
 Útil _____

9.1F ¿Cómo ser buen estudiante?

_____ to open
 _____ to affect
 el apoyo _____
 aprender _____
 los apuntes _____
 asistir a _____
 la biblioteca _____
 el/la compañero/a _____
 _____ to complete
 _____ to consult
 el _____ discussion
 los _____ homework
 el diccionario _____
 la _____ doubt, query
 el ejercicio _____
 _____ to understand
 la escuela _____
 _____ to hope, to wait, to expect
 el examen, exámenes _____
 la excursión _____
 faltar a clase _____
 la _____ sentence
 _____ to try
 interrumpir _____
 el instituto _____
 _____ to raise your hand
 la literatura _____
 _____ to take, to carry, to wear
 _____ to improve
 mirar _____
 el mundo _____
 _____ to need
 La _____ grade
 ofrecer to _____
 el ordenador _____
 _____ to organise
 la palabra _____
 la pantalla _____
 _____ to take part
 _____ to ask for, to request
 pegado/a _____
 _____ to lose, miss
 la pizarra _____
 la pizarra interactiva _____
 _____ to ask
 el/la profesor(a) _____
 el progreso _____
 _____ test
 _____ to revise

Key Verbs

To pass	To choose	Suspender	Estudiar	Pensar
Apruebo	Eligo I choose	I fail	Estudio I study	I think
You pass	Eliges You choose	Suspendes	You study	You think
Aprueba He/she/it passes	Elige	Suspende He/she/it fails	Estudia He/she/it studies	He/she/it thinks
Aprobamos	Elegimos We choose	Suspendemos	We study	We think
Aprueban They pass	They choose	They fail	Estudian They study	They think

9.1F ¿Cómo ser buen estudiante?

el repaso _____
 responsable _____
 _____ to end up with, to lead to
 _____ to know
 sacar buenas / to get good / bad grades
 malas notas
 serio/a _____
 _____ homework
 _____ work, piece of work
 la tutoría _____
 _____ to use
 _____ vocabulary

9.1H ¿Qué tal el instituto?

preocupar _____
 la sala de informática _____
 _____ simple
 _____ to feel
 usar to _____
 _____ journey
 _____ área

9.1H ¿Qué tal el instituto?

el/la alumno/a _____
 antiguo/a _____
 _____ frightened
 _____ to frighten
 _____ traffic jam, blockage
 atento/a _____
 _____ (fem.) classroom
 ayudar _____
 buscar _____
 _____ to change
 _____ tired
 _____ to meet, to get to know
 _____ glad, happy
 _____ to answer
 _____ school year, course
 los _____ homework
 _____ dilapidated, shabby
 distinto/a _____
 la emoción _____
 emocionante _____
 _____ on top
 encontrar _____
 _____ to explain
 feo/a _____
 _____ sports hall, gym
 hambriento/a _____
 _____ language
 inmenso/a _____
 el laboratorio _____
 _____ long
 mejor _____
 _____ anxious, nervous
 el _____ the school yard,
 playground
 la pregunta _____

GCSE Unit 10 SPANISH Knowledge organiser.
Topic Life at School and College

What we are learning this term:

- A. Talking about your school and daily routine
- B. Talking about school rules and uniform
- C. Translating into English
- D. Revising 'se debe', 'hay que', 'tener que'
- E. Using questions to help your answer
- F. Using quantifiers and intensifiers

6 Key Words for this term

- | | |
|----------------|----------------------|
| 1. acabar de | 4. demostrar |
| 2. actuar | 5. las instalaciones |
| 3. la ausencia | 6. el maquillaje |

10.1F Las reglas y el uniforme

la agenda	diary, planner
el apellido	surname
el artículo	article
la ausencia	absence
buscar	to look for
el chicle	chewing gum
el daño	harm
dejar	to let, allow
demostrar	to show, demonstrate
el edificio	building
escolar	school (adj.)
firmar	to sign
el individuo	individual
las instalaciones	facilities
el intercambio	exchange
llevar	to take, carry, wear
el maquillaje	make up
los materiales	materials
mientras	while
el nombre	name
la palabra	word
el pasillo	corridor
el pendiente	earring
ponerse en contacto	to get in touch
prohibido	prohibited, banned
la puntualidad	punctuality
la regla	rule
el respeto	respect
sufrir	to suffer
traer	to bring
el trayecto	journey
el uniforme	uniform

10.1G El día en el instituto

acabar de	to have just done something
actuar	to perform
el aire libre	the open air
aislado/a	isolated
el/la alumno/a	pupil
aprender	to learn
la asignatura	subject
el bachillerato	A-level equivalent
el bocadillo	sandwich
bonito	lovely
campo de deportes	sports field
la clase	class
el/la compañero/a	classmate
corto/a	short
durar	to last
empezar	to start, to begin
el equipo	team, equipment
el estante	shelf
la evaluación	assessment
funcionar	to work, to function
ganar	to win
ir al baño	to go to the bathroom
el juego de mesa	board game
la hora de comer	lunch hour
el laboratorio	laboratory
la obra de teatro	play
la opción	option
la oportunidad	opportunity
pasar la lista	to take the register
el producto químico	chemical

Key Verbs

Acabar de To have just finished	Mejorar To improve	Maquillarse To put makeup on oneself	Hacer – to do/make	Ofrecer To offer
Acabo de I have just finished	Mejoro I improve	Me maquillo I put make up on	Hago I do	Ofrezco I offer
Acabas de You have just finished	Mejoras You improve	Te maquillas You put make up on	Haces You do	Ofreces You offer
Acaba de He/she it has just finished	Mejora He/she/ it improves	Se maquila He/she/it puts make up on	Hace s/he does	Ofrece He/she/it offers
Acabamos de We have just finished	Mejoramos We improve	Nos maquillamos We put make up on	Hacemos We do	Ofrecemos We offer
Acaban de They have just finished	Mejoran They improve	Se maquilan They put make up on	Hacen They do	Ofrecen They offer

10.1H Lo bueno y lo malo del instituto

el acoso	bullying
aguantar	to put up with
aislado/a	isolated
alegrar	to brighten up, to cheer up
aprobar	to pass an exam
el aspecto	appearance
la calefacción	heating
el castigo	punishment
el comportamiento	behaviour
la conducta	behaviour
corregir	to mark, to correct
cumplir con	to fulfil
en cuanto a	as regards
encenderse	to be turned on
enfadado/a	angry
enseñar	to teach, show
el equipo	equipment
la espalda	back
el estante	shelf
la explicación	explanation

10.1H Lo Bueno y lo malo del instituto

travieso/a	naughty, badly behaved
el trimestre	term
ya que	since, as
el fracaso	failure
golpear	to hit
hace falta	it is necessary
incómodo/a	uncomfortable
la intimidación	bullying
la pizarra	digital smartboard
mejorar	to improve
molestar	to disturb, to annoy
el ocio	leisure
la pared	wall
recordar	to remember
el repaso	revision
sucio/a	dirty
tardar	to take time, to delay

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la oportunidad	_____
_____	to take the register
el producto químico	_____

10.1F Las reglas y el uniforme

_____	diary, planner
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el artículo	_____
la _____	absence
buscar	_____
el _____	chewing gum
El _____	harm
dejar	_____
_____	to show, demonstrate
el _____	building
_____	school (adj.)
firmar	to _____
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las instalaciones	_____
el intercambio	_____
_____	to take, carry, wear
el maquillaje	_____
los materiales	_____
_____	while
el nombre	_____
la _____	word
el pasillo	_____
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ponerse en contacto to _____	_____
_____	prohibited, banned
la puntualidad	_____
la _____	rule
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_____	to bring
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el uniforme	_____

Key Verbs

To have just finished	Mejorar To improve	Maquillarse To put makeup on oneself	to do/make	Ofrecer To offer
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el _____	bullying
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10.1H Lo Bueno y lo malo del instituto

_____	naughty, badly
behaved	_____
el trimestre	_____
_____	since, as
el fracaso	_____
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la intimidación	_____
la _____	digital smartboard
_____	to improve
_____	to disturb, to annoy
el ocio	_____
la _____	wall
_____	to remember
el repaso	_____
_____	dirty
_____	to take time, to delay

GCSE Business. Paper 1. Making the Business Effective

27. A private limited company (Limited Liability)
When a business fails, a company that has limited liability restricts the losses suffered by the business owners (shareholders) to the sum of money that they invested in the business.
Benefits of limited companies.
A company can have share capital, which makes it easier to divide up the ownership between different investors.
If the business needs to raise more capital, it is quite easy to issue more shares for sale to other investors
The business continues to exist even if the founder dies. The company develops a life of its own
Due to limited liability, the owners/shareholders can be bold about investing in the future of the business. If a bold move goes wrong, the business may suffer but individual shareholders are not liable for debts
28. Sole Trader (Unlimited Liability)
Treating the business and the individual owner as the same entity, therefore making the business owner responsible for all the debts in a business.
Why ignore Limited Liability?
The only logical reason for ignoring limited liability is if there is no realistic possibility of debts building up. For example, if the business is a market stall, where goods are bought for cash. In this scenario debts would be hard to build up and firms will be reluctant to pay the related costs and fill out the required paperwork.
33. Business Locations
Location is key to the success of any business
Factors influencing business location:
Proximity to Market: For many businesses this is the most important factor. For a physical service such as a shop, restaurant or hotel, customer convenience will be critical revenue. Shops must be located in areas of high footfall.
Proximity to Materials: For manufacturing businesses, nearness to materials may be more important than nearness to customers. Being close to materials can cut costs for firms in manufacturing.
Proximity to Labour: Labour is key to any business; therefore businesses must be located in areas where the labour force is equipped with the necessary skills to allow the business to thrive.
Proximity to Competitors: Many businesses want at location far away from competitors – effectively being the only supplier to customers in a local area. However, some businesses will want to be closer to their competitors as location is key to their business. For example; location is key for restaurants and more important than proximity to competitors.
34. How has the internet impacted business location:
Due to the impact of e-commerce, business location matters less. Firms can locate their head office anywhere they choose provided the local labour force are equipped with the skills to run the administration effectively. Internet based firms will have a more extensive stock range in all sizes and can cater more extensively for consumers needs than retail outlets.
35. Business Location: Key terms:
Fixed Premises:
Real life buildings such as shops, offices and warehouses.
Proximity:
Nearness: Whether or not a business wants to be closer to a factor such as its customers.

29. Key Words: Making your business effective	
Term	Definition
Bankrupt	When an individual is unable to pay their debts, even after all personal assets have been sold for cash
Private Limited Company	A small family business in which shareholders enjoyed limited liability
Sole Trader	A business run by one person; that person has unlimited liability for any business debts.
30. Franchising	
Paying a franchise owner for the right to use an established business name, branding and business methods	
Why do Businesses expand by selling franchises?	
A firm can expand its sales quickly; this helps fill gaps that other businesses will fill if they don't	
Franchise owners not only sell a franchise but will receive a share of all future sales. Subway receives 8% of the sales revenue of all 45,000 stores.	
The Franchise owner can concentrate on developing new products and services, and on high quality advertising.	
31. What are the benefits of Franchising for a entrepreneur?	
When you franchise you buy the companies images, products and methods. Starting a business requires a wide range of skills, by franchising you are giving your business a stronger starting point.	
An individual outlet/business could never afford image building TV advertising, franchising enables business to benefit from major marketing campaigns.	
32. What are Royalties?	
The percentage of sales revenue to be paid to the overall franchise owners	
36. Marketing Mix	
The four factors that make up the marketing mix, usually referred to as the marketing mix. Usually referred to as the four ps.	
Product	Targeting customers with a product that has the right blend of functional aesthetic benefits without being too expensive to produce
Price	Setting the price that retailers must pay which in turn affects the consumers price
Promotion	Includes all the methods that a business uses to persuade customers to buy, for example branding, packaging, advertising to boost long term image of the product and short-term offers
Place	How and where the supplier is going to get the product or service to the consumer; it includes selling products to retailers and getting the products displayed in prominent positions.
37. What is a business plan?	
A detailed document setting out the marketing and financial thinking behind a proposed new business.	
38. What should a good business plan contain?	
1.	The business idea; Why, who & how?
2.	Business Aims & Objectives; What is business setting out to do?
3.	Target Market; Who will you be your target consumer?
4.	Marketing Plan; How will you market your product to consumers?
5.	Forecast revenue, costs and profits; Working out the break-even point
6.	Cash Flow Forecast; Cash is key to any business
7.	Sources of Finance; How will the business fund itself?
8.	Location; Where should the business be based?
9.	Marketing Mix: How will the company market their product?

GCSE Business. Paper 1. Making the Business Effective

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Benefits of Limited companies.

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Why ignore Limited Liability?

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Food Spoilage, Contamination and Food Poisoning

Food spoilage

As soon as food is harvested, slaughtered or processed it starts to change. This happens for two main reasons:

- autolysis – self destruction, caused by enzymes present in the food;
- microbial spoilage – caused by the growth of micro-organisms, i.e. bacteria, yeasts and moulds.

Food spoilage: Autolysis – enzymes

Enzymes are chemicals which can cause food to deteriorate in three main ways:

- ripening – this will continue until the food becomes inedible, e.g. banana ripening;
- browning – enzymes can react with air causing certain foods, e.g. apples, to discolour;
- oxidation – loss of nutrients, such as vitamin C from food, e.g. over boiling of green vegetables.

Food spoilage: Microbial spoilage

Spoilage can be caused by the growth of:

- bacteria – single celled micro-organisms which are present naturally in the environment;
- yeasts – single celled fungi;
- moulds – fungi which grow as filaments in food.

Food contamination

Food contamination can lead to food poisoning. There are three ways which food can be contaminated: **bacterial, chemical and physical.**

Chemical contamination

Chemical contamination can occur in a variety of ways at different stages of food processing and production. For example, chemicals from the farm; cleaning products used in the processing plant and fly spray used in the kitchen.

Physical contamination

This can occur in a variety of ways at different stages of food processing and production. Some examples are:

- soil from the ground when harvesting;
- a loose bolt from a processing plant when packaging;
- a hair from a chef in the kitchen.**

Bacterial contamination

Most bacteria are harmless but a small number can cause illness. These are known as pathogenic bacteria. Food which is contaminated with pathogenic bacteria can look, taste and smell normal.

Bacteria can be transferred onto food through cross-contamination, via equipment, people or pests, or can be naturally present in the food.

Some bacteria can produce toxins which can cause food poisoning.

Micro-organisms

Micro-organisms need conditions to survive and reproduce these can include:

- temperature;
- moisture;
- food;
- time;
- oxygen and pH level.

Temperature

Bacteria need warm conditions to grow and multiply.

- The ideal temperature for bacterial growth is 30°C – 37°C.
- Some bacteria can still grow at 10°C and 60°C.
- Most bacteria are destroyed at temperatures above 63 °C.
- Bacterial growth danger zone is 5°C - 63°C.

At very cold temperatures, bacteria become dormant – they do not die, but they cannot grow or multiply.

Moisture

Where there is no moisture bacteria cannot grow. However, bacteria and moulds can both produce spores which can survive until water is added to the food.

Food

Bacteria need a source of food to grow and multiply, these food are usually high in moisture, fat and protein, and may be ready to eat. Food where bacteria rapidly multiply in is called a **high risk food**. For example:

- meat, meat products and poultry;
- milk and dairy products;
- eggs – uncooked and lightly cooked;
- shellfish and seafood;
- prepared salads and vegetables;
- cooked rice and pasta.

Time

Given the right conditions, one bacterium can divide into two every 10-20 minutes through a process called binary fission.

People at high risk of food poisoning

Elderly people, babies and anyone who is ill or pregnant needs to be extra careful about the food they eat.

Symptoms of food poisoning

Food poisoning can be mild or severe. The most common symptoms are:

- feeling sick;
- being sick;
- diarrhoea;
- abdominal pain.

Campylobacter

Sources

Raw and undercooked poultry, unpasteurized milk, contaminated water.

Signs and symptoms

Onset 2 – 5 days (can be longer).
Fever, headache and dizziness for a few hours, followed by abdominal pain.

E Coli 0157

Sources

Raw and undercooked meat and poultry. Unwashed vegetables. Contaminated water.

Signs and symptoms

Onset usually 3-4 days.
Diarrhoea, which may contain blood, can lead to kidney failure or death.

Listeria

Sources

Unpasteurised milk and dairy products, cook-chill foods, pate, meat, poultry and salad vegetables.

Signs and symptoms

Onset 1-70 days. Ranges from mild, flu-like illness to meningitis, septicemia, pneumonia.
During pregnancy may lead to miscarriage or birth of an infected baby.

Salmonella

Sources

Raw meat, poultry and eggs. Flies, people, sewage and contaminated water.

Signs and symptoms

Onset 6-48 hours. Headache, general aching of limbs, abdominal pain and diarrhoea, vomiting and fever. This usually lasts 1 – 7 days, and rarely is fatal.

Staphylococcus aureus

Sources

Humans: nose, mouth and skin.
Untreated milk.

Signs and symptoms

Onset 1 – 6 hours. Severe vomiting, abdominal pain, weakness and lower than normal temperature.
This usually lasts 6 – 24 hours.

Key terms

Bacteria: Small living organisms that can reproduce to form colonies. Some bacteria can be harmful (pathogenic) and others are necessary for food production, e.g. to make cheese and yogurt.

Binary fission: The process that bacteria uses to divide and multiply.

Cross-contamination: The transfer of bacteria from one source to another. Usually raw food to ready to eat food but can also be the transfer of bacteria from unclean hands, equipment, cloths or pests. Can also relate to allergens.

Food spoilage: The action of enzymes or microorganisms which make the food unacceptable to consume.

Food poisoning: Illness resulting from eating food which contains food poisoning micro-organisms or toxins produced by micro-organisms.

Toxin: A poison produced by some bacteria which can cause food poisoning.

Allergens

Allergenic ingredients can cause adverse reactions in some people. Care must be taken at each stage of food processing to prevent contamination.

Desirable food changes

Desirable changes that can be caused by micro-organisms include:

- bacteria in yogurt and cheese production;
- mould in some cheeses, e.g. Stilton; blue cheese
- yeast in bread production.

KS4 FOOD AND NUTRITION
KNOWLEDGE ORGANISER T4

Food Spoilage, Contamination and Food Poisoning

KS4 FOOD AND NUTRITION KNOWLEDGE ORGANISER T3 Quiz

Key terms
Bacteria:

Binary fission:

Cross-contamination:

Food spoilage:

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E Coli 0157
Sources

Signs and symptoms

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Signs and symptoms

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Symptoms of food poisoning
 Food poisoning can be mild or severe. The most common symptoms are:

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Campylobacter
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Signs and symptoms

Physical contamination
 This can occur in a variety of ways at different stages of food processing and production. Some examples are:

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 Most bacteria are harmless but a small number can cause illness. These are known as pathogenic bacteria. Food which is contaminated with pathogenic bacteria can look, taste and smell normal. Bacteria can be transferred onto food through cross-contamination, via equipment, people or pests, or can be naturally present in the food. Some bacteria can produce toxins which can cause food poisoning.

Micro-organisms
 Micro-organisms need conditions to survive and reproduce these can include:

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Temperature
 Bacteria need warm conditions to grow and multiply.
 •The ideal temperature for bacterial growth is _____. Some bacteria can still grow at 10°C and 60°C.
 •Most bacteria are destroyed at temperatures above _____.
 •Bacterial growth danger zone is _____.
 •At very cold temperatures, bacteria become _____ – they do not die, but they cannot grow or multiply.

Moisture
 Where there is no moisture bacteria cannot grow. However, bacteria and moulds can both produce spores which can survive until water is added to the food.

Food spoilage
 As soon as food is harvested, slaughtered or processed it starts to change. This happens for two main reasons:

- autolysis –
- microbial spoilage –

Food spoilage: Autolysis – enzymes
 Enzymes are chemicals which can cause food to deteriorate in three main ways:

- ripening
- browning
- oxidation

Food spoilage: Microbial spoilage
 Spoilage can be caused by the growth of:

- bacteria
- yeasts
- moulds

Food contamination
 Food contamination can lead to _____. There are three ways which food can be contaminated:

Chemical contamination
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Year 10 PRODUCT DESIGN Term 4



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A. Finite Resources



Finite resources will _____

Coal

Advantages	Disadvantages
• _____ • _____ • _____	• _____ • _____ • _____

Natural Gas

Advantages	Disadvantages
• _____ • _____	• _____ • _____

Oil

Advantages	Disadvantages
• _____ • _____	• _____ • _____

Nuclear

Advantages	Disadvantages
• _____ • _____	• _____ • _____

B. CAD

CAD stands for _____

Advantages	Disadvantages
• _____ • _____ • _____	• _____ • _____ • _____

What we are learning this term:

A. Finite Resources B. CAD
C. Renewable D. Electronic Systems E.
Metals & Alloys F. Surface Treatments

C. Renewable Resources



Renewable resources are _____

Wind

Advantages	Disadvantages
• _____ • _____	• _____ • _____

Solar

Advantages	Disadvantages
• _____ • _____	• _____ • _____

Tidal

Advantages	Disadvantages
• _____ • _____	• _____ • _____

Hydro Electricity

Advantages	Disadvantages
• _____ • _____	• _____ • _____

Biomass

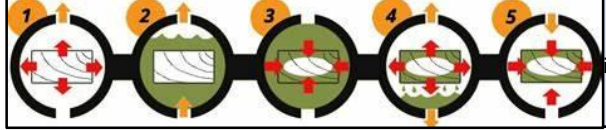
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• _____ • _____	• _____ • _____

D. Electronic Systems

Input / Sensor

Process / Control Device

Output



E. Metals & Alloys

Metals are extracted from _____.

Ferrous	Non-ferrous
_____	_____
_____	_____
Contain iron and are magnetic, prone to rust.	Do not contain iron, not magnetic. Do not rust.

Alloys

Alloys are _____ to improve its _____ or _____.

F. Surface Treatments of Timber

Used to _____ and to _____ such as _____



Tanalising / Pressure-treated

Preservatives can be added to _____ of the timber, protecting it from _____, _____ and _____.

Pressure-treated timber will have no need to _____, _____, _____, 0 _____.



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

6 Key Words for this term	
1 Practitioners	4 Performance material
2 Physical skills	5 Analyse
3 Interpretive skill	6 Intentions

A.	Key question – What is the artistic purpose of a performance work?
<p>When watching a professional performance, the key questions you need to think about are the following...</p> <p>How do we Explore artistic purpose?</p> <p>Explore artistic purpose (across all three disciplines/styles) including:</p> <ul style="list-style-type: none"> to educate to inform to entertain to provoke to challenge viewpoints to raise awareness to celebrate. 	

A.	Component 1 – Key focus
<p>In this component of the qualification students will develop their understanding of drama by examining the work of existing practitioners and the processes used to create performance. Students should experience a range of work across the discipline of drama by viewing recorded and/or live work.</p> <p>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.</p>	

C.	Key question from Assessment objectives
<ol style="list-style-type: none"> 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? 	<ol style="list-style-type: none"> 1. What is a professional work 2. What is a practitioner 3. How do we analyse a performance 4. What are a practitioners creative intentions

G.	Key learning aims from Component 1
<p><i>Learning aim A: Examine professional practitioners' performance work</i></p>	<p>A1: Professional practitioners' performance material, influences, creative outcomes and purpose</p> <p>Examine live and recorded performances in order to develop understanding of practitioners' work with reference to influences, outcomes and purpose.</p> <p>Focus on thematic interpretation of particular issues and how artists communicate their ideas to an audience.</p> <p>Roles and responsibilities in theatre.</p>
	<p><i>Learning aim B: Explore the interrelationships between constituent features of existing performance material</i></p> <p>Processes used in performance</p> <ul style="list-style-type: none"> ● 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.



What we are learning this term:	
A.	Understanding professional works
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A.	Component 1 – Key focus
<p>In this component of the qualification students will develop their understanding of drama by examining the work of _____s and the _____ used to _____.</p> <p>Students should experience a range of work across the discipline of drama by viewing recorded and/or live work.</p> <p>While this is primarily a theoretical study of the performing arts practical investigations, students will be working at developing practical skills through _____s and links with Component 2 _____ and Te_____s in the Performing Arts, to engage in primary exploration of specific repertoire.</p>	

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G.	Key learning aims from Component 1
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E.	Keywords
Practitioners	
Performance material	
Creative Intentions	
Review	
Analyse/ Evaluate	
Influences	
Physical skills	



Main assessment objectives	
Learning outcome: Know the personal qualities, styles, roles and responsibilities associated with effective sports leadership.	
Be able to plan sports activity sessions.	

What we are learning this term:	
A. Different leadership roles	
B. Role-related responsibilities	
C. Personal qualities	
D. Leadership styles	
E. Key considerations when planning sports activity	

Can you give examples of managers from different sports?	
Gareth Southgate Eddie Jones	

Role models	
Positive Mo Farah Nicole Adams	Negative Luis Suarez Nick Kyrgios

A. The different leadership roles within sport	
Role	Definition
Coach	A person involved in the direction, instruction and training of the operations of a sports team
Manager	Responsible for handling the business matters of athletes and sports teams
Captain	The leader of the team who is usually also a player
Teacher	A person who teaches, especially in a school
Expedition leader	Someone who leads groups on adventurous activities
Role model	A person looked to by others as an example

A. Role related responsibilities	
Knowledge of activity Enthusiasm for activity Knowledge of safety Knowledge of child protection issues Knowledge of basic first aid	

G. Considerations when planning sports activities	
Session content	Objectives for the session appropriate venue Equipment needs Supervision needs Timing of activities Introduction/conclusion of session Basic warm up/cool down Skills and technique development Engaging Organisation
Safety	Risk assessments- facilities, equipment/clothing checks, activity-specific risks Corrective action- wiping up puddles, removing litter, reporting faulty equipment Emergency procedures- procedures in the event of an accident, procedures in the event of other emergencies, summoning qualified help, completion of relevant documents

Personal qualities	
Reliability Punctuality Confidence Communicator Creativity	

Key sections	
Different leadership roles and opportunities	

Captain Coach Expedition leader	Manager Teacher Role model
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Role related responsibilities	
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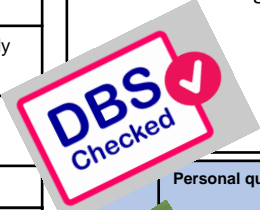
Knowledge of; Activity Safety Child protection Basic first aid	Enthusiasm for activity
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Personal qualities	
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Reliability Punctuality Communication Confidence Creativity

Leadership styles	
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Autocratic Democratic Laissez-faire





Main assessment objectives

Learning outcome: Know the personal qualities, styles, roles and responsibilities associated with effective sports leadership.
Be able to plan sports activity sessions.



What we are learning this term:

- A. Different leadership roles
- B. Role-related responsibilities
- C. Personal qualities
- D. Leadership styles
- E. Key considerations when planning sports activity

C.	Can you give examples of managers from different sports?
Role models	
Positive	Negative

A.	Role related responsibilities

G.	Considerations when planning sports activities
<i>Session content</i>	
<i>Safety</i>	

A.	Personal qualities

Key sections

Different leadership roles and opportunities

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Role related responsibilities

--	--

Personal qualities

--	--

Leadership styles





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A.	The different leadership roles within sport
Role	Definition
Coach	
Manager	
Captain	
Teacher	
Expedition leader	
Role model	

A.	Leadership styles





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






D.	How do humans develop physically (P)?
0-2	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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+	<ul style="list-style-type: none"> 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.

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?		C	What are the 4 areas of growth and development (PIES)? Explain them.
Age Group	Life Stage	Developmental Characteristics and Progress		
0-2 years			Physical Development (P) 	
3-8 years				
9-18 years			Intellectual Development (I) 	
19-45 years			Emotional Development (E) 	
46-65 years				
65+ years			Social Development (S) 	

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





What we are learning this term:		F. How do humans develop emotionally (E)?	
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.	<u>Bonding and Attachment</u> 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.	<u>Adolescence and adulthood</u> <u>Self-image and Self-esteem</u> 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.
		<u>Security</u> For infants and young children, security is mainly the feeling of being cared for, being safe and loved – it is closely linked with attachment.	<u>Security</u> 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.
		<u>Contentment</u> Infants and young children are content if they have had enough food, love, are clean and dry and all other needs are met.	<u>Contentment</u> When people feel discontented with aspects of their life – for example, relationships or work – their emotions can be negatively affected.
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.	<u>Independence</u> 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.	<u>Independence</u> 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
Adolescence 		Infancy	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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.
Early and Middle Adulthood 		Adolescence	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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.
Later adulthood 		Middle adulthood	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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.

What we are learning this term:		F. How do humans develop emotionally (E)? Explain each.	
E. How do humans develop intellectually (I)? F. How do humans develop emotionally (E)? G. How do humans develop socially (S)?		Infancy and Early Childhood	
E. <i>How do humans develop intellectually (I)?</i>		Adolescence and adulthood	
Infancy 		<u>Bonding and Attachment</u>	
		<u>Self-image and Self-esteem</u>	
		<u>Security</u>	
		<u>Contentment</u>	
Early childhood 		<u>Independence</u>	
Adolescence 		G. How do humans develop socially (S)?	
		Life Stage Types of relationships and social development	
		Infancy	
		Early childhood	
		Adolescence	
Early and Middle Adulthood 		Early adulthood	
Later adulthood 		Middle adulthood	
		Later adulthood	

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: <ul style="list-style-type: none"> • Healthy hair, skin, nails and teeth • Positive self-image • Energy and stamina • Good health • Emotional security 		Negative lifestyle choices lead to: <ul style="list-style-type: none"> • 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: <ul style="list-style-type: none"> • Feel good about yourself. • Healthy hair, skin, nails and teeth • Big social circle. • High self-esteem. • High self-confidence. 		Negative self-image <ul style="list-style-type: none"> • 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. 

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?	
	<u>Genetic Disorders</u>	<u>Disease and Illness</u>
Physical Development		
Intellectual Development		
Emotional Development		
Social Development		

J.	How does lifestyle affect development?		
<p>Lifestyle choices include; diet, exercise, alcohol, smoking, sexual relationships and illegal drugs, appearance.</p>			
<p>Positive lifestyle choices lead to:</p> <ul style="list-style-type: none"> • • • • • 		<p>Negative lifestyle choices lead to:</p> <ul style="list-style-type: none"> • • • • • 	
<p>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</p>			
<p>Positive self-image:</p> <ul style="list-style-type: none"> • • • • • 		<p>Negative self-image</p> <ul style="list-style-type: none"> • • • • • 	



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

<p><u>Positive affects of a persons culture/religion:</u></p> <ul style="list-style-type: none"> • 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 	<p><u>Negative affects of a persons culture/religion:</u></p> <ul style="list-style-type: none"> • 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.
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Community refers to: local area where people live, school, religious group or hobby clubs. They have common values and goals.

<p><u>Belonging to a community:</u></p> <ul style="list-style-type: none"> • Brings sense of belonging essential for emotional development. • Building and maintaining relationships- social development • Feeling of security. • Increases self-image and self-confidence 	<p><u>Not belonging to a community:</u></p> <ul style="list-style-type: none"> • 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
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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.

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?

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.	
<p><u>Living in good housing with open spaces:</u></p> <ul style="list-style-type: none"> • Feeling good about themselves • Be more likely to stay healthy, • Space to take exercise • Feel safe ad secure • Warmth 	<p><u>Living in a poor housing with cramped and damp conditions:</u></p> <ul style="list-style-type: none"> • 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.



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:

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-
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-
-

Not belonging to a community:

-
-
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-

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?

1	
2	
3	
4	
5	
6	
7	

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.	
<u>Living in good housing with open spaces:</u> • • • •	<u>Living in a poor housing with cramped and damp conditions:</u> • • • •
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.... • • • •
→	→

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



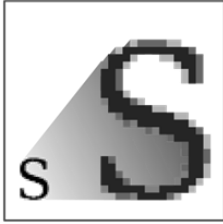

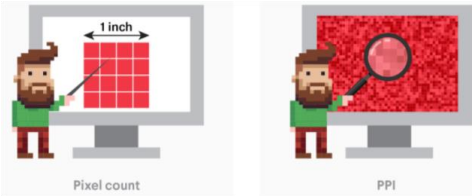
O.	How do people deal with life events?
Individual	<ul style="list-style-type: none"> The effects of life events vary from person to person based on how they deal with their new situation. Some people react to able to react to life events positively, others find it more difficult due to a range of factors.
Factors	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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.

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	

Creative Imedia – Term 3 Hardware, Software, File Types, File Properties, Legislation

Item	Meaning	Examples	Visual
Hardware	Physical devices and equipment that are used to create hard copies or digitise content for pre-production documents or products.	Desktops, Laptops, Notebooks, Tablets. Mouse, Keyboard, Graphics Tablet, Microphone, Monitor, Speakers, Printer, Camera, Scanner, Pens, pencils, rulers, paper.	
Software	Types of applications or programs installed on a device which can be used to create, modify or digitise pre-production documents or parts of a product.	Word Processing, Presentation, Publisher, Spreadsheets, Dreamweaver, GIMP, Audacity, Web Browsers	
Bitmap Images	Bitmap images are also known as 'raster graphics'. They consist of pixels which are small blocks of colour. These pixels are arranged to create the entire image. When you scan or take a photo of something, it is a bitmap image where each pixel is mapped out.	File Types: .bmp .jpeg .jpg .gif .png .tiff .psd	
Vector Images	Vector images are created digitally and use basic geometric shapes such as lines, dots, curves and polygons. Using mathematical expressions and formulas, these can be built, edited and scaled without degrading image quality.	File Types: .svg .ps .eps .svf .ai	
DPI and PPI	Dots Per Inch relates more to printed graphics, the amount of ink dots on a printed image. Pixels Per Inch refers to a screen display, the resolution in pixels of a digital image. Increasing the PPI also increases the file size but also increases the quality when printed out.	Resolution 1600*900 4k 600*800	

Creative Imedia – Term 3 Hardware, Software, File Types, File Properties, Legislation

Legislation	Summary	Content
Copyright & Trademarks	Protection creations from being used or modified without permission.	If its published it has copyright protection. 'Published' includes books, magazines, music, movies, all content on the internet. To use a published resources you must: Contact the owner Ask for permission to use it Often you will need to pay a fee
Copyright – Open Licenses	Some people are happy for their products to be used by others but still want to have some protection.	Creative Commons: A license agreement the creator chooses that lets you use that person's resources. However, you will still need to cite the source.
Certification	Different countries have laws on what is allowed to be seen and shown.	Certification is the process of informing the audience broadly on the suitability of content. Certification is a major aspect when thinking about your target audience
Data Protection	A series of UK laws designed to protect individuals and their personal data	Organisations can not collect and keep your personal information without following this law. Everyone has right to view and correct data. Data has to be accurate, for a specific purpose and secure. The company could be fined if they fail to protect your data.
Defamation	Can't say negative things about someone/an organisation without proof	Written defamation is known as libel. Spoken defamation is known as slander.

Risk of Working with Computers	Safe Practice / Solutions
Eye Strain - Eyes can become strained after staring at a computer screen for a long time especially when working in bad light or with a poor screen.	Use a screen filter Make sure you work in suitable light Don't sit too close to the screen Take regular breaks (5 mins per hour) Have regular eye tests Have blinds available to avoid glare on the screen
Back Pain - This can be due to poor posture or sitting in an awkward position.	Use a fully adjustable chair Use footrests so that legs are at a natural angle Take regular breaks to walk around Don't slouch Have the monitor at eye level
RSI - Repetitive Strain Injury is damage to the fingers and wrists due to repeated movements over a long period of time.	Use wrist rests Take Regular breaks Ensure workstations are the correct height

SWINDON ACADEMY READING CANON

Year 7



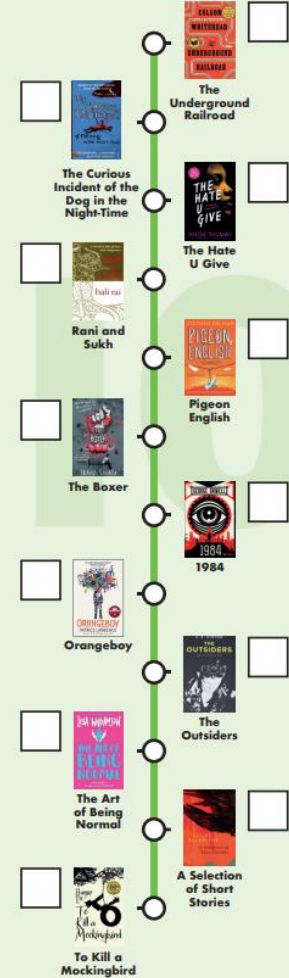
Year 8



Year 9



Year 10



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