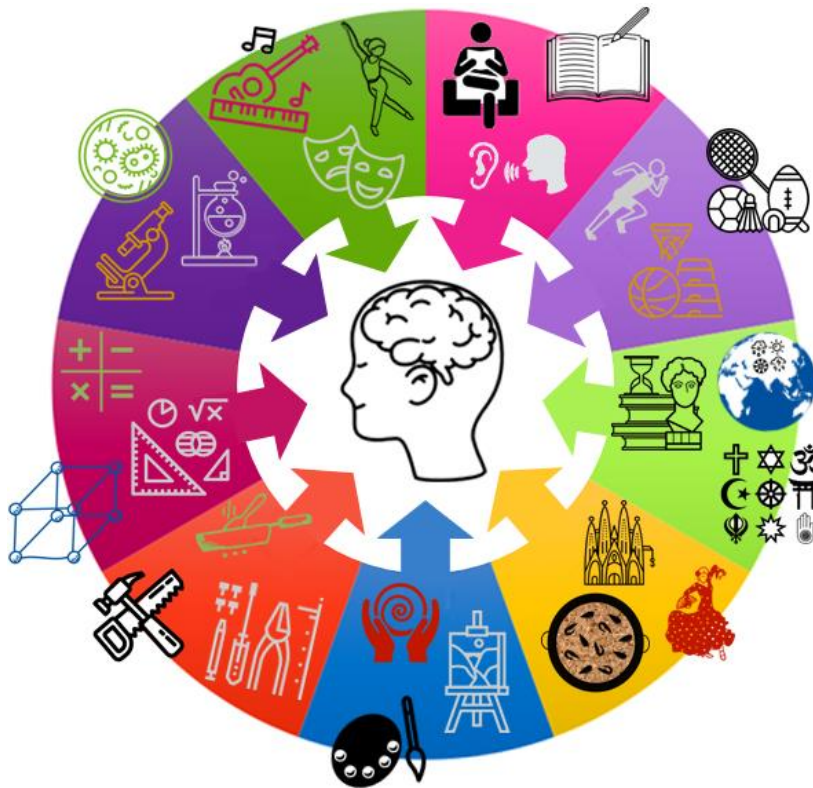


100% book - Year 10 Mainstream

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



Term 4

Swindon Academy 2023-24

Name:

Tutor Group:

Tutor & Room:

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

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

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 definitions 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 a knowledge organiser with handwritten notes. At the top, the date '29th May 2020' and the title 'Particle theory' are written. The page includes sections for 'What is particle theory?', 'What is the law of conservation of mass?', and 'What are the different changes of state?'. A diagram shows the three states of matter: solid (regular pattern), liquid (randomly arranged, touching), and gas (far apart, moving randomly). A flowchart shows changes of state: melting (solid to liquid), freezing (liquid to solid), evaporation (liquid to gas), and condensation (gas to liquid). A central diagram shows energy gain/loss: solid to liquid (melting, gaining energy), liquid to solid (freezing, losing energy), liquid to gas (evaporation, gaining energy), and gas to liquid (condensation, losing energy).

Step 3

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

Handwritten notes on lined paper. At the top, the date '29th May 2020' is written. Below it is the title 'Properties of the states of matter'. The notes define particle theory as 'all matter is made of particles'. It then describes the three states: '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', and '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 the definitions of the three states of matter. Each definition is written three times: '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', and 'Gas = Particles are far apart and are arranged randomly. Particles carry a lot of energy'.

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 a quizzable knowledge organiser with handwritten answers. The questions are: 'What is particle theory?', 'What is the law of conservation of mass?', and 'What are the different changes of state?'. The answers are: 'Self quizzing', 'Arrangement/movement of matter', 'Solid = regular pattern particles', 'Liquid = particles', and 'Gas = particles'. A diagram shows the three states of matter: 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 showing corrections to the previous step. The definitions are repeated with checkmarks and 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', and 'Gas = Particles are far apart and are arranged randomly. Particles carry a lot of energy'. There are some corrections and checkmarks throughout the text.

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 2-5

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

Poem	Context	Events in the poem	Message	Form/structure
Kamikaze-Beatrice Garland	<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 sooses 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.

Key Vocabulary

Patriotism

Colonialism

Dominate

Defiance

Isolated

Dictatorial

Nostalgia

Fragility

Poem	Context	Events in the poem	Message	Form/ structure
Kamikaze- Beatrice Garland				
Checking Out Me History- John Agard				
The Émigrée- Carol Rumens				
Storm on the Island- Seamus Heaney				
Tissue- Imtiaz Dharker				

B5 – Homeostasis and Response

The nervous system

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

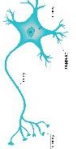
Receptors



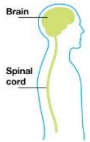
Specialised cells that detect stimuli, found in sense organs and internally

Neurons

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

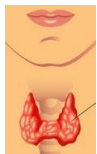


Co-ordination Centres



Brain, spinal cord, pancreas.
Coordinates the response

Effectors



Organs that bring about a response

muscle or gland

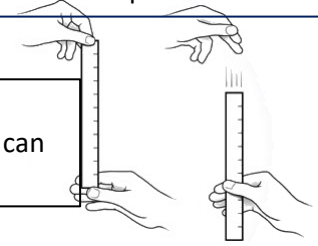
RP 6 - Investigation into the effect of a factor on human reaction time.

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.

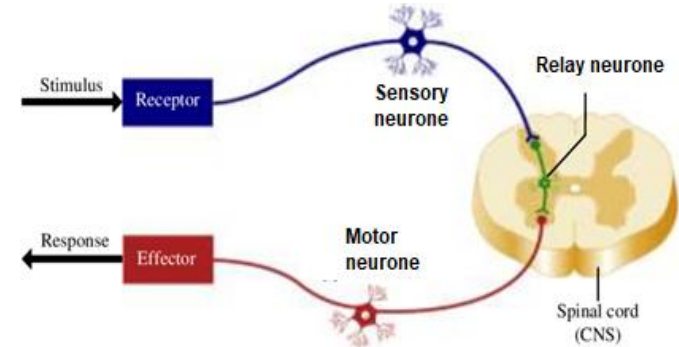
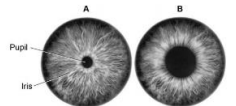
Reflexes

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

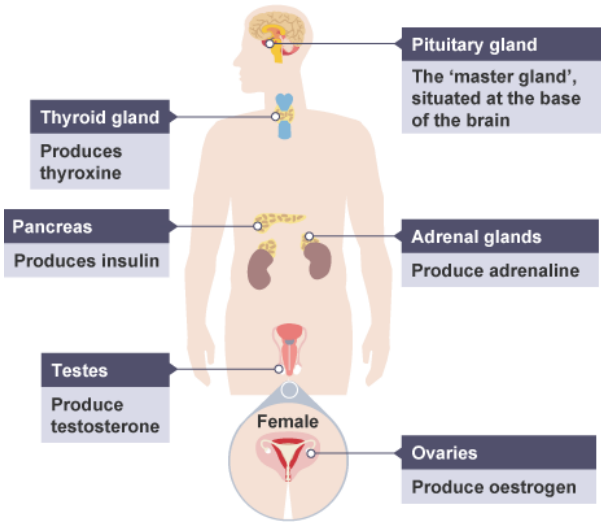
Example

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

B5 – 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

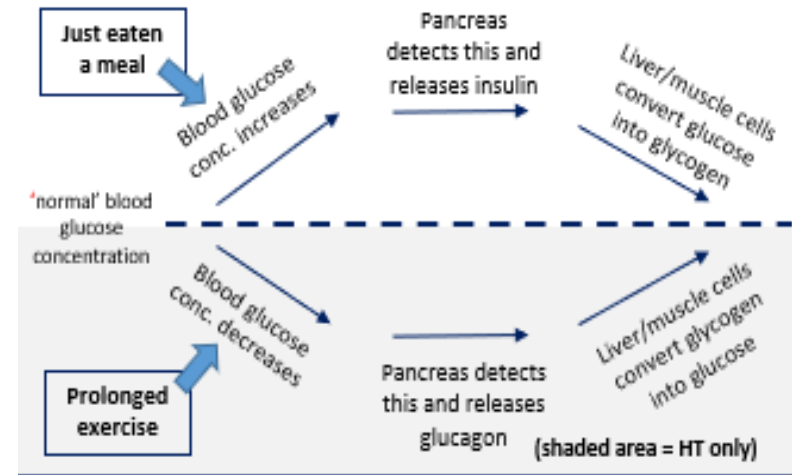
Blood glucose is monitored by the **pancreas**.

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.

B5 – Homeostasis and Response

1. What is a hormone?
2. Where are hormones released from?
3. Which gland is known as the 'master gland'?
4. How do hormones travel?
5. How does the speed and duration of a hormonal response compare to a nervous response?
6. Which hormone is made by the thyroid gland?
7. What is homeostasis?
8. Give two examples of conditions that are controlled within the human body

Blood glucose concentration

1. Which organ monitors blood glucose?
 2. Which hormone is released when blood glucose increases?
 3. What causes blood glucose to increase?
 4. Which hormone is released when blood glucose falls?
 5. Which organ releases the hormones involved in blood glucose control?
-
1. What are the two types of diabetes?
 2. Why are type 1 diabetics unable to control their blood glucose?
 3. What is the treatment for type 1 diabetes?
 4. What is the problem in type 2 diabetes?
 5. What is the treatment for type 2 diabetes?

B5 – 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

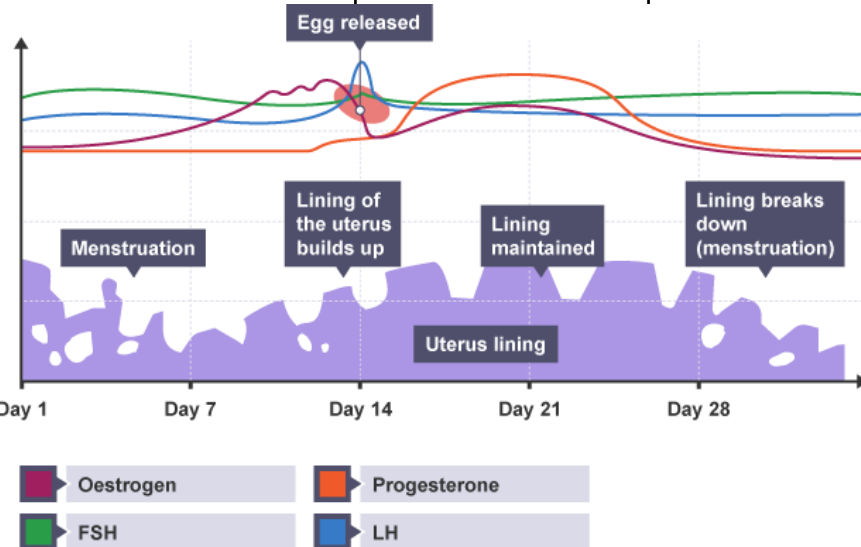
The menstrual cycle is controlled by several hormones:

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 chance 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

B5 – Homeostasis and Response

Adrenaline and thyroxine (HT only)

1. Where is adrenaline released from?
2. What effects does adrenaline have?
3. What does thyroxine do?

1. What is the male hormone?
2. What is ovulation?
3. Which organ produces oestrogen?

1. Which hormones are contained in the contraceptive pill?
2. Name a 'barrier' method of contraception
3. How does the contraceptive pill prevent pregnancy?
4. Give one advantage and one disadvantage of taking the contraceptive pill.
5. Give one disadvantage of surgical sterilisation

Menstrual Cycle

1. Which organ releases FSH and LH?
2. What are the two other menstrual cycle hormones?
3. Approximately how long is one cycle?
4. Around which day of the cycle does ovulation occur?
5. What is the role of oestrogen and progesterone?

1. Which drugs are given as fertility drugs?
2. How do they increase the chances of getting pregnant?
3. How many embryos are transferred to the womb in IVF?
4. Give two negatives of IVF treatment

C5 – Energy Changes

Exothermic Reactions

- Energy transferred to the surroundings
- Temperature of the reaction mixture **increases**
- This energy is transferred **to** the surroundings

Examples include:

- Hand warmers
- Combustion reactions
- Respiration
- Neutralisation reactions
- Self-heating cans.



Exothermic

Endothermic Reactions

- Energy absorbed from the surroundings
- Temperature of reaction mixture often **decreases**
- Energy is transferred **from** the surroundings

Examples include:



- Ice packs (injuries)
- Reaction of citric acid and sodium hydrogen carbonate
- Thermal decomposition of calcium carbonate



Endothermic

Energy change of reactions (HT)

During a reaction:

- Energy is **absorbed** in order to **break** bonds in the reactants 
- Energy is **released** when bonds are **made** in the products. 

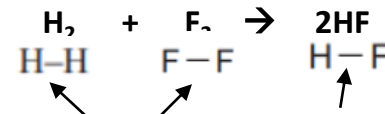
Bond energy = the amount of energy that is released when a bond is made or that is needed to break a bond

Calculating energy changes (HT)

Overall energy change = difference between energy needed to break bonds and the energy released when bonds formed.

To calculate energy change :

Energy change = bonds broken – bonds formed



bonds broken bonds formed

Bond	Bond Energy / kJ mol ⁻¹
F—F	158
H—H	436
H—F	568

Bonds broken = 436 + 158 593	Bonds formed 2 x 568 1136
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**Overall energy change = 593 – 1136
= -543 kJ/mol Exothermic**

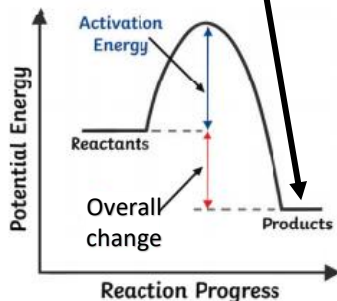
More energy is released in bond making than is required for bond breaking.

Reaction Profiles – Exothermic

- Energy level diagrams show **difference in energy** between reactants and products.
- Exothermic = Energy of products is **lower than** reactants (energy is released)

- **Activation Energy** = minimum amount of energy needed to start the reaction.

- **Energy change** = the difference in energy between reactants and products.



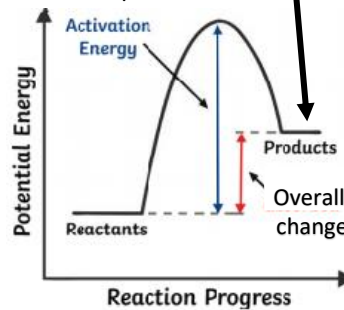
You may need to draw and label this in the exam!

Reaction Profiles – Endothermic

- Energy level diagrams show **difference in energy** between reactants and products.
- Endothermic = Energy of products is **higher than** reactants (energy is absorbed)

- **Activation Energy** = minimum amount of energy needed to start the reaction

- **Energy change** = the difference in energy between reactants and products.



You may need to draw and label this in the exam!

C5 – Energy Changes

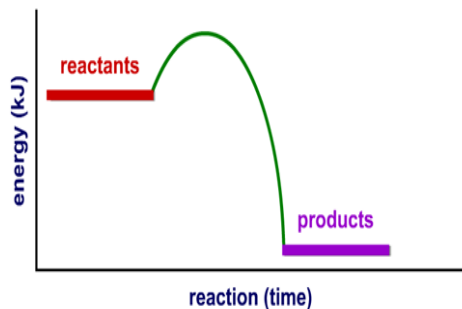
1. Which way is energy transferred in an exothermic reaction?
2. What happens to the temperature of the reaction mixture in an exothermic reaction?
3. State two examples of exothermic reactions.

1. Which way is energy transferred in an endothermic reaction?
2. What generally happens to the temperature of the reaction mixture of an endothermic reaction?
3. State two examples of endothermic reactions.

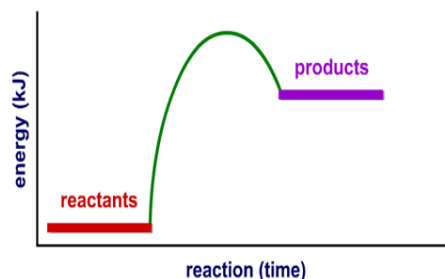
Higher Tier only

1. In terms of energy, what happens for bonds to be broken?
2. In terms of energy, what happens when bonds are formed?

1. Define activation energy.
2. On the graph below, draw and label the :
 - overall energy change
 - activation energy



1. What does an energy level diagram show?
2. On the graph below, draw and label the :
 - overall energy change
 - activation energy



Higher Tier only

1. Define overall energy change.
2. How do you calculate energy change?
3. Why, in terms of bond breaking and making, is a reaction exothermic?
4. Why, in terms of bond making and breaking, is a reaction endothermic?

C5 – Energy Changes – Required Practical – Temperature Changes

Hypothesis

The energy change in the reaction between acid and alkali depends on the volume of alkali added.

Equipment

- Polystyrene cup and lid
- Thermometer
- 250cm³ beaker
- Measuring cylinder
- Liquid reactants



Method (example for hydrochloric acid and sodium hydroxide)

1. Using measuring cylinder to measure 30cm³ hydrochloric acid and put in polystyrene cup
2. Stand cup inside beaker to make stable.
3. Use a thermometer to measure the temperature of acid and record.
4. Using measuring cylinder – 5cm³ sodium hydroxide → polystyrene cup
5. Fit the lid and gently stir with thermometer through hole.
6. When reading stops on thermometer, record temperature in table.
7. Repeat, each time adding 5cm³ more sodium hydroxide up to a maximum of 40cm³.
8. Calculate the temperature change on each attempt.
9. Repeat the experiment 3 times and calculate a mean temperature change for each volume of sodium hydroxide.

Variables

Independent – Volume of sodium hydroxide

Dependent – Temperature change

Control – Volume of hydrochloric acid, concentration of acid, concentration of sodium hydroxide

Common questions

Q1) Why do you use a polystyrene cup and lid?

A1) Because polystyrene cups are insulators, which reduces heat loss in the experiment, making the results more accurate.

Q2) Why should you calculate the temperature change, instead of just using the final temperature?

A2) Because the initial (starting) temperature of the acid may have been different.

Q3) Why is it important to stir the mixture?

A3) To make sure all of the reactants have reacted and to get a uniform temperature.

Q4) Why is the experiment conducted 3 times?

A4) So that anomalies can be seen and removed and a mean calculated

Energy changes could also be investigated using:

1. Changing the **mass of metal** added to acid and measuring the **temperature increase**
2. Changing the **type of metal** added to acid and measuring the **temperature increase**
3. Dissolving different **masses of potassium nitrate** into water and observing the **temperature decrease**.

C5 – Energy Changes

Required Practical – Temperature Changes

1. Write a method to investigate how the volume of sodium hydroxide affects the change in temperature when reacting with hydrochloric acid (6 marks)

2. For the investigation above, name the :
Independent variable :
Dependent variable :
2 control variables :

3. Why do you use a polystyrene cup and lid instead of a beaker?

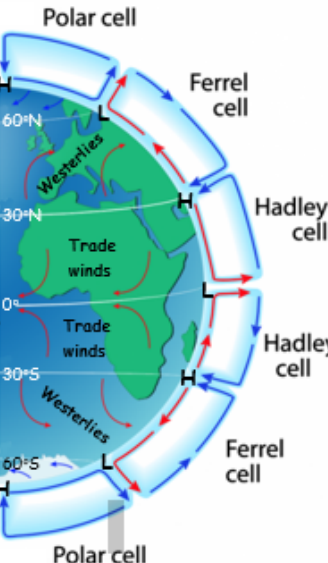
4. Why should you calculate the temperature change, instead of just using the final temperature?

5. Why is it important to stir the mixture?

6. Why do we do repeat readings?



9. Global atmospheric circulation

Factor	Explanation
Global atmospheric circulation	Worldwide system of winds, which transport heat from the equator to the poles. Wind is large scale movement of air from HIGH to LOW pressure.
Key information	This is caused by differences in temperature at the Equator and the poles. The circulation is divided into loops called CELLS. Low pressure = Rising air = Rain. High pressure = Sinking air = Clear skies.
	At the poles, cool air sinks creating high pressure. (<250mm rainfall).
	At 60°N air rises between the <u>Ferrel</u> and Polar cell creating an area of low pressure. The UK gets lots of <u>low pressure</u> weather blown in from the Atlantic.
	At 30°N air sinks between the <u>Ferrel</u> /Hadley cell creating high pressure (deserts <250mm rain).
	On the equator air rises as the sun's heat is most concentrated. This creates a <u>low pressure</u> area with high rainfall. (Rainforests >2000mm of rain).
	Surface winds blow towards the equator (trade winds). Direct hurricanes to west.
	Here winds blow towards the poles and are called Westerlies. (From the west).
	The winds curve due to the spin of the earth (Coriolis effect).

10. Weather hazards in the UK

Hazard	Example
Extreme weather	A weather event that is significantly different from the average pattern and is especially severe or unseasonal.
Strong winds	Damage property / disrupt transport. 2018 Storm Ali killed 2 people.
Heavy rain	Can cause flooding, costing millions. Cockermouth 2009 314 mm in 24 hrs.
Snow	Injury, death, travel disruption. March 2018 Beast from East. 50 cm.
Drought	Crop failure, rules to conserve water. April 10-March 12 only 75% of rain.
Heatwaves	Pollution builds up- breathing problems. Death. BUT tourism benefits. 2018.

12. An example of a recent extreme weather event in the UK

Name	Somerset Floods, 2014
Causes	350mm rain fell in Jan and Feb High tides, rivers not dredged for 20 yrs
Impacts	<ol style="list-style-type: none"> £10 million damage 14,000 ha of farmland flooded 600 homes flooded Moorland and <u>Muchelney</u> cut-off Floodwaters contaminated Soil damaged for 2 years after
Management strategies	Immediate responses <ul style="list-style-type: none"> Army helped with rescue boats Volunteers and community groups Locals used boats to go shopping/school Long term responses <ul style="list-style-type: none"> £20 million flood action plan Rivers dredged Road levels raised Tidal barrage by 2024

11. Evidence that weather is becoming more extreme...

Our weather is naturally variable BUT extreme events are becoming more common and severe.

Hazard	Example
Temperature	10 warmest yrs all occurred since 1990 2018 joint hottest summer on record. Dec 2010 coldest month for 100 years.
Rainfall	More rainfall records broken between 2010 - 2014 than in any other decade. Dec 2015 wettest month on record.




9. Global atmospheric circulation	
Factor	Explanation
Global atmospheric circulation	
Key information	
<p>The diagram illustrates the three-cell model of global atmospheric circulation. It shows the Earth with latitude lines at 60°N, 30°N, 0° (Equator), 30°S, and 60°S. The cells are labeled as follows: <ul style="list-style-type: none"> Polar cell: Located between the poles and 60° latitude. Air descends at the poles and rises at 60° latitude. Ferrel cell: Located between 30° and 60° latitude. Air descends at 30° latitude and rises at 60° latitude. Hadley cell: Located between the equator and 30° latitude. Air descends at 30° latitude and rises at the equator. Wind patterns are shown: Westerlies between 30° and 60° in both hemispheres, and Trade winds between the equator and 30° in both hemispheres. High (H) and Low (L) pressure systems are indicated at the boundaries of the cells. </p>	

10. Weather hazards in the UK	
Hazard	Example
Extreme weather	
Strong winds	
Heavy rain	
Snow	
Drought	
Heatwaves	

11. Evidence that weather is becoming more extreme...	
Temperature	

12. An example of a recent extreme weather event in the UK	
Name	
Causes	
Impacts	
Management strategies	



13. Tropical storms	
Hurricanes, cyclones, typhoons. An area of low pressure with winds moving in a spiral around the calm central point called the eye of the storm. Winds are powerful and rainfall is heavy.	
Factor	Explanation
Global distribution	5° – 30° north and south of equator (sea temp warm, wind shear low). More in the northern hemisphere. Move towards the west.
Relationship with ACM	Trade winds (from high to low pressure) send tropical storms to west.
Structure	Circular, can be 100s of km wide. Eye- calm in centre (air ↓, LOW). Eyewall- strong winds, torrential rain. Edges- Wind speed falls, rain reduces.
	
How will climate change affect them?	
Distribution	Increase to higher latitudes (warmer sea temperatures).
Frequency	Number could increase. (Longer season)
Intensity	Stronger? More evaporation.


14. Formation of tropical storms	
Include processes and ensure correct sequence.	
Conditions	5-30° latitude. Ocean depth > 60m deep. Sea temperature > 27°C. Form summer and autumn.
<ol style="list-style-type: none"> Sun heats the ocean (27°C) > rapid evaporation. Condensation occurs quickly leading to a large amount of cloud forming (tropical depression). Due to the earth's rotation, this cloud mass starts to spin. An eye is formed in the centre. Due to rising air, a low pressure area forms below. Air rushes into this creating high wind speeds. (>74mph = tropical storm) The low pressure results in the ocean being uplifted forming a storm surge. 	

15. How can we reduce the impacts?	
Strategy	Explanation
Prediction / monitoring	Satellites and aircraft to monitor storms. Computer models calculate the predicted track. Allows warnings so people can evacuate or protect their home.
Planning	New developments avoid high risk areas. Emergency services train and prepare. Plan evacuation routes. Reduces the injuries and deaths.
Protection	Building design- reinforced concrete, stilts to reduce flood risk. Flood defences along rivers and coasts. Reduces the number of buildings destroyed so fewer injuries and deaths.

16. Tropical storms affect people and environments.		
	Generic	Typhoon Haiyan 2013 Philippines
Primary effects	Direct results of strong winds, high rainfall, storm surges. Flooding, buildings destroyed, death.	<ul style="list-style-type: none"> ☠ 6,201 deaths. (Most drowned in storm surge.) ☠ 1.1 million houses damaged. ☠ 90% of Tacloban city destroyed.
Secondary effects	Homelessness > lead to poor health. Lack of sanitation > diseases (cholera) Food shortages, price increase.	<ul style="list-style-type: none"> ☠ 4.1 million homeless. ☠ Damage cost US\$12 billion. ☠ 1.1 million tonnes of crops destroyed (rice).
Immediate responses	Evacuate before the storm. Rescue those affected. Provide food, water, blankets. Aid workers arrive from abroad. Recover dead bodies (prevent disease).	<ul style="list-style-type: none"> ➢ Over 1200 evacuation shelters set up. ➢ Philippines Red Cross delivered basic food aid. ➢ UK sent shelter kits. ➢ 800,000 evacuated (warnings given 2 days early).
Long term responses	Repair homes and infrastructure. Promote economic recovery.	<ul style="list-style-type: none"> ➢ More cyclone shelters built. ➢ No build zones. ➢ 'Cash for work' programmes.



13. Tropical storms

Factor	Explanation
Global distribution	
Relationship with ACM	
	
How will climate change affect them?	
Distribution	
Frequency	
Intensity	

14. Formation of tropical storms

Conditions	

15. How can we reduce the impacts?

Strategy	Explanation
Prediction / monitoring	
Planning	
Protection	

16. Tropical storms affect people and environments.

	Generic	Typhoon Haiyan 2013 Philippines
Primary effects		<ul style="list-style-type: none"> ⚡ ⚡
Secondary effects		<ul style="list-style-type: none"> ⚡ ⚡
Immediate responses		<ul style="list-style-type: none"> ➤ ➤ ➤ ➤
Long term responses		<ul style="list-style-type: none"> ➤ ➤ ➤



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.

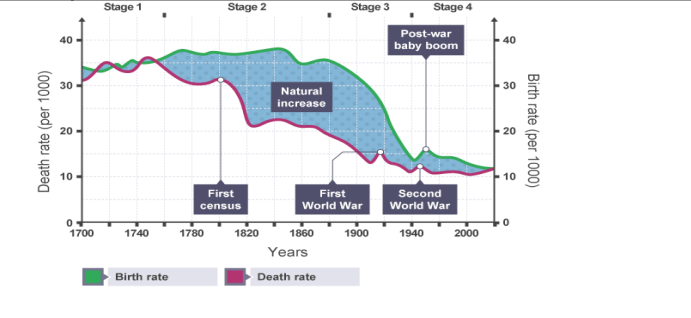
B.	The UK is a diverse and unequal society which has geographical patterns.
1. Tertiary sector	Employment in the services industry such as education or healthcare.
2. Quaternary sector	Employment is research, technology and media.
3. Disposable income	The money people have to live on once their taxes, 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.

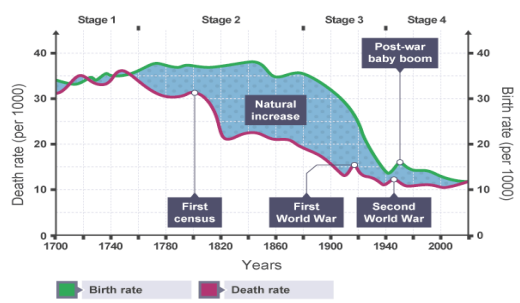
1. Tertiary sector	
2. Quaternary sector	
3. Disposable income	
4. Diversity	

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?	How has Swindon experienced economic decline?
1.	1.
2.	2.
3.	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



Year 10 History : 1. Spain reaches the New World, c1490-1512

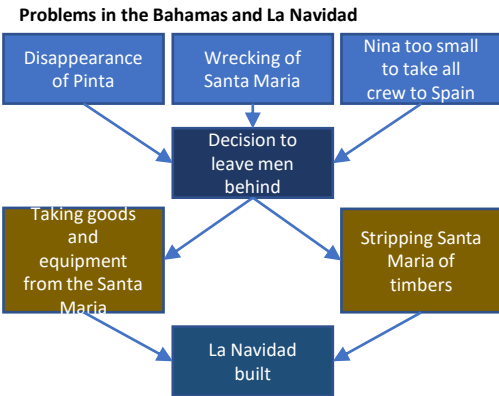


Spain c1490: exploration, religion and ambition
<ul style="list-style-type: none"> Most people knew the world was round Most of Europe was mapped The Spice Trade with the East Indies was well established Portugal and Spain were rivals – both wanted to find a sea route to the East Indies The Catholic Church had 2 concerns in the 2nd half of the 15th Century: <ul style="list-style-type: none"> Defend Christendom Spread Christianity to new lands



Why did Spain agree to sponsor Columbus?	
Christianity	Isabella was keen to continue spreading Christianity to the East Indies.
Priest	Juan Perez, a priest and friend to Isabella, helped Columbus while he made his case.
Status	Finding the sea route to the East Indies before Portugal would give Spain international status.
Wealth	A successful voyage would bring riches to the Spanish treasure and wealth to Spanish merchants.

Columbus' First Voyage 1492	
Finding ships and crew	Martin and Vicente Pinzon helped Columbus get ships and crew. 2 caravels – the Nina and the Pinta 1 carrack – the Santa Maria (flagship)
Rivalry at sea	Columbus had to change routes to avoid Portuguese caravels.
Sailors' fears	Columbus kept 2 different logs to stop sailors getting worried: -1 was accurate and he kept secret -The other log recorded shorter distances
Possible Mutiny	As the sailors had not spotted land for so long, they came close to mutiny. They allowed Columbus 2 more weeks.
Quarrels	Columbus and Martin Pinzon disagreed on the route.
Land	On the 10 th October, after 6 weeks at sea, the crew spotted land.



Columbus' return to Spain 1493	
4 th March 1493 Columbus lands in Portugal and meets King John. Columbus is sent congratulations letters and is cheered by crowds in his way to Barcelona.	The role of the pope The Pope gives Isabella and Ferdinand his support for the new 'Spanish Indies'. He is excited by Columbus' discoveries and wanted Christianity to spread to these lands.
Rivalry with Portugal King John believed he had claim to the lands Columbus had discovered. This led to talks with Spain to determine who had rights over what lands as Spain were getting ready to send Columbus back to govern.	Columbus' Rewards Isabella and Ferdinand encouraged Columbus to carry out another voyage. Columbus was given new titles, a new coat of arms and issued a pension for life. He was also given powers to govern lands in the New World.

Effects of Spanish Settlements	
1	Gold mines set up in Haiti – most of the work done by natives.
2	Tainos and Carib societies destroyed in order to provide work for the Spanish.
3	Columbus had captured natives to sell as slaves – Isabella not pleased and sent slaves back to Haiti.
4	Encomienda system set up. Nicolas de Ovando set this up in 1502.
5	Diseases like smallpox killed many natives. 1492 around 500,000 natives. By 1507 only 60,000.

Impact of contact with the Natives		
Gold, cotton and tobacco	Tainos and Caribs	Incident at Samana
Natives wore gold but would not tell the Spaniards where it came from. Kapock was used by the natives – it could be spin into thread and woven into cloth. Spaniards sailing with Columbus quickly picked up the habit of smoking tobacco.	Tainos – considered friendly and peaceful, allowed Columbus to build La Navidad, found at San Salvador. Caribs – mainly found east of the Bahamas, raided the Tainos taking women, rumours that they were cannibals.	On way back to Spain – Samana, Haiti. Men went ashore and found dried human heads and large canoes. An exchange went wrong and erupted in violence. They learnt that the natives could be hostile.

The Treaty of Tordesillas 1494
On 7 th June an agreement was reached between Spain and Portugal. An imaginary line was drawn from the North to the South pole. All lands to the west were for Spain. Lands to the east were for Portugal.

Columbus as governor	
La Navidad and Isabela	Santo Domingo
La Navidad found burned to the ground on 28 th Nov 1493. A new settlement was named Isabela. It failed as Spaniards wanted adventure and gold. Columbus went exploring and found Jamaica. He returned to Haiti in September 1494.	Bartholomew left in charge when Columbus returned to Spain. He built Santo Domingo. Columbus returned in 1498 to problems – Tainos and Spaniards not cooperating. Order restored by giving Spanish rebels land and providing native labourers to work the land. Rebellions kept breaking out so Columbus carried out executions on both natives and Spaniards. September 1500 – Bobadilla sent to take over from Columbus, Columbus arrested and sent back to Spain in chains.

Imperial Policy towards the Caribbean	
Importance of Santo Domingo It became the centre of Spanish administration in the Caribbean. -Wide roads and squares surrounded impressive stone buildings -The building housed administration offices were rules were issued and taxes collected. -Courts were established to control the laws	Establishment of a monopoly In 1503, the Casa de Contractacion (House of Trade) was established in Seville, Spain. The aim was to control all trade from the Caribbean. Powers included: -Approve all voyages to the Caribbean. -Collect up to date trade routes. -Collect taxes. -Control who travels to the Indies. However, there was smuggling and people worked out ways to avoid paying the taxes.
Catholic Missionaries In 1503, Ferdinand and Isabella issued a series of rules about educating the Indians: -Indians were to live in towns and pay taxes. -Taught about Christianity and expected to live as Christians. -Taught how to read, write and dress. Reports reached Spain about the abuses of Indians. Dominicans were sent to stop the mistreatment. Spaniards shocked at the mistreatment of natives.	Regulation of Exploration Ferdinand and Isabella needed to establish Spanish control over exploration and discovery in the New World. -Every ship sailing to the Caribbean had to leave from Cadiz, Spain and had to register with the Spanish. -Anyone could live in the Indies freely. If the discovered gold, 2/3 had to go to the Spanish government, 1/3 could be kept by the discoverer. 1/10 of all other products had to be sent to Spain. -1/10 if all cargo carried by ship sailing to the New World had to be Spanish.



Year 10 History : 1. Spain reaches the New World, c1490-1512



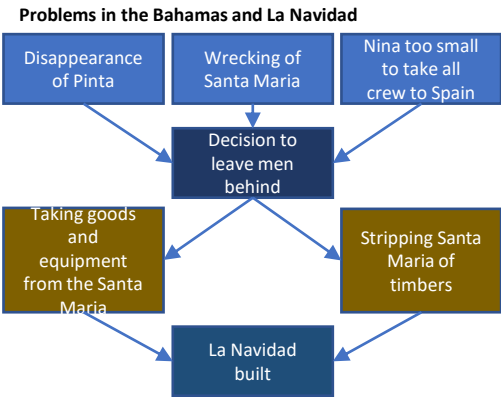
Spain c1490: exploration, religion and ambition

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 - Spread Christianity to new lands



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Priest	
Status	
Wealth	

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Rivalry at sea	
Sailors' fears	
Possible Mutiny	
Quarrels	
Land	



Columbus' return to Spain 1493	
4 th March 1493 Columbus lands in Portugal and meets King John. Columbus is sent _____.	The role of the pope The Pope gives Isabella and Ferdinand his support for _____.
Rivalry with Portugal King John believed he had _____ This led to _____.	Columbus' Rewards Isabella and Ferdinand encouraged _____ Columbus was given _____.

Effects of Spanish Settlements	
1	
2	
3	
4	
5	

Impact of contact with the Natives		
Gold, cotton and tobacco	Tainos and Caribs	Incident at Samana
Natives wore _____ but would not tell the _____ where it _____ was used by the natives – it could be spun into _____ Spaniards sailing with Columbus quickly picked up the habit of _____	Tainos – considered _____, allowed Columbus to build La Navidad, found at San Salvador. Caribs – mainly found east of the Bahamas, _____ the Tainos _____	On way back to Spain – Samana, Haiti. Men went ashore and found _____ heads and _____. An exchange went wrong and _____ They learnt that the natives _____

The Treaty of Tordesillas 1494

On 7th June an agreement was reached between _____ to the _____ to the _____. All lands to the west were for Spain. Lands to the east were for Portugal.

Columbus as governor	
La Navidad and Isabela	_____
La Navidad found burned to the ground on 28 th Nov 1493. A new settlement was named Isabela. It failed as Spaniards wanted adventure and gold. Columbus went exploring and found Jamaica. He returned to Haiti in September 1494.	Bartholomew left in charge when Columbus returned to Spain. He built _____ Columbus returned in _____ to problems – Tainos and Spaniards not cooperating. Order restored by giving Spanish _____ and providing native labourers _____ land. Rebellions kept breaking out so Columbus carried out _____ on both _____ and _____. September 1500 – Bobadilla sent to take over from Columbus, Columbus arrested and sent back to Spain in chains.

Imperial Policy towards the Caribbean	
Importance of Santo Domingo It became _____ of Spanish administration in the C_____. -Wide roads and squares surrounded impressive stone buildings -The building housed _____ where rules were issued and taxes collected. -Courts were established to _____	Establishment of a monopoly In 1503, the Casa de Contractacion (House of Trade) was established in Seville, Spain. The aim was to control all trade from the Caribbean. Powers included: -Approve all voyages to the Caribbean. -Collect up to date trade routes. -Collect taxes. -Control who travels to the Indies. However, there was smuggling and people worked out ways to avoid paying the taxes.

Catholic Missionaries In 1503, F_____ and I_____ a issued a series of _____: -Indians were to _____ to live as Christians. -Taught how to _____ Reports reached Spain about the a_____. Dominicans were sent to stop the _____. Spaniards shocked at the mistreatment of natives.	Regulation of Exploration Ferdinand and Isabella needed to _____ -Every ship sailing to the Caribbean had to leave from Cadiz, Spain and had to register with the Spanish. -Anyone could live in the _____. If the discovered gold, 2/3 had to go to the Spanish government, 1/3 could be kept by the discoverer. 1/10 of all other products had to be sent to Spain. -1/10 if all cargo carried by ship sailing to the New World had to be Spanish.
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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						
Shi’a	Muslims who believe in the Imamah, leadership of Ali and his descendants						
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>		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 		
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 			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 		
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 11 SPANISH Knowledge organiser.
Topic Education Post - 16



What we are learning this term:	
A. Talking about options at 16 B. Discussing choices at 18: work or university? C. Talking about different jobs D. Looking for and applying for jobs E. Using a variety of tenses F. Using 'quisiera'	
6 Key Words for this term	
1. porcentaje	4. la empresa
2. por ciento	5. el/la jefe/a
3. la ama de casa	6. cuidar a

11.1G ¿Qué voy a hacer?

a tiempo completo	full time
a tiempo parcial	part time
el/la alumno/a	pupil
aprender	to learn
el aprendizaje	apprenticeship
aprobar	to pass
la asignatura	subject
avanzado/a	advanced
el beneficio	benefit
buscar	to look for
la carrera (universitaria),(university) course, career	carrera profesional
conseguir	to get, to manage, to achieve
el consejo	advice
continuar	to continue
dejar	to leave
el dinero	money
encontrar	to find
esperar	to wait for, to hope, expect
los estudios	studies
el examen	exam
la experiencia	experience
la experiencia laboral	work experience
feo/a	ugly
la informática	information technology, IT
mejor	better, best
mientras	while
la nota	grade, mark, result
la opción	option
la oportunidad	opportunity
quedar	to stay
el resultado	result
sacar buenas / malasto	get good / to get bad
grades	
notas	
seguir + gerund	to carry on ...ing

11.1F ¿Trabajar o estudiar?

considerar	to consider
demonstrar	to show, demonstrate
la desventaja	disadvantage
estar harto/a de	to be fed up with
estar obsesionado/a con	to be obsessed with
furioso/a	furious
ganar	to earn, to win, to gain
la habilidad	skill, ability
horroroso/a	dreadful
imaginar	to imagine
inútil	useless
mundo	world
necesitar	to need
pedir	to ask for
peor	worse, worst
por otra parte	on the other hand
la promoción	promotion
relacionarse con	to relate to, to get on with
repasar	to revise
el repaso	revision
seguro/a	sure
la sociedad	society
todavía	still
vale la pena	it's worth it, it's worthwhile

Key Verbs				
Aprender To learn	Ir To go	Querer To want	Preparar To prepare	Dar To give
Aprendo I learn	Voy I go	Quiero I want	Preparo I prepare	Doy I give
Aprendes You learn	Vas You go	Quieres You want	Preparas You prepare	Das You give
Aprende He/she/it learns	Va s/he goes	Quiere He/she/ it wants	Prepara He/she/it prepares	Da He/she/it gives
Aprendemos We learn	Vamos They go	Queremos We want	Preparamos We prepare	Damos We give
Aprenden They learn	Van They go	Quieren They want	Preparan They prepare	Dan They give

11.1H ¿Vale la pena ir a la universidad?

a solas	on one's own
acabar de + infinitive	to have just
adecuado/a	adequate, decent
aislado/a	isolated
al final de	at the end of
apelar	to appeal
aprender	to learn
así que	so
avanzado/a	advanced
el beneficio	benefit
bien pagado/a	well paid
la calidad	quality
la carrera (universitaria)	university course, career
claro	of course
conseguir	to get, to manage, to achieve
consejo	advice
deber	to owe
devolver	to give back, to pay back
disfrutar	to enjoy
la edad	age
escoger	to choose
esperar	to wait for, to hope, to expect
estar a punto de	to be about to
la experiencia laboral	work experience
feo/a	ugly
el folleto	leaflet
el/la graduado/a	graduate
hacerse miembro	to become a member
inquietar	to worry, to concern
lejos de	far from
mejor	better, best

11.1H ¿Vale la pena ir a la universidad?

el mundo laboral	world of work
ofrecer	to offer
olvidarse	to forget
pedir prestado	to borrow
poco a poco	bit by bit
preocupar	to worry, to be concerned
recoger	to pick up, to collect
la residencia de estudiantes	student residence
el resultado	result
seguir	to follow
seguir + gerund	to carry on ...ing
tan pronto como	as soon as
el título (university)	degree
tomar un año libre	to take a year out
la ventaja	advantage



What we are learning this term:

- A. Talking about options at 16
- B. Discussing choices at 18: work or university?
- C. Talking about different jobs
- D. Looking for and applying for jobs
- E. Using a variety of tenses
- F. Using 'quisiera'

6 Key Words for this term

- | | |
|-------------------|-----------------|
| 1. porcentaje | 4. la empresa |
| 2. por ciento | 5. el/la jefe/a |
| 3. la ama de casa | 6. cuidar a |

11.1G ¿Qué voy a hacer?

a tiempo completo _____
 a tiempo parcial _____
 el/la alumno/a _____
 _____ to learn
 el _____ apprenticeship
 aprobar to _____
 la asignatura _____
 _____ advanced
 el beneficio _____
 _____ to look for
 la carrera (universitaria),(university) course, career
 carrera profesional _____
 _____ to get, to manage, to achieve
 el consejo _____
 _____ to continue
 dejar to _____
 el _____ money
 encontrar to _____
 _____ to wait for, to hope, expect
 los estudios _____
 el examen _____
 la experiencia _____
 la experiencia laboral work _____
 _____ ugly
 la _____ information technology, IT
 _____ better, best
 mientras _____
 la _____ grade, mark, result
 la opción _____
 la _____ opportunity
 quedar to _____
 el _____ result
 Sacar _____ to get good / to get bad grades
 notas _____
 seguir + gerund _____

11.1F ¿Trabajar o estudiar?

_____ to consider
 _____ to show, demonstrate
 la desventaja _____
 _____ to be fed up with
 estar obsesionado/a con to be obsessed
 with _____
 furioso/a _____
 _____ to earn, to win, to gain
 la habilidad _____
 horroroso/a _____
 _____ to imagine
 inútil _____
 mundo _____
 _____ to need
 pedir _____
 _____ worse, worst
 por otra parte _____
 la promoción _____
 _____ to relate to, to get on
 with _____
 repasar to _____
 el repaso _____
 _____ sure
 la sociedad _____
 todavía _____
 vale la pena _____

Key Verbs				
Aprender To _____	_____ To go	Querer To want	Preparar _____	Dar To give
_____ I learn	_____ I go	Quiero _____	_____ I prepare	_____ I give
_____ You learn	_____ You go	Quieres _____	Preparas You prepare	_____ You give
Aprende He/she/it learns	Va _____	Quiere He/she/ it wants	_____ He/she/it prepares	_____ He/she/it gives
Aprendemos _____	_____ They go	_____ We want	Preparamos We prepare	_____ We give
Aprenden They learn	Van They go	Quieren They want	_____ They prepare	Dan They give

11.1H ¿Vale la pena ir a la universidad?

a solas _____
 _____ to have just
 adecuado/a _____
 _____ isolated
 al final de _____
 _____ to appeal
 aprender to _____
 así que _____
 avanzado/a _____
 _____ benefit
 bien pagado/a _____
 la calidad _____
 la _____ university course, career
 claro _____
 _____ to get, to manage, to
 achieve _____
 el consejo _____
 deber _____
 _____ to give back, to pay
 back _____
 disfrutar to _____
 la edad _____
 _____ to choose
 _____ to wait for, to hope, to
 expect _____
 estar a punto de to _____
 la experiencia laboral _____
 _____ ugly
 el _____ leaflet
 el/la graduado/a _____
 _____ to become a member
 _____ to worry, to concern
 lejos de _____
 mejor _____

11.1H ¿Vale la pena ir a la universidad?

el mundo laboral _____
 ofrecer to _____
 _____ to forget
 pedir prestado to _____
 _____ bit by bit
 _____ to worry, to be
 concerned _____
 _____ to pick up, to collect
 la residencia de _____
 estudiantes _____
 el resultado _____
 _____ to follow
 seguir + gerund to _____
 tan pronto como _____
 el título (university) _____
 _____ to take a year out
 advantage _____

Translation Practice. G – blue F – orange H - Green	
Quiero _____ estudiando	I want to carry on studying
Quiero _____ más dinero	I want to earn more money
_____ que seguir estudiando	I will have to carry on studying
Si _____ buenas notas, iré a la universidad	If I get good grades I will go to the university
Voy a _____ el instituto	I am going to quit school
No _____ que hacer	I don't know what to do
He _____ que no quiero trabajar	I have decided that I don't want to work
Creo que _____ mejor estudiar	I believe that it will be better to study
Quiero buscar un _____	I want to find an apprenticeship
La _____ de mi plan es que...	The advantage to my plan is that...
Hemos _____ otro plan	We have considered another plan
_____ un titulo universitario	I need a degree
Mi madre es _____	My mum is a dentist
_____ contento cuando termine mis estudios	I will be content when I finish my studies
_____ la decision tan pronto como tenga mis resultados	I will make the decision as soon as I have my results
Espero _____ una casa	I hope to buy myself a house
Se puede _____ de todo lo que hay	You can enjoy everything there is
_____ dejado de estudiar	She had quit studying

Key Questions: Answer the following in your own words. Use these model answers	
¿Qué vas a hacer/estudiar/trabajar cuando termines en el colegio/ si sacas buenas notas?	Si saco buenas notas/en el futurovoy a estudiar/me gustaría estudiar en la universidad porque será muy útil para mi carrera, porque quiero trabajar en el aire libre/porque siempre me encanta trabajar con niños ... En el futuro, voy a trabajar como (job) porque ...
¿Qué son tus planes para el futuro? - ¿Cuál es la ventaja de este plan?	Las desventajas de mi trabajo preferido son que... Las ventajas de mi trabajo preferido son que...
¿Qué son las ventajas y desventajas de ir a la universidad?	Las ventajas/desventajas son que .. es cara pagar los gastos para la universidad, el precio es muy caro, tienes que prestar dinero del gobierno, tienes que trabajar y estudiar mucho, tienes que esforzarse mucho, es inquietante no vivir con los padres, y vivir con otra gente, va a ser fenomenal encontrar nuevos amigos ...
¿Qué trabajo quieres hacer? Por qué te interesa este trabajo? Qué son las ventajas y desventajas de hacer este trabajo?	En el futuro, quiero ser (job). Quiero hacer este trabajo porque... me interesa mucho / puedo ganar mucho dinero / tengo la oportunidad de trabajar en equipos / prefiero trabajar en una oficina/ prefiero trabajar en el aire libre/ quiero un trabajo donde puedo utilizar misidiomas / quiero un trabajo donde puedo mejorar mi confianza con el público.
¿Cuáles son los aspectos positivos de encontrar un trabajo a los dieciocho años?	...Las (des)ventajas de empezar a trabajar a los 18 años son que... ...No tienes la oportunidad de ir a la universidad ...No tienes tantas oportunidades de ganar tanto dinero ...Puedes empezar a ganar dinero más joven que es importante para el futuro ...Puedes aprender una carrera mientras estás haciendo el trabajo – no tienes que estudiar más

Key Grammar	
Forming the preterite (past tense). Always remove the –AR, -ER, -IR endings first	Remember the preterite (past) tense endings for –AR, -ER, -IR verbs. They are: -AR: -é, -aste,-ó, -amos, -astéis, -aron -ER: -í, -íste, -ió, -imos, -istéis, -ieron -IR : -í, -iste, -ió, -imos, -istéis, -ieron
Forming the conditional ('would like to' tense). Always remove the –AR, -ER, -IR endings first	Remember the conditional ('would') tense endings for –AR, -ER, -IR verbs. They are: -AR, -ER, -IR: -ía, -ías, -ía, -íamos, -íais, -ían
Using the immediate future tense IR + A + INFINITIVE	Voy a casarme = I'm going to get married Va a discutir con su padre = He / She is going to argue with his/her father

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

27. A private limited company (Limited Liability)
Benefits of Limited companies.

28. Sole Trader (Unlimited Liability)
Why ignore Limited Liability?

33. Business Locations

34. How has the internet impacted business location:

29. Key Words: Making your business effective	
Term	Definition
Bankrupt	
Private Limited Company	
Sole Trader	

30. Franchising

31. What are the benefits of Franchising for a entrepreneur?





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	
Price	
Promotion	
Place	

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?

Year 10 Computer Science – Term 4





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

What we are learning this term:		
A. Terms B. Common Algorithms C. Flowcharts D. Data Types		
B.	Common Algorithms	Worked Example
Binary Search	Compares the search object to the middle point of a sorted list. If they are not equal, the half in which the target cannot lie is eliminated and the search continues on the remaining half, again taking the middle point to compare to the search object, and repeating this until the target value is found or the end is reached.	2,5,6 searching for 6 Midpoint 5 5 < 6, remove left side of list 2,5,6 Midpoint 6 6 == 6 Item found
Bubble Sort	Sorts a list by continuously stepping through a list, swapping items until they appear in the correct order.	5,1,3 1,3,5 1st pass complete 1,2,5 1,3,5 2nd pass complete - sorted
Linear Search	Compares the search object with each item in the list in order from the beginning until it is found or the end is reached.	2,6,5 searching for 6 2 != 6 2,6,5 6==6 Item found
Merge Sort	Sorts a list by repeatedly dividing a list into two until all the elements are separated individually. Pairs of elements are then compared, placed into order and combined. The process is then repeated until the list is recompiled in the correct order as a whole.	5,1,3 5,1 3 Break list into sublists 5 1 3 Until sublists contain 1 # 1,5 3 Merge pairs 1,3,5 Until all sublists merged

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

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

Year 10 Computer Science – Term 4

A.	Terms	What we are learning this term:		C.	Flowchart Symbol			
	Abstraction		A. Terms B. Common Algorithms C. Flowcharts D. Data Types		Symbol	Usage	Symbol Name	
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	Assignment							
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	Flowchart							
	Input							
	Output							
	Process							
	Pseudocode							
	Variable							
B.		Common Algorithms	Worked Example	D. Data Types			Example	
	Binary Search		2,5,6 searching for 6	Boolean				
	Bubble Sort		5,1,3	Character				
	Linear Search		2,6,5 searching for 6	Integer				
	Merge Sort		5,1,3	String				
				Real/Float				

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.

Food Spoilage, Contamination and Food Poisoning

KS4 FOOD AND NUTRITION KNOWLEDGE ORGANISER T4 Quiz

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:

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-

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•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 _____
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Time

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

People at high risk of food poisoning

Symptoms of food poisoning

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-
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Signs and symptoms

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Signs and symptoms

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Desirable food changes

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-
-



Year 10 PRODUCT DESIGN Term 4



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Thermistor <i>changes with temperature</i>																																																																																																																												
Piezoelectric Sensor <i>changes with sound / electric energy</i>																																																																																																																												
Process / Control Device																																																																																																																												
Switch <i>turn on and off power</i>																																																																																																																												
Resistor <i>to limit flow of current</i>																																																																																																																												
Microcontroller <i>programmable decisions</i>																																																																																																																												
Output																																																																																																																												
Speaker <i>releases sound</i>																																																																																																																												
Motor <i>releases movement</i>																																																																																																																												
Light-emitting diode (LED) <i>releases light</i>																																																																																																																												
E. Metals & Alloys																																																																																																																												
Metals are extracted from natural ore.																																																																																																																												
Ferrous	Non-ferrous																																																																																																																											
Low-carbon steel (mild steel)	Aluminium																																																																																																																											
Cast Iron	Copper																																																																																																																											
High-carbon steel (tool steel)	Tin																																																																																																																											
	Zinc																																																																																																																											
Contain iron and are magnetic, prone to rust.	Do not contain iron, not magnetic. Do not rust.																																																																																																																											
Alloys																																																																																																																												
Alloys are mixtures of two or more metals to improve its properties or aesthetic.																																																																																																																												
Brass	Stainless steel																																																																																																																											
	High-speed steel																																																																																																																											
F. Surface Treatments of Timber																																																																																																																												
Used to improve their appearance and to enhance certain properties such as durability																																																																																																																												
Paint																																																																																																																												
	Oil or Wax																																																																																																																											
Wood Stain																																																																																																																												
	Varnish																																																																																																																											
Tanalising / Pressure-treated																																																																																																																												
Preservatives can be added to extend the lifespan of the timber, protecting it from rot, decay and insects.																																																																																																																												
	Pressure-treated timber will have no need to paint, stain or coat it.																																																																																																																											



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
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... How do _____? (across all three disciplines/styles) including: to _____ to _____ to _____ to _____ to _____ to _____</p>	

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>	

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 _____ and _____ performances in order to develop _____ of practitioners' work with reference to _____s, o_____s and p_____se. Focus on _____ i_____ of particular i_____ and how artists c_____te their ideas to an _____e. 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 _____ to generate id_____s for performance material. • Exploring and developing ideas to develop material. • D_____on with performers. • Setting _____ for performers. • S_____ng ideas and intentions. • Providing _____ and/or fe_____ck on imp_____nts.

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

Musical forms and devices

Area of study 1 - Eduqas GCSE Music

Baroque era (1600-1750)

- Harpsichord
- Ornaments
- Terraced dynamics
- Basso continuo
- Small orchestra (mostly strings, plus some wind)
- Suite, sonata, oratorio, chorales, trio sonata
- **Bach, Handel, Vivaldi**

Classical era (1750-1810)

- Slightly larger orchestra
- Piano introduced
- Alberti bass
- String quartets
- Symphony, solo sonata, solo concerto
- Balanced, regular phrases
- **Haydn, Mozart, Beethoven**

Romantic era (1810-1910)

- Lyrical, expressive melodies
- Large orchestra
- Wider range of dynamics
- Richer harmonies and use of chromatic chords
- Programme music
- Opera symphony
- **Tchaikovsky, Grieg, Schumann, Dvorak, Brahms, Verdi, Wagner**

Form and structure

BINARY

A B

Two sections: A usually ends in a related key (e.g. dominant or relative minor), but B returns to the tonic. B will contain with some change/contrast.

TERNARY

A B A

Three sections: section B provides a contrast (e.g. new tune key change). A may return exactly or with some slight changes.

RONDO

A B A C A

A longer form: A returns throughout the piece, with contrasting sections called 'episodes', containing new ideas and using different keys.

MINUET AND TRIO

II: AB: II II: CD: II AB

The minuet was a type of graceful dance from the 17-18th century, and was often used as the 3rd movement in symphonies in the Classical era. The minuet had two repeated sections, the trio had two new repeated sections, with a return to the minuet at the end (no repeat).

VARIATIONS

A a A A A

The main theme (tune) is repeated and developed a number of times in a variety of different ways.

STROPHIC

A A A

A simple form where the song uses the same melody over and over.

Devices

Repetition	A musical idea is repeated exactly.
Imitation	An idea is copied in another part.
Sequence	Repetition of an idea in the same part at a higher/lower pitch.
Ostinato	A short, repeated pattern or phrase.
Drone	A long held or constantly repeated note(s).
Arpeggio/ broken chord	The notes of a chord played individually.
Alberti bass	A broken chord accompaniment (I, V, iii, V) common in the Classical era.
Anacrusis	An 'up-beat' or pick-up before the first strong beat.
Dotted rhythms	A rhythm using dotted notes (gives a 'jagged' or 'bouncy' type of effect).
Syncopation	Off beat accents.
Conjunct	Notes that move in steps.
Disjunct	Notes that move in leaps/ intervals.
Regular phrasing	Balanced parts of a melody (like the phrases in a sentence) e.g. four bar phrases.

Scales and chords

A **CHORD** is a group of two or more notes played at the same time. A **TRIAD** has three notes. A **CHORD SEQUENCE/PATTERN** is a series of chords. **DIATONIC HARMONY** is based on the chords of major/minor scales.

Primary chords I, IV, V

Secondary chords ii, iii, vi, vii

C Major Scale

1 TONIC 2 SUPERTONIC 3 MEDIANT 4 SUBDOMINANT 5 DOMINANT 6 SUBMEDIANT 7 LEADING NOTE 8 TONIC

C Major Triads

I C ii Dm iii Em IV F V G vi Am vii B° I C

C Major Scales

Blues Scale in C

A Minor (Harmonic) Scale

Chromatic Scale on C

Major pentatonic

Minor pentatonic

Cadences

The two chords at the end of a phrase

Perfect	V-I	Strong ending – sounds 'finished'; a musical full stop.
Plagal	IV-I	Sounds finished but 'softer'; Amen.
Imperfect	I-V, ii-V, vi-V	Sounds unfinished.
Interrupted	V-vi	Moves to an unexpected chord; 'surprise'.

Musical forms and devices

Area of study 1 - Eduqas GCSE Music



Baroque era (1600-1750)

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Classical era (1750-1810)

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Romantic era (1810-1910)

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Form and structure

BINARY A B

TERNARY A B A

RONDO A B A C A

MINUET AND TRIO II: AB: II II:CD :II AB

VARIATIONS A a A A A

STROPHIC A A A

Devices

Repetition	
Imitation	
Sequence	
Ostinato	
Drone	
Arpeggio/ broken chord	
Alberti bass	
Anacrusis	
Dotted rhythms	
Syncopation	
Conjunct	
Disjunct	
Regular phrasing	

Scales and chords

-
-
-
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-
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-
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C Major Scale

1 TONIC 2 SUPERTONIC 3 MEDIANT 4 SUBDOMINANT 5 DOMINANT 6 SUBMEDIANT 7 LEADING NOTE 8 TONIC

C Major Triads

I C ii Dm iii Em IV F V G vi Am vii Bb I C

C Major Scales

Blues Scale in C

A Minor (Harmonic) Scale





Major pentatonic Minor pentatonic

Chromatic Scale on C

Cadences





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 	During this time abstract thought is developed – thinking logically and solving complex problems are possible by the end of this life stage. Adolescents may find it difficult to understand the consequences of their actions but they are developing empathy – seeing things from another's point of view.	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 	By these life stages most adults have a good range of general knowledge. They use this knowledge and experience to solve problems that they come across in their personal and work lives.	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 	During this life stage people continue to learn and develop intellectually, however, their speed of thinking and memory may decline. This may affect their ability to think through problems and make logical decisions.	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>Security</u>
		<u>Contentment</u>	<u>Contentment</u>
		<u>Independence</u>	<u>Independence</u>
Early childhood 		G. How do humans develop socially (S)?	
Adolescence 		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?
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	
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?	
Lifestyle choices include; diet, exercise, alcohol, smoking, sexual relationships and illegal drugs, appearance.		
<u>Positive lifestyle choices lead to:</u>		<u>Negative lifestyle choices lead to:</u>
<ul style="list-style-type: none"> • • • • • 		<ul style="list-style-type: none"> • • • • •
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		
<u>Positive self-image:</u>		<u>Negative self-image</u>
<ul style="list-style-type: none"> • • • • • 		<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

Positive affects of a persons culture/religion:

- A sense of security and belonging from sharing the same values and beliefs with others.
- Good self-esteem through being accepted and valued by others

Negative affects of a persons culture/religion:

- Feeling discriminated against by people who do not share their religion/culture which leads to low self-image
- Feeling excluded and isolated because their needs like diet, are not catered for.

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

Belonging to a community:

- Brings sense of belonging essential for emotional development.
- Building and maintaining relationships- social development
- Feeling of security.
- Increases self-image and self-confidence

Not belonging to a community:

- Minimal contact with others- isolation
- Anxiety leading to depression
- Making negative lifestyle choices
- Feeling less secure
- Difficulty in building relationships
- Slow self-image and self-confidence

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

What happens when people face discrimination because of gender:

- They might be excluded from a group
- They may be refused promotion at work
- They may be expected to carry out a particular role
- They may be paid less.

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 choices can be positive or negative.

M How do economic factors affect development

Having enough money gives individuals and their families feeling of content and security

Not having enough money causes stress and anxiety.

Having enough money means that the whole family is eating healthy.

Not having enough money can mean that the family is not about to eat well balanced diet, and this has a negative effect on their physical development

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

Living in good housing with open spaces:

- Feeling good about themselves
- Be more likely to stay healthy,
- Space to take exercise
- Feel safe ad secure
- Warmth

Living in a poor housing with cramped and damp conditions:

- Have low self-esteem and self-image
- Be more likely to experience ill health
- Be lessson 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

<u>Positive affects of a persons culture/religion:</u>	<u>Negative affects of a persons culture/religion:</u>
•	•
•	•

Community refers to:

<u>Belonging to a community:</u>	<u>Not belonging to a community:</u>
•	•
•	•
•	•
•	•
•	•

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:

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-
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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	

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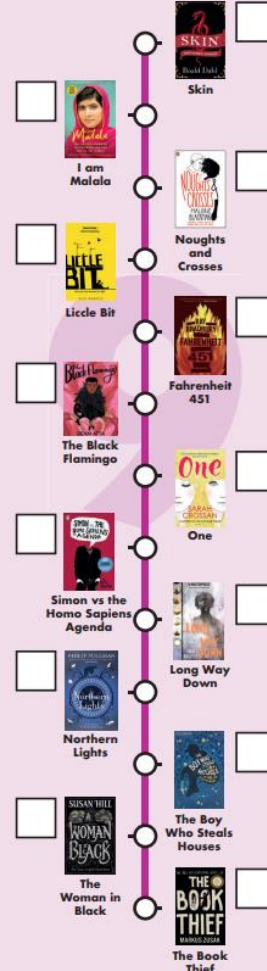
Year 7



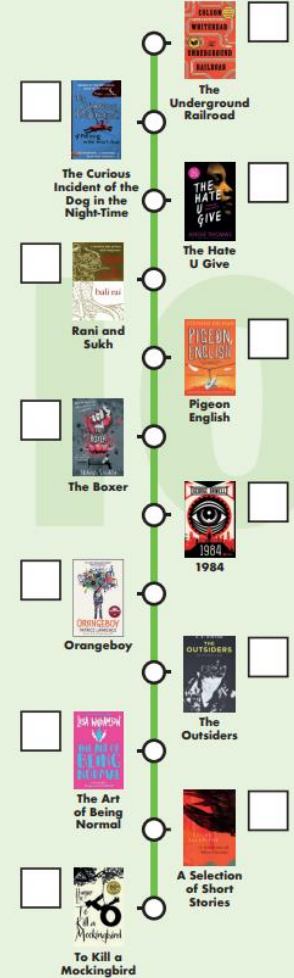
Year 8



Year 9



Year 10



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