Year 10 Option Subjects

Knowledge Organiser

September- December 2024

AMBITION, CONFIDENCE, CREATIVITY,
RESPECT, DETERMINATION

Proud to be part of the GREENSHAW LEARNING TRUST

FIVE ACRES HIGH SCHOOL

Why do we have knowledge organisers?
Knowledge organisers are a collation of the basic essential knowledge for success in each subject area that will underpin your learning for the term.

They are designed to provide the information you will need to be committing to your long term memory through recall exercises in Low Stakes Quizzing.

How do we use knowledge organisers?
You should be using these KOs to create your homework quizzes so that you are practising retrieving information.

1. You can do this by testing yourself on the definition of key terms (both recalling the key term and then swapping to recall the definition), practice labelling diagrams, retrieves reasons and justifications for the main learning points.
2. They can also be used for 'memory dumps' where you try to recall as much of the information about a topic as possible and then use the KP to fill in the gaps.
3. They can also be used in class to assist with retrieval of the core knowledge needed for each subject.

You should have these with you at all times in school and out on your desk in all lessons.

If you lose your KO or it becomes too dishevelled, please purchase a new one from the Head of Year or the School Office.

Contents

The People's Health: **Medieval Britain, 1250-1500**

1 Key Features of Medieval Society

Medieval England was a Christian country with a strictly ordered society.

Almost everyone in Medieval England was a **Christian.** The **Roman Catholic Church** was very wealthy and every **parish** had its own **church.**

Society was ordered in a strict **hierarchy:** the **King** had most power and gave land to the **barons** who in return shared it with **knights.**

Peasants worked the land and **90%** of people lived in the **countryside.**

Technology was limited but **trade** was **widespread. Wool** was traded with **Europe.**

People believed in **ancient** ideas about health like the Greek theory of the **four humours**, which stated that illness occurred when the body's **humours** - **blood, phlegm, black bile**, and **yellow bile** - were out of balance

2 Life in the Medieval countryside

90% lived in the countryside where life was difficult but quite healthy.

- Peasants lived in small homes made from **wattle and daub.** They had open fires with no chimneys.
- Animals sheltered inside homes at night
- A peasants' diet was quite healthy with lots of fruit and vegetables, **pottage**, milk and cheese, and fish.
- Peasants depended on a good harvest. In 1315 a bad harvest led to the **Great Famine**, killing 10%
- Peasants drank **small beer** which killed the bacteria and germs in the water.
- Waste collected in **middens** or **cesspits contaminated** drinking water from springs and streams

3 Life in Medieval towns

Medieval towns provided benefits and dangers to health.

- Houses were tightly packed together, allowing disease to spread quickly
- Each town held a weekly **market**, which provided a variety of fresh food
- **Drovers** brought livestock into town to be slaughtered, filling the streets with **dung** and blood
- Some towns had a **conduit** in the town square which provided clean water
- **Gongfermers** were paid to remove human waste from latrines and cesspits and **rakers** were paid to clean the streets
- Only the very rich had **latrines** in their houses. Most people shared outdoor **latrines** with neighbours

The People's Health: **Medieval Britain, 1250-1500**

4 Responses to the Black Death

The Black Death hit England in 1348, killing 50% of the population. It was deadly because no one knew what caused it and treatments and preventions were ineffective

Beliefs about the causes of the Black Death

The disease was caused by the **Yersinia Pestis pathogen** that was passed on by the bite of a flea that lived on **black rats**.

However, no one at the time knew this. Instead, they thought it was caused by:

- God punishing them for their **sins**
- Bad-smelling air (**miasma**)
- The movement of the planets

Actions taken to prevent/treat the Black Death

Attempts to treat or prevent the disease were ineffective, for example:

Priests urged people to pray for **forgiveness** so that God would take the disease away
Flagellants whipped themselves in the streets to prove to God that they were sorry for their **sins**

Doctors believed that balancing the **humours** by **bloodletting** would cure people with the **Black Death**

People placed **posies** of sweet-smelling flowers in their houses to purify the air and get rid of **miasma**

Although **King Edward III** ordered the Mayor of London to clean the city streets, the government did very little to deal with the disease.

5 Public health in Medieval towns and monasteries

Despite their limited medical knowledge, people in towns and monasteries made great efforts to improve public health

The Church led the way in hygiene

Religious communities, such as **monasteries** or **cathedrals**, often had clean water for ceremonies such as **baptisms**

Monasteries also had the wealth required to dig trenches and lay pipes

By the 15th Century, however, the power of the **Church** began to decrease

Towns made efforts to improve public health

Towns passed **by-laws** to improve public health before the **Black Death**

In Bristol **dung heaps** and **prostitutes** were moved to the **outskirts** of town

After **1348**, towns passed more laws to improve public health. In London, rich residents paid for **latrines** and **conduits** to be built

Key Vocabulary

By Laws	Laws that only apply in the local area
Cathedral	The largest church in an area
Cesspit	A pit for collecting human waste
Conduit	A stone channel for transporting water
Contaminated	Made dirty
Drovers	Someone who drives animals to market
Famine	A period of hunger caused by a lack of food
Hazardous	Dangerous
Hierarchy	A social system where people are ranked from top to bottom
Humours	The four substances that made up the body, according to Greeks
Latrine	A medieval toilet
Miasma	Foul-smelling air
Midden	A pit for collecting waste
Monastery	A religious building run by monks
Outskirts	Places around the outside of a city or town
Parish	A small area with it's own church
Pottage	A vegetable stew
Pathogen	Bacteria/virus causing disease
Peasants	A farm labourer with low social status
Small Beer	A weak beer
Wattle and Daub	Sticks and mud
Widespread	Everywhere

The People's Health: **Early Modern Britain, 1500-1750**

6 Key Features of Early Modern Society

Early Modern England was largely similar to Medieval England although change was gradually beginning

The **population** grew at a rapid rate, rising to 6 million in 1750. Nevertheless, most people continued to live in the countryside.

Trade expanded to America and India, bringing new products like sugar and tobacco.

Although monarchs still had a lot of power, parliament became far more important. Only 3% could vote though.

Although religion remained dominant, people in the early modern period began to search for a scientific way of understanding the world, aided by new inventions such as the microscope.

The printing press was invented in the late fifteenth century. This allowed books to be made quickly and cheaply and ideas spread more quickly.

7 Changing living conditions in the Early Modern period

Living conditions improved for some but for most they stayed largely the same

The rich could afford new developments

- ✓ The rich could afford a variety of foods, including imports such as **coffee**, **sugar**, and **tobacco**
- ✓ Houses were made out of stone or brick and were heated by **coal** fires, creating **pollution**
- ✓ The rich paid for fresh water to be **piped** into their homes
- ✓ The first **flushing toilet** was invented in 1596 and the very rich had then in their homes

The lives of the poor remained largely the same

- × The **diet** of the poor was unchanged and **famine** was still a danger
- × Most people continued to get water from **conduits** and **water sellers**
- × The poor still used **cesspits** to store their waste. Every year or two, **scavengers** cleared the **cesspits** which over flowed as the population rose

The People's Health: **Early Modern Britain, 1500-1750**

8 Responses to the Plague

The Plague was feared throughout this period. Responses were largely ineffective but national government got more and more involved

The **Plague** - the same disease as the **Black Death** - returned to England roughly every 20 years

The last outbreak in 1665 (the Great Plague) killed 15% of London's population

There was still no understanding of the real causes, with God and miasma blamed instead

For the first time, the national government began to take action

1518 Henry VIII issued a **proclamation** that ordered houses infected with plague to be identified and **isolated.** Those leaving **isolation** had to carry a white stick.

1578 Elizabeth I issued **Plague Orders**. These 17 rules included killing cats and dogs, shutting up infected houses, and burning the clothes of victims

1604 The **Plague Act** introduced harsh punishments for breaking **isolation**. Plague victims found outside could be hanged.

Local governments continued to combat the spread of disease

In 1550 York posted **watchmen** to stop plague victims entering the city.

In the 1600s many towns built **pest houses** to house the plague victims away from the city

9 Local government

Local government continued to play a role improving public health

In **York**, for example, city **aldermen** introduced the following rules:

Pigs were not allowed to wander the streets

Fines for throwing human waste into the street

No one could build a **privy** over the main city stream

10 National government and the Gin Craze

The problems caused by drunkenness forced the government's role to expand

By the 1720s, cheap gin was causing **social** and **health** problems

✗ **1729 1736 1743**

The early **Gin Acts** tried to control gin drinking but were ineffective

✓ **1751**

The 1751 act was successful because it introduced harsh **punishments** for illegal gin selling, including:

- Whipping
- **Transportation** to Australia

Key Vocabulary

Aldermen	Local government officials
Cesspit	A pit for collecting human waste
Famine	A period of hunger caused by a lack of food
Flushing toilet	A toilet that uses water to get rid of human waste
Gin	A strong alcoholic spirit
Gin Act	A law designed to reduce gin drinking
Isolated	Cut off from the rest of the population
Isolation	Being cut off from the rest of the population
Parliament	A part of the government that is elected
Pest houses	Houses for isolated plague victims
Privy	A toilet
Proclamation	A government order
Scavengers	People whose job it was to clear the cesspits
Transportation	Punishment by being sent to Australia
Watchmen	Local officials who patrolled the streets at night
Water sellers	People who carried water around and sold it

The People's Health: **Industrial Britain, 1750-1900**

11 Key Features of Industrial Society

Industrial England was transformed by the Industrial Revolution and was unrecognisable to previous periods.

INDUSTRIALISATION

- Britain was transformed from an **agricultural** to an **industrial** country
- **Steam engines** were used to power vast factories.

URBANISATION

- Britain's **population** skyrocketed from **21 million** in **1850** to **37 million** in **1900**.
- Huge numbers moved to booming and overcrowded cities such as **Manchester** and **Leeds**

POLITICAL CHANGE

- There was a **class divide** between the rich and the working class
- The government followed **laissez-faire** policies
- Working men won the **right to vote** in the 1880s

SCIENTIFIC ADVANCES

- New **scientific thinking**, like Darwin's theory of evolution, challenged religious ideas
- There were rapid advances in medical knowledge, such as Louis Pasteur's **germ theory**

12 Changing living conditions in the Industrial period

Rapid industrialisation and urbanisation led to horrific living conditions that were worse for the working class

HOUSING

- The poor lived in **slum housing** in **overcrowded** industrial cities
- Cramped **lodging houses** or **back-to-back** houses were common

FOOD

- The urban poor had a terrible diet, living on potatoes, bread and butter
- There was no **tinned food** or **refrigeration** and food was often **adulterated**

WATER

- **Water companies** controlled access to water and charged high prices
- In poor areas, whole streets shared one pump
- Water was pumped from rivers which were **contaminated** with human and industrial waste

WASTE

- The poor continued to share **privies** with their neighbours
- Sewage was collected into **cesspits** which **contaminated** nearby water supplies
- Most richer families now had **flushing toilets** that further **contaminated** rivers

The People's Health: **Industrial Britain, 1750-1900**

13 Cholera

Unsanitary living conditions and limited medical knowledge caused deadly and repeated cholera epidemics in the 19th Century

Cholera arrived in England in 1831. There were epidemics in:

1831 1848 1854 1866

Cholera epidemics would repeat in later years, killing tens of thousands of people.

The cholera bacteria was carried in contaminated drinking water, although this was not widely understood. Instead, inaccurate ideas about the causes spread:

Most people believed in **miasma** theory: the idea that **cholera** was caused by bad-smelling air

Many still believed that disease was a punishment from God

Some doctors believed cholera was **contagious** and could be passed on by touch

Attempts to prevent cholera became more effective as understanding of the disease improved and the government took action

The 1846 **Cholera Bill** instructed residents to connect their homes to **sewers** in order to reduce **miasma**. However, this only increased the flow of waste into rivers, spreading **cholera** further.

1846

During the 1854 **epidemic**, **John Snow** proved that cholera was carried by **contaminated** water and could be prevented by changing the water supply. However, his conclusions were largely ignored.

1854

1858

Following the **Great Stink of 1858**, **Parliament** granted **£3 million** to **Joseph Bazalgette** to build **1300 miles** of sewers across London. The sewers allowed waste to be taken out on the tide.

14 Public Health reforms in the 19th Century

Public health improved greatly throughout the 19th century as the government moved away from a laissez-faire attitude.

For the first time, the government introduced public health acts to improve sanitation

1848 The **1848 Public Health Act** *allowed* local authorities to set up **Boards of Health** in order to build sewers and provide clean water. However, impact was limited because this was not **compulsory**.

1875 The **1875 Public Health Act** *forced* local authorities to take responsibility for sewers and water supply.

The government abandoned laissez-faire in the 19th Century because:

Edwin Chadwick put pressure on the government to act by publishing shocking research into public health in ***The Sanitary Condition of the Labouring Population*** in 1842

In 1861, **Louis Pasteur** published his **germ theory**, confirming that **bacteria** - and not **miasma** - spread disease

By the 1880s, all working-men had won the **right to vote**. The government now had to listen to the concerns of the poor.

Key Vocabulary

Adulterated	Make food / drink cheaper and less healthy by adding another substance
Back-to-back houses	Slum housing where houses are built close together without gardens
Boards of Health	Local government organisations responsible
Compulsory	Something you have to do, not optional
Contagious	Describing a disease that can be passed from person to person
Contaminated	Dirty, containing pathogens
Epidemic	A widespread occurrence of a disease
Germ Theory	The idea that bacteria causes disease
Industrialisation	More people working in factories
Laissez-faire	Government not involved in people's lives
Lodging houses	Houses that are divided up and rooms rent to different families
Privies	Shared outside toilets
Sanitation	Cleanliness
Urbanisation	More people living in towns and cities

The People's Health: **Britain since 1900**

16 Changing living conditions in the 20th Century

In the 20th Century, Britain underwent dramatic economic, political, social and cultural changes

	In 1900...	In 2000...
Economic change	Most people worked with their hands, such as **coal miners**	Most people worked in **'service industries'** such as **tourism**
	New technology, such as cars and radio, boosted the economy	Technology such as the Internet, and air travel transformed the economy
Political change	In 1900...	In 2000...
	Working **men** over the age of 21 had the **right to vote**	All **men** and **women** over 18 had the **right to vote**
	The government began to realise it had to do something to look after the poor	Governments expanded the **welfare state**, e.g. the **NHS** and **National Insurance**
Social change	In 1900...	In 2000...
	About **37 million** people lived in Britain	The population expanded **to 58 million**
	Most people were **working-class** and worked long hours for low pay	Britain had a larger **middle-class** who had more comfortable lives
Cultural change	In 1900...	In 2000...
	Most people believed in God and went to **Church**	Most people trusted **science**, not **religion**
	People played football or worked their **allotment** in their spare time	People had more money to spend on **leisure**, including watching TV and gaming

Living conditions significantly improved in the twentieth century but new challenges to public health emerged.

HOUSING

- The **1919 Housing Act** ordered local councils to build **council houses** with running water, indoor toilets, and gardens
- After **1945**, **New Towns** were built to solve the problem of **overcrowding**
- The **'Right-to-buy'** scheme in the 1980s led to a shortage of **council housing**

FOOD

- New technology such as **refrigeration** and **canning** made food cheaper
- New **supermarkets** increased the variety of food available to British families
- **Fast food** consumption increased

AIR QUALITY

- Coal smoke from homes and factories produced thick **smog** in large cities
- Increased car ownership added to air pollution

INACTIVITY

- Increased car ownership led to an increase in inactivity in the late 20th Century
- New forms of leisure such as TV led to an obesity crisis

The People's Health: **Britain since 1900**

17 Response to Spanish Flu

Government response to the Spanish Flu in 1918-1919 was slow and ineffective

- **The Spanish Flu was spread by soldiers returning from the First World War and killed over 50 million people worldwide**
- **In Britain, the death rate was so high that wood for coffins ran out and mass graves had to be used**
- **Occupied by the war, the government response was slow:**

- **The government did not issue advice until late 1918 when it was too late**
- **Important decisions such as closing schools were left to local authorities**
- **A silent film, Dr Wise on Influenza, was released that explained precautions such as making face masks but not enough copies were made.**

18 Response to AIDS

The government response to the AIDS epidemic improved as the 1980s progressed

AIDS is a condition caused by the **HIV virus** that attacks the body's immune system. It can be spread via:

- Unprotected sexual intercourse
- Sharing **hypodermic needles**
- Pregnancy (from mother to baby)

- In the early 1980s, the **AIDS** epidemic caused panic and prejudice
  - ✗ Newspapers called **AIDS** the 'Gay Plague' and blamed it on gay men and drug users
  - ✗ Government advice wrongly suggested that AIDS could be spread through touch, adding to panic
- By the later 1980s, the government response improved
  - ✓ An information leaflet called 'Don't die of ignorance' was sent to every household
  - ✓ Hospitals provided free testing for the **HIV virus**
  - ✓ In 1987 **Princess Diana** was photographed shaking hands with **AIDS** patients, calming public fears

19 Government involvement in Public Health

During the 20th Century, the government became increasingly involved in improving public health in Britain

The NHS

- Introduced in **1948**, the **NHS** provided free medical care '**from cradle to grave**' including:
  - Hospital care
  - **Prescriptions**
  - Dental treatment (until 1952)
  - GP visits

Pollution controls

- In **1956** Parliament introduced the **Clean Air Act** to control pollution

Anti-smoking

- The government has taken steps to reduce smoking, such as

1964 TV Adverts for cigarettes banned

2007 Smoking banned in all public places

2016 Blank packaging introduced

Healthy lifestyles

- Government campaigns encouraged **healthier lifestyles**, such as:
  - The Five-a-Day campaign
  - The NHS Couch to 5k programme

Key Vocabulary

Council Housing	Housing built by local government and rented out
From cradle to grave	Throughout your entire life
Hypodermic needle	A syringe often used by drug users
National Insurance	A government scheme providing unemployment benefits
Middle Class	Wealthier people who worked in offices, e.g. lawyers
Prescriptions	Medicines
Princess Diana	Prince Charles' wife, 1981-1992
Right-to-buy	1980s government policy to sell council housing
Service industries	Jobs where people provided services, such as tourism or catering
Smog	Pollution caused by smoke in the air
Welfare state	Government programmes that look after the people
Working Class	Poorer people who worked with their hands, e.g. coal miners

Year 10 Term 1 – The Living World – Page 1 – Ecosystems and Biomes

Key words

- **Biodiversity:** The variety of life in the world or a particular habitat.
- **Commercial farming:** to sell produce for a profit to retailers (shops) or food processing companies.
- **Debt reduction:** Countries are relieved of some of their debt in return for protecting their rainforests.
- **Deforestation:** The chopping down and removal of trees to clear an area of forest.
- **Ecotourism:** Responsible travel to natural areas that conserves (take care of) the environment, sustains the wellbeing of the local people, and may involve education. It is usually carried out in small groups and has minimal impact on the local ecosystem.
- **Selective logging:** The cutting out of trees which are mature or inferior, to encourage the growth of the remaining trees in a forest or wood.
- **Soil erosion:** Removal of topsoil faster than it can be replaced, due to natural (water and wind action), animal, and human activity. Topsoil is the top layer of soil and is the most fertile because it contains the most organic, nutrient-rich materials.
- **Subsistence farming:** A type of agriculture producing food and materials for the benefit only of the farmer and his family.
- **Sustainability:** Actions and forms of progress that meet the needs of the present without reducing the ability of future generations to meet their needs.
- **Appropriate technology:** (Also called **Intermediate technology**) Technology that is suited to the needs, skills, knowledge and wealth of local people in the environment in which they live.
- **Desertification:** The process by which land becomes drier and degraded (break down), as a result of climate change or human activities, or both.
- **Over-cultivation:** Exhausting the soil by over-cropping the land.
- **Overgrazing:** Grazing too many livestock (farm animals) for too long on the land, so it is unable to recover its vegetation.
- **Abiotic** Relating to non-living things.
- **Biotic** Relating to living things.
- **Biome** Large scale ecosystem
- **Consumer** Creature that eats animals and/or plant matter.
- **Decomposer** An organism such as a bacterium or fungus, that breaks down dead tissue, which is then recycled to the environment.
- **Ecosystem** A community of plants and animals that interact (depend on) with each other and their physical environment.
- **Food chain** The connections between different organisms (plants and animals) that rely on one another as their source of food.
- **Food web** A complex hierarchy (order) of plants and animals relying on each other for food.
- **Nutrient cycling** A set of processes whereby organisms extract minerals necessary for growth from soil or water, before passing them on through the food chain - and ultimately back to the soil and water.
- **Global ecosystem** Very large ecological areas on the earth's surface (or biomes), with fauna and flora (animals and plants) adapting to their environment. Examples include tropical rainforest and hot desert.
- **Producer** An organism or plant that is able to absorb energy from the sun through photosynthesis.
- **Leaching** Where nutrients are removed from the soil by heavy rain

KPI 1 – To define what an ecosystem is and know their key components and that they exist at a range of scales

- A range of ecosystems are spread across the world, each with distinctive (*different*) interacting characteristics and components (parts). They range from small (eg a freshwater pond) to global (eg the desert biome).
- An **ecosystem** is a natural environment and includes the **flora** (*plants*) and **fauna** (*animals*) that live and interact within that environment. Flora, fauna and **bacteria** are the **biotic** or living components of the ecosystem.
- Ecosystems are dependent on the following **abiotic** or non-living components: climate - the temperature and amount of rainfall are very important in determining which species can survive in the ecosystem, soil - the soil type is important as this provides nutrients that will support different plants water - the amount of water available in an ecosystem will determine what plants and animals can be supported. The biotic parts of the ecosystem have a complex relationship with the abiotic components - changing one will lead to a change in the other.

Interdependence in ecosystems

- **Food Chains**: A food chain refers to the order of events in an ecosystem, where one living organism eats another organism, and later that organism is consumed by another larger organism.
- **Food Webs**: A food web consists of all the food chains in a single ecosystem

KPI 2 To be able to explain how changes to a small scale ecosystem can have a knock on effect on its features

Examples of small scale ecosystems include ponds and hedgerows

In a hedgerow ecosystem a food chain might look like:

Ladybird ⟹ Sparrow ⟹ Sparrow hawk

A change in one part of an ecosystem can impact the rest of the food chain.

E.g. Hedgerow is removed ⟹ reduction in number of ladybirds due to loss of habitat ⟹ reduction in number of sparrows and thrushes as they have lost a source of food ⟹ reduction in number of sparrow hawks as less birds to hunt.

KPI 3 To describe and explain the distribution of global ecosystems

The distribution (*pattern*) of global ecosystems is influenced by a variety of factors, including climate, geography, and the interaction between biotic and abiotic elements.

Ecosystems can be broadly classified into major biomes, each characterized by distinct environmental conditions and dominant vegetation types.

Factors that impact features of biome include:

1. *Ocean currents:* If the ocean is cold then desert like conditions are formed as there is little evaporation. Certain ocean currents affect different areas of the world. The Gulf Stream brings warmer sea temperatures to the UK keeping the winters mild.
2. *Mountain ranges:* In the USA & Asia inland areas isolated from the sea suffer from low rainfall. This is because the warm moist winds blowing over the oceans lose their moisture when they are forced upwards. This land is called a **rain shadow.**
3. *Altitude:* Temperatures fall by about half a degree for every 100m increase in altitude and tough grasses replace trees on steep mountainsides
4. *Distribution of land and sea*: Oceans heat up and cool down much more slowly than land. This means that coastal locations tend to be cooler in summer and warmer in winter than places inland at the same latitude and altitude. Glasgow, for example, is at a similar latitude to Moscow, but is much milder in winter because it is nearer to the coast than Moscow.

Location of biomes:

- Deserts - found between 15 and 35 degrees north and south of the Equator where there is little rainfall
- Temperate Deciduous forests - found mainly in the mid latitudes where there are four distinct seasons
- Tropical Rainforests - located near the Equator between 10 degrees north and south. Know for high temperatures and heavy rainfall.

Year 10 Term 1 – The Living World – Page 2 - Tropical Rainforests

KPI 4 Describe and explain the physical characteristics of tropical rainforests

Climate:
- High temperatures and high humidity throughout the year.
- Average temperatures range between 25°C and 30°C.
- Annual rainfall exceeds 2,000 millimetres, with no distinct dry season.
- Rainfall is evenly distributed, resulting in a constant supply of water.

Vegetation:
- Dense and layered vegetation with multiple canopy levels.
- Emergent layer: Tallest trees, reaching heights of up to 60 meters.
- Canopy layer: Dense layer of tree branches and leaves, forming a continuous canopy.
- Understory layer: Smaller trees, shrubs, and ferns beneath the canopy.
- Forest floor: Sparse sunlight reaches the forest floor, limiting plant growth.

Biodiversity:
- High species diversity and abundance.
- Home to a wide variety of plants, animals, insects, and microorganisms.
- Many species are endemic, found only in specific rainforest regions.
- Examples of biodiversity include jaguars, toucans, orangutans, and a vast array of plant species.

Soils:
- Nutrient-poor soils due to rapid decomposition and leaching.
- Most nutrients are stored in living plants rather than the soil.
- The top layer of soil, called the humus layer, is rich in organic matter.

KPI 5 Describe how plants and animals have adapted to living in tropical rainforests

Plants:
- Buttress Roots: Large, shallow roots that provide stability to tall trees on the nutrient-poor soil. Help support the massive weight of trees in the dense (thick) forest.
- Drip Tips: Pointed, waxy leaves that allow water to run off quickly. Prevents the accumulation (building up) of water on the leaf surface, reducing the risk of fungal and bacterial growth.
- Lianas: Woody vines that climb tree trunks to reach sunlight in the canopy. Use the host tree for support and access to sunlight.
- Epiphytes: Plants that grow on other plants, particularly trees, without causing harm. Obtain nutrients and moisture from the air and rain .Examples include orchids, and ferns.
- Strangling Fig Trees: Begin as epiphytes in the canopy, sending roots downward. Roots grow around the host tree, gradually strangling it and taking over its space.

Animals:
- Arboreal Adaptations: Many animals live in the trees (arboreal habitat) and have adaptations to navigate this environment .Prehensile tails: Used for grasping branches, seen in animals like monkeys and tree-dwelling anteaters. Strong limbs and claws: Aid in climbing and grasping branches. Good depth perception and leaping abilities: Helps animals move quickly and accurately in the dense forest.
- Camouflage: Many animals have evolved colours and patterns that blend with the surroundings, making them difficult to spot. Examples include leaf insects, stick insects, and tree frogs.
- Canopy Feeding: Some animals, such as sloths and orangutans, have specialized adaptations to obtain food in the canopy. Long limbs or prehensile tails allow them to reach for leaves, fruits, and flowers.

KPI 6 To examine the causes of deforestation and evaluate the impacts of deforestation for a named case study

Case study: Malaysia – 67% rainforest but rate of deforestation increasing faster than any topical country in the world.

Causes of Deforestation:

Agriculture:
- Clearing forests for agriculture, particularly for commercial farming. Large-scale cultivation of crops like soybeans, palm oil, and cattle ranching contribute to deforestation, especially in tropical regions.
- **Example:** In Malaysia plantation owners receive a 10-year tax incentive (*Paying reduced taxes)* if they grow palm oil.

Logging:
- The extraction of timber for commercial purposes, including the production of furniture, paper, and building materials. Clear felling now been replaced by selective logging.

Infrastructure Development:
- Construction of roads, highways, dams, and urban areas often requires the clearing of forests. Infrastructure projects aimed at facilitating economic growth can result in significant deforestation.
- **Example:** Bakun Dam was built in Malaysia and flooded 700km2 of farmland

Mining:
- Mining activities, particularly for minerals such as gold, coal, and iron ore, can result in the destruction of large forest areas. Clearing land for mining operations and associated infrastructure can have severe environmental impacts.
- **Example:** In Malaysia tin mining and smelting has caused forest loss.

Impacts of Deforestation:
- Economic gains – job creation, tax revenue, cheap HEP, able to sell valuable minerals
- Economic losses – rainforest tourism could decrease.
- Environmental losses - Rising temperatures impact farming, reduces biodiversity (*range of plants and animals),* soil erosion, Impacts local climate – reduces cooling effect of trees and impacts global climate – carbon store lost

KPI 7 To understand the importance of the tropical rainforest and ways in which it can manage effectively and sustainably

Sustainable Management Approaches:

Sustainable use of the rainforest	What it is?	Positives	Negatives
Selective logging and replanting	Only cutting down certain trees e.g. tropical hardwood such as teak Replanting trees e.g. Andrex replants 3 trees for every pack of toilet roll	Reduces rate of deforestation, Allows carbon to be stored in rainforest	Deforestation still happening Replanting takes time – hardwood can take 100 years to regrow
Conservation and education	Educate people on how to use the rainforest in a sustainable manner	Prevents large scale deforestation Helps preserve rainforest for future generations	Takes time and money to set up. Can be difficult to persuade people to change tactics
Ecotourism	Tourists who aim to leave no carbon footprint from their holiday. Attempt to avoid any activities/accommodation that causes damage to the area.	Lowers carbon footprint causing less damage to the environment	Costly Small scale – not many people take part
International agreements about the use of tropical hardwoods	Countries agree to only cut down certain numbers of trees	Reduces rate of deforestation Still allows countries to earn money from deforestation	Requires countries to agree Difficult to enforce – who will punish the countries who do not follow the agreement
Debt reduction	Countries cancel debt for poor countries	Reduces the need for deforestation	Local people may still engage in deforestation to earn a living

Year 10 Term 2 – The Changing Economic World – Page 1 – The Development Gap

Key words

- **Birth rate** The number of births in a year per 1000 of the total population.
- **Commonwealth** The Commonwealth is a voluntary association (group) of 53 independent and equal sovereign states, which were mostly territories of the former British Empire.
- **Death rate** The number of deaths in a year per 1000 of the total population.
- **De-industrialisation** The decline of a country's traditional manufacturing industry due to exhaustion (running out) of raw materials, loss of markets and competition from NEEs.
- **Development gap** The difference in standards of living and wellbeing between the world's richest and poorest countries (between HICs and LICs).
- Fairtrade When producers in LICs are given a better price for the goods they produce. Often this is from farm products like cocoa, coffee or cotton. The better price improves income and reduces exploitation (misuse).
- **Globalisation** The process which has created a more connected world, with increases in the movements of goods (trade) and people (migration and tourism) worldwide
- **Human Development Index (HDI)** A method of measuring development in which GDP per capita, life expectancy and adult literacy are combined to give an overview.
- **Infant mortality** The average number of deaths of infants under 1 year of age, per 1000 live births, per year.
- **Information technologies** Computer, internet, mobile phone and satellite technologies
- **Intermediate technology** The simple, easily learned and maintained technology used in a range of economic activities serving local needs in LICs.
- **International aid** Money, goods and services given by the government of one country or a multiple groups such as the World Bank or International Monetary Fund to help the quality of life and economy of another country.
- **Microfinance loans** Very small loans which are given to people in the LICs to help them start a small business.
- **North-south divide** Economic and cultural differences between Southern England and Northern England
- **Post-industrial economy** The economy of many economically developed countries where most employment is now in service industries.
- **Science and business parks** Business Parks are purpose built areas of offices and warehouses, often at the edge of a city and on a main road. Science parks are often located near university sites, and high-tech industries are established. Scientific research and commercial (sales) development may be carried out in co-operation with the university.

KPI 1 What is development?

Development is the progress of a country in terms of economic growth, the use of technology and human welfare.

What are the types of development?

- *Economic Development* - This is progress in economic growth through levels of industrialisation and use of technology.
- *Social Development* - This is an improvement in people's standard of living. For example, clean water and electricity.
- *Environmental Development* -This involves advances in the management and protection of the environment.

KPI2 Measuring development

These are used to compare and understand a country's level of development

Economic indicators examples:

- Employment type The proportion of the population working in primary (extracting raw materials), secondary (manufacturing), tertiary(services) and quaternary (research and design) industries
- Gross Domestic Product per capita This is the total value of goods and services produced in a country per person, per year.
- Gross National Income per capita An average of gross national income per person, per year in US dollars

Social indicators examples:

- Infant mortality The number of children who die before reaching 1 per 1000 babies born.
- Literacy rate The percentage of population over the age of 15 who can read and write.
- Life expectancy The average lifespan of someone born in that country

Mixed indicators:

- Human Development Index (HDI) A number that uses life expectancy, education level and income per person.

KPI3 Variations in the level of development

- *Low Income Countries (LICs)* Poorest countries in the world. GNI per capita is low and most citizens have a low standard of living.
- *Newly Emerging Economies (NEEs)* These countries are getting richer as their economy is progressing from the primary industry to the secondary industry. Greater exports leads to better wages.
- *High Income Countries (HICs)* These countries are wealthy with a high GNI per capita and standards of living. These countries can spend money on services.

KPI4 - Causes of uneven development

Development is globally uneven with most HICs located in Europe, North America and Oceania. Most NEEs are in Asia and South America, whilst most LICs are in Africa.

Physical factors affecting uneven development

- Natural Resources; fuel sources such as oil, minerals and metals for fuel, availability for timber, access to safe water.
- Natural Hazards; risk of tectonic hazards, benefits from volcanic material, frequent hazards undermines redevelopment.
- Climate; reliability of rainfall to benefit farming, extreme climates limit industry and affects health, climate can attract tourists
- Location/Terrain; landlocked countries may find trade difficulties, mountainous terrain makes farming difficult.

Human factors affecting uneven development

- Aid: can help some countries develop key projects for infrastructure faster. Can improve services such as schools, hospitals and roads. Too much reliance might stop other trade links becoming established.
- Trade: Countries that export more than they import have a trade surplus. This can improve the national economy. Trading goods and services is more profitable than raw materials.
- Education: Education creates a skilled workforce meaning more goods and services are produced. Educated people earn more money, meaning they also pay more taxes. This money can help develop the country in the future.
- Health: Lack of clean water and poor healthcare means a large number of people suffer from diseases. People who are ill cannot work so there is little contribution to the economy. More money on healthcare means less spent on development.
- Politics: Corruption in local and national governments. The stability of the government can affect the country's ability to trade. Ability of the country to invest into services and infrastructure.
- History: Colonialism has helped Europe develop, but slowed down development in many other countries. Countries that went through industrialisation a while ago, have now develop further.

KPI 5 Consequences of Uneven Development

Levels of development are different in different countries. This uneven development has consequences for countries, especially in wealth, health and migration.

- Wealth People in more developed countries have higher incomes than less developed countries.
- Health Better healthcare means that people in more developed countries live longer than those in less developed countries.
- Migration If nearby countries have higher levels of development or are secure, people will move to seek better opportunities and standard of living.

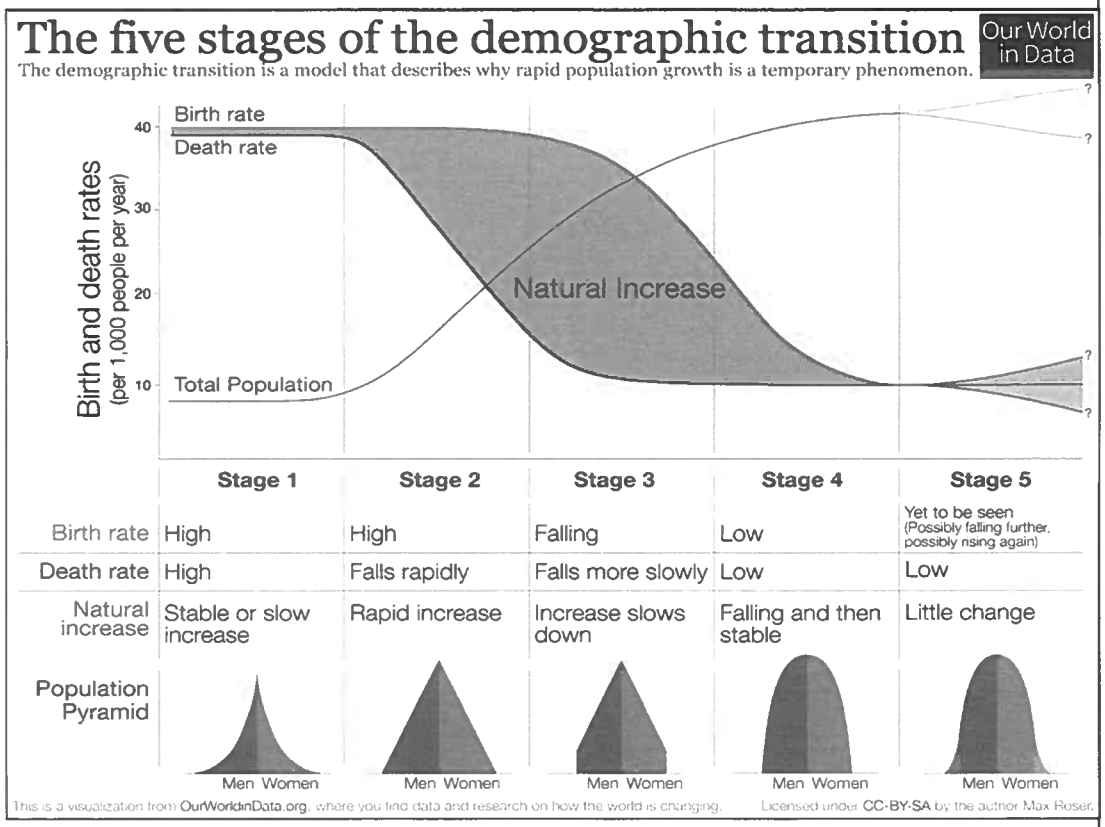
Year 10 Term 2 – The Changing Economic World – Page 2 – The Development Gap

KPI 6 The Demographic Transition Model

The demographic transition model (DTM) shows population change over time. It studies how birth rate and death rate affect the total population of a country. It can show change over time as a country develops.

Currently the following places fit into each stage of the DTM@

- Stage 1: Amazonian Tribes
- Stage 2: LICs such as Sierra Leone
- Stage 3: NEEs such as India
- Stage 4: HICs such as the UK
- Stage 5: Some HICs such as Japan, Germany



KPI 7 Reducing the Global Development Gap

Microfinance Loans

This involves people in LICs receiving smalls loans from traditional banks.

+ Loans enable people to begin their own businesses
- Its not clear they can reduce poverty at a large scale.

Foreign-direct investment

This is when one country buys property or infrastructure in another country.

+ Leads to better access to finance, technology & expertise.
- Investment can come with strings attached that country's will need to comply with.

Aid

This is given by one country to another as money or resources.

+ Improve literacy rates, building dams, improving agriculture.
- Can be wasted by corrupt governments or they can become too reliant on aid.

Fair trade

This is a movement where farmers get a fair price for the goods produced.

+ Paid fairly so they can develop schools & health centres.
-Only a tiny proportion of the extra money reaches producers.

Technology

Includes tools, machines and affordable equipment that improve quality of life.

+ Renewable energy is less expensive and polluting.
- Requires initial investment and skills in operating technology

Debt Relief

This is when a country's debt is cancelled or interest rates are lowered.

+ Means more money can be spent on development.
- Locals might not always get a say. Some aid can be tied under condition from donor country.

KPI 8 Case Study: Reducing the Development Gap In through Tourism in The Gambia

Location and Background: Gambia is an LIC located on west coast of Africa. Location makes it an attractive place for visitors to explore the tropical blue seas, skies and palm filled sandy beaches in the winter.

Benefits of Tourism:

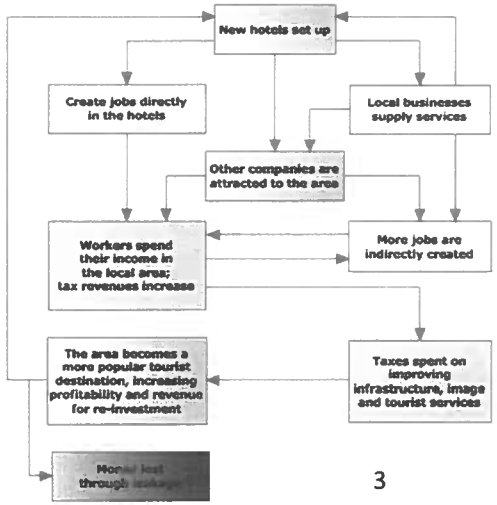
- In 20% of GDP comes from tourism
- Gambia has few natural resource deposits and relies heavily on remittances from workers overseas and tourist receipts
- 150,000 people visit per year

Development Problems:

- Tourists do not always spend much money outside their resorts.
- Ebola and terrorist threats have had a detrimental effect on tourist numbers
- Tourism is seasonal many a winter sun destination

How has tourism created the multiplier effect?

- Jobs from tourism have meant more money has been spent in shops and other businesses.
- Government has invested in infrastructure to support tourism.
- Poverty rates declines from 58% to 48%
- Health improvements



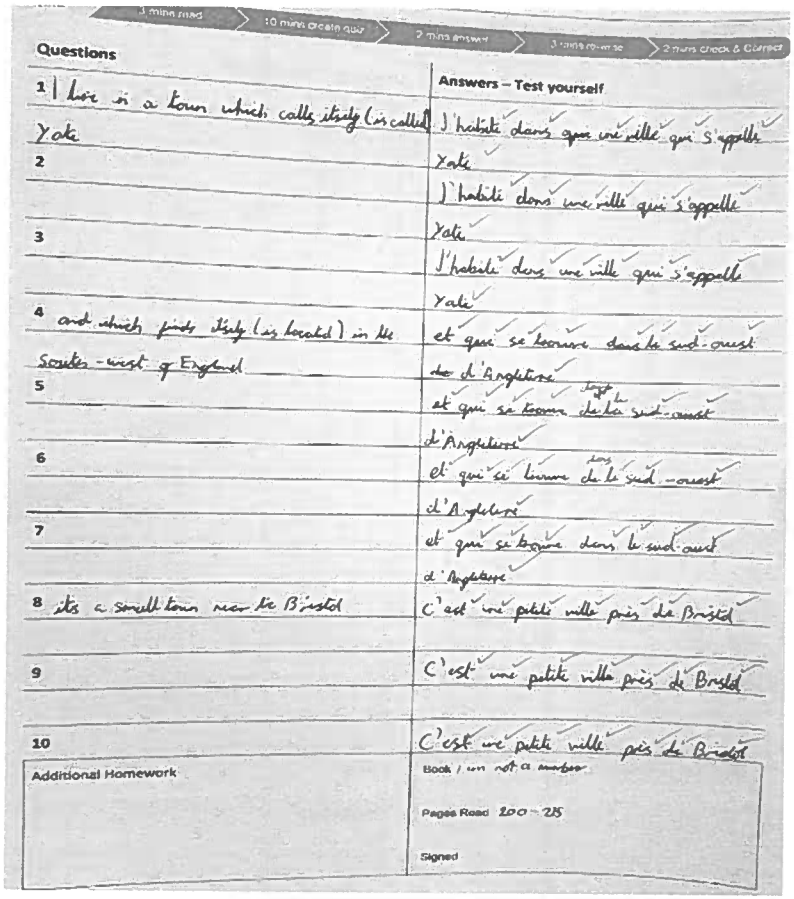
Year 10 Term 1 French – Tu as du temps a perdre?

1	Je télécharge des chansons et je partage des photos	I download songs and I share photos
2	Je passe beaucoup de temps devant un écran	I spend a lot of time in front of a screen
3	Je joue à des jeux en ligne sur mon portable	I play video games online on my phone
4	à mon avis, internet c'est inquiétant car il y a des vols d'identité	In my opinion the internet is worrying because there is identity theft
5	Parfois je lis un bon livre chez niu	Sometimes I read a good book at home
6	Le soir je fais de la cuisine	In the evening I do cooking
7	J'ai un cours de musique au collège	I have a music lesson at school
8	Je vais à la plage seul(e)	I go to the beach alone
9	Je ne suis pas membre de l'équipe de foot	I am not a member of the football team
10	Je regarde des émissions de télé-réalité quand j'ai du temps libre	I watch reality TV programmes when I have free time
11	Je préfère regarder un peu de tout sur une chaîne de YouTube	I prefer to watch a bit of everything on the YouTube channel
12	Je ne regarde jamais de films de science-fiction	I never watch science-fiction films
13	Ce matin je vais voir un spectacle avec mes copains	This morning, I am going to see a show with my friends
14	Le lendemain, nous allons louer un vélo	The next day, we are going to rent a bike
15	Le mois prochain je vais profiter du beau temps	Next month I am going to make the most of the good weather
16	Dimanche matin j'ai vendu une robe sur Vinted	Sunday morning I sold a dress on Vinted
17	Hier j'ai ri avec des amis	Yesterday I laughed with friends
18	La semaine dernière je suis resté(e) au foyer	Last week I stayed at home

MFL classroom language

Key Word	Definition	Example
Infinitive	In English it is always accompanied by the word **"TO"**. In French, it always ends in **ER/IR/RE** E.g: **to** play, **to** do, **to** go, **to** go out. jouer / faire / sortir	An opinion is always followed by an infinitive: J'aime jouer/ faire/ acheter I like **to play/to do/to buy**
Cognate	A word that is similar in spelling and meaning in two languages	This word is a cognate, what do you think it means? e.g. télé-réalité = TV reality
Connectives	A word that links two sentences or ideas together, e.g. et / cependant	What connective can we use to link these two sentences ? • j'aime l'histoire **(mais)** je déteste l'anglais • I like history **but** I hate English
Intensifiers	A word that strengthens the meaning of other expressions and shows emphasis, e.g. très/assez	Every time you write an adjective, make sure you use an intensifier before it. • je pense que le sport est très important

Example of what LSQs for MFL should look like:



Questions	Answers – Test yourself
1 I live in a town which calls itself (is called) Yate	J'habite dans une ville qui s'appelle Yate
2	Yate J'habite dans une ville qui s'appelle
3	Yate J'habite dans une ville qui s'appelle Yate
4 and which finds itself (is located) in the South-west of England	et qui se trouve dans le sud-ouest de l'Angleterre
5	et qui se trouve dans le sud-ouest d'Angleterre
6	et qui se trouve dans le sud-ouest d'Angleterre
7	et qui se trouve dans le sud-ouest d'Angleterre
8 its a small town near to Bristol	C'est une petite ville près de Bristol
9	C'est une petite ville près de Bristol
10	C'est une petite ville près de Bristol
Additional Homework	Book / un est a marker Pages Read 200 – 215 Signed

Year 10 Term 1 Spanish - DIVIÉRTETE + VIAJES

1	I live in Spain but I am from Argentina.	**Vivo** en España pero **soy** de Argentina.
2	I spend three hours a day on my phone	**Paso** tres horas al día en el móvil
3	I tend to listen to music and send messages.	**Suelo escuchar** música y mandar mensajes.
4	I am a member of a tennis club and	**Soy** miembro de un club de tenis y
5	sometimes I do swimming on the weekend.	a veces **hago** natación los fines de semana.
6	When I was younger I used to play football and I used to do martial arts.	Cuando **era** más joven **jugaba** al fútbol y **hacía** artes marciales.
7	I no longer have time to play football.	**Ya no tengo** tiempo para jugar al fútbol.
8	This weekend I am going to go to the shopping centre	Este fin de semana **voy a ir** al centro comercial
9	and I am going to watch a sci-fi film there.	y **voy a ver** una película de ciencia ficción allí.
10	Three days ago I saw an adventure film and I liked it.	Hace tres días **vi** una película de aventura y **me gustó.**
11	In the future I would like to visit Canada	En el futuro **me gustaría visitar** Canadá
12	because it's snows and I like to go skiing	porque **nieva** y **me gusta hacer esquí.**
13	I would like to travel by plane because it is better than by boat.	**Me gustaría viajar** en avión porque es mejor que en barco.
14	If I go to Spain I am going to try a Spanish omelette.	Si **voy** a España **voy a probar** una tortilla española.
15	Last summer I went to France and I didn't like it	El verano pasado **fui** a Francia y no **me gustó**
16	because it rained every day.	porque **llovió** todos los días.
17	I stayed in a campsite far from the centre and	**Me quedé** en un camping lejos del centro y
18	the best thing was when we bought souvenirs in the market.	lo mejor **fue** cuando **compramos** recuerdos en el mercado.
19	In summer I tend to do horseriding in the countryside	En verano **suelo hacer** equitación en el campo
20	but this summer we are going to spend a week on the coast.	pero este verano **vamos a pasar** una semana en la costa.

Show off language

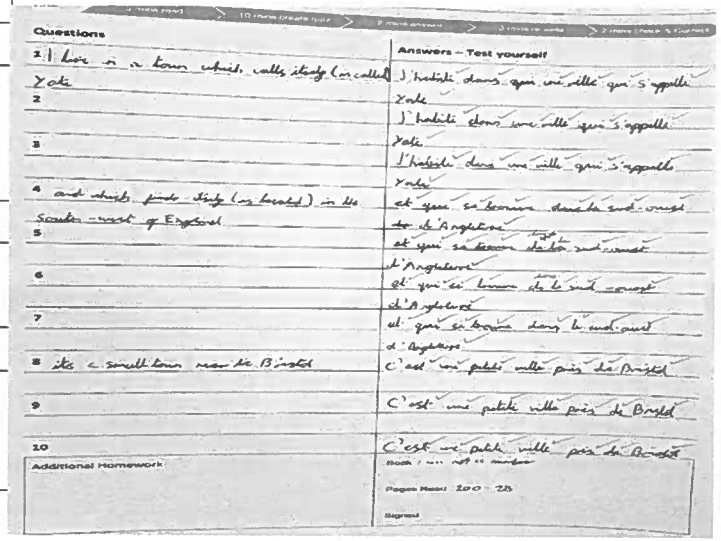
Opinions
desde mi punto de vista- from my point of view **debo admitir que**- I must admit that **aunque al mismo tiempo-** although at the same time **no aguanto hacerlo-** I can't stand doing it **quiero mucho hacerlo porque-** I really want to do it because **tengo ganas de (+ infinitive)-** I fancy (doing something) **lo peor de todo-** the worst thing of all **supongo que**- I suppose that
Subjunctive
es necesario que lo haga porque- it's necessary that I do it because **cuando termine mis exámenes-** when I finish my exams **cuando gane bastante dinero-** when I earn enough money **cuando sea mayor-** when I'm older
Si clauses + conditional
si tuviera tiempo- if I had time (I would…) **si fuera rica-** If I were rich (I would…) **si fuera posible**- If it were possible (I would…)
Past Tense
lo que más me gustó fue- what I liked the most was **me hubiera gustado (+ infinitive)-** I would have liked to
Idiomatic Language
me di cuenta de que- I realised that **a mí me da igual-** I don't mind **valdrá la pena-** it will be worth it

al fin y al cabo – at the end of the day

MFL key classroom language:

Key Word	Student-friendly definition	Example
Infinitive	In English it is always accompanied by the word **"TO"**. In Spanish, it always finishes in **"R" (-ar/-er/-ir)** E.g: **to** play, **to** do, **to** go, **to** visit. jugar/ hacer / ir / visitar	An opinion is always followed by an infinitive: Me gusta jugar/ hacer/ comprar I like **to play/to do/to buy** After suelo/solia, you always need an infinitive: suelo ver /jugar/descansar I tend **to watch/to play/to rest**
Cognate	A word that is similar in spelling and meaning in two languages,	This word is a cognate, what do you think it means? e.g. ciclismo = cycling
Connectives	A word that links two sentences or ideas together, e.g. y/por otro lado	What connective can we use to link these two sentences ? • Me gusta la historia **(pero)** odio el ingles • I like history **but** I hate English
Intensifiers	A word that strengthens the meaning of other expressions and shows emphasis, e.g. muy/bastante	Every time you write an adjective, make sure you use an intensifier before it. • Creo que las ciencias son **muy** interesantes • I think science is **very** interesting

Example of a French/Spanish LSQ:



Paper One – Christianity beliefs and teachings

Key Words			
Ascension	Jesus returning to be with God in heaven after the crucifixion	Omnipotent	God's nature as all-powerful
Atonement	Making things better after sinning, asking for forgiveness from God	Original Sin	The built-in tendency to do wrong which comes from Eve's disobedience
Benevolent	God's nature as all-loving	Resurrection	Jesus returning from the dead after he was crucified
Crucifixion	Jesus' execution by the Romans on the cross	Salvation	Being saved from sin and given eternal life in heaven by God
Incarnation	God becoming flesh in the form of Jesus Christ	Sin	Any thought or action which goes against God's will
Just	God's nature as fair	Trinity	God's nature as three-parts-in-one, the Father, Son and Holy Spirit

KPI1- To explain some of the qualities of God

Christianity is a monotheistic religion. "We believe in one God." They believe that God is perfect and that these qualities are proof of God's perfections.

- All powerful (omnipotent) because he created the world (Genesis). There is nothing God cannot do or achieve. "Nothing is impossible with God."

All loving – God sent Jesus to die on the cross so man's sins could be forgiven. This encourages Christians to love each other. "God so loved the world that he gave his one and only son."

- Judge – God (Jesus) will judge everyone on Judgement Day
- Eternal – God has no beginning and no end
- All-knowing (omniscient) God knows everything, which has happened, is happening and will happen.

KPI4- To describe the Genesis account of creation. The book of Genesis begins "In the beginning God created the heavens and the earth."

Day 1-2 Water covered earth
Day 3 Dry land and plants
Day 4 Sun, moon and stars
Day 5 Sea and flying creatures
Day 6 Land animals and Man
Day 7 God rested

KPI3- To investigate the problem of evil and suffering

Many people question God's **benevolence** when faced with evil and suffering.

Christians believe that a just God treats all people fairly, and they can trust God when things appear wrong.

The story of the '**fall**' shows Adam and Eve giving into temptation, free will to make a choice- 'the **original sin.**'

KPI2 To understand and analyse the concept of the oneness of God and the Trinity

The **doctrine** of the **Trinity** is the Christian belief that: There is One God, who is Father, Son, and Holy Spirit. The Trinity describe that there is only one God, each person of the Trinity is fully God and the persons of the Trinity are not the same.

God the Father: revealed by the Old Testament to be Creator, Lord, Father and Judge.
God the Son: who had lived on earth amongst human beings.
God the **Holy Spirit**: who filled them with new life and power.

KPI4- To explain different Christian beliefs about creation

Christians believe that God created the earth. One story about the creation of the world is found in **Genesis**. Many Christians believe that although it may not be scientifically accurate, this account contains religious truth. Some Christians believe that the account should not be read as an accurate account, but as a **myth.**

Design argument- **teleological** William Paley used this argument to explain the existence of God. Anything that has been designed needs a designer. There is evidence that the world has been designed. If the world has been designed then there must be a designer, this must be God.

The First Cause Argument/ **Cosmological** (Thomas Aquinas) If we look at things in the world, we see that they have a cause. Anything caused to exist must be caused to exist by something else. Everything has to have a beginning. The only possible first cause of the universe is God, therefore God must exist.

KPI5- To describe Christine belief in heaven and hell

- Christians believe that God is just and fair, and so cannot let evil go unpunished.
- Most believe in the idea of judgement after death, and that God will treat people in the afterlife according to how they lived their life on earth.
- Some believe that heaven is a physical place, where their body goes after death. Others believe that it is their soul that lives on, and that heaven is a state of being united with God.
- Christians have very different ideas about hell. Some Christians believe that hell is a place of suffering, and of separation from God. Others (perhaps most) believe that hell is a spiritual state of being separated from God for eternity.

Year 10 Paper One – Christianity beliefs and teachings

KPI 6
Incarnation and Crucifixion

Crucifixion
- Jesus travelled to Jerusalem to preach and he was sentenced to death by Pontius Pilate
- Jesus was then nailed to a **cross** where he died.
- In his last moments Jesus was able to forgive those who were killing him showing Christians how important **forgiveness** is
- This event is remembered on Good Friday

"Forgive them father, they know not what they do" – Luke 23:34

Incarnation
- Christians believe that God was **incarnated** (born) in human form as **Jesus Christ**
- **Mary** was impregnated by the Holy Spirit and gave birth as a virgin – for Christians this is proof of Jesus' status as the son of God
- **Christmas** is the festival that celebrates the incarnation

"The word became flesh" – John 1:14

KPI7
Resurrection and Ascension

Resurrection
- After Jesus was dead and buried Christians believe he **rose from the dead** – this is the **resurrection**
- Early on the Sunday three women visited his tomb expecting to find his body but it was not there
- After his resurrection Jesus appeared to his disciples and told them to spread the word of him
- This event is celebrated on **Easter Sunday**

"He is risen" – Christians say this to each other on Easter Sunday

Ascension
- Forty days after he rose from the dead Jesus **ascended** (went up) into heaven

A belief in resurrection and ascension …
- Shows **life after death** is real
- Assures Christians they will rise again after death and live on in the afterlife
- Leads Christians to try and lead a **good life**

KPI8
Sin and Salvation

- Christians believe you are **judged** after you die (see Religion and Life) and how well or badly you have lived and treated others decides if you go to **heaven** or **hell**
- **Sin** is any action or thought that goes against God's will, Christians can look in the Bible for advice on what is a sin e.g. murder (you shall not kill) and adultery (cheating, you shall not commit adultery)
- God gave humans **free will** but they should use that freedom to make good choices and not sin
- **Salvation** is the idea that Jesus's crucifixion saves human beings from eternal damnation
- The death of Jesus made up for **original sin** – the idea that we were all damned by Eve's choice to disobey God – it allows us to atone for sins and reach eternal life in heaven

KPI9- Quotes to support

- The Nicene Creed states "Jesus will come again to judge the living and the dead."
- Genesis 1- "In the beginning God created the heavens and the earth. 2 Now the earth was formless and empty, darkness was over the surface of the deep, and the Spirit of God was hovering over the waters. And God said, "Let there be light," and there was light. 4 God saw that the light was good, and he separated the light from the darkness. 5 God called the light "day," and the darkness he called "night." And there was evening, and there was morning—the first day."
- Parable of the Rich man and Lazarus – "But Abraham replied, 'Son, remember that in your lifetime you received your good things, while Lazarus received bad things, but now he is comforted here and you are in agony."
- Parable of the sheep and goat- Truly I tell you, whatever you did for one of the least of these brothers and sisters of mine, you did for me.
- 41 "Then he will say to those on his left, 'Depart from me, you who are cursed, into the eternal fire prepared for the devil and his angels. 42 For I was hungry and you gave me nothing to eat, I was thirsty and you gave me nothing to drink"

Paper One – Christian worship and practices

Liturgical	Church service that follows a set order and structure.
Non liturgical	A service that doesn't have a set order or structure.
Informal	Type of non-liturgical worship that is spontaneous e.g. Quaker and charismatic Christian worship
Prayer	Speaking to God
Lords Prayer	Set prayer taught by Jesus aka the 'Our Father'
Sacraments	Christian rituals where believers receive God's grace (free gift of love)
Eucharist	Aka Holy Communion. Christian sacrament that uses bread and wine to re-enact the Last Supper and commemorate the death and resurrection of Christ.
Baptism	Baptism: Christian sacrament representing entrance into the Christian faith. Usually involves water
Transubstantiation	The belief that the bread and wine actually become the body and blood of Christ
Memorialism	Christ is not present, the Eucharist is carried out in remembrance of Jesus

KPI1:To understand what is meant by worship and different forms of worship.

•Worship is an act of showing **devotion** to God.
•This often involves praise, but in Christianity it also covers things such as asking for forgiveness and learning more about God.
• Worship can be formal or informal, in a group or done individually (private worship).
•Liturgical worship involves a set format for worship, it can contain **liturgies.**
•Non liturgical worship is where there is no set structure, or where worship may be spontaneous. Informal worship is worship is more relaxed it is sometimes **charismatic,** it can be help at any time.

KPI2: To investigate the nature of prayer and its significance.

•Christians describe prayer as a conversation with God. Prayer can be silent or said out loud. It can use set words, or a person's own words.
•There are many different kinds of prayer, including: adoration - praising God for his greatness - confession - owning up to sin and asking for God's forgiveness thanksgiving - thanking God for his many blessings, petition - asking God for something, - intercession - asking God to help others who need it,
Most Christians believe prayer deepens a person's faith. Praying can help the believer come to a greater understanding of God's purpose for their lives.

KPI3: To explore the sacrament of baptism and the different forms amongst the church.

•**Infant Baptism**-In some Christian denominations babies are baptised as a symbol of welcome and belonging to the family of the Church. In this ceremony water is sprinkled on the baby's head as a symbol of new life and of being washed clean from sin. Parents and godparents promise to bring the baby up in the Christian faith following Jesus's example.
•**Adult baptism-** In some denominations people are not baptised until they are old enough to make the promise to follow Jesus Christ for themselves. Christians try to follow Jesus's example. He was baptised as an adult.

KPI5- To apply key religious teachings to the topic of worship

Prayer: The Lord's prayer: Matthew 6:9-13 "Give us today our daily bread and forgive us"
Baptism- The Great Commission: Matthew 28:19 "Go and make disciples of all nations, baptising them in the name of the Father and of the Son and of the Holy Spirit."
Eucharist: 1 Corinthians 11:23-26 "This is my body, do this in remembrance of me, this cup is the new covenant, drink it in remembrance of me."

KPI4: To be able to understand the sacrament of Holy Communion and the different ways Christians celebrate communion.

•The **Eucharist**, which is also called the Holy Communion, Mass, the Lord's Supper or the Divine Liturgy, is a sacrament accepted by almost all Christians.
•The Eucharist is a **re-enactment** of the Last Supper, the final meal that Jesus Christ shared with his disciples before his arrest, and eventual crucifixion.
• Although all denominations recognise the importance of the Eucharist, they differ about its meaning. Roman Catholics believe that although the bread and wine physically remain the same, it is transformed beyond human comprehension into the body, blood soul and divinity of Jesus. This is called **Transubstantiation.**
In some churches (e.g. Roman Catholic) people come to the front to receive communion from the priest, usually in the form of a wafer and some alcoholic wine from a single cup In other churches (e.g. non-conformist) bread is usually set on a table alongside nonalcoholic wine in small cups and anyone who wishes to can take some.

Paper One – Christian worship and practices

Pilgrimage	A journey made to a holy site for religious reasons.
Christmas	Christian festival celebrating the incarnation of Jesus
Easter	Christian festival commemorating the death and resurrection of Christ
Food banks	The Trussell Trust is a Christian charity that provides emergency food to people in crisis
Street pastors	Christian volunteers who provide free help and support to people, especially those who are out on a Friday or Saturday night.
Mission	A vocation or calling to spread the teachings of Jesus. The Great Commission: Jesus instruction to his followers to go and spread his message "Go and make disciples of many nations"
Evangelism	Spreading the teachings of Jesus
Church growth	Church attendance is falling in the UK, but is increasing rapidly in places like Africa
Reconciliation	The worldwide Church has a mission to heal people's relationship with God and with one another.
Persecution	Christians in places like North Korea and Syria are being persecuted by being attacked, forced to pay extra taxes or forbidden from certain jobs

KPI9:
Many Christians are **evangelica**l, meaning they believe it is important to spread the 'good news' of Christianity with others so that they might be saved. **Missionary** work means an organised effort to spread Christianity. Christians have suffered **persecution** in the past. Just after Jesus had died, many people began joining the new religion that Jesus had started called Christianity. However, not everyone was happy with this new, rapidly growing religion. One of these people was the Roman Emperor Nero. Under his reign, Christians were persecuted for their beliefs. Many of Jesus' disciples were persecuted and died horrible deaths such as being crucified or boiled alive.
Tearfund are a Christian charity. They believe their duty is to follow the example of Jesus and help the poor and needy. They work in over 50 countries and provide short and long term aid.

KPI6- To describe the role and importance of pilgrimage.
•A **pilgrimage** is a journey made for areligious reason. The believer makes a physical journey but it is also a spiritual journey toward God. Pilgrims may visit the Holy Land, particularly Jerusalem, because it is where Jesus lived and died. Christians go on pilgrimage to grow closer to God and seek a cure for an illness.
The pilgrimage site of **Lourdes** is near the Pyrenees mountains in France. Every year, it is visited by millions of pilgrims, particularly Roman Catholics.
Iona: Scottish island where Christians of all denominations go to pray, read the Bible and meditate

KPI7: To investigate Christian festivals
Christmas is a Christian festival remembering the birth of Jesus. Here are some of the ways it is celebrated: the story of Jesus' birth (the nativity) is re-told by children through nativity plays, church services often including carol singing, Some Christians start Christmas day with a midnight communion service (mass), gifts might be given or received which reminds Christians of the gift of Jesus
Easter remembers the crucifixion and resurrection of Jesus. Holy week begins with palm Sunday, on Maundy Thursday, Jesus shared the last supper with his disciples. On good Friday Jesus was crucified by the Romans. The Bible says Jesus was innocent and that his death was a sacrifice for people's sins. Throughout the gospels, Jesus says that he will have to die but that his death will save many. Jesus was resurrected on Easter Sunday. Easter is celebrated by giving eggs which are a symbol of new life, Christians might attend church and share communion.

KPI8: The role of the church in the local community: Food Banks
The Trussell Trust: Founded in 1997 it provides emergency food help and support to people in the UK. Based on the parable of the sheep and goats to aim to end poverty and relieve hunger of people. Due to rising prices, cut in benefits, redundancy and other family issues people need help with food to survive. Food is donated by churches, supermarkets, schools and business and care professionals identify people in need and give vouchers so that they can get food to help them in the short term.
Street Pastors

The parable of the sheep and goats shows how Christians should help others and show agape. Street pastors started in 2003 in London with volunteers to work on the streets to patrol areas to provide a reassuring presence to people at night. The try to focus on responding to anti-social behaviour, drunkenness and fear of crime. They want to help people in practical ways working with the council and the police. They wear blue reflective uniforms to be seen so they can be spotted for people to come to them if they need help. They go out to listen to people, giving advice about where they can go, or to offer flip flops to girls whose shoes have broken or space blankets to help keep people warm. They do not actively go out to preach but work off the basis of the teachings of Jesus to offer help to people who need it.

Art Year 10 - Term 1 - Collections

Formal Elements

Line
A mark that connects two or more points. These can be straight, curved, short or long.

Tone
The lightness or darkness or something. For darker tones use a higher grade B pencil.

Colour
Colour is what you see when light reflects of something.

Texture
How something looks or feel e.g. fluffy, rough, smooth etc.
Visual Texture - implied sense of texture that the artist creates through the use of various artistic elements such as line , shading, and color.
Physical Texture - texture you can actually feel with your hand

Pattern
A symbol, shape or colour that repeats. Man-made patterns are designed by humans, natural patterns are formed by nature.

Shape/Form
Shape is 2D e.g. rectangles. Form is 3D e.g. cubes, spheres etc.

Colour Theory

Primary Colours
Colours that can't be mixed/ made from other colours e.g. red, yellow and blue.

Secondary Colours
Colours that can be made by mixing two primary colours.
Red + Blue = Purple
Yellow + Blue = Green
Yellow + Red = Orange

Tertiary Colours
Colours that can be made by mixing a primary and secondary colour together e.g. Blue + Green = Turquoise.

Complementary Colours
Colours that are opposite each other on the colour wheel.
Blue & Orange
Red & Green
Purple & Yellow

Analogue/ Harmonious Colours
Colours that are next to each other on the colour wheel e.g. Red, red-orange and orange.

Tints/ Shades
Tint - Adding white to a colour to make it lighter.
Shades - Adding black to a colour to make it darker.

Tips, Tools & Techniques

Grid-Method
A method of drawing to recreate, enlarge or reduce an image ensuring accurate proportions.

Mono-Printing
A form of printmaking that has lines or images that can only be made once.

Shading Techniques
Hatching, Cross-Hatching, Stippling and Scumbling.

Blender Stick
A paper stump that allows you to blend tones.

Acrylic Paint
A water-soluble paint which can be layered due to quicker drying time without muddying previously applied layers.

Thumbnail Designs
Small sketches outlining ideas in a simplistic way.

Fragmentation
The process of splitting an image into different sections.

Thumbnail Design
Small uncomplicated sketches which can be used to test out different ideas and compositions.

Keywords, Concepts & Artists

Proportion
The size and relation of objects to one another. Using the grid-method is one way of helping you draw using accurate proportions.

Composition
This is where you place objects on a page. You can explore different layouts such as close up, far away, busy, quiet, off centred, clustered.

Mixed Media
Artwork in which more than one material has been used.

Copy of Work
Copying the style and technique of an artist's work to enable you to understand the process of how it has been made.

Own Interpretation
Developing your own work by applying artist style or technique to your own ideas.

Refining Ideas
Annotating and evaluating experiments and as a result making decisions to improve work.

Painting Techniques	More Painting Techniques	More Keywords
Impasto Paint is laid on an area of the surface in very thick layers, usually thick enough that the brush or painting-knife strokes are visible. **Sgraffito** Scratching away paint while it's wet to expose the underpainting. It's especially useful when depicting scratches, hair, grasses and the like. You can use almost any pointed object for this – try rubber shaping tools or the end of a brush **Dry Brushing** This is a method of applying colour that only partially covers a previously dried layer of paint. Add very little paint to your brush and apply it with very quick, directional strokes. This method tends to work best when applying light paint over dark areas/dried paint and is useful for depicting rock and grass textures. **Wet-in-Wet** Start by brushing water (and only water) onto your paper. Then dip your brush in paint and spread it over the water wash. The paint will feather and diffuse like magic.	**Adding texture with Salt** When salt is sprinkled on a wet wash, it starts to gather the watercolour pigments and makes the coolest texture. The effect will vary depending on the size of the grains of salt and the wetness of the paper **Underpainting** An underpainting is essentially a monochrome wash that's used for the first layer of the painting. You'll add layers of transparent washes over the underpainting, which gives realistic and luminous effects	**Observational Drawing** Drawing something from real life in front of you. **Primary & Secondary Sources** Primary = real objects or your own photos that you have taken yourself Secondary = an image from the internet or books **Landscape** A piece that depicts a view of some sort e.g. mountains, the sea, fields, woodlands, buildings etc. **Portraiture** Drawing/ painting or photograph of someone **Still Life** A piece that depicts an object or group of objects.

Year 10 Photography—Unit 1 Term 1

AO1- Assessment objective 1 – Develop ideas through investigations, demonstrating critical understanding of sources.

Artist Research!!

Evidence can include:

Artist research, contextual research, analysis of artist artwork, thumbnail sketches showing composition.

Grading criteria for level 9:

Demonstrate independent critical investigation and in-depth understanding of sources to develop ideas convincingly.

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

Experimenting!!

Evidence can include:

Photoshoots, investigating different techniques, annotating of your contact sheet, post production editing.

Grading criteria for level 9:

Effectively apply a wide range of creative and technical skills, experimentation and innovation to develop and refine work

AO3-Record ideas, observations and Insights relevant to intentions as work progresses.

Annotations!!

Evidence can include:

Photoshoot plans, thumbnail sketches, storyboards, visual analysis of photography.

Grading criteria for level 9:

Record and use perceptive insights and observations with well-considered influences on ideas

Ao4-Present a personal and meaningful response that realises intentions and demonstrates understanding of visual language.

Final Response!!

Evidence can include:

A personal and purposeful response to an artist/ context. response should be informed by the study of artists/ techniques.

Grading criteria for level 9:

Demonstrate advanced use of visual language, technique, media and contexts to realise personal ideas

Photography techniques

Negative space- Puts the subject in the surroundings in dramatic ways that tell a story using blank space and emptiness.

Positive space- The object or focus of the photo.

Colour schemes

Warm colours: E.g. red, orange and yellow

Cool colours: E.g. Blue, grey and green

Complementary colours: Colours opposite each other on the colour wheel

Harmonious colours: Colours next to each other on the colour wheel

Neutral/ earthy tones: E.g. browns, creams and beige

Monochromatic: Only one colour with multiple tones

Camera settings

A-DEP Automatic Depth of Field

M Manual

AV Aperture – Priority

TV Shutter —Priority

P Programmed Automatic

Scene Intelligent Auto

No Flash

Filming

Night Portrait

Sports

Macro

Landscape

Portrait

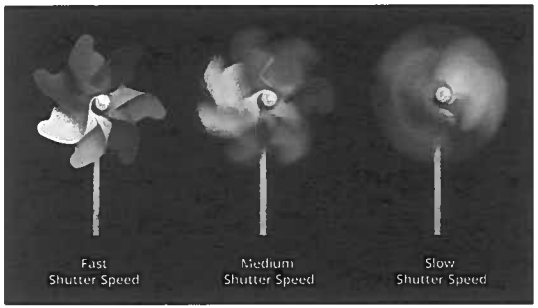
CA Creative Auto

Aperture:

- How open the lens is.
- To capture close up shots a wider lens is required.
- To capture detail in the distance a smaller lens setting is

Shutter Speed:

- How quickly the shutter opens and closes.
- Used for action and movement shots.
- The slower the setting the more blurred the photograph.



Vantage point:

- The position from which the photograph was taken. It is the point of view of the viewer of the photograph.

Frog eye view—ground level

Birds eye view—high angle and a wide view.

Low angle view—looking up at object.

Eye level view—looking straight at object.

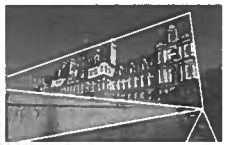
High angle view—looking down at object.

Composition:

- How objects are arranged in the frame/ photo.

Rule of thirds—Using a grid to off centre the focal point.

Symmetry and Balance—using mirroring or contrasting numerous small object against one bigger object.



Diagonals and Triangles—creating a sense of depth.

Leading Lines—to guide the viewers eye to the focal point and around the photo.

Negative Space—to frame the focal point.

Minimalism—'Less is more'. Simplistic colours and layout.

Frame within a Frame—creates depth and draws the eye into the photo.

GCSE Computer Science - -Y10 Term 1 Python Programming

Comment – Text within the code that is ignored by the computer. A Python comment is preceded by a #.

This is an example of a comment

Output – Processed information that is sent out from a computer

Python	Pseudocode
print("Hello World!")	OUTPUT "Hello World"
Hello World!	
print("Hello", "World!")	
Hello World!	
print("Hello"+"World!")	
HelloWorld!	
print("Hello\nWorld!")	
Hello	
World!	

Input – Data sent to a computer to be processed

print("Enter name")	OUTPUT "Enter name"
name=input()	name ← USERINPUT
print("Hello", name)	OUTPUT "Hello", name
print("Enter age")	OUTPUT "Enter age"
age=int(input())	age ← USERINPUT

Assignment - The allocation/setting apart and distributing of data values to variables/(numbers that change/things that change), constants, arrays/rows and other data structures so that the values can be stored.

- *Variable*– Value that can change during the running of a program. By convention we use lower case to identify variables (eg a=12)
- *Constant* – Value that remains unchanged for the duration of the program. By convention we use upper case letters to identify constants. (e.g. PI=3.141)

Data Types

Integer – Whole number	age = 12	age ← 12
Float (real) number – A number with a decimal point	height = 1.52	height ← 12
Character – A single letter, symbol or number	a = 'a'	a ← 'a'
String – multiple characters	name = "Bart"	name ← "Bart"
Boolean – Has two values: true of false.	a = True b = False	a ← True b ← False

Arithmetic Operators

Add	7 + 2 = 9	7 + 2
Subtract	7 – 2 = 5	7 - 2
Multiply	7 * 2 = 14	7 * 2
Divide	4 / 2 = 2	4 / 2
power	2 ** 3 = 8	2 ** 3
Integer division	7 // 2 = 3	7 DIV 2
Modulus (remainder)	7 % 2 = 1	7 MOD 2

Relational Operators – Allows the Comparison of values

Less than	<	<	7<2	-> False
Greater than	>	<	7 > 2	-> True
Equal to	==	==	7==2	-> False
Not equal to	!=	≠ or <>	7!=2	-> True
Less than or equal to	<=	≤	7<=2	-> False
Greater than or equal to	>=	≥	7>=2	-> True

Boolean Operators

AND	and	7 < 2 and 1 < 2	-> False
OR	or	7 < 2 or 1 < 2	-> False
NOT	not	not 7 < 2	-> True

Drama Y10 Blood Brothers

Blood Brothers plot

Russell's BB revolves around twin boys (Mickey and Edward) who are separated at birth and brought up in completely different environments in the city.

The play, set in the 1960s, is divided into two acts, with songs throughout.

Mickey is brought up with his seven older siblings by his struggling single mother, Mrs Johnstone. His twin brother, Edward, however is brought up as the only child of the wealthy Lyons family, who live nearby, after Mrs Lyons persuaded Mrs Johnstone to hand over one of her twins at birth.

Mickey and Edward don't meet each other until they're seven years old, but immediately become best friends and blood brothers. The bond continues when the boys are teenagers and both live in the countryside, despite them both being in love with Mickey's neighbour Linda.

However, as they get older, the huge difference in their backgrounds pulls them apart and eventually leads to their tragic deaths.

Written during a period of huge changes in society and politics, Blood Brothers draws the audience's attention to the detrimental effect that social inequality can have on people's lives.

Useful vocabulary: Contrast Multi-role Dramatic Irony Tragedy Dole Prejudice Manipulates Consequences Vulnerable Foreboding Foreshadow Judgemental Sympathy Stigmatised Monologue Prologue Dialogue Transitions Cyclical Cautionary

Background of the play

Born into a working class family, Russell grew up on a council estate in Liverpool. His father worked very hard in a variety of jobs including mining and other laborious occupations. His mother worked as a nurse. This echoes the situations of Mickey and Linda, struggling to get by during a difficult period. His plays largely focus on the problems faced by working class people. He writes a lot about social divides and how someone's class can affect who they are and the opportunities they are given.

Liverpool depended heavily on traditional industries, so it was badly hit by the industrial decline in the late twentieth century. The city's working-class areas were very poor and things went from bad to worse. Margaret Thatcher was Prime Minister at the time and was arguably to blame for some job losses.

There was a large gap between working and middle class in Britain, even before the industrial decline. The Johnstones and Lyons' are class stereotypes. A lot of working class people struggles finically, even if they were in work or on the dole. The Middle class were largely unaffected by the industrial decline, as they had jobs like teaching or accountancy. There was also a class divide in education, whether you went to a public and private schools often decided your job in the future

Families were expected to have a 'nuclear' structure- a mother, a father and their children. Single-parent families like Mrs Johnstone were less common and were frowned upon by many.

Key Terms

Foreshadowing - Warning or indication of a future event
Pathos - Appeal to emotion
Multi-role- One actor playing a two or more roles
Motif- A repeated idea throughout the story
Dialogue - Conversation between two or more characters
Tension - Dramatically used to build suspense
Humour - Language used for amusing/comic effect
Dramatic Irony - When the audience know something that the characters do not
Songs - Contain lyrics that are set to music to give audience more information
Stage Directions - Instructions indicating how the actor should move/speak
Cyclical Structure - Finishes a similar way to how the text began
Prologue - A separate introduction that reveals some of the plot
Atmospheric - A distinctive mood/feel to the scene
Parallels - Similarities in the text—almost a replication of events
Tragedy - A play dealing with tragic events and having an unhappy ending for main characters.

Acting Style

Epic Theatre is a technique used in theatre created by Bertolt Brecht to remind the audience the were not watching real life.

Narration is a technique used by break to remind the audience what they are watching is just a play and not real life. This is shown throughout Blood Brothers as their is a character called, 'Narrator.'

The Narrator constantly, 'Breaks the Fourth Wall,' another Epic theatre technique. They do this by talking directly to the audience and asking them questions about what is happening in the performance.

A third technique we see used in Blood Brothers is Multi-Rolling. This is a technique where one actor will play more than one character or more than one actor will play the same character. This reminds the audience that these characters are not real and that they are watching something that is not real life.

The final Epic Theatre technique that is used is Songs. Although Blood Brothers is not a musical it does have songs which again remind the audience that what they are watching is not real life.

Key elements

Symbolism

Innocent death : lots of death within the play but specifically to innocent people - Nathaniel, Stella, Joseph, Mr Jerome's son.

The Pony and Trap : Recurring sound effect throughout the play. It represents flashbacks of grief and torment for Mr Kipps as well as PTSD. He always relates the sound of the pony and trap to death.

Nature : The idea of linking the surroundings to the story - the graveyard, the town and indeed, Eel Marsh House and the marshes all represent the dark and grim supernatural occurrences.

Narration—Speaking directly to the audience, explaining what is happening on stage.

Gobo—Silhouette lighting to represent something else.

Gauze—A thin material than becomes transparent in light.

Minimalistic—Simplistic and kept to a minimum.

Pause—A moment of silence, often deliberate and prolonged

Stylised—Requires an audience to use their imagination rather than appearing realistic.

Meta-theatre—Play within a play, the audience is aware of the creation of drama within a piece.

Fourth Wall—The imaginary wall separating the stage and auditorium which is often broke as the actors enter through the audience.

Background of the play

Adapted from the novel of the same name, 'The Woman in Black' has been terrifying audiences at the Fortune Theatre, London for over 30 years. The gothic horror is set during the Victorian era, a time when belief in the supernatural was prevalent. Susan Hill set out to write the most horrifying story of all time and through playwright Stephen Mallatratt and Director Robin Herford's masterful storytelling, audiences have been shocked, scared and moved ever since. Second longest running West End production of all time after Agatha Christie's The Mousetrap.

Place - Set in a remote corner of England where there is nothing but rural marshes and small villages. The extreme weather and eeriness of the place adds more tension to the already powerful plotline.

Society - The Victorians were obsessed with ghost stories and the supernatural. There was also huge interest in the idea of insanity during this period—brain science was prominent in the developments of the day and mental asylums were first built. Kipps represents a cosmopolitan man escaping the bedlam of London , sceptical of all supernatural beliefs and returns with an eerie story that he is too frightened to relive.

Adaption - Originally created by Susan Hill, Mallatratt and Herford adapted the story for the stage and used minimal set to create tension and suspense.

Characters

Arthur Kipps - Pragmatic, rational and a little boring. His first response to the Woman in Black is that she is a poor woman with a disease. He relishes the mundane parts of life and considers himself a cosmopolitan. He is a modern young man– often referring to the villagers as silly village folk with their tales. The Woman in Black will never really leave his mind, he's scarred.

Jennet Humfrye - Angry and filled with vengeance, a ghost like no other. She is a woman who has been wronged, or worse—a mother wronged. She didn't want to give up her baby and blames her sister for the death. Haunts the town after death for revenge, killing the children of others.

Samuel Daily - Friendly landowner who keeps an eye out for Kipps. He lends Kipps his dog and appears as his saviour in his hour of need. Tells Kipps the real story.

Alice Drablow - Jennet's recently deceased sister and owner of Eel Marsh House. Takes Jennet's child as she cannot have any of her own.

Mr Jerome - Squirrel-like man who is petrified of the WiB after she killed his son. Says that he cannot (or will not) help Kipps.

Keckwick - Driver of pony and trap. He is the link between town and Eel Marsh House. Saves Kipps after tide comes in.

How to create tension in performance.

Eye contact – Maintaining eye contact with the person you are in direct conflict with will increase the tension dramatically. It connects you to each other in a non physical way but still very personal.

Pauses – Arguably the most important of the three. Moments of silence are essential when building tension as not only do they show that each character is carefully weighing up their next move but it allows the audience to take some time to absorb the situation and keep them guessing what is going to happen next.

Volume and pace – speaking at a natural volume and pace lulls the audience into a false sense of security. By slowing decreasing both, the audience naturally begin to feel tension building. This can then be increased to a quicker pace and louder volume until the scene reaches a climax.

Acting Style

The semi naturalistic acting within the play contributes to the audience's belief in the characters and allows them engage more in the story. Multi-rolling is used exceptionally well to portray a variety of characters within the small town of Crythin Gifford. The minimalist set , minor props and miming are all used effectively to draw in the audience. Lighting and sound effects are used brilliantly to set the scenes, the use of long pauses/silence is a huge trait of horror theatre and the auditorium is dark and in need of refurbishment—all elements that are essential to ensuring that audiences receive the most horrifying performance possible.

Sequencing/(putting in correct order) represents a set of steps. Each line of code will have some operation and these operations will be carried out in order line-by-line

Using + operator for adding

```
a = 1
b = 2
c = a + b
print(c)   -> 3
```

```
a ← 1
b ← 2
c ← a + b
OUTPUT c
```

Using + operator for concatenation

```
a = 'Hello '
b = 'World'
c = a + b
print(c) -> Hello World
```

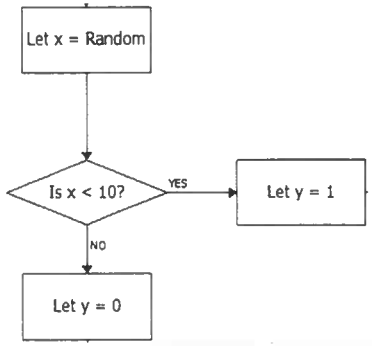
```
a ← 'Hello '
b ← 'World'
c ← a + b
OUTPUT c
```

Random number

Random integer	import random random.randint(0,9)	RANDOM_INT(0,9)
Choice	random.choice('a','b','c')	
Random value from 0 to 1	random.random()	

Selection represents a decision in the code according to some condition. The condition is met then the block of code is executed/ ran/run otherwise it is not. Often alternative/ other choice blocks of code are executed according to some condition.

```
x=RANDOM_INT()
IF  x < 10 THEN
 y=1
ELSE
 y=0
ENDIF
```



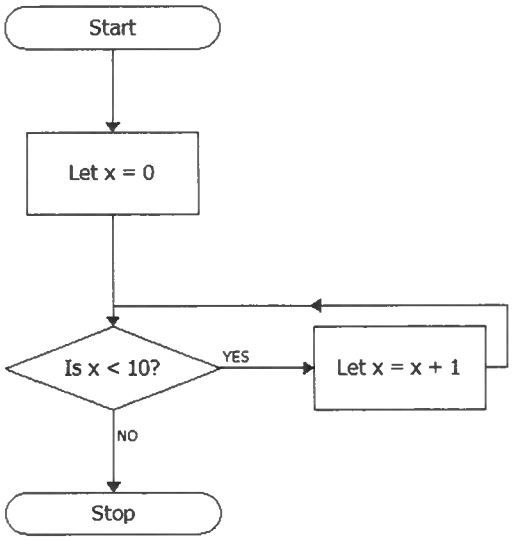
IF ...	IF i > 2 THEN
	j ← 10
	ENDIF
		if i > 2:
		j=10

IF ... ELSE ...	IF i > 2 THEN
	j ← 10
	ELSE
	j ← 3
	ENDIF
		if i > 2:
		j=10
		else:
		j=3

IF ... ELSE IF ... ELSE	IF i ==2 THEN
	j ← 10
	ELSE IF i==3
	j ← 3
	ELSE
	j ← 1
	ENDIF
		if i ==2:
		j=10
		elif i==3:
		j=3
		else:
		j=1

Iteration/ Cycle - Sometimes we wish the code to repeat a set of instructions
WHILE loops are used when the we do not know beforehand/ ahead of time the number of iterations/ cycles needed and this varies /differs/changes according to some condition.

```
x = 0
while (x < 10):
      x = x + 1
```



```
while True:
 print("Hello World")
```

```
WHILE TRUE
 OUTPUT "Hello World"
ENDWHILE
```

```
a=0
while a<4:
 print(a)
 a=a+3
```

```
a ← 0
WHILE a < 4
 OUTPUT a
 a ← a + 3
ENDWHILE
```

FOR loops are used when we know beforehand the number of iterations / cycles we wish to make.

```
for a in range(3):
 print(a)
```

```
FOR a ← 0 TO 3
   OUTPUT a
ENDFOR
```

Nested structures - Use constructs (e.g. WHILE, FOR, IF) inside another.

use a nested FOR loop to print out a grid

```
for i in range (10):
 for i in range (10):
  print ("x ",end="")
 print()
```

Use a nested while and if to print out only even numbers

```
i=0
while i<51:
 if (i%2==0):
  print(i)
 i=i+1
```

Lists

Create a list	shapes=["square","circle"]
Access element by index pos	shapes[1] -> circle
Append item to list	shapes.append("triangle")
Remove item from list	shapes.remove("circle")
Remove item from list by index	shapes.pop(1)
Insert item into list	shapes.insert(2,"rectangle")
Number of elements in a list	len(shapes)
Get index pos of item in list	shapes.index("triangle")
Concatenating lists	shapesGroup1["square","circle"] shapesGroup2=["triangle"] shapes=shapesGroup1+shapesGroup2
Loop through list	for i in range(len(shapes)): print(shapes[i])
Reverse elements in a list	shapes.reverse()
Order elements in a list	shapes.sort()

2D lists - A list if lists

Create a 2D list	d = [[23, 14, 17], [12, 18, 37], [16, 67, 83]]
Another way to create a 2D list	a = [23, 14, 17] b = [12, 18, 37] c = [16, 67, 83] d = [a,b,c]
Access element by index position	d[1][2] -> 37

Strings

Get length of a string	len("Hello")	LEN("Hello")
Character to character code	ord("a") -> 97	ORD("a")
Character code to character	chr(101) -> 'e'	CHR(101)
String to integer	a=int("12")	a=INT("12")
String to float	a=float("12.3")	a=FLOAT("12.3")
integer to string	a=str(12)	a=STR(12)
real to string	a=str(12.3)	a=STR(12.3)

Concatenation -merge multiple strings together

```
a="hello "
b="world"
c=a+b
print(c) ->
hello world
```

Return the position of a character
If there is more than 1 of the same character the position of the first character is returned.

```
student = "Hermione"
student.index('i')
```

Find the character at a specified position	student = "Hermione" print(student[2]) -> r

sub strings - select parts of a string

Example	student="Harry Potter"	
Output the first two characters	print(student[0:2])	Ha
Output the first three characters	print(student[:3])	Har
Output characters 2-4	print(student[2:5])	Rry
Output the last 3 characters	print(student[-3:])	Ter
Output a middle set of characters	print(student[4:-3])	y Pot

*A negative value is taken from the end of the string.

Subroutines are a way of managing and organising programs in a structured way. This allows us to break up programs into smaller chunks.

- Can make the code more modular and more easy to read as each function performs / (does/completes) a specific / particular task / job.
- Functions can be reused within the code without having to write the code multiple times.

- **Procedures** are subroutines that do not return values
- **Functions** are subroutines that have both input and output

Procedure: *No input parameters or return*	SUB greeting() OUTPUT "hello" ENDSUB	def greeting(): print("hello") call: greeting()
Procedure: One input parameter, no return	SUB greeting(name) OUTPUT "Hello",name ENDSUB	def greeting(name): print("Hello",name) greeting("grey")

Function:
1 input parameter, and 1 return value
	SUB add(n)
	a ← 0
	FOR a ← 0 TO n
	a ← a + n
	ENDFOR
	RETURN a
	ENDSUB
		def add(n):
		a=0
		for a in range(n+1):
		a=a+n
		return a

Function: *Two input parameters, and 1 return value*	SUB (num1,num2) sum=num1+num2 return sum	def add(num1,num2): sum=num1+num2 return sum greeting(1,2)

The **scope / extent of/the range** of a variable / (number or thing that changes) determines / decides/figures out which parts of a program can access and use that variable / (number or thing that changes).

A **global variable / worldwide (number or thing that changes)** is a variable that can be used anywhere in a program. The issue with global variables / worldwide (numbers that change/things that change) is that one part of the code may inadvertently / accidentally and carelessly change modify the value because global variables / worldwide (numbers that change/things that change) are hard to track.

A **local variable / (number or thing that changes)** is a variable that can only be accessed within a certain block of code typically / usually within a function. Local variables are not recognized outside a function unless they are returned. There is no way of modifying or changing the behaviour of a local variable outside its scope / its range.

Global variables / Worldwide (numbers that change/things that change) need to be defined throughout the running of the whole program. This is an inefficient use of memory resources / useful things/valuable supplies.. Local variables are defined only when they are needed an so have less demand on memory. Local variables only exist within the subroutine.

Reading and writing files

Open file Whatever we are doing to a file whether we are reading, writing or adding to or modifying / changing a file we first need to open it using:

open(filename,access_mode)

There are a range of access mode depending on what we want to do to the file, the principal ones are given below:

Access Mode	Description
r	Opens a file for reading only
w	Opens a file for writing only. Create a new file if one does not exist. Overwrites file if it already exists.
a	Append / Add (to the end) to the end of a file. Create a new file if one does not exist.

Reading text files

read – Reads in the whole file into a single string

```
f=open("filetxt","r")
print(f.read())
f.close()
```

readline – Reads in each line one at a time

```
f=open("file.txt","r")
print(f.readline())
print(f.readline())
print(f.readline())
f.close()
```

readlines – Reads in the whole file into a list

```
f=open("file.txt","r")
print(f.readlines())
f.close()
```

Writing text files

Write in single lines at a time

```
file=open("days.txt",'w')
file.write("Monday\n")
file.write("Tuesday\n")
file.write("Wednesday\n")
file.close()
```

Write in a list

```
say=["How\n","are\n","you\n"]
file=open("say.txt",'w')
file.writelines(say)
file.close()
```

Data Validation Routines

Check if an entered string has a minimum length

```
OUTPUT "Enter String"
s ← USERINPUT
IF LEN(S) > 5 THEN
 OUTPUT "STRING OK"
ELSE
 OUTPUT "TOO SHORT"
ENDIF
```

Check is a string is empty

```
OUTPUT "Enter String"
s ← USERINPUT
IF LEN(S) == 0 THEN
 OUTPUT "EMPTY STRING"
ENDIF
```

Check if data entered lies within a given range

```
OUTPUT "Enter number" s num ← USERINPUT
IF num > 1 AND num < 10
 OUTPUT "Within range"
ENDIF
```

Authentication Routine

```
OUTPUT "Enter Username"
username ← USERINPUT
OUTPUT "Enter Password"
password ← USERINPUT

WHILE username != "bart" OR password !="abc"

 OUTPUT "Login failed"
 OUTPUT "Enter Username"
 username ← USERINPUT
 OUTPUT "Enter Password"
 password ← USERINPUT

ENDWHILE

OUTPUT "Login Successful"
```

Debugging / (finding and correcting mistakes in)

Syntax / (the set of rules for forming language) errors – Errors in the code that mean the program will not even run at all. Normally / (usually/ in a common and regular way) this is things like missing brackets, spelling mistakes and other typos.

Runtime errors – Errors during the running of the program. This might be because the program is writing to a memory location that does not exist for instance. eg. An array index value that does not exist.

Logical errors - The program runs to termination/ end/ending/firing, but the output is not what is expected. Often these are arithmetic/ math errors.

Test data

Code needs to be tested with a range of different input data to ensure / to make sure that it works as expected under all situations. Data entered need to be checked to ensure / to make sure that the input values are:

- within a certain range
- in correct format
- the correct length
- The correct data type (eg float, integer, string)

The program is tested using normal/ (usual/ commonly and regular/ healthy), erroneous / wrong or boundary / edge-related data.
Normal data - Data that we would normally expect to be entered. For example for the age of secondary school pupils we would expect integer values ranging from 11 to 19.

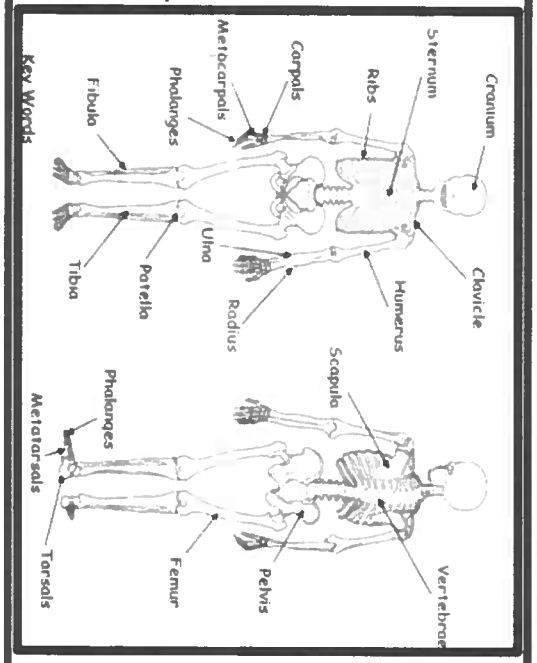
Erroneous data - Data that are input that are clearly wrong. For instance, if some entered 40 for the age of a school pupil. The program should identify this as invalid data but at the same time should be able to handle this sensibly which returns a sensible message and the program does not crash.

Boundary data - Data that are on the edge of what we might expect. For instance if someone entered their age as 10, 11, 19 or 20.

Subject: GCSE PE- 1.1.a

The structure and function of the skeletal system.

know the name and location of the following bones in the human body:



Understand and be able to apply examples of how the skeleton provides or allows:

- support - gives shape and support
- posture - shape and support allows for posture
- protection- protects internal organs such as heart, lungs spinal cord and brain. Cranium protects brain.
- movement- provides areas for muscle attachment
- blood cell production- produces red and white blood cells
- storage of minerals- such as phosphorus, calcium, potassium and iron etc.

Know the definition of a synovial joint- A Synovial Joint is a freely movable joint in which the bones surfaces are covered by cartilage, called **Articular Cartilage**, and connected by a **fibrous connective tissue** capsule lined with Synovial Fluid

Know the following hinge joints:

- knee – articulating bones – femur, tibia
- elbow – articulating bones – humerus, radius, ulna

Articulating bones are the bones that move within a joint.

Hinge joints allows movement in one plane only, just like a door hinge moves (uniaxial). An example of an activity that uses the knee joint is sprinting- example for elbow joint- bicep curl.

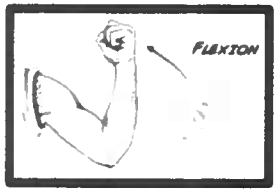
Know the following ball and socket joints:

- shoulder – articulating bones – humerus, scapula
- hip – articulating bones – pelvis, femur

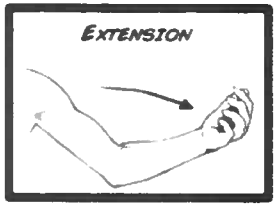
Ball and socket joints allow a wide range of movement and occurs when a round head of a bone fits into a cup shaped depression. An example of a physical activity that uses the shoulder joint- Javelin. Example for hip joint- sit-up training exercise.

know the types of movement at hinge joints and be able to apply them to examples from physical activity/sport:

- flexion - is a decrease in the angle around a joint. When a badminton player prepares to hit a overhead clear, the arm shows flexion at the elbow



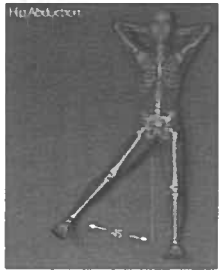
- extension- is when the angle of the bones that are moving (articulating bones) is increased. When making a basketball set shot the bent arm moves to a straight arm as you release the ball.



know the types of movement at ball and socket joints and be able to apply them to examples from physical activity/sport:

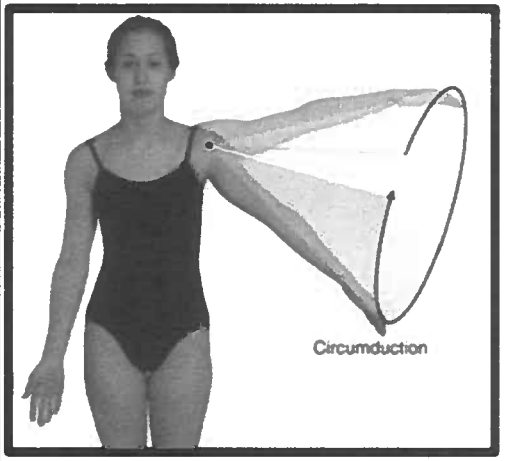
- flexion - is a decrease in the angle around a joint
- extension - is when the angle of the bones that are moving (articulating bones) is increased.
- rotation - is when the bone turns about its longitudinal axis within the joint. *Example in sport- tennis player uses external rotation at the shoulder joint during the backswing of a serve.*

- abduction- is the movement of the body away from the middle or midline of the body. *Example in sport- gymnast with their leg lifted to the side shows abduction at the hip.*



- adduction- is the opposite of abduction and is the movement towards the midline of the body. *Example in sport- a rugby player tackling another player will hold onto the player by adducting their arms at the shoulder joint as they tackle*

- circumduction- is a combination of abduction, adduction, extension or flexion and rotation. *Example in sport- a gymnast on the beam takes her back leg back off the beam and moves it out and round to place her foot ahead of her front foot.*



know the roles of:

- ligament - found between bones and attach bone to bone. *Function- the role of the ligaments is to help join bones together and keep the joints stable during movement.*
- cartilage- soft connective tissue. *Function- the role of cartilage is to reduce friction and act as a shock absorber at the joint*

Basic types of cartilage

-Yellow elastic cartilage

-Hyaline or blue articular cartilage

-White fibro-cartilage.

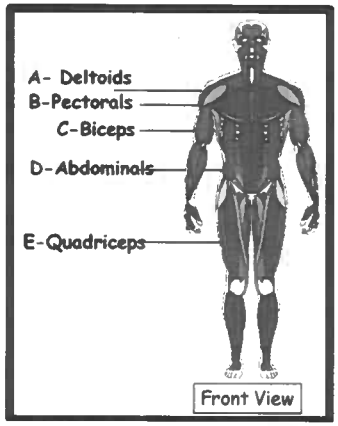
- tendons- muscles are attached to bones via tendons. These are strong and can be a little flexible. *Function- as well as their attachment role, they help to transmit the power needed to move bones. When a muscle shortens, it pulls on the tendons: this pulls on the tendons: this pulls on the bones to which the tendons are attached and causes movement.*

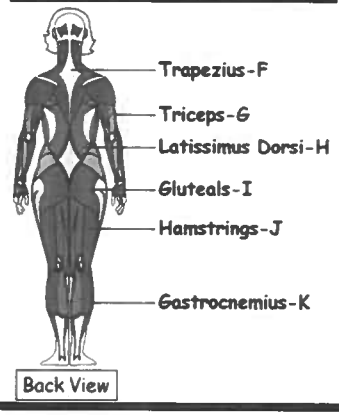
Subject: GCSE PE- 1.1.b

The structure and function of the muscular system

Location of major muscle groups

Know the name and location of the following muscle groups in the human body and be able to apply their use to examples from physical activity/sport:





	Function
Deltoid	Lifting the arm at the shoulder (the deltoid muscle has different parts which flex, extend and abduct the shoulder joint)
Trapezius	Shoulder horizontal extension (moving the arms backwards at shoulder level)
Pectorals	Adduction of the shoulder (moving the arm towards the body); Shoulder horizontal flexion (moving the arms forwards in front of the body)
Triceps	Extension of the elbow (straightening the arm)
Biceps	Flexion of the elbow (bending the arm)
Abdominals	Flexion of the spine (sitting upwards)
Latissimus dorsi	Adduction of the shoulder (moving the arm down towards the mid-line of the body)
Gluteals	Hip extension (moving the femur backwards)
Quadriceps	Extension of the knee (straightening the leg)
Hamstrings	Flexion of the knee (bending the leg)
Gastrocnemius	Plantar flexion of the ankle (pointing the toes downwards)

	Example in sport
Deltoid	Lifting the arms to block in volleyball; upward arm swing when trampolining
Trapezius	Preparation phase of an overarm throw or badminton smash
Pectorals	Upwards phase of a press up; rugby player making a tackle
Triceps	Shooting and chest passing in netball (execution phase)
Biceps	Drawing a bow in archery; 'backscratch' position during tennis serve
Abdominals	Performing a sit up or a forward roll
Latissimus dorsi	Hitting in hockey – left shoulder during preparation, right shoulder during execution and recovery
Gluteals	Pulling leg back at the hip before kicking a ball
Quadriceps	Kicking a ball (execution and recovery phase)
Hamstrings	Performing a hamstring curl on a weights machine; preparation phase of a rebound jump in basketball
Gastrocnemius	Standing on tiptoe to mark a shot in netball or pointing the toes during a gymnastic or dance move

The roles of muscle in movement

know the definitions and roles of the following and be able to apply them to examples from physical activity/sport.

- agonist- this is the working muscle that produces or controls the desired joint movement. Also known as the prime mover
- antagonist- for movement to be coordinated muscles work in pairs so that control is maintained. The movement caused by the agonist is countered by the action of the opposing muscle, called the agonist.
- fixator- this is a muscle that works with others to stabilise the origin of the prime mover e.g the trapezius contracts to stabilise the origin of the biceps.

Pairs of muscles-

There is a vast range of movements that can be made by the human body. To produce these movements, muscles either shorten, lengthen or remain the same length when they contract. Muscles work in pairs: as one muscle contracts, the other relaxes. Muscles that work together like this are called **antagonistic pairs**. This type of action enables the body to move with stability and control.

Antagonistic Muscle Pairs

The following groups of muscles are antagonistic pairs:

Joint	Antagonistic pair	Movements produced	Sport example
Elbow	Biceps; triceps	Flexion; extension	Chest pass in netball; badminton smash
Knee	Hamstrings; quadriceps	Flexion; extension	Jumping to block in volleyball; tuck jump in trampolining
Shoulder	Latissimus dorsi; deltoid	Adduction; abduction	Golf swing; breaststroke arms

Subject: GCSE PE 1.1c

Lever Systems

Know the three classes of lever and their use in physical activity and sport:

Bones and muscles act together to form levers. A lever is a rigid structure, a length of bone that turns about a pivot- the joint. Levers are used to make a small amount of force into a bigger force- this is gaining a **mechanical advantage.**

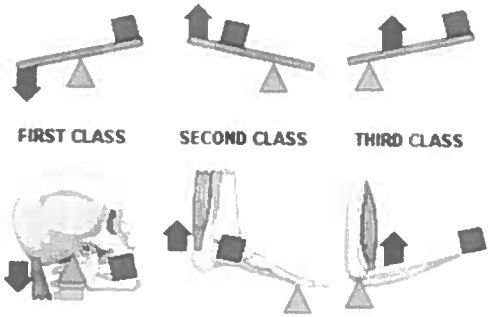
Four parts to a lever:

Lever arm- bones acts as lever arms

Pivot- Joints act as a pivot

Effort- muscles provide the effort to move loads

Load- load forces are often the weight of the body parts that are moved or forces needed to lif, push or pull things.



First class lever- the fulcrum (sometimes called pivot) is located between the effort force and the load force on the lever arm. *Example- at the neck- heading the ball.*

Second class lever- this is when the load or resistance is between the fulcrums and the effort. *Example- raising your toes or plantar flex at the ankle.*

Third class lever- this is when the effort is between the fulcrum and the load or resistance. *Example- at the knee the action of the hamstrings and the quadriceps at the knee joint causing flexion and extension, such as leaping up to catch a basketball.*

Know the definition of mechanical advantage- The relative efficiency of each of the lever systems is called the 'mechanical advantage'.

Some levers (first and second class) provide mechanical advantage. This means that they allow you to move a large output load with a smaller effort.

$$\text{MECHANICAL ADVANTAGE} = \frac{\text{LOAD}}{\text{EFFORT}}$$

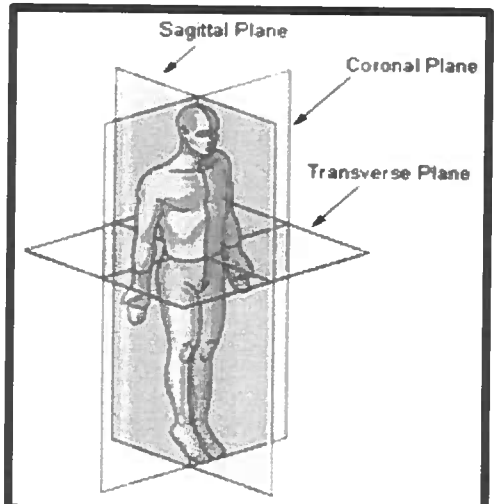
Where the load = 500N and the effort=100N

The mechanical advantage would be

500N divided by 100N = 5

Planes of movement and axes of rotation

Know the location of the planes of movement in the body and their application to physical activity and sport:

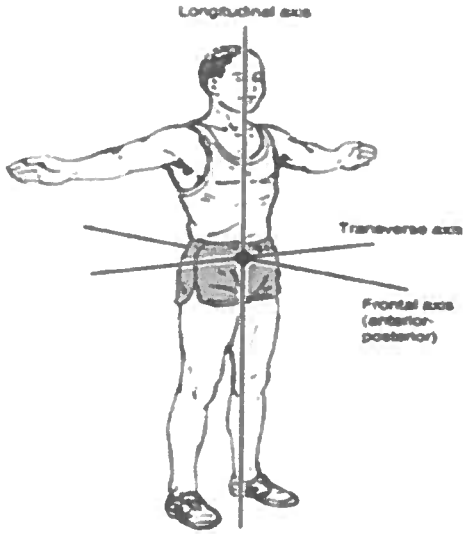


Frontal Plane- Runs vertically and divides the body in sections between fron (anterior) and back (posterior). Movements in this plane are sideways movements of abduction and adduction. *Example- abduction and adduction of the legs at the hip joint- jumping jack.*

Transverse Plane- Runs horizontally and divides the body into upper (superior) and lower (inferior) sections. Movements in this plane are rotational. *Example- arm action (circumduction) when bowling in cricket with rotation at the shoulder joint.*

Sagittal Plane- Splits the body vertically into left and right sides. Movements in this plane are the up and down movements of flexion and extension. *Example- leg action in running takes place in the saggital plane.*

Know the location of the axes of rotation in the body and their application to physical activity and sport:



There are 3 axes of rotation:

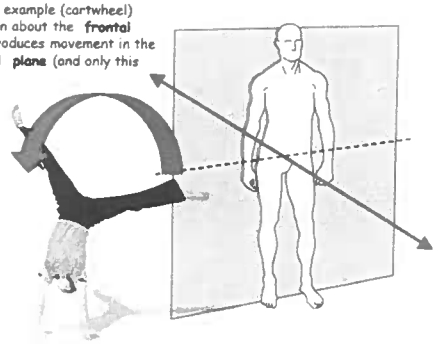
-Frontal axis

-Transverse axis

-Longitudinal axis

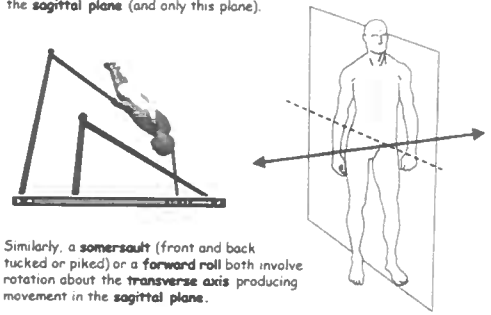
Rotation About The Frontal Axis

In this example (cartwheel) rotation about the **frontal axis** produces movement in the **frontal plane** (and only this plane).



Rotation About The Transverse Axis (1)

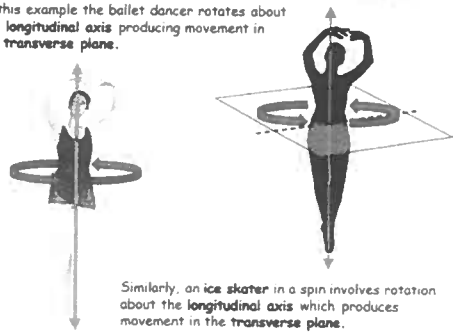
In this example rotation about the **transverse axis** produces movement in the **sagittal plane** (and only this plane).



Similarly, a **somersault** (front and back tucked or piked) or a **forward roll** both involve rotation about the **transverse axis** producing movement in the **sagittal plane.**

Rotation About The Longitudinal Axis (1)

In this example the ballet dancer rotates about the **longitudinal axis** producing movement in the **transverse plane.**



Similarly, an **ice skater** in a spin involves rotation about the **longitudinal axis** which produces movement in the **transverse plane.**

Subject: GCSE PE 1.1 d

The cardiovascular and respiratory systems

The structure and function of the cardiovascular system.

Know the double circulatory system (systemic and pulmonary)-

The heart operates a **double circulatory system** in which blood flows through the heart twice.

1. Pulmonary circulation
i.e. blood flow between the heart and lungs.

2. Systemic circulation
i.e. movement of blood from the heart through the rest of the body (excluding the lungs), then back to the heart.

Know the different types of blood vessels:

-artery- transport the oxygenated blood away from the left side of the heart.

-capillaries-are small blood vessels that carry blood to and from the body's cells

-vein- transport blood from all over the body back to the heart and lungs for re-oxygenation.

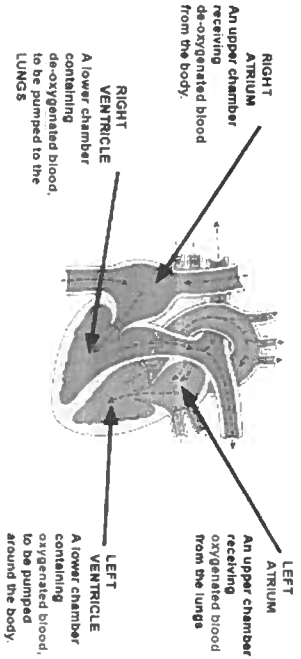
Know the definitions of-

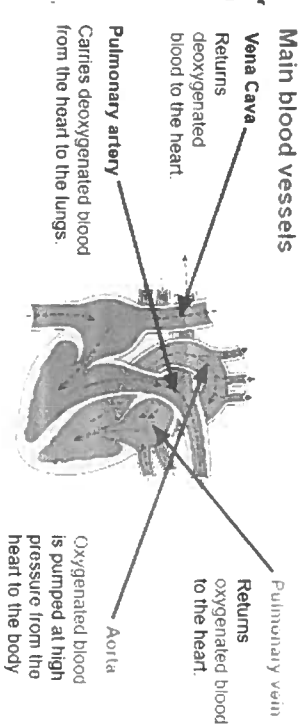
-Heart rate- The heart contracts and relaxes in a rhythm, which produces a heartbeat (started by an electrical impulse from the Sino-Atrial (SA) Node). Measurement of the Heart Rate = Beats per Minute (HR=Bpm). Average resting HR = 75bpm

-Stroke Volume- The volume of blood pumped out of the heart by each ventricle during one contraction. Measurement of the Stroke Volume = milliliters per beat (ml per beat)

-Cardiac output- The amount of blood ejected from the heart (Left Ventricle) in one minute. Measurement of the Cardiac Output = litres/min

Understand the pathway of blood through the heart-

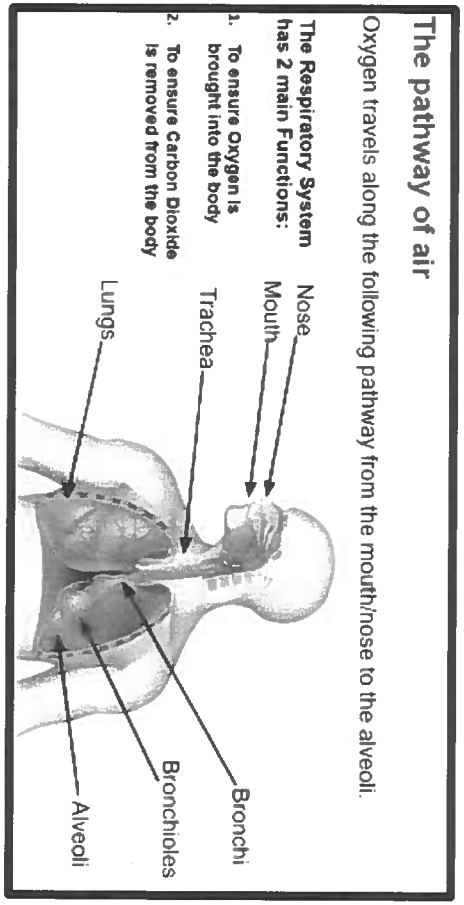




Know the role of red blood cells-carry oxygen from the lungs to the muscles & Removes CO2 from muscles to lungs.

The structure and function of the respiratory system.

Understand the pathway of air through the respiratory system-



Know the role of respiratory muscles in breathing-

-Diaphragm

-Intercostal muscles

When breathing in (inspiration):

The intercostal muscles contract, lifting the ribs upwards and outwards causing the chest to expand.

The diaphragm contracts. It pulls down and flattens out the floor of the rib cage.

The lungs increase in size as the chest expands.

The pressure inside our lungs falls as they expand. The higher pressure of air outside means air is now sucked into the lungs through the nose and mouth.

When breathing out (expiration):

The intercostal muscles relax. The ribs move downwards and inwards under their own weight. The chest gets smaller.

The diaphragm relaxes. It is pushed back into a domed position by the organs underneath it.

The lungs decrease in size as the chest gets smaller. They are squeezed by the ribs and diaphragm.

The pressure inside the lungs increases as they get smaller. The air pressure outside is now lower than in our lungs. Air is forced out of the lungs through the nose and mouth.

Know the definitions of aerobic exercise and anaerobic exercise and be able to apply practical examples in relation to intensity and duration.

-Aerobic Exercise Working WITH Oxygen. When the demand for oxygen does not overwhelm the body and we are able to supply the working muscles with the oxygen needed to release the required energy for the exercise.

-Anaerobic Exercise Working WITHOUT Oxygen. **Maximal Effort:** When we work at this rate it is not possible to supply the muscles with oxygen they need to release energy for the exercise, so we work without oxygen **anaerobically** and repay the **OXYGEN DEBT** once the exercise is complete (Lactic Acid)

Year 10 Economics Knowledge Organiser – Term 1

3.1.1.1 – ECONOMIC ACTIVITY

Economics is the science of choice. Choices by individuals (you), businesses, societies and governments.

The **central purpose** of economic activity is the production of goods and services to satisfy needs and wants

The **economy** is the system that attempts to solve the **basic economic problem**: that there is more need than there are resources. Therefore, all these wants and demands cannot all be met.

3.1.1.1 – ECONOMIC ACTIVITY

Needs - A need is any good or service that we require or that is necessary for our survival such as food and water.

Wants - A want is any good or service that is desired but is not necessary. For example, we need water to survive but we don't need a particular brand of water to stay fundamentally hydrated.

Scarce resources – not having enough of a resource to satisfy all wants.

3.1.1.1 – ECONOMIC ACTIVITY

The key economic decisions are: **what to produce, how to produce, and who is to benefit** from the goods and services produced

3.1.1.1 – ECONOMIC ACTIVITY

Three Economic Groups

Consumer – a person or group that directly uses a good or service.

Producer – a person, company or country that grows, makes or provides a good or a service.

Government – a political authority that decides how a country is run and sets the rules for markets.

3.1.2.2 – ECONOMIC SECTORS

Goods – a tangible product i.e. a product that can be touched e.g. a chocolate bar.

Services – an intangible product i.e. a product that cannot be touched e.g. financial advice.

3.1.1.3 – MAKING CHOICES - Opportunity Cost

Opportunity Cost – the loss of other alternatives when one alternative is chosen i.e. the opportunity cost of building a new school could be not spending that money to build a new hospital instead.

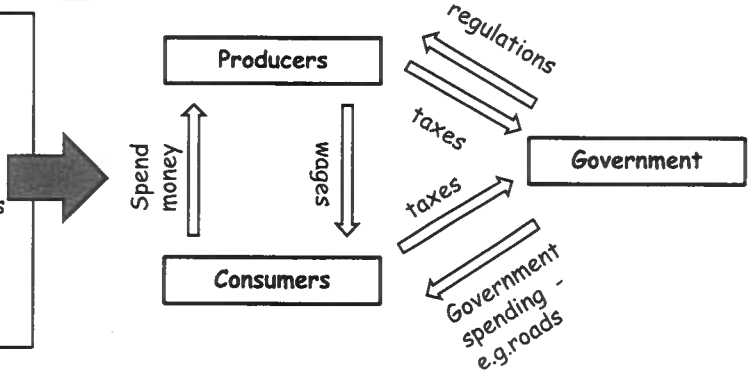
3.1.1.2 – FACTORS OF PRODUCTION

Factors of Production – resources in an economy that can be used to make goods and services.

Capital – human made aides to production e.g. machines and equipment. Reward to capital = **interest**.
Enterprise – the organisation of the other factors of production – involves risk. Reward to enterprise = **profit**.
Land – natural resources such as farm land, fish stocks or coal. Reward to land = **rent**.
Labour – the human input (mental & physical) into the production process. Reward to labour = **wages**.

3.1.1.2 – FACTORS OF PRODUCTION

Renewable resources – resources that can be replaced or replenished if not over used.
Non-renewable resources – resources that cannot be replaced once used i.e. finite resources.



3.1.2.2 – ECONOMIC SECTORS

Primary sector – the direct use of natural resources e.g. farming, fishing or mining.
Secondary sector – converting primary resources into finished goods e.g. manufacturing or construction.
Tertiary sector – providing services to consumers e.g. doctors, advertising companies, accountants.

3.1.2.1 – MARKETS & ALLOCATION

Markets – markets are a way for **buyers** and **sellers** to interact to **establish price**. Can be local, regional or global. Can be physical or online.
Factor market – a market for the factors of production e.g. the labour market.
Product market – a market for finished goods and services.
Market economy – an economy in which resources are allocated via the **market forces** of **supply** and **demand**.

3.1.2.2 – ECONOMIC SECTORS - Functions of price:

Rationing – means resources are consumed by those most willing (or able) to afford them.
Signalling – price giving a message to the consumer e.g. quality, scarcity.
Incentive – price telling consumers to consume less (i.e. taxes on soft drinks) or producers to consume more (i.e. large profits).

3.1.1.3 – MAKING CHOICES

Choices – all choices have both **costs** and **benefits**. These must be understood and weighed to make a rational choice. Choices will have economic, environment and social costs and benefits.
Economic choice – an option for the use of selected scarce resources.
Economic sustainability – the best use of resources to create growth.
Environmental sustainability – the best use of resources to protect the natural world and the resources within it.
Social sustainability – the best use of resources to improve quality of life for people.

Year 10 Economics Knowledge Organiser – Term 1

3.1.2.3 – SPECIALISATION & TRADE – specialisation means that countries and even individuals can **MAXIMISE** their own output by producing only what they are best at. This means they create the **MAXIMUM AMOUNT OF VALUE** possible for them. This value can be traded to obtain an amount of goods and services they would not each without specialisation.

3.1.2.3 – SPECIALISATION & TRADE

Division of labour – dividing a complicated task up into smaller jobs in order to create efficiency, for example a F1 pit stop.

Specialisation – workers, firms, regions and countries concentrating on producing what they are best at/most efficient at producing.

Exchange – the act of swapping what we produce for what we want/need. This allows us to benefit from specialisation.

Money – money allows us to 'store' the value of what we produce so that we can exchange it in the future, **money** also allows us to compare the value of goods and services.

3.1.2.3 – SPECIALISATION & TRADE

Benefits of specialisation –

More efficient use of resources – more wants and needs met for less scare resources used

Higher output – increased total production

Higher productivity – workers become more productive a if they focus on smaller tasks

Higher quality – simplified processes and specialist workers means less mistakes

Less time wasted – less switching between tasks = less time used

Economies of scale – larger output leads to economies of scale (per unit cost savings because producers are bigger)

Increased satisfaction – workers can specialise in what they enjoy most

Increased standard of living – workers are more efficient so can exchange their labour (via money) for more goods and services than they otherwise would i.e. everyone earns more

3.1.3.1 DEMAND

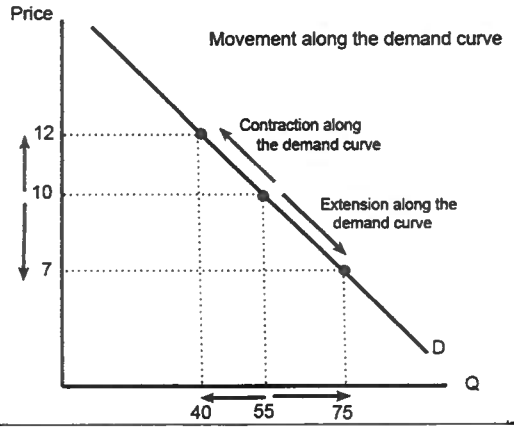
Demand – the quantity of a good or service that consumers are willing (and able) to buy at a given price.

Law of demand – for most products the quantity demanded will vary inversely with price i.e. as price rises demand falls. This is why the demand curve slopes downwards.

Individual demand – the demand for a good/service by an individual consumer.

Market demand – the demand for a good/service by all consumers.

3.1.3.1 DEMAND – Movement along the demand curve – movements along the demand curve only happen when there is a change in price.



3.1.2.3 – SPECIALISATION & TRADE

Costs of specialisation –

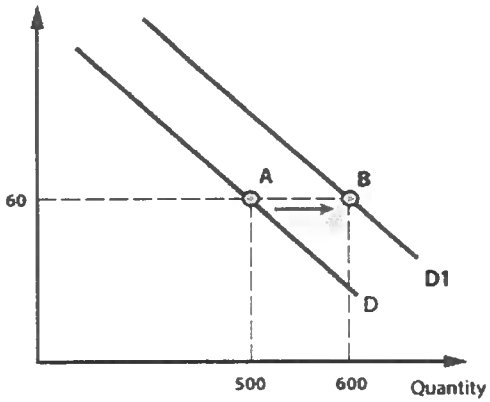
Dependency – workers, firms, regions and countries can become dependent on producing one good or service. What happens if demand for that good/service stops?

Failure of exchange – we all become dependant on trade – if it stops for some reason producers lack inputs and consumers lack goods and services

Bored workers – simplified processes can mean bored workers

Deskilling– as we specialise we lose skills and abilities we otherwise would have

Unemployment – specialised workers are dependent on demand for their particular skill or for the good/service they produce. If demand falls we have unemployed workers who may lack the skills to work elsewhere



3.1.3.1 DEMAND – Shifts of the demand curve – moving the demand curve to the right or left means something aside from price has changed demand for the product shown.

3.1.3.1 DEMAND – Changes that cause shifts of the demand curve:

Changes in the price of substitute goods – some goods are very similar to others so can be consumed instead. If the price of Pepsi rises Coca-Cola becomes more desirable. Therefore demand for Coca-Cola at the current prices increases (the Demand curve shifts to the right).

Changes in the price of complimentary goods – some goods are usually consumed alongside other goods. If the price of printers fall ink cartridges becomes more desirable. Therefore demand for ink cartridges at the current prices increases (the Demand curve shifts to the right).

Changes in income – if incomes rises demand increases at any price – the demand curves shifts to the right.

Changes in interest rates – if interest rates decrease consumers and businesses save less and borrow more – demand increases for goods so the demand curve shifts to the right.

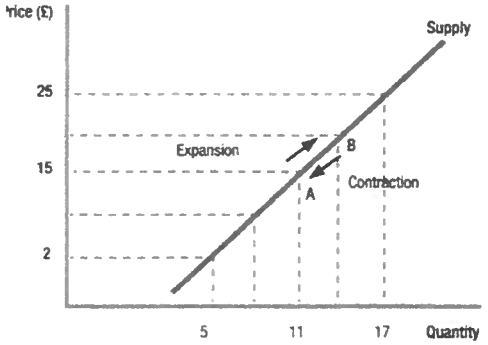
Changes in tastes/preferences – on a hot day demand for ice cream increases even though the price remains the same. If a new advert is released demand also increases at all prices. The demand curve shifts to the right.

Population size – if immigration or birth rates increase demand for goods/services is higher. The demand curve shifts to the right.

Year 10 Economics Knowledge Organiser – Term 1

.1.3.2 SUPPLY - Supply – the quantity of a good or service hat producers are willing (and able) to supply at a given price.
aw of supply – for most products the quantity supplied will vary irectly with price i.e. as price rises supply rises. This is why the upply curve slopes upwards.
ndividual supply– the supply of a good/service by an individual roducer.
larket supply – the supply of a good/service by all producers.

.1.3.2 SUPPLY - Movement along the supply curve – ovements along the supply curve only happen when there is a hange in price and firms react to increase/protect profits.



.1.3.2 SUPPLY - Shifts of the supply curve – moving the upply curve to the right or left means something aside from rice has changed supply for the product shown.

.1.3.2 SUPPLY
oint supply – some goods are by-products of others, for xample beef and leather. If the price of beef rises the supply f beef will rise (law of supply). This will also increase the upply of leather (supply curve shift to the right) even though he price hasn't changed.
ompetitive supply – some goods are produced using the same actors of production, for example has to choose between anting potatoes or carrots. If the price of carrots falls more armers will plant potatoes instead of carrots. This will shift he supply curve for potatoes to the right.

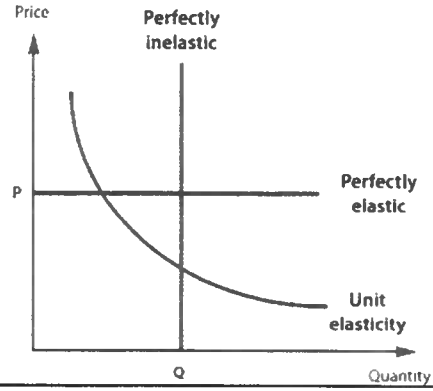
3.1.3.2 SUPPLY - Changes that cause shifts of the supply curve: Changes in the cost of production – if costs of inputs (raw materials/labour) decrease then firms have lower costs and will supply more at any price level. The supply curve shifts to the right.
Changes in technology – if new technology (new machines etc) makes costs lower then firms will supply more at any price level. The supply curve shifts to the right.
Changes in taxes – if taxes are lower costs are lower so firms will supply more at any price level. The supply curve shifts to the right.
Changes in subsidies – subsidies are payments made to firms by government to encourage production. An increase in subsidies means the supply curve shifts to the right.
Weather – some products will be produced in higher quantities if the weather is good. For example if the weather is good more crops will grow and the supply curve shifts to the right.
Number of firms in an industry – if more firms enter a market then more will be supplied at any price. The supply curve shifts to the right.
Prices of other goods – if the price of a product in **joint** or **competitive** supply changes this will shift the supply curve.

3.1.3.5 PED – how reactive quantity demanded is to changes in price. PED is shown by the slope of the demand curve.
Elastic demand – when the % change in quantity demanded is bigger than the % change in price i.e. the demand for the product is very sensitive to price changes.
Inelastic demand – when the % change in quantity demanded is smaller than the % change in price i.e. the demand for the product is not very sensitive to price changes.

$$PED = \frac{\%\Delta Q}{\%\Delta P}$$

Remember – in a busy nightclub you need to Q before you P.

3.1.3.5 PED
PED is calculated by dividing the % change in quantity demanded into the % change in price. **% change is calculated** by dividing the change (original amount – new amount) into the original number and multiplying by 100.



3.1.3.5 PED - Factors impacting on PED:
Substitutes – are there substitutes for the product or is it unique? Products easily substituted are price elastic.
% of income – is the product very cheap or very expensive? Products that are a very low % of income are less sensitive to changes in price i.e. if the price of a penny sweet changes you don't really care/notice.
Necessity/Luxury – if you cannot do without a product (e.g. petrol) you will not be able to demand less if the price goes up. A luxury can be cut back on so will be more price elastic.
Addiction/habit – addictive products (i.e. tobacco) are price inelastic.
Time – products are more inelastic in the short term, it takes time to change demand.

3.1.3.5 PED - PED and revenue – if a producer knows that thei product is **price inelastic** then they can **increase price** without getting a large decrease in quantity sold. This would mean an **increase in total revenue**. If the producer knows that their product is **price elastic** they could **decrease their price** and receive a larger increase in quantity demanded. This could also mean an **increase in total revenue**.

PED less than 1 – the product is price inelastic, the closer to zero means more inelastic.
PED more than 1 – the product is price elastic.
PED is 1 – the product is unitary price elastic, changes in price result in the same % change in quantity demanded.
PED is 0 – the product is perfectly price inelastic, i.e. no price change will change demand.

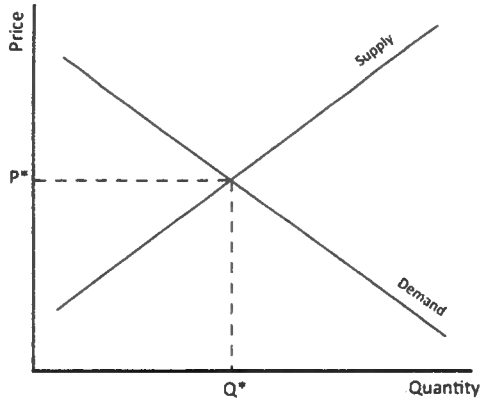
Year 10 Economics Knowledge Organiser – Term 2

.1.3.6 – PRICE ELASTICITY OF SUPPLY - Price Elasticity
: Supply – how reactive quantity supplied is to changes in ·ice. PES is shown by the slope of the supply curve.
astic supply – when the % change in quantity supplied is gger than the % change in price i.e. the supply of the product very sensitive to price changes.
ıelastic supply – when the % change in quantity supplied is naller than the % change in price i.e. the supply of the product not very sensitive to price changes.

$$PES = \frac{\%\text{ change in quantity supplied}}{\%\text{ change in the price}}$$

.1.3.6 – PRICE ELASTICITY OF SUPPLY
actors impacting on PES:
vailability of stock – can more of the product be ɔtained by producers quickly? If the product or the raw aterials needed are abundant the product will be price lastic.
pare production capacity – are producing firms at full ıpacity? Can they increase supply without large ıvestment in machines/people? If they can increase ·oduction quickly supply is elastic.
s production flexible? – an firms up production using ifferent techniques? Switching between labour and ıpital? If so, the product will be more price elastic.
ime – products are more inelastic in the short term, it ıkes time to change supply.

.1.3.6 – PRICE ELASTICITY OF SUPPLY
ES less than 1 – the product is price inelastic, the loser to zero means more inelastic.
ES more than 1 – the product is price elastic.
ES is 1 – the product is unitary price elastic, changes in rice result in the same % change in quantity supplied.
ES is 0 – the product is perfectly price inelastic, i.e. no rice change will change supply.



3.1.3.3 MARKET EQUILIBRIUM – where the supply and demand curves meet is the equilibrium price and quantity in a market.

3.1.4.1 – REVENUE & PROFIT
Profit = total revenue – total costs of production.
Productivity – output per unit of input (usually per worker).
Business Objectives:
Profit maximisation – businesses seeking to gain as much profit as possible.
Sales growth – maximise number of units sold.
Increase market share – increase the percentage sold to by a firm of the total market that exists for good or service.
Social enterprise – a business that has a social objective – to do good.

3.1.4.2 – PRODUCTIVITY - Improving productivity –
New technology
Train workers
Improve worker morale (nicer conditions)
More effective managers

3.1.4.1 – REVENUE & PROFIT
Competition –
Businesses are motivated by profits – seek ways to lower costs and maintain/increase prices.
How do firms compete?
Price = offers, discounts.
Non-price = quality, advertising, loyalty rewards.

3.1.3.3 MARKET EQUILIBRIUM
Total revenue on S & D diagram –
Total Revenue = Sales Volume x Price. This can be calculated and also shown on a supply and demand curve.

3.1.4.1 – REVENUE & PROFIT
Total cost – all firm's costs added
Total revenue – all income of firm (sales)
Average cost – cost of producing a unit (TC/Q).
Average revenue – revenue from each unit (TR/Q).
Fixed cost – cost that does not change with output level e.g. rent.
Variable cost – cost that changes with output level e.g. cost of raw material

3.1.4.1 – REVENUE & PROFIT – Ethics (doing the 'right' thing) – Businesses paying taxes, equality of pay for staff, reduction of environmental impact, no exploitation of workers.

3.1.4.3 – ECONOMIES OF SCALE – cost advantages a business can gain by being bigger (reduces average cost).
Technical economies – buying bigger, more advanced machines
Purchasing economies – buying materials in bulk (get discount)
Marketing economies – buying more effective ads (TV etc.)
Financial economies – getting lower % on loans/access to stock market to raise money
Managerial economies – employ more/better managers
Risk bearing economies – can increase range of products/countries sold to. Means less business risk.

3.1.4.3 – ECONOMIES OF SCALE
Diseconomies of scale – cost disadvantages a business can bear by being bigger (increases average cost). **Types include:**
Communication – more people = more confusion/delay
Co-ordination/control – more departments/competing aims
Morale – workers feel less important so work less hard

3.1.5.1 MARKET STRUCTURE – Non-competitive market – few sellers or buyers, barriers to entry, differentiated products, super profits. **Monopoly** – a sole producer or seller of good or service. **Oligopoly** – a small number of firms control the majority of the market. **NB** – less competition = less/zero motivation to reduce costs.

Year 10 Economics Knowledge Organiser – Term 2

.1.5.1 MARKET STRUCTURE
ɔmpetitive market – Many buyers & :llers, No barriers to entry, Perfect formation, Homogenous products

3.1.5.3 – NON COMPETITIVE MARKETS – Barriers to entry
Patents, copyright, start-up costs, economies of scale, legislation etc.

1.5.3 – NON COMPETITIVE MARKETS
npact of non-competitive markets –
igher prices – less incentive to reduce costs for producers
ɔwer quality – less incentive to improve quality for producers
:ss choice – less incentive for producers to innovate
ɪsinesses are less efficient
ı some cases super profits provide money for innovation
ɔvernment may intervene to prevent uncompetitive markets

1.6.2 EXTERNALITIES – Impacts on third parties of :onomic activity.
egative externalities – harmful effect to third party of :onomic activities. Examples include pollution, noise, illness 'om 2nd hand smoke.
ɪsitive externalities – beneficial effect to third party of :onomic activities. Examples include less pollution if others ride kes, less healthcare taxes if other quit smoking.

1.6.1 MISALLOCATION
:gislation – laws to control how people and companies behave.
:gulations – rules or directives to control how people and ɪmpanies behave.

1.6.1 MISALLOCATION – State provision – goods and :rvices supplied directly by the government e.g. healthcare via HS.
ɪformation provision – government provides information to :ople and companies to change their behaviour e.g. anti-smoking ɪmpaign.

.1.6.2 EXTERNALITIES
'oduction externalities – arise from production of goods and services.
ɔnsumption externalities – arise from consumption of goods and services.

3.1.6.2 EXTERNALITIES –
Policies to correct for consumption externalities:
Indirect taxes upon products e.g. tax on fuel, tax on cigarettes. These aim to increase costs and therefore prices to reduce consumption and pay for damage caused by consumption.
Subsidies for products to reduce producer costs and therefore prices. These aim to reduce costs and therefore prices to increase consumption and gain benefits for society from consumption. Example – subsidies for green power generation.
Laws and regulations restrict/prevent consumption to reduce negative impacts e.g. age limits for alcohol, bans on hard drugs.
Government information campaigns information given reduces consumption (negative externalities) or increases consumption (positive externalities). Examples – healthy eating campaigns, anti smoking campaigns.

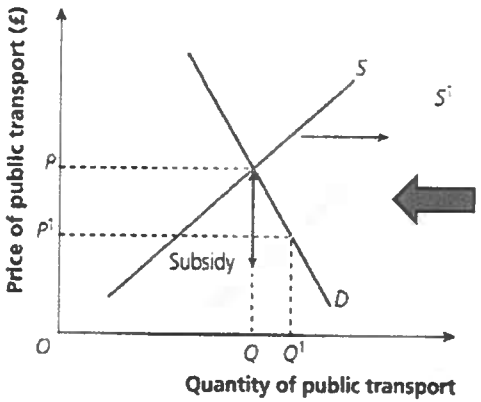


Figure 3.8.3 The effect of a subsidy on public transport

Diagram – shows subsidy reduces costs and therefore supply curve shifts to right. Result = lower price for consumers and higher consumption . Tax has opposite impact.

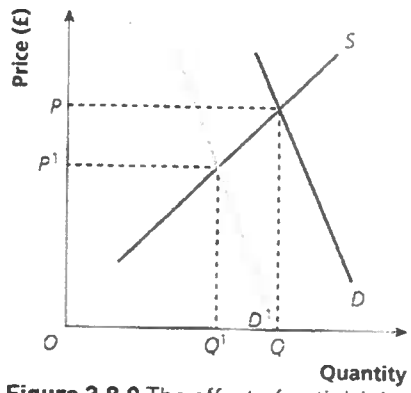


Figure 3.8.9 The effect of anti drink-driving campaigns on alcoholic drinks sold in pubs

Diagram – shows information reduces deman and therefore demand curve shifts to left. Result = lower price for consumers but lower consumption.

3.1.6.2 EXTERNALITIES – are an example of **market failure**. This means that they are costs or benefits that are not included in the prices set by markets.

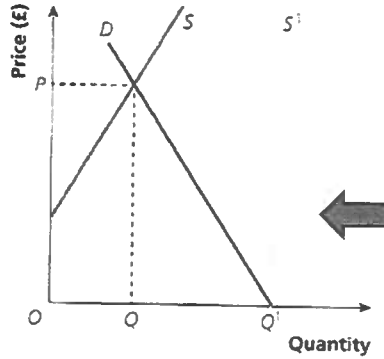


Figure 3.8.5 The effect of state provision on education

Diagram – example of market failure – education Schools would not be provided to all by free market. Market supply curve S. Government provides (S1) to all at cost of 0.

.1.6.2 EXTERNALITIES – Policies to correct for production externalities:
ubsidies for products to reduce producer costs and therefore prices. These aim to reduce costs and therefore prices to increase consumption and gain benefits for society from consumption. Exampl subsidies for makers of solar panels.
ɪws and regulations restrict/prevent production to reduce negative impacts e.g. pollution laws.

BUSINESS: ***Creating informed, discerning employees, consumers and future leaders***

Topic 1.1.1 Dynamic Nature of Business

Key Vocabulary

Business – an organisation that seeks to satisfy the needs and wants and wants of consumers through the production of goods and services

Dynamic – continual change

Consumer – the end user of the product or service

Obsolete – outdated; a product that has declining sales or come to an end

Entrepreneur – an individual who comes up with a business idea and is willing to take a risk to develop it

Core Knowledge

The world changes constantly, and therefore so do consumer needs, and so businesses must therefore be dynamic to respond to these changes, or they risk failure.

Business ideas come about because of:

1. Changes in technology
2. Changes in what consumers want
3. Products and services becoming obsolete

Business ideas come about because

1. An entrepreneur has a completely original idea – this is invention
2. Adapting an existing idea – this is innovation

Adaptions to products can be:

- New flavours
- Different colours / pack sizes
- Online access to a product or service
- Offering personalisation

Don't be a "man on the street"

- Innovation and inventions are not the same thing
- Avoid statements like "ALL customer have…."; "NOBODY uses…."
- Don't assume that all products that have declining sales will become totally obsolete – some see revivals, e.g. vinyl records
- Don't assume that all ideas will be successful – unfortunately a lot do not succeed

Wider Business World

Apple – great example of business that continually adapts products

Iceland – changed from frozen only foods to non-frozen and non-food goods because this is what consumers want when they shop

Synoptic Links

Marketing – the product life cycle states that all products eventually need to be removed from sale

Technology – changes in technology have led to obsolete products and changes in consumer tastes

Role of enterprise – entrepreneurs are the individuals who develop new ideas

BUSINESS: ***Creating informed, discerning employees, consumers and future leaders***

Topic 1.1.2 Risk and Reward

Key Vocabulary

Risk – something bad / negative that could happen

Reward – something good / a positive effect

Financial – related to money

Non-financial – non-money related

Profit – what a business has left from its income after paying all of its costs

Core Knowledge

Starting and running a business are risky activities. A large percentage of start-up businesses fail in the first five years.

Risks are things that can go wrong. These include:

- Business failure
- Financial loss
- Lack of security due to not having a regular income

Business can fail because:

- An entrepreneur does not know the market well
- Not having enough capital to start the business
- Poor decision making
- Competition from other businesses
- Not meeting the needs of customers

Rewards are what can be achieved through business success. These include:

- Profit
- Personal independence

Don't be a "man on the street"

- Although risks can cause a business to fail, careful planning and research can reduce risks
- Don't confuse the term 'security'. It is not about prevention from theft, but about regular income

Wider Business World

Thomas Cook, BHS – businesses that have failed. Find out why

Richard Branson – an entrepreneur worth billions, but he still takes risks when starting new ventures. Why would this be?

Synoptic Links

Role of enterprise – entrepreneurs are the individuals who take risks

Ownership – different types of ownership have different levels of risk for the owner

Customer needs – knowing what these are helps to reduce risk

Market research – doing this helps to reduce risk

BUSINESS: ***Creating informed, discerning employees, consumers and future leaders***

Topic 1.1.3 Role of Enterprise

Key Vocabulary

Goods – physical items that a business can produce or sell

Services – non-physical products; things that you can experience, e.g. a haircut

Needs – the essential products that consumers need to survive: food, water, shelter, clothing, warmth

Wants – anything that is not a basic need. Often referred to as luxuries

Customer – the person who buys the product

Consumer – the person who is the eventual user of the product

Adding value – adapting a product so that the selling price is higher that the cost of creating the product

USP – Unique Selling Point

Factors of production – resources needed to produce goods and service: land, labour, capital, enterprise

Core Knowledge

A business will produce goods or services

Goods or services must meet the customer needs, or they will not sell

The entrepreneur is the uses and organises the four factors of production in order to produce goods or services.

A business can sell its product at a higher price than the cost of the manufacturing by adding value. This can be through:

- **Branding** – creating an image for a product that sets it apart, e.g. Apple logo
- **Quality** – for example using better cuts of meat in a pie
- **Design** – unique features and designs can lead to consumers paying higher prices
- **Convenience** – when something saves a customer time, this can lead to them paying a higher price, e.g. pre-prepared vegetables
- **USPs** – a characteristic or feature of a product that can not be replicated by an alternative

A business will be likely to use a combination of the above

Don't be a "man on the street"

- Not all businesses produce goods; some produce services
- WiFi is not a need
- Don't confuse the terms consumer and customer
- Customers will not always want the cheapest product
- Adding value does not meet making the price higher

Wider Business World

Gap, Nike, Gucci – examples of brands that cost a lot more than the actual cost of the materials

McCain – produce a lot of ready-meals and pre-prepared items that cost more than the ingredients

Synoptic Links

Customer needs – knowing what these are helps to ensure that that the business is satisfying them

Risk and reward – the entrepreneur takes risks, in order to achieve rewards

Marketing – the use of branding and USPs

BUSINESS: ***Creating informed, discerning employees, consumers and future leaders***

Topic 1.2.1 Customer Needs

Key Vocabulary

Customer needs – the specific things that a buyer wants about goods and services

Customer reviews – feedback from customers, which can be online

Word of mouth – when a customer tells another person about a business

Repeat purchase – when a customer returns to the same business

Core Knowledge

Customer needs are the specific wants or needs that buyers have when purchasing goods

Different customers have different needs

If a business knows and understands its customers' needs it is in a better position to produce the products that customers want, in the way that they want them, leading to increasing sales, and so contributing to long term survival

Customer needs are:

- **Price** that reflects the quality of the product, and is low enough to match consumer incomes
- **Quality** – usually more important for those with higher income levels
- **Choice** – consumers like to select from a range of options, e.g. different flavours, colours or packet sizes
- **Convenience** – making life easier for customers
- **Efficient and reliable service** – such as having enough stock, or longevity of a product
- **Design** – how good a product looks

Don't be a "man on the street"

- Don't assume consumers always go for the cheapest option – they have other needs that may override price depending on the circumstances

Wider Business World

Aldi & Lidl versus Tesco – meet different need though the price level and choice available

Banks – a variety of ways to access your funds is convenience

Takeaways – offer convenience so we pay more than the cost of the ingredients

Synoptic Links

Market research – this is how a business finds out customer needs

Market segmentation – how we divide up customers into smaller groups with similar needs

Added value – meeting customer needs can allow a business to charge higher prices, i.e. add value to a product

BUSINESS: ***Creating informed, discerning employees, consumers and future leaders***

Topic 1.2.2 Market research

Key Vocabulary

Market research – the process of gathering, processing and interpreting information about consumers' behaviour

Secondary research – using research that has already been carried out for another purpose

Primary research – collecting new information

Qualitative data – research into opinions and views

Quantitative data – data that is numerical

Focus group – a small number of consumers who have a discussion

Market trends – an overall pattern related to products

Market gap – where demand is not being met by the existing products available

Bias – a one-sided view

Sample-size – the number of consumers that are involved in market research

Core Knowledge

The purpose of market research is:

- To identify and understand customer needs
- Identify market gaps
- Reduce risk
- Inform business decisions

Methods of research are:

- **Primary** – collecting brand new data to meet the specific needs of the business
- **Secondary** – using research that has already been gathered

	Benefits	Limitations
Primary	• Up-to-date information • Information secret from competitors	• Can be expensive • Can be time consuming • Results may be inaccurate
Secondary	• Easy to find • Cheap or free to obtain • Good overview of whole market	• May be inaccurate • Can be out-of-date • Likely to be unrelated to business needs

Social media has made it easier to collect data using comments, reviews, surveys, and online focus groups
Trends can be identified from tracking hashtags

Don't be a "man on the street"

- Don't assume that a market gap will guarantee success
- Remember that research can be unreliable if the sample size is too small, the wrong target market are questioned or the sample is biased

Wider Business World

Innocent Smoothies – conducted initial market research at a festival using two bins – Yes or No to launching their business

Survey monkey – a free online survey platform making it easier to conduct research

Synoptic Links

Market segmentation – how we divide up customers into smaller groups with similar needs

Customer needs – market research aims to find out what these are, if they are being met, and what else is wanted

Risk and reward – market research can reduce the risk

BUSINESS: ***Creating informed, discerning employees, consumers and future leaders***

Topic 1.2.3 Market segmentation and market mapping

Key Vocabulary

Market segmentation – splitting up all consumers into different groups that have similar needs or characteristics

Target market – the specific market segment a business aims to sell to

Demographics – customers based on statistical data relating to the population, e.g. resident or marital status

Market map – a diagram that positions all products within a market using two features, e.g. price and quality

Socio-economic group – a method of segmenting that uses income and class / occupation to classify people

Core Knowledge

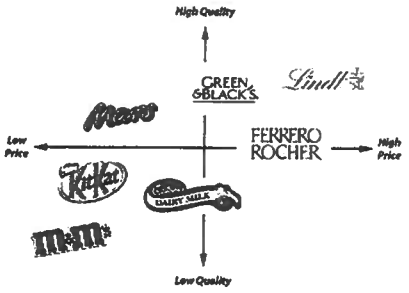
Markets can be segmented by

- **Location**, i.e. where you live
- **Demographics**, e.g. targeting families rather than single people; home owners rather than renters
- **Lifestyle**, i.e. the choices made about how to spend free time and hobbies consumers have
- **Income**, i.e. by how much you earn, the job you do or your social class
- **Age,** i.e. by how old you are

A market map can be used to position and compare products in a market

Allows a business to identify the competition the business faces and any potential gaps in the market

BUT....this may be simplistic and is based on subjective opinion so may not be reliable



Don't be a "man on the street"

- Don't assume that a gap on a market map indicates a gap to be filled – it could be there because there is no demand for that type of product
- Be careful not to say ALL or WILL – adapt to MOST, MORE LIKELY, e.g. *Most* women are *more likely* to buy make-up than men

Wider Business World

Hotel market – consider the target market of the Savoy compared to a Premier Inn

Ford cars – products lots of products to target different segments

Taylor Wimpey – a house builder. They produce lots of varieties of new homes to target different groups in terms of income, location and family size

Synoptic Links

Market research – information gathered can help a business to identify which segments to target

Marketing mix – the elements of marketing. These will be different for different target markets

BUSINESS: ***Creating informed, discerning employees, consumers and future leaders***

Topic 1.2.4 Competitive environment

Key Vocabulary

Market – the potential buyers for one product; where goods and services are exchanged

Competition – where there is more than one business attempting to attract the same customers

Monopoly – a market where there is only one business

Oligopoly market – a market where there are a few firms that dominate the market

Competitive market – where there are lots of small firms offering very similar products

Differentiation – strategies and techniques that a business uses to make their product stand out

Market share – the percentage of sales within the market that one business has

Competitive advantage – where one business has 'the edge' over the others in a market

Core Knowledge

A business will need to compete in different ways depending on how competitive the market is. Some firms will choose to use differentiation to stand out from the others, e.g. through the use of branding or offering a USP.

Ways to compete:

- **Price** – offering lower prices can increase demand, but reduces profit margins, and can increase costs. Other businesses may do the same and result in a price war
- **Quality** – improving the quality of raw materials or ingredients, but this increases costs, although customers may be willing to pay higher prices
- **Location** – can attract customers if it is easy to access, has parking, or has a lot of passing trade. However, good premises cost more
- **Product range** – offering lots of choice to the consumer or specialising to provide a better service
- **Customer service** – through great staff, although this costs to train them, or excellent after-sales service

A business may be able to gain a competitive advantage though one of these methods to order to encourage repeat custom and great reviews

Don't be a "man on the street"

- Don't confuse the term 'market' in a business sense with an actual street market
- Don't assume that a new business can simply compete by offering lower prices – larger firms can negotiate better prices from suppliers
- Remember than improving quality will increase costs

Wider Business World

Holiday market – very few firms now, especially following the collapse of Thomas Cook. An example of an oligopoly

London Underground – a monopoly market because there is only one tube firm

Hairdressers – very competitive market

Synoptic Links

Customer needs – many of the ways businesses compete are the same as customer needs

Marketing mix – this will need to be adapted depending on the level of competition

Market mapping – what are your competitors offering? Knowing this can help a business decide on how to compete