


# Year 11 Option Subjects

## Knowledge Organiser

September- December 2025

AMBITION, CONFIDENCE, CREATIVITY,  
RESPECT, DETERMINATION

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### **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.

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## GCSE History: Elizabeth: Elizabeth's Inheritance

### 1 The Tudor Family

#### **Elizabeth was a member of the Tudor family**

- Elizabeth's father (**Henry VIII**) and grandfather (**Henry VII**) had been great kings of England
- Her younger brother (**Edward VI**) and older sister (**Mary**) had also ruled as **Tudor monarchs**, but neither had an **heir**
- After Mary's death in 1558, Elizabeth **inherited** the **throne**

#### **Some people believed Elizabeth had an illegitimate claim to the throne**

- Elizabeth's mother was **Anne Boleyn**, Henry VIII's second wife
- Anne was **beheaded** and Henry **annulled** their marriage
- Some questioned if Elizabeth's claim to the throne was **legitimate**

#### **Elizabeth's gender also posed problems**

- 16<sup>th</sup> Century England was a highly **patriarchal** society
- People believed queens were weak and would only do what their husbands wanted

### 2 Debt

- When Elizabeth became queen in 1558, she **inherited** a **debt** of £300,000
- Elizabeth needed to raise **taxes** in order to pay back the **debt**
- However, she also needed to take out new loans to fund an army and navy to defend England

### 3 Religious belief in Tudor England

In the **Reformation**, **Protestants** challenged the old **Catholic** beliefs. **Puritans** were extreme **Protestants** who wanted to take the **Reformation** even further.

#### **Catholic churches** featured:

- Colourful images
- Decorated **altars**

#### **Protestant churches** featured:

- Plain walls
- Wooden **altars**

	<b>Catholicism</b>	<b>Protestantism</b>	<b>Puritanism</b>
<i>Who should be head of the church?</i>	The <b>Pope</b>	The <b>Monarch</b>	No one
<i>Who should run the church?</i>	<b>Archbishops</b> and <b>bishops</b>	<b>Archbishops</b> and <b>bishops</b>	<b>Elected committees</b>
<i>What language should the Bible be in?</i>	<b>Latin</b>	English	English
<i>What should churches look like inside?</i>	Decorated	Plain and simple	Plain and simple
<i>Should priests wear vestments?</i>	Yes	No	Absolutely not!
<i>What got you into heaven?</i>	<b>Good works</b>	Belief in God	Belief in God

## GCSE History: Elizabeth: Elizabeth's Inheritance

### 4 Religious divisions

#### England was divided by religion

- Elizabeth was a **Protestant** but disliked the **extremism of Puritans**
- Most English people – especially poor people who lived in **rural** areas like the **North** and **West** – were still very **Catholic** and could **rebel** against Elizabeth if she banned **Catholic** beliefs
- There were **Protestants** and **Puritans** in powerful positions, such as **MPs** and **privy councillors**, who put pressure on Elizabeth to make England more **Protestant**

#### Europe was also divided by religion

- The two European **superpowers** – **Spain** and **France** – were strongly **Catholic** and threatened to invade if Elizabeth did not return England to **Catholicism**
- **Protestants** in other countries, such as in the **Netherlands**, needed Elizabeth's support

### 5 Elizabeth's Religious Settlement

- As Queen, **Elizabeth** had to decide what religious laws the English people had to follow
- Elizabeth's 1559 **Religious Settlement** was a **Middle Way** between Catholicism and Protestantism:
  - Elizabeth was the head of the Church and all churches had to have an English bible
  - However, churches could be highly decorated and priests had to wear **vestments**

### Vocabulary

<b>Altar</b>	The centre of worship in a Christian church
<b>Archbishop</b>	The most important priest in a country/region
<b>To behead</b>	To chop off someone's head
<b>Bishop</b>	The most important priest in a local area
<b>Catholicism</b>	The religion of Catholics
<b>Claim to the throne</b>	A reason to be king or queen
<b>Debt</b>	Money owed to others
<b>Elected Committee</b>	A group of people who have been chosen
<b>Good works</b>	Good deeds, like helping the elderly
<b>Heir</b>	Someone to become the monarch after you
<b>Illegitimate</b>	Not proper or respected
<b>To inherit</b>	To get (something) handed down to you
<b>Legitimate</b>	Proper and respected
<b>Middle Way</b>	Partly Catholic, partly Protestant
<b>Monarch</b>	The king or queen
<b>MPs</b>	Members of Parliament
<b>Patriarchal</b>	Ruled and dominated by men
<b>Pope</b>	The leader of the Catholic church in Rome
<b>Privy councillor</b>	An advisor to the Monarch
<b>Protestantism</b>	The religion of Protestants
<b>Puritanism</b>	Extreme Protestantism; religion of Puritans
<b>To rebel</b>	To rise up against the monarch
<b>The Reformation</b>	The change from Catholic to Protestant
<b>Religious Settlement</b>	Laws that set the religion in England
<b>Rural</b>	Relating to the countryside
<b>Superpower</b>	A very powerful country
<b>Taxes</b>	Money paid to the government
<b>Vestments</b>	Special clothes worn by priests

## GCSE History: Elizabeth: Elizabeth and Government

### 6 The Royal Court

The Royal Court was the group of *nobles and privy councillors* who surrounded the Queen at all times

#### Life at Court

- Courtiers travelled with Elizabeth as she toured her 60 residences
- Entertainment at court projected an image of **extravagance** and wealth, including:
  - **Jousting** tournaments
  - **Banquets**
  - Dances and plays
  - Hunting parties

#### Elizabeth used a system of patronage to control the Royal Court

- Elizabeth granted positions of power – such as a place at court or on the **Privy Council** – to wealthy **nobles** and her **favourites**
- Courtiers therefore owed all their power to Elizabeth and knew she could remove **patronage** at any time, guaranteeing **loyalty**
- The **system of patronage** meant that power was based on personal relationships with the Queen

### 7 Privy Council

#### The Privy Council

- Elizabeth's most trusted **courtiers** were her **privy councillors**
- The **Privy Council** met on a daily basis to offer Elizabeth advice on important issues such as going to war
- The **Privy Council** was led by Elizabeth's chief **advisor**, the **Secretary of State**

#### Elizabeth controlled the Privy Council by:

- Appointing **privy councillors** with different viewpoints, leaving her free to choose between them
- Appointing the **loyal** and trusted **William Cecil** as **Secretary of State** for most of her reign – her nickname for him was 'Spirit'

#### However, Elizabeth never had complete control:

- In 1587, Cecil manipulated Elizabeth into executing **Mary Queen of Scots**
- By the 1590s, **William Cecil** was too old to control the **Privy Council**, leading to **factional rivalry** between his son – **Robert Cecil** – and other **councillors** such as the **Earl of Essex**

### 8 The Essex Rebellion

**Robert Devereux, the Earl of Essex, was the rising star of Elizabeth's court**

- At the age of 18, Essex became Elizabeth's **favourite**
- His success as a military commander won him a place on the **Privy Council**
- After **William Cecil** died in 1598, Essex believed that he – not **Robert Cecil** – should become **Secretary of State**

**However, his egotistical and rash behaviour eventually led to his execution**

- **1598**: reached for his sword during an argument with Elizabeth
- **1599**: led a failed military expedition in **Ireland**
- **1600**: abandoned his soldiers in Ireland and forced his way into Elizabeth's **bedchamber**
- **1601**: plotted an armed rebellion to remove Elizabeth and make **James of Scotland** the king

**The Essex Rebellion revealed Elizabeth's weakness in the 1590s:**

- The death of Cecil led to dangerous **factional rivalry** in the **Privy Council**
- Essex struggled to respect Elizabeth's **authority** because she was a woman

## GCSE History: Elizabeth: Elizabeth and Government

### 9 Parliament

**Parliament was part of Elizabeth's government in which MPs voted to give their consent for new laws and taxes**

**Parliament posed a serious threat to Elizabeth's authority**

- Elizabeth needed Parliament's **consent** to raise taxes which gave **MPs** power to push for changes they wanted to see
- **Puritan MPs** used their positions to make speeches pushing for Elizabeth to...
  - ...marry a Protestant and name a Protestant **heir**
  - ...remove **archbishops** and **bishops** and allow **elected committees** to control churches
  - ...stop priests wearing **vestments**
  - ...give **MPs freedom of speech** so they could discuss whatever they wanted in Parliament

**However, Elizabeth used various methods to control Parliament**

- Elizabeth only called Parliament to meet when she needed it: Parliament met only 13 times in her 45 year reign
- **Privy councillors** such as **William Cecil** sat in Parliament and controlled debate
- Elizabeth limited **MPs freedom of speech** by banning discussion of religion or her marriage
- Elizabeth used harsh punishments to control **Puritan MPs**:
  - In 1593, Elizabeth imprisoned **Peter Wentworth** in the **Tower of London** after he demanded she name a Protestant **heir**
  - Another **Puritan MP, John Stubbs**, had had his hand chopped off in 1579 for criticising Elizabeth's proposed marriage to the Catholic **Duke of Anjou**

### 10 Propaganda

Elizabeth used **propaganda** to project an image of herself as a powerful and popular monarch

**Portraits of Elizabeth emphasised her power and hid any signs of weakness**

The **Armada Portrait** was painted to celebrate the defeat of the **Spanish Armada**. It shows:

- Elizabeth's crown, emphasising her **legitimacy**
- Fine clothes and jewellery, showing off her wealth
- The wreckage of the **Armada**, celebrating her victory
- Elizabeth's hand on a globe, showing her global power

However, it does not show:

- Elizabeth's advanced age: she was 55
- The scars on her face from **small pox**
- Her black teeth and greying hair

**Elizabeth went on regular progresses so she could be seen by ordinary people**

- A **progress** was a *royal tour that took place each summer*
- Elizabeth toured the country, staying with loyal **nobles** who put on spectacular entertainment
- On her **progress**, Elizabeth:
  - ...showed off her wealth and splendour
  - ...spoke with ordinary people as she passed
- However, Elizabeth's **progresses** never extended beyond loyal Protestant areas in the **south east**; she never visited the **North or West**

## GCSE History: Elizabeth and Government

### 11 Local Government

The Queen and her **Privy Council** ran the government of England, but they needed a system of **local government** to control the different areas of the country.

**England was divided into counties**

**Each county was controlled by a Lord Lieutenant**

- Appointed by the Queen – a form of **patronage**
- Usually the most powerful **noble** in the county
- Kept the Queen and the **Privy Council** informed of what was going on
- Organised a local army to deal with **rebellions**

**Justices of the Peace (JPs) were responsible for law and order**

- There were about 40 **JPs** in each county
- Appointed by the Queen – a form of **patronage**
- Responsible for:
  - Collecting taxes and fines
  - Enforcing the **Poor Law**
  - Judging court cases
- However, **JPs** were unpaid – this often led to **corruption** and bribery

### Vocabulary

<b>Advisor</b>	Someone who gives advice
<b>Authority</b>	Power
<b>Banquet</b>	An extravagant formal dinner
<b>Bedchamber</b>	Bedroom
<b>Corruption</b>	Doing things for money, taking bribes, etc
<b>Consent</b>	Agreement
<b>Court</b>	Short for <b>Royal Court</b>
<b>Courtier</b>	Someone who has a position at court
<b>Egotistical</b>	Obsessed with yourself and your image
<b>Factional Rivalry</b>	Disagreement between different groups of courtiers
<b>Favourite</b>	A person the queen is very fond of
<b>Freedom of Speech</b>	The freedom to say whatever you want
<b>JPs</b>	Justices of the Peace
<b>Jousting</b>	Early Modern sport – charges at each other on horseback
<b>To manipulate</b>	To go behind someone's back to get them to change their mind
<b>MPs</b>	Members of Parliament
<b>Parliament</b>	Part of Elizabeth's government
<b>Patronage</b>	Rewards / jobs / money given to courtiers
<b>Poor Law</b>	Unemployment benefit system
<b>Portrait</b>	A formal painting of an important individual
<b>Privy Council</b>	Part of Elizabeth's government
<b>Progress</b>	A royal tour
<b>Propaganda</b>	Info to make people support a particular point of view
<b>Royal Court</b>	The group of people who surrounded the Queen at all times
<b>Secretary of State</b>	Leader of the Privy Council
<b>Small pox</b>	A disease causing little spots on the face and body
<b>System of Patronage</b>	Elizabeth's way of rewarding loyalty and punishing disloyalty
<b>Tower of London</b>	Large prison in London

## GCSE History: Elizabeth: Catholics

### 12 Enforcement of Elizabeth's religious settlement

#### **Before 1580 opposition to the religious settlement was limited**

- Most Catholics remained loyal to the Pope on the inside but followed Elizabeth's laws and attended Protestant church services: they were called **church papists**
- Elizabeth **tolerated** Catholics and did not **enforce** the **12d** fine for **recusancy** in Catholic areas
- After 1580, the threat from Catholics increased**
- In 1580, the Pope stated that it would not be a sin for someone to kill Elizabeth, increasing the risk of **assassination**
- Catholics began to plot to make **Mary Queen of Scots** the Catholic queen of England
- **Philip of Spain** planned an invasion of England

#### **Elizabeth's government responded by persecuting Catholics**

- In **1581**, the fine for **recusancy** increased by 10,000% to £20
- In **1585**, Elizabeth introduced the death penalty for anyone sheltering a Catholic priest
- In **1593**, a new law banned Catholics from travelling more than 5 miles away from their homes

#### **Elizabeth's government successfully crushed Catholic resistance**

- There were 3 million Catholics in England in 1588; by 1603 there were just 40,000
- However, some opposition still remained and, in 1605, Catholics tried to **assassinate** the new king – **James I** – in the **Gunpowder Plot**

### 13 Jesuits

Jesuits were *Catholic priests who were specially trained to convert people back to Catholicism*

#### **Jesuits began to arrive in England in the 1580s**

- Jesuits trained in special **seminaries** in Catholic countries like **France, Spain and Italy**
- They arrived in England on a mission to **convert** people back to Catholicism
- The leader of the **Jesuits** in England was **Edmund Campion**
- **Campion** and around 100 other **Jesuit** priests were hidden by wealthy Catholics in secret **priest holes**

#### **Francis Walsingham developed an effective spy network**

- **Francis Walsingham** was a **privy councillor**
- He had hundreds of **agents** tracking down **Jesuits** and Catholic **plotters**
- He employed **priest hunters** to catch Catholic priests
- In 1581, **Campion** was captured by Walsingham's agents and **hanged, drawn, and quartered**

### 14 Mary Queen of Scots

#### **Mary Queen of Scots was Elizabeth's Catholic cousin**

- Mary had been forced to flee from a Protestant rebellion in Scotland
- Since 1568, she had been in prison in England

#### **Mary's presence in England was a serious threat to Elizabeth for several reasons:**

- 1. Mary had a strong claim to the throne of England**
  - Mary was Henry VIII's great-niece and Elizabeth's cousin
  - Many people believed that Mary's claim was more **legitimate** than Elizabeth's
  - Unlike Elizabeth, Mary had a son and heir: **James**
- 2. Mary was a figurehead for Catholic rebellion**
  - Until Elizabeth had an heir, Mary was next in line to the throne
  - This encouraged Catholics to rebel against Elizabeth or plot to **assassinate** her

#### **3. Mary had powerful foreign supporters**

- **Philip of Spain**, the **French**, and the **Pope** plotted with English Catholics to put Mary on the throne

#### **For these reasons, Elizabeth's Privy Council urged Elizabeth to execute Mary. Elizabeth refused because:**

1. Mary was her **cousin**
2. Elizabeth did not want to **execute** a fellow queen

## GCSE History: Elizabeth: Catholics

### 15 Catholic Plots

**Catholic plots** were *attempts by Catholics to replace Elizabeth with Mary Queen of Scots*

#### **1583 Throckmorton Plot**

- A young Catholic noble, **Throckmorton**, plotted with the **French** to invade England and put Mary on the throne
- The plot was also supported by **Philip of Spain** and the **Pope**
- **Walsingham's** spies uncovered the plot and **Throckmorton** was **tortured** and executed
- However, Elizabeth refused to execute **Mary**

#### **1586 Babington Plot**

- Another young Catholic noble, **Babington**, plotted with **Philip of Spain** and the **French** to invade England and put **Mary** on the throne
- **Babington** communicated with Mary by hiding coded letters in beer barrels that went into Mary's prison
- However, **Walsingham** discovered the system and waited until he had proof of Mary's involvement

#### **1587 Execution of Mary Queen of Scots**

- Cecil and Walsingham **manipulated** Elizabeth into signing Mary's death warrant
- Mary was beheaded
- Elizabeth was furious and refused to talk to Cecil for a year

### 16 The Spanish Armada

In the 1580s, an **Anglo-Spanish War** broke out, leading to the launch of the **Spanish Armada** in 1588

#### **Causes of the rivalry with Spain**

1. Elizabeth had refused to marry **Philip of Spain** at the start of her reign
2. English **privateers** such as **Francis Drake** stole gold from Spanish **treasure ships**. Elizabeth **knighted Drake**.
3. Philip supported Catholic plots against Elizabeth
4. In 1585, Elizabeth agreed to send 7,000 soldiers to the **Netherlands** to support **Protestant** rebels fighting Philip's army
5. The execution of **Mary Queen of Scots** in 1587 angered Philip

The **Spanish Armada** was Philip's invasion **fleet** of **130** ships

- The Armada planned to sail to the **Netherlands** to pick up **20,000** Spanish soldiers before invading England and reintroducing **Catholicism**
- However, the Armada never landed in England and only 80 ships made it back to Spain
- The Armada failed for several reasons:
  1. **Spanish mistakes**
    - The leader of the **Armada**, the **Duke of Medina Sidonia**, had no experience of sailing and got sea sick
    - The Spanish army was a week late, leaving the Armada vulnerable to attack
  2. **English strengths**
    - The English used **fireships** to break the Armada's **crencent formation**
    - The English ships were smaller and more **manoeuvrable** than the Spanish
  3. **The weather**
    - The Armada was driven north by a storm and forced to return to Spain via **Scotland** and **Ireland**
    - Over 40 Spanish ships were **shipwrecked** off **Scotland** and **Ireland**
- Philip sent two more **armadas** to England in the 1590s but they were both wrecked by storms

## GCSE History: Elizabeth: Daily Lives

### 17 Lives of the gentry in Elizabethan England

#### Homes

- New **country houses**, sometimes with over 50 rooms
- **Country houses** had **glazed** windows and finely decorated chimneys

#### Food and drink

- The **gentry** hosted **feasts**, where expensive food was carried by servants on silver platters
- They had a rich and varied diet: **exotic meats** such as swan and pheasant, fish such as salmon, sweets such as sugar and **marzipan**, and expensive wine

#### Making a living

- The **gentry** did not work, but earned all their money from **renting out** their lands

### 18 Lives of the middling sort in Elizabethan England

#### Homes

- The homes of the **middling sort** had around ten rooms over two floors
- They had windows and chimneys, but these were less decorated than in the gentry houses

#### Food

- The **middling sort** could afford to eat a good **diet** of meat, fruit and bread – and beer
- However, they could not afford the **luxuries** enjoyed by the **gentry**

#### Making a living

- The **middling sort** were **merchants**, small business owners, or independent farmers

### 19 Lives of the labouring poor in Elizabethan England

#### Homes

- The poor lived in small one-room houses with no chimney or glazed windows

#### Food

- The **staple diet** of the **labouring poor** was bread, although this relied on a good **harvest**
- Vegetables from the garden could be made into **pottage**

#### Making a living

- The **labouring poor** travelled around looking for **seasonal work** on farms

### 20 Family Life

#### Marriage played a central role in family life

- The **gentry** had their partners chosen for them by their parents, but most people could choose who they married
- Elizabethan society was a **patriarchy** and wives were expected to obey their husbands at all times – although **domestic violence** was disapproved of
- Sex outside marriage was forbidden by the Church. Many couples immediately got married if they found out they were pregnant
- **Divorce** was very difficult, although people were encouraged to remarry if their husband or wife died
- **Same-sex marriage** was forbidden by the Church and **homosexual relationships** had to be kept secret

#### Parents cared about their children, although they sent them away at an early age

- Although Elizabethan women had many children, high rates of **infant mortality** meant that families were usually quite small
- The **gentry** paid for their sons to go to school from the age of 7
- In poorer families, children started to work in the home or on the farm as soon as they were old enough
- At the age of 12 or 13, girls and boys left their family homes to work as servants or **apprentices**

#### Wider kinship was not that important

- Elizabethans did not have strong bonds with their **extended families**
- Most families did not live with grandparents or uncles and aunts
- Many people moved away from home so they did not live close by to their extended family
- Most Elizabethans turned to their neighbours – not their families – if they needed help

## GCSE History: Elizabeth: Daily Lives

### 21 The causes of poverty

The end of Elizabeth's reign saw a sharp increase in poverty

- By the 1580s, around 30% of the population lived in poverty
- Vagrants or vagabonds were unemployed people who roamed from town to town looking for work
- The middling sort and gentry were very worried about vagrancy because:
  - ...they worried that vagrants would commit crime
  - ...they worried that vagrants would spread the plague

At the time, no one really understood what caused this. We now know that the increase in poverty was caused by:

1. **Population increase.** During Elizabeth's reign, the population rose from 2.4 million to 4.1 million.

*This meant that there was an increased demand for wheat which led to inflation*
2. **Inflation.** Increased demand led to prices increasing – this is called inflation. The price of wheat increased by 250%.

*This meant that the poor could not afford bread, their staple diet*
3. **Failed harvests.** The harvest failed in 1595, 1596, and in 1597. There was even less wheat.

*This led to further inflation, making bread even more expensive for the poor*
4. **Sheep farming.** English cloth was fashionable so sheep farming became very profitable. Many farmers started rearing sheep rather than growing wheat.

*This led to further inflation, making bread even more expensive for the poor*

### 22 Elizabethan responses to poverty

Elizabethans did not understand the causes of poverty so they blamed individuals. At first, the government introduced harsh punishments to deter people from becoming vagrants.

- Vagrants caught for the first time were whipped and burned through the ear with a hot iron
- If vagrants were caught again, they could be hanged
- This approach did not work because it did not deal with the causes of poverty

The 1601 Poor Law introduced a system that treated some poor people with more compassion. The system remained in place for over 200 years.

1. The 1601 Poor Law divided the poor into two categories:
  - **The deserving poor:** people who wanted to work but couldn't (i.e. the elderly, children, disabled people)
  - **The undeserving poor:** people who could work but didn't (criminals, lazy people)
2. The 1601 Poor Law treated different types of poor differently
  - The **deserving poor** were treated with compassion:
    - **poor relief** (benefits)
    - materials for work
    - **apprenticeships** for young people
  - The **undeserving poor** still threatened with **deterrents** such as
    - whipping
    - hard labour
3. The **1601 Poor Law** was paid for by a tax called the **poor rate** and managed by the **Justices of the Peace**

## GCSE History: Elizabeth: Popular Culture

### 23 'Merry England'

People in Industrial Britain looked back with nostalgia on the Elizabethan period and created a myth of 'Merry England' that wasn't always based in reality

This 'Merry England' interpretation imagined a 'golden age' in which...

- ... people wore fine clothes
- ... everyone had plenty of food
- ... people got on well with each other
- ... cultural achievements – such as **William Shakespeare's** plays – were enjoyed by all

Certainly, ordinary people in Elizabethan England enjoyed a wide range of popular pastimes

#### 1. Sport

- **Football**, played on the streets between huge teams from different villages, was the most popular sport
- **Bear-baiting** – in which spectators bet on a pack of dogs attacking a tied up bear – was widespread

#### 2. Festivities

- On saints' days, villages held **parish ales** – festivals of drinking, eating, and dancing – that lasted several days
- **Christmas** festivities included much eating, drinking, and carol-signing and lasted 12 days
- On **May Day** people danced around the **maypole** and watched plays
- **Harvest Home** was celebrated once all the crops had been harvested at the end of August

#### 3. The alehouse (pub)

- The most common pastime for the **labouring poor** and **middling sort** was going to the **alehouse** to drink beer with friends
- **Alehouses** were also places of **gambling** and **prostitution**

### 24 The Puritan attack on popular pastimes

A striking feature of Elizabeth's reign was the decline in popular pastimes.

- **Parish ales** stopped in many areas
- **Alehouses** closed
- **Maypoles** were pulled down

The people responsible for this were **Puritan ministers** who wanted people to live purer Christian lives. They clamped down on **popular pastimes** by:

- preaching sermons attacking festivities such as **parish ales**
- persuaded **Justices of the Peace** to ban **maypoles** and introduce licences for selling ale

What drove Puritan ministers to attack popular pastimes?

#### 1. Protecting the Sabbath.

Puritans believed that Sunday should be reserved for prayer, not drinking and dancing.

#### 2. Stopping pagan practices.

Traditions such as **May Day** were **pagan**, not **Christian**.

Puritans believed this distracted from the true Christian religion.

#### 3. Preventing violent disorder.

Crowds at festivities such as **parish ales** and **Harvest Home** often became drunk and violent. Puritans did not think this was Christian behaviour.

#### 4. Preventing sex outside marriage.

**Puritan ministers** believed – perhaps with good reason – that dancing and drinking at festivals such as **May Day** led to the sin of sex outside marriage.

## GCSE History: Elizabeth: Popular Culture

### 25 Theatres and their opponents

#### **The growth of theatres**

- There were no theatres when Elizabeth became queen in 1558
- Instead, actors toured the country, performing at **alehouses** and **parish ales**
- When the government began arresting actors as **vagrants**, they formed **theatre companies**
- The theatre companies built theatres in London to perform plays written by **playwrights**
- One popular theatre company was the **Lord Chamberlain's Men**
  - Playwright: **William Shakespeare**
  - Popular plays: **Romeo and Juliet, Macbeth**
  - Theatre: **The Globe**

**The galleries** were the covered, raised areas of seating. Entry was 6 pence.

**The yard** was where the poor – known as **groundlings** - stood to watch plays. Entry was one penny.

**The stage** was raised and jutted out into the centre of the theatre.

#### **Opposition to the theatres**

- **Puritan ministers** opposed the theatres because plays encouraged unholy behaviour and distracted ordinary people from prayer and bible reading
- **The London city authorities** opposed the theatre because they feared crowds of spectators would spread the **plague** or commit **crimes**

#### **Support for the theatres**

- **The Queen** enjoyed the theatre and invited Shakespeare to perform at the Royal Court
- **Ordinary people** loved the theatre because it provided cheap entertainment

### 26 The persecution of witches

#### **Features of witch belief**

- Elizabethans believed that witches could perform magic to cure illness, control the actions of others, or recover stolen goods
- Some people believed witches' power came from their relationship with the **devil**
- Witches were believed to have **familiars**: small animals such as cats and toads that assisted with their evil acts

#### **The persecution of witches in Elizabeth's reign**

- **1563** law against witchcraft
  - Death by hanging for using witchcraft to kill
  - Prison for damage to property
- The number of cases increased in the later years of Elizabeth's reign: 166 cases in the 1580s
- There were 172 cases in Essex alone during Elizabeth's reign

#### **Historians' interpretations of the reasons for the persecution of witches:**

##### **1. Tension between villagers**

- Power for the powerless: explains confessions
- Lots of unexplained terrible things happen

##### **2. Attacks on women**

- 90% of those accused of witchcraft were women
- In a patriarchal society, persecuting witches was a way to deal with women who did not have husbands to control them

##### **3. Puritans**

- Puritan ministers encouraged persecution to get rid of magical beliefs
- Essex, a hotbed of accusations of witchcraft, was a highly Puritan area

## GCSE History: Elizabeth: The Wider World

### 27 The Algonquian

*The Algonquian were one of the largest Native American peoples*

**Who ruled the Algonquian?**

- The **Algonquian** were united by a common language
- Each village was ruled over by a different chief
- **Wingina** was the chief of an **Algonquian** village called **Secotan**

**How did the Algonquian make a living?**

- Everyone worked hard to produce food and there was plenty to go around:
  - Women and girls grew **crops** such as sweetcorn, beans and squash
  - Boys and men hunted and fished
- Villages traded with other villages for goods such as copper and pearls

**What did the Algonquian believe?**

- The **Algonquian** did not believe in individual gods, but instead that a **Great Spirit** inhabited the entire universe
- The **Algonquian** celebrated the changing of the seasons with **festivities** that reflected their reliance on the natural world

### 28 The Mughal Empire

*The Mughal Empire was the most powerful and wealthy empire in India*

**Who ruled the Mughal Empire?**

- The **Mughal Emperor** in the 16<sup>th</sup> century was **Akbar the Great**
- He expanded his empire to include over **100 million** people

**How did the Mughals make a living?**

- Most Indians were peasant farmers as most of India had very **fertile** land
- However, many peasants lived in poverty as they had to give a third of their crops to the **emperor** each year as taxes
- Wealthy **Mughals** could afford luxury goods such as spices, cotton cloth, jewels, and perfumes
- The **Mughals** traded with **Portuguese merchants** who sailed from Europe

**What did the Mughals believe?**

- **Akbar the Great** was a **Muslim**, but most people in his Empire were **Hindus** and **Sikhs**
- **Akbar tolerated** other religions and encouraged discussions between them

## GCSE History: Elizabeth: The Wider World

### 29 Roanoke

*Roanoke was the first British colony in North America, but it failed*

**What motivated Walter Raleigh to establish Roanoke?**

- Wealth: Raleigh hoped to find gold and silver in **North America**
- Elizabeth: Raleigh hoped that his new colony would earn him **patronage** from the Queen
- Spain: Raleigh wanted to challenge the power of Catholic **Spain**
- Royal support: **Elizabeth** gave Raleigh permission to take land in **North America**

**What happened?**

- In 1587, 117 English **settlers** arrived on **Roanoke Island** but they had lost most of their supplies
- The settlers relied on the nearby **Algonquian** village of **Secotan**, led by **Chief Wingina**
  - At first, relations between the English and the **Algonquian** were good.
  - However, soon **Wingina** decided to attack the **settlers**
  - Other **Algonquian** **collaborated** with the **settlers**: **Manteo** taught the English **Algonquian** and helped them ambush and kill **Wingina**
- Some settlers returned to Britain for more supplies
- However, when boats returned with supplies in 1590, the **colony was deserted**

**Why did the colony fail?**

- The **settlers** lost their supplies and seeds on the journey
- The **settlers** had a poor relationship with the **Algonquian**
- Boats bringing new supplies were delayed by the **Spanish Armada**

**What did the English adventurers achieve?**

- The adventurers bought back new products such as potatoes and tobacco
- The English gained valuable knowledge, allowing future colonies – such as **Jamestown** – to succeed

### 30 Trade with the East

*Trade with India increased in the last years of Elizabeth's reign*

**What motivated journeys to the East?**

- Wealth: The increased wealth of the **gentry** created a **demand** for luxury goods such as spices, cotton cloth, jewels, and perfumes
- Spain: Although Portuguese **merchants imported** luxury goods from India, Portugal was invaded by Spain in 1580
- Royal support: Elizabeth supported trade with the East by writing letters to be carried to the **Mughal Emperor**

**What happened?**

- Ralph Fitch's expedition: in the 1580s, Ralph Fitch travelled to India by land and saw the wealth of the **Mughal Empire**
- Dutch success: in 1599, a **Dutch** fleet returned to the **Netherlands** with hundreds of tons of spices
- The East India Company: in 1600, a group of **merchants** set up a company to trade with India – the **East India Company**
- The first voyage: in 1602, the **East India Company** successfully set up a **factory** – or trading post – on the island of **Java** and brought back spices and other goods

**What did the English adventurers achieve?**

- Trade brought new goods, such as spices and cotton
- The English gained valuable knowledge of India
- The **East India Company** became the most powerful company in the world by 1800, controlling half of all the trade in the world and eventually ruling most of India

## GCSE History: Elizabeth: The Wider World

### 31 The achievements of Elizabethan adventurers

#### *The achievements of the Elizabethan adventurers remain controversial*

##### **Francis Drake**

- Between 1577 and 1580, Drake became the first Englishman to sail around the world
- On his journey, he robbed Spanish treasure ships and attacked Spanish colonies in the **New World**
- Drake was also heavily involved in capturing and trading **enslaved people** on the coast of **West Africa**

##### **Walter Raleigh**

- Between 1584 and 1587, Raleigh funded three expeditions to set up Roanoke – England's first colony in **North America** – but they all failed
- In 1594, Raleigh led an expedition to South America in search of **El Dorado** – the 'city of gold' – but he found no gold mines

##### **Ralph Fitch**

- In 1583, Ralph Fitch successfully reached **India** by travelling by land through the Middle East
- The journey to India and back covered 3,000 miles and took eight years
- Fitch found that the **Dutch** and **Portuguese** had already **established** trading links with the Mughal Empire, although he did gain valuable knowledge and inspired other merchants to set up the **East India Company**

## Year 11 Coasts KO – Page 1 – Glossary and Processes

### KP11: Key Words

1. **Abrasion (or corrosion):** The wearing away of cliffs by sediment flung by breaking waves.
2. **Arch:** A wave-eroded passage through a small headland. This begins as a cave formed in the headland, which is gradually widened and deepened until it cuts through.
3. **Attrition:** Erosion caused when rocks and boulders transported by waves bump into each other and break up into smaller pieces.
4. **Bar:** Where a spit grows across a bay, a bay bar can eventually enclose the bay to create a lagoon. Bars can also form offshore due to the action of breaking waves.
5. **Beach:** The zone of deposited material that extends from the low water line to the limit of storm waves. The beach or shore can be divided in the foreshore and the backshore.
6. **Beach nourishment:** The addition of new material to a beach artificially, through the dumping of large amounts of sand or shingle.
7. **Beach reprofiling:** Changing the profile or shape of the beach. It usually refers to the direct transfer of material from the lower to the upper beach or, occasionally, the transfer of sand down the dune face from crest to toe. Cave A large hole in the cliff caused by waves forcing their way into cracks in the cliff face.
8. **Chemical weathering:** The decomposition (or breakdown) of rock caused by a chemical change within that rock; sea water can cause chemical weathering of cliffs. Cliff A steep high rock face formed by weathering and erosion along the coastline.
9. **Deposition:** Occurs when material being transported by the sea is dropped due to the sea losing energy.
10. **Dune regeneration:** Action taken to build up dunes and increase vegetation to strengthen the dunes and prevent excessive coastal retreat. This includes the re-planting of marram grass to stabilise the dunes, as well as planting trees and providing boardwalks.
11. **Erosion:** The wearing away and removal of material by a moving force, such as a breaking wave. Gabion Steel wire mesh filled with boulders used in coastal defences.
12. **Groyne:** A wooden barrier built out into the sea to stop the longshore drift of sand and shingle, and so cause the beach to grow. It is used to build beaches to protect against cliff erosion and provide an important tourist amenity. However, by trapping sediment it deprives another area, down-drift, of new beach material.
13. **Hard engineering:** The use of concrete and large artificial structures by civil engineers to defend land against natural erosion processes.
14. **Headlands and bays:** A rocky coastal promontory made of rock that is resistant to erosion; headlands lie between bays of less resistant rock where the land has been eroded back by the sea.
15. **Hydraulic power:** The process by which breaking waves compress pockets of air in cracks in a cliff. The pressure may cause the crack to widen, breaking off rock.
16. **Longshore drift:** The zigzag movement of sediment along a shore caused by waves going up the beach at an oblique angle (wash) and returning at right angles (backwash). This results in the gradual movement of beach materials along the coast.
17. **Managed retreat:** Allowing cliff erosion to occur as nature taking its course: erosion in some areas, deposition in others. Benefits include less money spent and the creation of natural environments. It may involve setting back or realigning the shoreline and allowing the sea to flood areas that were previously protected by embankments and seawalls.
18. **Mass movement:** The downhill movement of weathered material under the force of gravity. The speed can vary considerably.
19. **Mechanical weathering:** Weathering processes that cause physical disintegration or break up of exposed rock without any change in the chemical composition of the rock, for instance freeze thaw. Rock armour Large boulders dumped on the beach as part of the coastal defences.
20. **Sand dune:** Coastal sand hill above the high tide mark, shaped by wind action, covered with grasses and shrubs.
21. **Sea wall:** A concrete wall which aims to prevent erosion of the coast by providing a barrier which reflects wave energy.
22. **Sliding** Occurs after periods of heavy rain when loose surface material becomes saturated and the extra weight causes the material to become unstable and move rapidly downhill, sometimes in an almost fluid state.
23. **Slumping:** Rapid mass movement which involves a whole segment of the cliff moving down-slope along a saturated shear-plane or line of weakness.
24. **Soft engineering:** Managing erosion by working with natural processes to help restore beaches and coastal ecosystems.
25. **Spit:** A depositional landform formed when a finger of sediment extends from the shore out to sea, often at a river mouth. It usually has a curved end because of opposing winds and currents.
26. **Stack:** An isolated pillar of rock left when the top of an arch has collapsed. Over time further erosion reduces the stack to a smaller, lower stump.
27. **Transportation:** The movement of eroded material.
28. **Wave cut platform:** A rocky, level shelf at or around sea level representing the base of old, retreated cliffs.
29. **Waves:** Ripples in the sea caused by the transfer of energy from the wind blowing over the surface of the sea. The largest waves are formed when winds are very strong, blow for lengthy periods and cross large expanses of water.

### KP11 – What are waves?

#### Key terms:

- Crests - the top of the wave
- Trough - low between 2 crests
- Wave height – distance between the crest and the trough
- Wave length - distance between 2 crests
- Swash – movement of water and sediment UP the beach
- Back wash - movement of water and sediment DOWN the beach
- Wave frequency – how often the wave hits the coast. Per minute
- Fetch - the length of water over which a given wind has blown

#### How do waves form:

1. Waves are formed by wind
2. When waves start out at sea they have a circular orbit.
3. As waves approach the shore, friction slows the base of the wave.
4. This causes of orbit to become elliptical
5. The top of the wave breaks over.
6. The wave moves up the beach as swash and back down the beach as backwash.

#### There are two types of waves:

- Constructive waves: smaller wave height and less frequent. Stronger swash and weaker backwash.
- Destructive waves: Larger wave height and more frequent. Weaker swash and stronger backwash.

### KP12 – Weathering and Mass Movement

**Coastlines are shaped by the waves and the weather. When the weather shapes the coastline we call that weathering. Weathering is the decomposition or disintegration of rock in its original place (erosion involves moving rock)**

#### There are three main types:

1. **Chemical weathering:** Rainwater and seawater can be a weak acid, if a coastline is made up of rocks such as limestone or chalk, over time they can become dissolved by the acid in the water.
2. **Mechanical weathering:** When water enters cracks in rock. The water freezes when temperatures drop causing the crack to widen. The ice melts and makes it way deeper into the cracks and the rocks split open.
3. **Biological Weathering:** Plants and animals can also have an effect on rocks. Roots burrow down, weakening the structure of the rock until it breaks away.

Once weakened by weathering mass movement can then deliver this material to beaches and the sea to be eroded.

**Rockfall:** rapid, free-fall of rock from a steep cliff face.

**Landslides:** Layers of rock slip down the cliff face

**Rotational cliff slumping:** When the cliff collapses in a rotational movement.

Year 11 Coasts KO – Page 2 – Processes, Erosional Landforms and Depositional Landforms

<p><b>KPI4 – Processes of erosion and transportation</b></p> <ol style="list-style-type: none"> <li>1. Erosion is the removal of material and sculpting of landforms</li> <li>2. Transportation is the movement of material</li> </ol> <p><b>Processes of erosion:</b></p> <ul style="list-style-type: none"> <li>• <b>Hydraulic Action:</b> When sheer force of water wears away rock</li> <li>• <b>Abrasion:</b> When rocks wear away the cliff-face/river banks</li> <li>• <b>Attrition:</b> When rocks wear each other away</li> <li>• <b>Solution:</b> When dissolved materials wear rock away or are transported</li> </ul> <p><b>Processes of transportation:</b></p> <ul style="list-style-type: none"> <li>• <b>Traction:</b> When rock is moved by rolling along sea/river bed</li> <li>• <b>Saltation:</b> When rock is moved by bouncing along sea/river bed</li> <li>• <b>Suspension:</b> When rock is carried within the river/sea and is off the sea/river bed</li> <li>• <b>Solution:</b> When dissolved materials wear rock away or are transported</li> </ul> <p><b>Processes of deposition</b></p> <ul style="list-style-type: none"> <li>• <b>Deposition:</b> The dropping of rock</li> </ul>	<p><b>KPI 5 – Geology</b></p> <p>A landform is a feature of the landscape that has been made by erosion, transportation or deposition.</p> <p>Rock type and structure can have an impact on coastal landforms.</p> <p><b>Rock type:</b></p> <ul style="list-style-type: none"> <li>- More resistant rocks: Erode more slowly e.g. chalk and limestone.</li> <li>- Less resistant rocks: Erode faster e.g. clay and sandstones.</li> </ul> <p>A coastline is called <b>concordant</b> if the rock beds run parallel to the edge of the sea.</p> <p>A coastline is called <b>discordant</b> if the rock beds run perpendicular at a right angle to the sea's edge.</p> <p><b>Differential erosion:</b> Different rates of erosion along the coastline due to differences of geology (types of rock).</p> <p><b>Faults:</b> Cracks in rocks which are areas of weaknesses in rocks which can be carved out to form arches and caves.</p>	<p><b>KPI 5 – Formation of a Headland and Bay</b></p> <p>A headland is made up of hard rocks that jut out to sea.</p> <p>A bay is an area of soft rock that has been worn away by the headland.</p> <p>Headlands and bays are formed when...</p> <ol style="list-style-type: none"> <li>1. A coastline faces the wave attack with <b>DISCORDANT</b> beds</li> <li>2. Wave attack causes Hydraulic Action and Attrition which causes the cliff to <b>RETREAT</b></li> <li>3. Less resistant rocks are eroded at a faster rate to create bays, more resistant rocks stick out to sea as headlands</li> <li>4. During calm periods the sheltered bays allow deposition of beaches.</li> </ol>		<p><b>KPI 7 – Formation of a cave, arch, stacks and stumps</b></p> <p>These landforms form when...</p> <ol style="list-style-type: none"> <li>1. There are lines of weakness in the headlands called <i>faults</i> which are vulnerable to erosion.</li> <li>2. Hydraulic action and abrasion wears away the rock along the faults to form a crack.</li> <li>3. Over time this crack will become wider due to hydraulic action and form a cave.</li> <li>4. Hydraulic action and abrasion will eventually cause the cave to break through the headland to form an arch.</li> <li>5. The arch is enlarged by erosion at the base and freeze-thaw weathering on the roof</li> <li>6. Eventually the roof will be worn away and collapse to form an isolate pillar known as a stack.</li> <li>7. The stack becomes eroded and collapses leaving a stump.</li> </ol>		<p><b>KPI8 – Beach Formation</b></p> <ol style="list-style-type: none"> <li>1. Deposition is the main process that creates a beach</li> <li>2. This occurs where waves have limited energy and so beaches often form in sheltered areas such as bays where wave energy is less than on exposed headlands.</li> <li>3. Here, waves are likely to be constructive where the swash is dominant and the backwash weaker so that material is left on the beach rather than being taken away by the waves.</li> <li>4. Over time this beach material will accumulate in the sheltered bay, and may be composed of different sediments from pebbles to fine sands</li> <li>5. Beaches are under constant change, from processes like longshore drift. Beaches can also grow over time when constructive waves dominate, or even shrink in size during winter periods in the UK when we are more likely to get storms and destructive waves</li> </ol>		<p><b>KPI 5 – Formation of a wave cut platform</b></p> <p>A wave cut platform forms at the base of a cliff by...</p> <ol style="list-style-type: none"> <li>1. Waves approach the cliff face and erode the base between the high tide and low tide mark through hydraulic action.</li> <li>2. Overtime a wave cut notch will form at the base of the cliff.</li> <li>3. The notch will get larger through hydraulic action and abrasion until it forms an undercut.</li> <li>4. Eventually the overlying cliff cannot support the weight anymore and will collapse leaving behind a wave-cut platform.</li> <li>5. The cliff gradually retreats leaving behind a wave-cut platform.</li> </ol>	<p><b>KPI9 – Spit and Bar formation</b></p> <p><b>Spit Formation</b></p> <ol style="list-style-type: none"> <li>1) The prevailing (<i>main wind direction</i>) wind pushes the waves at an angle towards the shore</li> <li>2) These waves pick up sediments (<i>rocks and sands</i>) and swash it up the beach at an angle</li> <li>3) When the waves retreat (<i>move back down</i>) down the beach at a right angle it drags sediment with it as <b>BACKWASH</b></li> <li>4) This process continues in a zigzag movement known as Longshore Drift – This moves sediment along the beach</li> <li>5) Where a river enters the sea it slows down the waves and causes deposition of sediment to occur inland</li> <li>7) Behind the spit a salt marsh can form</li> </ol> <p><b>Bar Formation</b></p> <p>A bar is created when there is a gap in the coastland with water in it. This could be a bay or a natural hollow in the coastland. The process of longshore drift occurs and this carries material across the front of the bay.</p>
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## Year 11 Coasts KO – Page 3 – Depositional Landforms and Management Techniques

### KPI10 – Sand dune formation

**Key definition:** Sand dunes are accumulations of sand and other sized sediments that gather on a beach.

Sand dunes form when...

1. Sand dunes are **created around obstacles** on the beach, these could be natural such as a rock or human things such as some waste drift wood or a fence.
2. The sea brings sediment to the beach and then the wind redistributes that sediment.
3. When the **wind** encounters the obstacles velocity (*speed*) falls and sediment is **DEPOSITED**. This makes amount of sand or sediment at the front of the sand dune system, known as an **EMBRYO dune**.
4. Over time, tough plants known as **PIONEERS** such as Marram grass take root on the dune, their root systems helping to stabilise the sand and fix it in place.
5. As these plants die off they add nutrients and humus to the sand dune improving the soil, so more complex plants can move in, such as brambles. Eventually, the **climatic climax vegetation** is reached, which in the UK would be forest.

Sand dune order:

1. **Embryo dunes**– rocks, debris and plants can encourage sand to build up. Pioneer plants like prickly saltwort
2. **Fore dune & Yellow dunes**– Plants like sand Couch and Lyme grass bind sand together
3. **Grey dunes**– dunes up to 20m high, with plants like Marram Grass & Sea Holly
4. **Mature Dunes** – Largest and oldest dune with trees.

### KPI11 Coastal Management

**Hard Engineering:** The use of artificial structures such as sea walls aimed at controlling the natural processes occurring at the coast.

#### Example 1: Sea Walls

- **Definition:** A permanent concrete wall which protects low areas from erosion.
- **Benefits:** The curved walls are more expensive but dissipate the energy from incoming waves better.
- **Costs:** Very expensive - These defences can be up to £6 million per kilometre to construct.

#### Example 2: Groynes

- **Definition:** A wooden structure at right angles to the coastline to reduce longshore drift.
- **Benefits:** Designed to interrupt longshore drift and catch sediment as it moves along the coastline, thus widening a beach.
- **Costs:** Beaches further down the coastline are starved of sediment, which makes them more vulnerable to erosion

#### Example 3: Rock Armour

- **Definition:** Large boulders which are piled on a beach to reduce erosion.
- **Benefits:** Absorb the wave energy.
- **Costs:** Can be expensive to transport.

**Soft Engineering:** a sustainable approach to managing the coastline without the use of artificial structures

#### Example 1: Beach Nourishment

- **Definition:** Replacing the beach material, lost through erosion.
- **Benefits:** Additional sand and shingle is added to a beach to make it higher and wider.
- **Costs:** Needs constant maintenance or else this new sediment will also eventually be eroded by the sea.

#### Example 2: Dune Regeneration

- **Definition:** Creating or restoring sand dunes.
- **Benefits:** Strengthens the dunes and prevent coastal retreat.
- **Costs:** Time consuming to plant the **Marram grass and fence off areas**, and is less effective than hard engineering schemes.

#### Example 2: Managed Retreat

- **Definition:** allows an area that was not previously exposed to flooding by the sea to become flooded by removing coastal protection
- **Benefits:** Can be **monitored** to check that nothing valuable is at risk of being lost.
- **Costs:** Land is lost and there is the cost of compensating land owners.

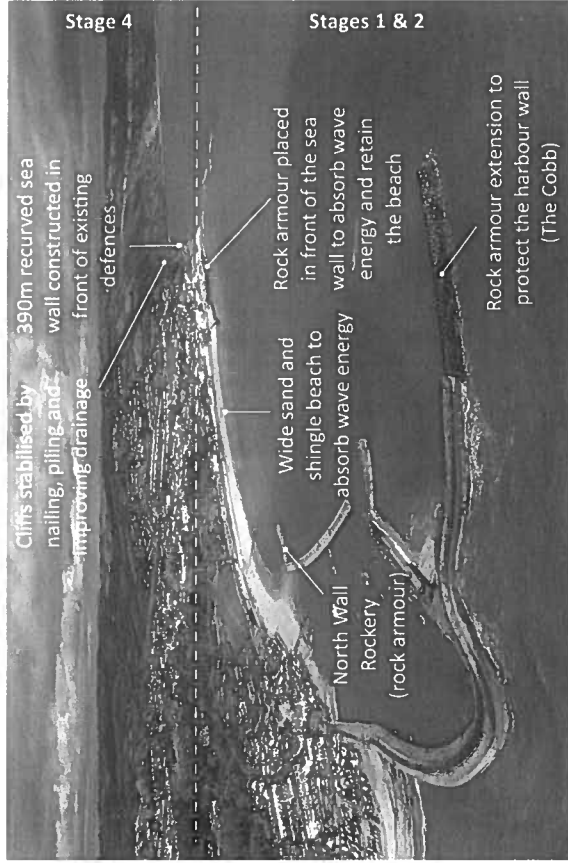
### KPI12 Lyme Regis

**Location:** Town in England in the county of West Dorset. Located on the English Channel.

#### Why is it eroding?

The coast at Lyme Regis experiences erosion. Much of the town has been constructed on unstable cliffs, which experience some of the highest erosion rates in Europe due to high energy waves from the southwest and its geology. The geology of Lyme Regis is a mixture of limestone, resistant to erosion, and clay, vulnerable to erosion. The clay lies on limestone, so as the clay erodes, the cliffs are vulnerable to landslides.

#### Coastal Management Strategy:



#### Positives:

- The new beaches have increased visitor numbers and seafront businesses are thriving.
- The harbour is now better protected benefitting boat owners and fishermen.
- The new defences have stood up to recent stormy winters.

#### Negatives:

- Increased visitor numbers have led to conflicts with some local people who think traffic congestion and litter have increased.
- The new sea wall may interfere with coastal processes and affect neighbouring stretches of coastline, causing conflicts elsewhere.

## Year 11 Term 2 – Urban Issues & Challenges – Page 1 – Urbanisation and Rio De Janeiro

### Key words .

- Brownfield site** Land that has been used, abandoned and now awaits some new use. Commonly found across urban areas, particularly in the inner city.
- Dereliction** Abandoned buildings and wasteland.
- Economic opportunities** Chances for people to improve their standard of living through employment.
- Favela** A slum or shantytown located within or on the outskirts of the country's large cities
- Greenfield site** A plot of land, often in a rural or on the edge of an urban area that has not yet been subject to any building development.
- Inequalities** Differences between poverty and wealth, as well as in peoples' wellbeing and access to things like jobs, housing and education. Inequalities may occur in housing provision, access to services, access to open land, safety and security.
- Integrated transport systems** When different transport methods connect together, making journeys smoother and therefore public transport more appealing. Better integration should result in more demand for public transport and should see people switching from private car use to public modes of transport, which should be more sustainable. It may also lead to a fall in congestion due to less road users.
- Mega-cities** An urban area with a total population in excess of ten million people.
- Migration** When people move from one area to another. In many LICs people move from rural to urban areas (rural-urban migration).
- Natural increase** The birth rate minus the death rate of a population.
- Pollution** The presence of chemicals, noise, dirt or other substances which have harmful or poisonous effects on an environment.
- Regeneration** -is the attempt to reverse that decline by both improving the physical structure, and, more importantly and elusively, the economy of those areas.
- Rural-urban fringe** A zone of transition between the built-up area and the countryside, where there is often competition for land use. It is a zone of mixed land uses, from out of town shopping centres and golf courses to farmland and motorways.
- Sanitation** Measures designed to protect public health, including the provision of clean water and the disposal of sewage and waste.
- Social deprivation** The degree to which an individual or an area is deprived of services, decent housing, adequate income and local employment.
- Social opportunities** Chances for people to improve their quality of life, for instance access to education and health care.
- Squatter settlement** An area of poor-quality housing, lacking in amenities such as water supply, sewerage and electricity, which often develops spontaneously and illegally in a city in an LIC.
- Sustainable urban living** A sustainable city is one in which there is minimal damage to the environment, the economic base is sound with resources allocated fairly and jobs secure, and there is a strong sense of community, with local people involved in decisions made.
- Traffic congestion** Occurs when there is too great a volume of traffic for roads to cope with, so traffic jams form and traffic slows to a crawl.
- Urban greening** The process of increasing and preserving open space such as public parks and gardens in urban areas.
- Urbanisation** The process by which an increasing percentage of a country's population comes to live in towns and cities. Rapid urbanisation is a feature of many LICs and NEEs.
- Urban regeneration** The revival of old parts of the built-up area by either installing modern facilities in old buildings (known as renewal) or opting for redevelopment (ie demolishing existing buildings and starting afresh).
- Urban sprawl** The unplanned growth of urban areas into the surrounding countryside.
- Waste recycling** The process of extracting and reusing useful substances found in waste
- Informal Economy** –employment outside the official knowledge of the government.

### KPI 1 Describe the causes of urbanisation

This is an increase in the amount of people living in urban areas such as towns or cities. In 2007, the UN announced that for the first time, more than 50 % of the world's population live in urban areas.

#### Where is urbanisation happening?

Urbanisation is happening all over the world but in LICs and NEEs rates are much faster than HICs. This is mostly because of the rapid economic growth they are experiencing.

#### Two main causes of urbanisation:

- Natural Increase:** There has been an increase in birth-rate due to high percentage of population are child-bearing age which leads to high fertility rate and a lack of contraception or education about family planning. There has been a lowering of death rate due to higher life expectancy due to better living conditions and diet. Improved medical facilities helps lower infant mortality rate.
- Migration:** Rural to urban migration due to push and pull factors
  - PUSH FACTORS** - natural disasters, war and conflict, mechanisation, drought, lack of employment.
  - PULL FACTORS**- more jobs, better education & healthcare, increased quality of life, following family members.

### KPI 2 Describe what a mega city is

A mega city is an urban area which over 10 million people living there. More than two thirds of current megacities are located in either NEEs (Brazil) and LICs (Nigeria). The amount of megacities are predicted to increase from 28 to 41 by 2030.

Three types of mega city

- Slow growing; have no squatter settlements e.g. Tokyo (often HICs)
- Growing; under 20% in squatter settlements e.g. Beijing (often NEEs)
- Rapid Growing; Over 20% in squatter settlements e.g. Mumbai (often LICs)

### KPI 3 Describe the regional and local importance of Rio

Rio De Janeiro is a coastal city situated in the South East region of Brazil within the continent of South America. It is the second most populated city in the country (6.5 million) after Sao Paulo.

- Has the second largest GDP in Brazil It is headquarters to many of Brazil's main companies, particularly with Oil and Gas.
- Sugar Loaf mountain is one of the seven wonders of the world.
- Located on Guanabara Bay
- The city is surrounded by mountains, including the iconic Corcovado Mountain and the Tijuca Forest, which is the largest urban forest in the world.
- One of the most visited places in the Southern Hemisphere.
- Hosted the 2014 World Cup and 2016 Summer Olympics.
- Features several famous beaches, including Copacabana and Ipanema.

### KPI 4 Describe why Rio De Janeiro's population is growing

The city began when Portuguese settlers with slaves arrived in 1502. Since then, Rio has become home to various ethnic groups.

However, more recently, millions of people have migrated from rural areas that have suffered from drought, lack of services and unemployment to Rio. People do this to search for a better quality of life.

This expanding population has resulted in the rapid urbanisation of Rio de Janeiro. Economic activities have attracted migrants from many different places including:

- Amazon Basin
- South Korea and China
- Skilled workers from the USA and UK
- Argentina and Bolivia .

### KPI 5 Describe the Social Challenges and Opportunities in Rio

- Opportunities:**
- Health Care** – Healthcare provisions, is significantly better in Rio than in rural areas. Compared to living in the countryside vulnerable people such as children and the elderly have better access to emergency care and vaccinations in Rio.
  - Education** – There are many primary and secondary schools in Rio which have enabled 95% of children aged 10 and above in the city to be literate. The city also has several universities providing higher education opportunities.
  - Water supply** – Access to clean water has increased considerably in Rio since the city hosted major sporting events such as the 2014 World Cup and the 2016 Olympics.
  - Energy** – Although the city is subject to power cuts, the energy supply is more reliable than in rural areas where lighting and power are not always available.

#### Challenges:

- Water supply** – 12% no access to running water
- Energy insecurity** means there are frequent power cuts
- Life expectancy** in Cidade De Deus is only 45 compared to 80 in Barra Da Tijuca
- Only half of all children continue their education beyond 14
- Crime** is a major problem in Rio.
- Drugs, theft and vandalism** are major challenges for the police.
- One of the most significant problems in favelas is associated with criminal gangs operating drug trafficking in favelas

## Year 11 Term 2 – Urban Issues & Challenges – Page 2 – Rio de Janeiro and Bristol

<p><b>KPI 6 Describe the Economic Challenges and Opportunities in Rio</b></p> <p>Rio's industrial areas have boosted the city's economy Rio provides more than 6% of Brazil's employment Economic development has improved Rio's transport and environment Large companies are attracted to Rio</p> <p>Economic Opportunities have developed in the formal economy Such as:</p> <ul style="list-style-type: none"> <li>• Service industries</li> <li>• Port industries</li> <li>• Oil refining</li> <li>• Manufacturing</li> <li>• Tourism</li> <li>• Retail</li> </ul> <p><i>What are the challenges?</i></p> <ul style="list-style-type: none"> <li>• <b>Unemployment</b> - A recession in 2015 increased unemployment in Rio. There are wide contrasts in wealth. Unemployment rates in favelas are over 20%. Most people work in the informal economy where jobs are poorly paid and irregular.</li> <li>• <b>Solution:</b> The Schools of Tomorrow programme aims to improve education in poor and violent areas. Free child care is provided to enable teenage parents to return to education.</li> <li>• <b>Crime</b> – Murder, kidnapping and armed assault occur regularly. Powerful gangs control drug trafficking in many of the favela</li> <li>• <b>Solution:</b> 2013 Pacifying Police Units (UPPs) were established to reclaim favelas from drug dealers. Police have taken control of some of the crime-dominated favelas.</li> </ul>	<p><b>KPI 7 Describe the Environmental Challenges and Opportunities in Rio</b></p> <p><u>Air pollution and traffic congestion</u></p> <ul style="list-style-type: none"> <li>• Air pollution causes around 5000 deaths per year.</li> <li>• Smog occurs when natural mist mixes with vehicle fumes and pollutants from factories</li> <li>• Traffic congestion increases stress and pollution it happens because steep mountains limit where roads can grow. Numbers of cars has increased and high crime means people prefer to drive</li> </ul> <p><b>SOLUTION:</b> Expansion of metro system, new tolls roads, coast roads one-way during rush hour</p> <p><u>Water pollution</u></p> <ul style="list-style-type: none"> <li>• Guanabara Bay is highly polluted</li> <li>• Rivers are polluted by open sewers in the favelas because government has not paid for sewage pipes</li> <li>• Oil spills from the Petrobras Oil Refinery</li> <li>• Ships empty fuel tanks in to the bay</li> </ul> <p><b>SOLUTION:</b> 12 new sewage works since 2004, ships fined for discharging fuel illegally, 5km of new sewage pipes installed</p> <p><u>Waste pollution</u></p> <ul style="list-style-type: none"> <li>• Many favelas are on steep slopes with few proper roads so waste collection is difficult.</li> <li>• Most waste is dumped and pollutes water system, causing diseases and encouraging rats</li> </ul> <p><b>SOLUTION:</b> A power plant has been set up which consumes 30 tonnes of rubbish a day and produces enough electricity for 1000 home</p>	<p><b>KPI 8 To describe how life for the urban poor can be improved</b></p> <p>What are the challenges of living in squatter settlements?</p> <ul style="list-style-type: none"> <li>• Crime</li> <li>• Health</li> <li>• Lack of Services</li> <li>• Construction</li> <li>• Unemployment</li> </ul> <p>Rochina is the largest favela in Rio.</p> <p><b>Planning for the Urban Poor</b></p> <p><b>Favela Bairro Project:</b> Site and Service Scheme- local authority provides the land and services for residents to build homes.</p> <p>Complexo do Alemão is a group of favelas in Rio's North Zone. The local authority has made many improvements:</p> <ul style="list-style-type: none"> <li>• Paved roads</li> <li>• Access to water supply</li> <li>• Improved sanitation</li> <li>• Cable car system - one free ticket a day</li> <li>• A Pacifying Police Unit (UPP) with police patrolling the community</li> <li>• Paved and formally named roads</li> <li>• Access to a water supply and drainage system for improved sanitation</li> <li>• Hillslides secured to prevent landslides</li> <li>• Building new health leisure and education facilities</li> </ul> <p><b>Successes:</b></p> <ul style="list-style-type: none"> <li>• Quality of life, mobility and employment prospects</li> </ul> <p><b>Failures:</b></p> <ul style="list-style-type: none"> <li>• Newly built infrastructure is not being maintained</li> <li>• Residents lack skills and resources to make repairs</li> <li>• More training is needed to improve literacy and employment</li> <li>• Rents have risen in the improved favelas</li> </ul>	<p><b>KPI 9 Describe where people live in the UK</b></p> <ul style="list-style-type: none"> <li>• UK's population unevenly distributed</li> <li>• 82% live in urban areas</li> <li>• ¼ of urban dwellers live in London and the south-east of England</li> <li>• Highland areas are sparsely populated</li> </ul> <p><b>KPI 10 Describe the location and regional importance of Bristol</b> Bristol is largest city in the south west.</p> <p><i>Why is Bristol regionally important?</i></p> <ul style="list-style-type: none"> <li>• Education - 2 universities</li> <li>• Industry - largest concentration of silicon chip manufacture outside of California</li> <li>• Religion - 2 cathedrals</li> <li>• Tourism - 8th most popular city to visit attractions include SS Great Britain</li> <li>• Culture and Entertainment - several theatres e.g. Bristol Old Vic and home to Aardman animation</li> </ul> <p><i>Why is Britain important as an international city?</i></p> <ul style="list-style-type: none"> <li>• Holds strategic position on the M4 corridor so good road and rail links, easy access to London and rail and ferry services to Europe</li> <li>• Bristol airport links to major European centres and the USA</li> <li>• Development of global industries such as financial and business services, defence, aerospace, culture and media</li> <li>• High level of inward investment in manufacturing from companies like Airbus, BMW and Siemens</li> <li>• Bristol University attracts students from all over the world</li> </ul> <p><b>KPI 11 Describe the impact of migration on Bristol</b> Migration from abroad accounts for half of Bristol's population growth. Large numbers from EU countries.</p> <p><b>Impacts:</b></p> <ul style="list-style-type: none"> <li>• Young economically active workforce</li> <li>• Enrich culture of city e.g. St Pauls carnival</li> <li>• Pressures on housing</li> <li>• Challenge of integration into wider community</li> </ul>
<p><b>KPI 12 Describe how urban change has created social opportunities</b></p> <p>Over 2 million people live within 50km of the city</p> <p>Social opportunities</p> <ul style="list-style-type: none"> <li>• Nightclubs, bars and music venues.</li> <li>• Theatres include Bristol Old Vic.</li> <li>• Sport - sports team are developing stadium and conference centres. 2 professional football teams, a rugby union team and the headquarters of Gloucestershire County Cricket</li> <li>• Shopping - Cribbs Causeway and Cabot's Circus</li> </ul> <p><b>KPI 13 Describe how urban change has created economic opportunities</b></p> <p>Closure of port meant industry changed. Major developments in tertiary (services) and quaternary (high tech).</p> <p>Industries in Bristol include:</p> <ul style="list-style-type: none"> <li>• Defence Procurement Agency</li> <li>• The Aerospace industry</li> <li>• Aardman Animations</li> </ul> <p><b>KPI 14 Describe how urban change has created economic opportunities</b></p> <p>2015 became European Green Capital</p> <p><u>Integrated Transport System</u></p> <ul style="list-style-type: none"> <li>• Bristol has introduced an Integrated Transport System - it encourages people to use public transport. There is the Rapid Transit Network which is 3 bus routes linked to the railway station and Park and Ride</li> <li>• Electrification of railway means greener more reliable trips to London</li> <li>• Vast number of cycle routes</li> </ul> <p><u>Urban Greening</u></p> <ul style="list-style-type: none"> <li>• Provision of open space in urban areas. More than 1/3rd of Bristol is open space. There are 8 nature reserves and 300 parks in the city.</li> <li>• Queens Square was once a dual carriageway but is now an open space with cycle routes.</li> </ul>	<p><b>KPI 12 Describe how urban change has created social opportunities</b></p> <p>Over 2 million people live within 50km of the city</p> <p>Social opportunities</p> <ul style="list-style-type: none"> <li>• Nightclubs, bars and music venues.</li> <li>• Theatres include Bristol Old Vic.</li> <li>• Sport - sports team are developing stadium and conference centres. 2 professional football teams, a rugby union team and the headquarters of Gloucestershire County Cricket</li> <li>• Shopping - Cribbs Causeway and Cabot's Circus</li> </ul> <p><b>KPI 13 Describe how urban change has created economic opportunities</b></p> <p>Closure of port meant industry changed. Major developments in tertiary (services) and quaternary (high tech).</p> <p>Industries in Bristol include:</p> <ul style="list-style-type: none"> <li>• Defence Procurement Agency</li> <li>• The Aerospace industry</li> <li>• Aardman Animations</li> </ul> <p><b>KPI 14 Describe how urban change has created economic opportunities</b></p> <p>2015 became European Green Capital</p> <p><u>Integrated Transport System</u></p> <ul style="list-style-type: none"> <li>• Bristol has introduced an Integrated Transport System - it encourages people to use public transport. There is the Rapid Transit Network which is 3 bus routes linked to the railway station and Park and Ride</li> <li>• Electrification of railway means greener more reliable trips to London</li> <li>• Vast number of cycle routes</li> </ul> <p><u>Urban Greening</u></p> <ul style="list-style-type: none"> <li>• Provision of open space in urban areas. More than 1/3rd of Bristol is open space. There are 8 nature reserves and 300 parks in the city.</li> <li>• Queens Square was once a dual carriageway but is now an open space with cycle routes.</li> </ul>		

## Year 11 Term 2 – Urban Issues & Challenges – Bristol and Freiburg

<p><b>KPI 14 Describe how urban change has created environmental challenges</b></p> <p><b>Challenge 1: Dereliction</b> Many industrial buildings are now derelict. E.g. Stokes Croft - an inner-city areas with housing once built for industrial workers. Housing became derelict. There were problems with squatters, riots and antisocial behaviour</p> <p><i>What is being done to improve the area?</i></p> <ul style="list-style-type: none"> <li>Bristol City Council obtained lottery grants to improve the area.</li> <li>Activists and artists want to revitalise the area through community action and public art, including graffiti art.</li> </ul> <p><b>Challenge 2: Urban Sprawl</b> Bristol needs new housing because of rapid growing population. Urban sprawl has expanded particularly to the north-west. New town of Bradley Stoke has extended city to the north.</p> <p>The green belt was set up to prevent urban sprawl on the rural-urban fringe but these areas are under pressure.</p> <p>Harry Stoke - new development of 1200 homes. Local people concerned about; traffic congestion, loss of animal habitat, and effect on flood risk</p> <p><i>What is being done to reduce urban sprawl?</i></p> <ul style="list-style-type: none"> <li>Housing development on brownfield sites. Between 2006 to 2013 94% of new housing built on brownfield sites.</li> <li>Bristol Harbourside</li> <li>-very run down area of the city redeveloped allowing people to live in the centre. BUT not everyone was happy with infrastructure and renovation was costly.</li> </ul>	<p><b>KPI 14 Describe how urban change has created environmental challenges -continued</b></p> <p><b>Challenge 3: Waste Disposal</b> The amount of waste produced per head in Bristol is 23 percent lower than the UK average. However, the city still produces over half a million tonnes of waste per year. It is among the worst cities in the country in terms of the amount of food waste</p> <p><i>What is being done to improve the area?</i> Agreeing higher targets with contractors who handle household waste</p> <p>Doing more to teach pupils in schools about the importance of recycling and how to recycle at home Introducing specialised kerbside collections and facilities for recycling different kinds of household waste. The Avonmouth waste treatment plant treats 200000 tonnes of waste per year. Any non- recyclable waste is used to generate enough electricity to meet the needs of nearly 25000 homes</p> <p><b>Challenge 4: Atmospheric Pollution</b> Estimated 200 people die in the city due to air pollution. Vehicle emissions are the main cause of air pollution in the city. Bristol is the most congested city in England.</p> <p><i>What is being done to improve the area?</i> Eco-friendly 'poo bus' that runs on bio-methane. Integrated transport network to reduce traffic on roads.</p> <p><b>KPI 15 Describe how urban change has created social inequality</b> Lack of investment has led to inequalities and some areas have high levels of social deprivation.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; vertical-align: top;"> <p><b>Filwood</b></p> <ul style="list-style-type: none"> <li>Life expectancy 78</li> <li>Lowest participation rates in active sport</li> <li>1.3rd of 16-24 unemployed</li> <li>2013 only 36% of students go top grades</li> </ul> </td> <td style="width: 50%; vertical-align: top;"> <p><b>Stoke Bishop</b></p> <ul style="list-style-type: none"> <li>Life expectancy 83</li> <li>Only 3% unemployed</li> <li>50% of population have a degree</li> <li>94% of 16 year olds 5+GCSEs</li> <li>81% homes owner occupied</li> </ul> </td> </tr> </table>	<p><b>Filwood</b></p> <ul style="list-style-type: none"> <li>Life expectancy 78</li> <li>Lowest participation rates in active sport</li> <li>1.3rd of 16-24 unemployed</li> <li>2013 only 36% of students go top grades</li> </ul>	<p><b>Stoke Bishop</b></p> <ul style="list-style-type: none"> <li>Life expectancy 83</li> <li>Only 3% unemployed</li> <li>50% of population have a degree</li> <li>94% of 16 year olds 5+GCSEs</li> <li>81% homes owner occupied</li> </ul>	<p><b>KPI 16 Describe and explain urban regeneration</b></p> <p>Urban regeneration involves redeveloping and revitalising areas that have experienced urban decay or decline.</p> <p>Advantages of regeneration;</p> <ul style="list-style-type: none"> <li>Existing buildings can be put to a range of uses on any one site.</li> <li>The land is often disused or in a state of dereliction.</li> <li>The site has already been developed and so reduces urban sprawl.</li> <li>Using unsightly areas for building developments improves the urban environment.</li> <li>Sites are often in urban areas, so building there may reduce car use.</li> </ul> <p>In Bristol, old industrial areas near the railway station and port had become rundown. The docks and industrial buildings became derelict as the port facility moved to Avonmouth. This did not give a good first impression to visitors.</p> <p><b>Bristol Temple Quarter Regeneration</b></p> <p>Key Aspects:</p> <ul style="list-style-type: none"> <li>Bristol Harbourside was given Enterprise Zone Status</li> <li>Creation of 4000 new jobs by 2020 and 17,000 by 2037</li> <li>240,000m<sup>2</sup> of new or refurbished buildings, offices, homes and shops.</li> <li>New bridge across the River Avon to the site of the former Diesels Depot</li> <li>Improved access from in and around Bristol including electrification to shorten journey times on trains improvements to Temple Meads Station, improved road layout with links to rapid transit network and the Bristol-Bath Cycle Path.</li> </ul> <p>However, there is one major problem with the project...</p> <ul style="list-style-type: none"> <li>Parts of Temple Quarter are in flood risk zone</li> <li>Bristol Arena project was scrapped.</li> </ul>	<p><b>KPI 17 Describe how area can plan for urban sustainability</b> Urban sustainability refers to the concept of developing and managing cities in a way that meets the needs of the present generation without compromising the ability of future generations to meet their own needs. It involves creating urban environments that are socially inclusive, economically viable, and environmentally responsible.</p> <p><b>Freiburg, Germany</b> The city has implemented various initiatives and strategies to promote environmental responsibility, social equity, and economic development.</p> <ol style="list-style-type: none"> <li><b>Renewable Energy:</b> The city is known for its commitment to solar power, and solar panels can be found on many buildings throughout the city. Energy also comes from biomass using waste wood and rapeseed oil.</li> <li><b>Sustainable Transportation:</b> The city has an extensive network of cycling paths, making it easy for residents to commute by bike. Additionally, Freiburg has invested in an efficient and well-connected public transportation system, including trams and buses, which encourages people to use public transport instead of private vehicles. A car parking space in Vauban district is £20,000!</li> <li><b>Green Building Practices:</b> Freiburg promotes sustainable building practices that focus on energy efficiency and environmental responsibility. The city has implemented strict building standards, encouraging the use of energy-saving technologies and sustainable materials. The Vauban district in Freiburg is a notable example of sustainable urban development, featuring energy-efficient buildings and car-free zones.</li> <li><b>Environmental Conservation:</b> The city has designated extensive green spaces and protected areas, promoting biodiversity and providing recreational spaces for residents. The Mundenhof Animal Park and the Seepark are examples of green areas within the city.</li> <li><b>Sustainable Economy:</b> Freiburg has also fostered a sustainable economy by supporting local businesses, promoting innovation, and encouraging sustainable entrepreneurship. The city has a thriving green technology sector, which contributes to economic growth while also addressing environmental challenges.</li> </ol> <p><b>KPI 18 Describe how urban transport strategies can reduce traffic congestion</b></p> <p><b>Freiburg</b></p> <ul style="list-style-type: none"> <li>Has an integrated traffic plan</li> <li>Tram network provides efficient, cheap and renewable public transport. Low fares allow unlimited travel</li> <li>70% of population live with in 500 m of a tram stop</li> <li>400 km of cycle paths</li> <li>Car free zones</li> <li>Restrictions on parking spaces e.g. Vauban district each one costs £20,000</li> </ul>
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Year 11 Term 1 French – Notre planète & Mon petit monde a moi

1	My region is <b>well known</b> for its forests	Ma région <b>est bien connue</b> pour ses forêts.
2	In the north <b>it rains</b> a lot in spring.	Dans le nord, <b>il pleut</b> beaucoup au printemps.
3	The most important problem for the planet is climate change.	Le problème le plus important pour la planète <b>est</b> le changement climatique.
4	Air pollution is a huge problem.	La pollution de l'air <b>est</b> un problème énorme.
5	To protect the environment, <b>you should respect</b> nature.	Pour protéger l'environnement, <b>il faut respecter</b> la nature.
6	<b>You should stop using</b> plastic products.	<b>Il faut arrêter d'utiliser</b> des produits en plastique.
7	<b>I take</b> public transport.	<b>Je prends</b> les transports en commun.
8	<b>It is better</b> for the environment.	<b>C'est mieux</b> pour l'environnement.
9	At our school <b>we avoid</b> food waste.	Dans notre collège <b>on évite</b> le gaspillage de nourriture.
10	<b>We are going to speak</b> at a conference.	<b>On va parler</b> à une conférence.

11	<b>There are</b> always things to do.	<b>Il y a</b> toujours quelque chose à faire.
12	<b>I can go (do)</b> shopping or go out with my friends.	<b>Je peux faire</b> les magasins ou sortir avec mes amis.
13	In order <b>to go</b> to the park, turn left.	Pour <b>aller</b> au parc, <b>tournez</b> à gauche.
14	<b>There is</b> a lot of traffic in front of our apartment.	<b>Il y a</b> beaucoup de trafic devant notre appartement.
15	<b>I bought</b> this pretty white t-shirt.	<b>J'ai acheté</b> ce beau tee-shirt blanc.
16	<b>I found</b> it in a fashion shop.	<b>J'ai trouvé ça</b> dans un magasin de mode.
17	Later, <b>I would like to live</b> in a new house.	Plus tard, <b>je voudrais habiter</b> dans une nouvelle maison.
18	Now, <b>I must share</b> my room with my sister.	Maintenant, <b>je dois partager</b> ma chambre avec ma soeur.



Year 11 Term 1 Spanish - Mi barrio y yo + Un mundo mejor

1	I have visited the science museum.	He visitado el museo de ciencias.
2	I like my neighbourhood because there is a park.	Me gusta mi barrio porque hay un parque.
3	Now my town is modern and quiet.	Ahora mi pueblo es moderno y tranquilo.
4	Before, my town was more industrial.	Antes, mi pueblo era más industrial.
5	Usually I buy brand name clothes.	Generalmente compro ropa de marca.
6	Last Saturday I bought black shoes and a skirt.	El sábado pasado compré zapatos negros y una falda.
7	I prefer to live in a city more than the countryside.	Prefiero vivir en una ciudad más que en el campo.
8	I would improve the transport network.	Mejoraría la red de transporte
9	I live in a flat. It has two bedrooms.	Vivo en un piso. Tiene dos habitaciones.
10	We went to the cinema and we are going to go to the park.	Fuimos al cine y vamos a ir al parque.
11	To help in my community I give money	Para ayudar en mi comunidad doy dinero.

12	It is worth supporting good causes.	Vale la pena apoyar buenas causas.
13	What concerns me is climate change.	Lo que me preocupa es el cambio climático.
14	Since it affects our planet and our health.	Ya que afecta a nuestro planeta y nuestra salud.
15	To help the environment at home	Para ayudar el medio ambiente en casa
16	I don't use plastic bags.	no uso bolsas de plástico
17	My favourite role model is	Mi modelo de conducta favorito es
18	He/she helps a lot of people	Ayuda a mucha gente
19	In order to be a good volunteer	Para ser un(a) buen(a) voluntario(a)
20	you should participate in environmental projects.	se debería participar en proyectos medioambientales.



Formal Elements	Definition	Example	Painting Techniques
<b>Line</b>	A mark that connects two or more points.	These can be straight, curved, short or long. Specific types of line include: outline (generally a black line that goes around an image) and continuous line (a line in which you do not take your pencil/pen of the page)	<b>Impasto</b> 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.
<b>Tone</b>	The lightness or darkness of something.	For darker tones use a higher grade B pencil. For architectural drawings you should use a H pencil as this will give your crisper lines without tone smudging.	<b>Sgraffito</b> 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
<b>Colour</b>	Colour is what you see when light reflects of something.	Primary Colours - can't be made by mixing colours together (Red, Yellow & Blue) Secondary Colours - mix two primary colours together (Green, Orange & Purple) Tertiary Colours - mix a primary and secondary colour together (Blue + Green = Turquoise) Complementary Colours - Colours opposite each other on the colour wheel (Orange/ Blue, Green/Red and Purple/Yellow)	<b>Dry Brushing</b> 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.
<b>Texture</b>	How something looks or feels.	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 Adjectives to describe different textures - fluffy, rough, smooth, soft, bold, uneven, slimy, faint, chalky, tacky etc.	<b>Wet-in-Wet</b> 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. <b>Adding texture with Salt</b> 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
<b>Pattern</b>	A symbol, shape or colour that repeats.	Man-made patterns are designed by humans, natural patterns are formed by nature. Patterns can be orderly, uniform, geometric, random or symmetrical.	<b>Underpainting</b> 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
<b>Shape &amp; Form</b>	Shape is 2D. Form is 3D.	2D shapes include rectangles, squares and triangles. Geometric shapes are angular and have straight lines. Organic shapes have curved lines. 3D shapes include cylinders, spheres and cubes.	

Keywords		Key Process to develop ideas	Tips, Tools & Techniques	Artists that explore Identity
<b>Observational Drawing</b>	Drawing something from real life in front of you.	<p><b>Copy of an Artwork</b> Copying the style and technique of an artist's work to enable you to understand the process of how it has been made.</p> <p><b>Own Interpretation</b> Developing your own work by applying artist style or technique to your own ideas.</p> <p><b>Refining Ideas</b> Annotating and evaluating experiments and as a result making decisions to improve work.</p> <p><b>Annotating</b> Writing about and evaluating your own and others' work.</p>	<p><b>Blender Stick</b> A paper stump that allows you to blend tones.</p> <p><b>Blending</b> The smooth transition between tones.</p> <p><b>Grid Method</b> Using a grid to ensure you draw in proportion.</p> <p><b>Shading Techniques</b> Hatching, Cross-Hatching, Stippling and Scumbling.</p> <p><b>Analogue/ Harmonious Colours</b> Colours that are next to each other on the colour wheel e.g. Red, red-orange and orange.</p> <p><b>Tints/ Shades</b> Tint - Adding white to a colour to make it lighter. Shades - Adding black to a colour to make it darker.</p>	<ul style="list-style-type: none"> <li>• Beau Bernier Frank</li> <li>• Barbara Kruger</li> <li>• Molly Crabapple</li> <li>• Frida Kahlo</li> <li>• Cindy Sherman</li> <li>• Sandra Chevrier</li> <li>• Shirin Neshat</li> <li>• Tracy Emin</li> <li>• Pepon Osorio</li> <li>• Jenny Saville</li> <li>• Kehinde Wiley</li> <li>• Alexandra levasseur</li> <li>• Aldo Tambellini</li> <li>• Loui Jover</li> </ul>
<b>Primary &amp; Secondary Sources</b>	<p>Primary = real objects or your own photos that you have taken yourself</p> <p>Secondary = an image from the internet or books</p>			
<b>Proportion</b>	The size and relation of objects to one another. Using the grid-method is one way of helping you draw using accurate proportions.			
<b>Landscape</b>	A piece that depicts a view of some sort e.g. mountains, the sea, fields, woodlands, buildings etc.			
<b>Portraiture</b>	Drawing/ painting or photograph of someone			
<b>Still Life</b>	A piece that depicts an object or group of objects.			
<b>Cultural Identity</b>	Cultural identity is the identity of belonging to a group. It is part of a person's self-conception and self-perception and is related to nationality, ethnicity, religion, social class, generation, locality or any kind of social group that has its own distinct culture.			

**5 Key acting Skills**

Facial Expressions - Eye contact, eye brows, straight, emotions, gritting teeth, tense, relaxed, wrinkled, creased, staring, twitching.

Voice - Tone, pitch, pace, emotion, volume, projection, dialogue, dialect, accent, intonation, whistling, SFX, interjection.

Body language - Posture, blocking, positioning, front on, side on, emotions, age, open or closed.

Gestures - Hands, arms, speed, clicking, rubbing, waving, mannerisms

Movement - Speed, pace, acceleration, gait, mannerisms, special awareness, stage presence.

Interpretation - Finding the meaning/action within a script

Stage directions - Guidelines/hints for actors within a script

Blocking - Where actors are positioned on stage

Proxemics - How close actors are on stage

Semiotics - Study of words and symbols

Characterisation - Skills used to create a character

Given circumstances - Stanislavski technique - looking at the script, what do we definitely know to be fact?

Status - The amount of power/dominance each character has over others?

Levels - How high or low your body is positioned?

**Key Terms**

Interpretation - Finding the meaning/action within a script

Stage directions - Guidelines/hints for actors within a script

Blocking - Where actors are positioned on stage

Proxemics - How close actors are on stage

Semiotics - Study of words and symbols

Characterisation - Skills used to create a character

Given circumstances - Stanislavski technique - looking at the script, what do we definitely know to be fact?

Status - The amount of power/dominance each character has over others

Levels - How high or low your body is positioned

Long term targets - What do you want to achieve by the end of this unit?

Short term targets - What do you want to achieve within the next few rehearsals?

Physical skills - Everything you can do with your face, hands, movement and body.

Vocal skills - Everything you can do with your voice—be specific with terms.

Interpretive skills - How well you interpret a script or a character. How do you become the character?

**How to write a self evaluation**

**Example of Pass standard self-evaluation—DESCRIBE**

(Say what you did)

At the moment, I am good at creating characters as I start acting as soon as I get a script. I use a variety of vocal skills including pace, accent and projection to create these characters. My movement skills need some work, for example - I think I need to focus on improving my gestures.

**Example of Merit standard self-evaluation—DISCUSS**

(Say what you did and why you did it)

At the moment, I am good at creating characters from scratch as I begin improvising and rehearsing as soon as I get a script. I use a variety of vocal skills including pace, accent and projection to create these characters, for example - when playing an older character recently, I spoke in an exaggerated tone and the raised the volume of my voice. My movement skills need some work, for example - I think I need to focus on improving my gestures as last time, I didn't use enough. My posture also needed work as my back was too straight.

**Example of Distinction standard self-evaluation—EVALUATE**

(Say what you did, why you did it and what the effect on the audience would be)

At the moment, I would say that my improvisation skills are good as I feel comfortable enough to create characters almost immediately after reading a script. I use a variety of vocal skills including pace, accent and projection to create these characters, for example - when playing an older character recently, I spoke in an exaggerated elderly tone to express an element of humour to an audience and raised the volume of my voice to have the effect of this older person not having good hearing and wanted people to speak up. I feel that my movement skills need improvements however, if I am to become a better actor. For example, I think I need to focus on improving my gestures as last time, they weren't expressive enough and it made my character less believable. Also, my posture needed to be more hunched over as my back was too straight and I think I could've moved in a more staggered manner to express to the audience how unstable this character was on their feet. All in all, I feel that I have a pretty good understanding of how to vocally convey characters but need some work on how to physically portray them.

## Five Key Acting Skills

**Facial Expressions** - How can we show emotions through our faces?  
Eye contact, eye brows, straight, emotions, gritting teeth, tense, relaxed, wrinkled, creased, staring, twitching.

**Voice** - How can we use our voice in performance? Tone, pitch, pace, emotion, volume, projection, dialogue, dialect, accent, intonation, whistling, SFX, interjection.

**Posture** - How can we use our bodies to help us create performance? Posture, blocking, positioning, front on, side on, emotions, age, open or closed.

**Gestures** - These are movements with meaning, how can we use them in performance? Hands, arms, speed, clicking, rubbing, waving, mannerisms.

**Movement** - How can movement be used to create performance? Speed, pace, acceleration, gait, mannerisms, special awareness, stage presence.

## Key Terminology

**Script** - The written words and stage direction which are spoken and performed in a play. A script will be written by a writer and then given to a director to create a performance.

**Director** - This is the person who is in charge of the actors and performers. The director will tell the actors how they want them to perform and move in each scene. They will block the performance.

**Blocking** - When creating a performance you must first plan where all the actors are going to be standing and moving to on the stage. You must also plan what set and props are going to be used in your performance. This is called Blocking.

**Stage Direction** - Text in a script which tells you what you need to be doing while performing. Some scripts may have more stage directions than others. Some directors may also decide not to use all of the stage directions because they have their own ideas for what the performers should be doing.

**Characterisation** - Using a variety of skills, improvisation techniques and background information to become your character. These skills are your 5 key acting skills. It is important you fully understand the character you are performing. You MUST remember, you are no longer yourself when acting. You become someone else.

**Performance Discipline** - Maintaining extremely high and professional levels of focus and concentration throughout rehearsals and performance. This involves being on task at all times, not laughing or giggling when you are acting. It is crucial to stay focused when performing.

**Ensemble** - A group of performers all working together in a performance.

**Freeze Frame** - When a scene 'freezes' for a moment to allow the audience to really explore the moment. It is like pressing pause on live action.

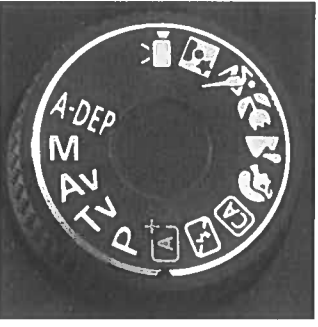
**Tableaux** - A collection of still images which create a performance. It is like looking through a photo album.







**Immersive theatre** - Audience are included in the performance but don't know what is going to happen. Actors may talk to or ask the audience questions about what is happening in the performance.

## Example Self-evaluation

**STRENGTH** During my performance, I wanted to show how my character was really angry with another character. To do this, I scrunched my eyebrows together and tilted my head slightly forward, using facial expression to show my annoyance. I also had a very big frown and narrowed whilst making a low pitched noise to display my frustration. This was successful because the audience could clearly see how angry my character was when seeing their friend after having an argument.

**AREA FOR IMPROVEMENT** During my performance, I wanted to show how my character was really happy to see someone. To do this, I slowly waved my hand and had a slight smile on my face whilst quietly saying 'Hello' in a soft tone. My intention was to show how I was happy but wanted to show it in a subtle way. However, the audience were confused by this and thought that my reaction was too small. If given the chance to perform this moment again, I would make my gestures much bigger, my movements quicker and my facial expressions much more exaggerated so that the audience can see my excitement much more clearly.

<p><b>AO1- Assessment objective 1 – Develop ideas through investigations, demonstrating critical understanding of sources.</b></p> <p><b>Artist Research!!</b></p> <p><b>Evidence can include:</b></p> <p>Artist research, contextual research, analysis of artist artwork, thumbnail sketches showing composition.</p> <p><b>Grading criteria for level 9:</b></p> <p>Demonstrate independent critical investigation and in-depth understanding of sources to develop ideas convincingly.</p>	<p><b>AO2- Refine work by exploring ideas, selecting and experimenting with appropriate media, materials, techniques and processes.</b></p> <p><b>Experimenting!!</b></p> <p><b>Evidence can include:</b></p> <p>Photoshoots, investigating different techniques, annotating of your contact sheet, post production editing.</p> <p><b>Grading criteria for level 9:</b></p> <p>Effectively apply a wide range of creative and technical skills, experimentation and innovation to develop and refine work</p>	<p><b>AO3-Record ideas, observations and insights relevant to intentions as work progresses.</b></p> <p><b>Annotations!!</b></p> <p><b>Evidence can include:</b></p> <p>Photoshoot plans, thumbnail sketches, storyboards, visual analysis of photography.</p> <p><b>Grading criteria for level 9:</b></p> <p>Record and use perceptive insights and observations with well-considered influences on ideas</p>	<p><b>AO4-Present a personal and meaningful response that realises intentions and demonstrates understanding of visual language.</b></p> <p><b>Final Response!!</b></p> <p><b>Evidence can include:</b></p> <p>A personal and purposeful response to an artist/ context. response should be informed by the study of artists/ techniques.</p> <p><b>Grading criteria for level 9:</b></p> <p>Demonstrate advanced use of visual language, technique, media and contexts to realise personal ideas</p>
<p><b>Photography terminology</b></p> <p><b>Research–</b> Describe, techniques, influences and intentions.</p> <p><b>Comparison–</b> Similarities and differences.</p> <p><b>Composition–</b> How objects are arranged in the frame/ photo.</p> <p><b>Texture–</b> The visual or tactile quality of a surface. The feel of it.</p> <p><b>Atmosphere–</b> The emotions or mood the photograph create.</p> <p><b>Focus–</b> Where is the eye drawn to. Is the image clear?</p> <p><b>Lighting–</b> The lighting source in the photo and what type of source is it?</p> <p><b>Context–</b> The story or meaning behind the artwork</p> <p><b>Viewpoint–</b> the angle the photograph was taken from.</p>			
<p><b>Camera settings</b></p> <p>A-DEP Automatic Depth of Field</p> <p>M Manual</p> <p>AV Aperture – Priority</p> <p>TV Shutter — Priority</p> <p>P Programmed Automatic</p> <p>[A] Scene Intelligent Auto</p> <p>[No Flash]</p>  <p>Filming</p> <p>Night Portrait</p> <p>Sports</p> <p>Macro</p> <p>Landscape</p> <p>Portrait</p> <p>CA Creative Auto</p>			

Formal element	Meaning	Artwork example	Relevant artist/photographer	Minimalism	When light, depth of field, positioning of an object is used to make the viewer focus on a specific area of the photograph/artwork.	NICHOLAS GOOD-DEN
<b>Pattern</b>	There are patterns all around us if we only learn to see them. Emphasizing and highlighting these patterns can lead to striking shots – as can high lighting when patterns are broken.		JON MEASURES	<b>Lines (Horizon line)</b>	Lines can be powerful elements in an image. They have the power to draw the eye to key focal points in a shot and to impact the 'feel' of an image greatly. Diagonal, Horizontal, Vertical and Converging lines all impact images differently and should be spotted while framing a shot and then utilized to strengthen it.	BILL BRANDT
<b>Texture</b>	Photographs of two dimensional objects yet with the clever use of 'texture' they can come alive and become almost three dimensional. You want the viewer to imagine how the object feels.		ANSEL ADAMS	<b>Colour</b>	A lot of colour can be overwhelming and considered a bold statement. Lack of colour can focus the viewer on the message the photographer is trying to convey. Lack of colour can also accentuate the patterns, shapes and textures in a photograph.	ANDY WARHOL
<b>Depth of Field</b>	The depth of field that you select when taking an image will drastically impact the composition of an image. It can isolate a subject from its background and foreground (when using a shallow depth of field) or it can put the same subject in context by revealing it's surrounds with a larger depth of field.		ELIA LOCARDI	<b>Restful / Dynamic Composition</b>	If there is space around an object in a composition then it is considered restful. Photographs that are zoomed in and objects touch the edges of the composition are considered dynamic. It dictates how much the viewer's eyes have to move around the photograph to see everything.	ANNIE LEIBOVITZ
<b>Symmetry</b>	Can create a balanced composition that leaves the viewer with a feeling the photograph is staged in some way. Can add a striking effect depending on the subject/object photographed.		IRVING PENN	<b>Abstract</b>	It is taking a subject and forcing the viewer to look at it in a different way. This may cause the subject to lose its original meaning or purpose. It may even render the subject unreal, abnormal and not of this world. The subject could lose all literal meaning and be reduced to only shape, light, texture or colour.	PAUL STRAND
<b>Shape</b>	The way subjects connect to each other in a photo forms shapes that draw the eye from subject to subject. If your subject is already triangular or diamond-shaped (like a pyramid), the viewer's eye will automatically focus on that shape.		MAN RAY	<b>Viewpoint/ Perspective</b>	Birds-eye: From above facing downward Worm's-eye: From below facing upward Eye-line: At standing height These perspectives can have an impact on how the viewer feels about the photograph, and how it is perceived.	ANTONIO JAGGIE
<b>Rule of Thirds</b>	A 3x3 grid used by photographers to create a composition that feels right. Objects that fall on or near the lines are considered to have the best impact.		ERNST HAAS			

# ✓ AQA GCSE Economics – Macroeconomics: How the Economy Works

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## 🗨️ The Role of Markets and Economic Objectives

### The Economy

- The system of how resources are allocated and goods/services are distributed.
- Macroeconomics looks at the economy as government policies.

### Economic Objectives of Government:

1. **Economic growth** – Increase in the value of output (GDP).
  2. **Low unemployment** – Keep as many people in work as possible.
  3. **Price stability** – Control inflation.
  4. **Balance of payments stability** – Equal value of imports and exports.
  5. **Redistribution of income** – Reduce inequality through tax and welfare.
  6. **Sustainability** – Growth that doesn't harm future generations.
- 

## 📊 Economic Growth

### GDP (Gross Domestic Product)

- The total value of goods and services produced in a country over a period.
- Growth = Increase in GDP. It leads to better living standards, more jobs, and higher tax revenues.

### Causes of Economic Growth:

- More investment in capital and infrastructure
- Increased consumer spending
- Technological innovation
- Improvements in education and training

### Benefits of Growth:

- Higher incomes
- Lower unemployment
- Better public services

## Costs of Growth:

- Environmental damage
  - Inequality
  - Inflation risk
- 

## Employment and Unemployment

### Employment

When people of working age are currently working and earning wages.

### Unemployment

When people of working age are willing and able to work, actively seeking a job but cannot find one.

### Claimant Count

The number of people claiming unemployment-related benefits (e.g. Universal Credit).

### Types of Unemployment:

- **Frictional Unemployment**  
Short-term unemployment caused by people moving between jobs or entering the workforce.  
*Example:* A graduate looking for their first job.
- **Structural Unemployment**  
Long-term unemployment caused by a decline in an industry or mismatch of skills.  
*Example:* Job losses in UK coal mining due to energy shifts.
- **Cyclical Unemployment**  
Unemployment caused by a downturn in the economy when demand falls.  
*Example:* Layoffs during the 2008 financial crisis.
- **Seasonal Unemployment**  
Unemployment linked to seasonal variations in demand for labour.  
*Example:* Ski instructors off work during summer.
- **Technological Unemployment**  
Jobs lost due to machines or technology replacing human labour.  
*Example:* Self-service checkouts replacing cashiers.

### Consequences of Unemployment:

- Reduced incomes and living standards
- Higher government spending on benefits
- Lower tax revenue
- Social issues like crime and poor mental health

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## Inflation and Price Stability

### **Inflation**

- A sustained rise in the general price level.

### **Measured by:**

- Consumer Price Index (CPI)

### **Causes of Inflation:**

- Demand-pull: Too much demand, not enough supply
- Cost-push: Higher production costs (e.g. oil prices, wages)

### **Effects of Inflation:**

- Reduces purchasing power
- Uncertainty for firms and households
- Can lead to higher interest rates
- Hurts savers but helps some debtors

**Deflation** (falling prices) can also be harmful – delays spending and reduces business profits.

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## International Trade and the Global Economy

**Imports** – Goods/services bought from abroad

**Exports** – Goods/services sold to other countries

### **Benefits of Trade:**

- Access to wider markets
- efficiency

### **Trade Deficit**

- When imports exceed exports

### **Trade Surplus**

- When exports exceed imports

### Exchange Rates

- Affect the price of imports and exports
  - Strong pound: Imports cheaper, exports more expensive
  - Weak pound: Imports dearer, exports more competitive
- 



## Government Policy Tools

### Fiscal Policy

Government decisions on taxation and public spending to influence economic activity.

- **Expansionary Fiscal Policy**  
Increasing government spending or cutting taxes to boost demand and economic growth.  
*Example:* The UK government's COVID-19 furlough scheme to support jobs.
  - **Contractionary Fiscal Policy**  
Reducing government spending or increasing taxes to slow demand and control inflation.  
*Example:* UK austerity measures introduced after 2010 to reduce public debt.
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### Direct Taxes

Taxes taken directly from income or profits, such as income tax and corporation tax. These affect disposable income and business profits.

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### Indirect Taxes

Taxes applied to spending on goods and services, such as VAT (Value Added Tax) and excise duties on fuel or alcohol.

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### Monetary Policy

Actions by the central bank to influence the economy mainly through changing interest rates and money supply.

- **Interest Rates**  
The cost of borrowing money or the reward for saving. Changes affect consumer spending and business investment.  
*Example:* The Bank of England raised interest rates in 2022 to tackle inflation.

- **Quantitative Easing (QE)**  
When the central bank creates new money electronically to buy financial assets, increasing the money supply to encourage lending and spending.
- 

## Supply-side Policies

Policies designed to improve the long-term productive capacity and efficiency of the economy. These include:

- Improving education and workforce skills
  - Reducing red tape and regulations on businesses
  - Cutting taxes to encourage investment and entrepreneurship
- 

## **Environmental Sustainability and Market Failure**

### **Market Failure**

Occurs when free markets do not allocate resources efficiently, leading to negative social or environmental outcomes.

### **Externalities**

Costs or benefits from economic activity that affect third parties but are not reflected in market prices.

- **Negative Externalities**  
Harmful side effects experienced by others, such as pollution.  
*Example:* Factory emissions causing health problems for nearby residents.
- **Positive Externalities**  
Benefits enjoyed by others, like education improving society's skills.  
*Example:* Vaccination protecting not just individuals but the wider community.

### **Government Solutions to Market Failure:**

- **Taxes** (e.g., carbon tax) to discourage harmful activities.
- **Subsidies** (e.g., grants for renewable energy) to encourage beneficial activities.
- **Regulations** (e.g., emission limits) to set legal standards.
- **Tradable Permits** (e.g., EU Emissions Trading Scheme) allowing firms to buy/sell pollution rights.

### **Sustainability**

Using resources in a way that meets present needs without compromising future generations' ability to meet theirs.

*Example:* Promoting electric vehicles to reduce fossil fuel use and emissions.

# ✓ Edexcel GCSE Business – Topic 2.2: Making Marketing Decisions

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## The Marketing Mix (4 Ps)

### Product

Refers to the goods or services a business offers. This includes design, features, quality, brand, packaging, and variety. A good product should meet customer needs, have a Unique Selling Point (USP), and stand out from competitors.

### Price

The amount charged to customers. Price affects how competitive a product is and must reflect customer expectations. Businesses may use different pricing strategies depending on the product and market (see below).

### Place

Describes where and how a product is sold. This includes online channels (e-commerce), mobile apps (m-commerce), and physical retail stores.

The goal is to make the product available where customers want it.

### Promotion

Covers the methods used to inform and persuade customers.

This can include advertising, sponsorship, social media, discounts, and public relations.

The 4 Ps must work together to deliver value and meet the needs of the **target market**.

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## Product Portfolio and Product Life Cycle

### Product Portfolio

The full range of products offered by a business. A diverse portfolio helps spread risk and meet different customer needs.

### Product Life Cycle

All products go through stages:

- **Introduction:** Sales are low, promotion is high to raise awareness.
- **Growth:** Sales increase rapidly as more customers buy the product.
- **Maturity:** Sales peak and start to level off. Competition may increase.
- **Decline:** Sales fall as customer interest drops or better alternatives appear.

**Extension Strategies** are used to prevent decline. These include:

- Rebranding
  - New packaging
  - Targeting new markets
  - Adding new features or variations
- 

## The Boston Matrix

This is a tool used to analyse products based on market growth and market share:

- **Star:** High market share in a fast-growing market. Requires investment but offers growth.
- **Cash Cow:** High market share in a low-growth market. Generates steady profit.
- **Question Mark:** Low market share in a growing market. Has potential but is risky.
- **Dog:** Low share in a low-growth market. Often discontinued.

Businesses use the matrix to decide where to invest or cut back within their product portfolio.

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## Pricing Strategies

Businesses can use several pricing approaches:

- **Cost-plus pricing:** Adds a markup to the cost of making the product. Simple but may ignore customer demand.
- **Penetration pricing:** Low introductory price to gain customers quickly. Useful in competitive markets.
- **Price skimming:** High initial price for a new or innovative product. Used to maximise early profits.
- **Competitor-based pricing:** Prices are set based on rivals. Helps stay competitive.
- **Promotional pricing:** Temporary price reductions to boost short-term sales.

The right pricing strategy depends on customer expectations, market conditions, and the product's stage in its life cycle.

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## Promotion Methods

Promotion is essential to attract and retain customers. Common methods include:

- **Advertising:** TV, radio, online, or print to raise awareness.
- **Social media:** Low-cost, interactive promotion targeting specific demographics.
- **Sponsorship:** Associating with events or teams to boost brand image.
- **Discounts and offers:** Encourages quick purchases, e.g. "Buy one get one free".
- **Public relations (PR):** Generating media coverage or managing reputation.

The promotion method used depends on the business's budget, target audience, and product type.

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## Place (Distribution Channels)

Products can be sold through:

- **Retail outlets:** Supermarkets, department stores, or specialist shops.
- **E-commerce:** Selling online via a business's website or platforms like Amazon.
- **M-commerce:** Mobile selling via apps or mobile-optimised websites.
- **Wholesaler to retailer:** Common for mass-market goods, with wholesalers acting as intermediaries.

Businesses must ensure their products are available where customers expect them, whether physical or digital.

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## Adapting the Marketing Mix

The 4 Ps must be flexible and responsive. A business may change its marketing mix based on:

- **Technology:** Investing in online platforms or digital marketing.
- **Customer needs:** Adjusting product design or packaging.
- **Competition:** Changing price or launching promotional campaigns.
- **Budget:** Choosing cost-effective distribution or promotion methods.
- **Market conditions:** New laws, economic changes, or social trends may force adaptations.

Successful businesses monitor external factors and adjust the marketing mix to stay competitive.

# ✓ Edexcel GCSE Business – Topic 2.3: Making Operational Decisions

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## Production Processes

### Job Production

- Produces one-off, customised products made to order.
- Used for unique items like wedding dresses or custom furniture.
- High quality and tailored to customer, but expensive and time-consuming.

### Batch Production

- Produces a group of identical items in batches.
- Allows flexibility and some efficiency, but requires downtime between batches.
- Common for bakery goods or clothing in different sizes.

### Flow Production

- Continuous, mass production on an assembly line.
- Used for high-volume, standardised items like bottled drinks or electronics.
- Very efficient and low unit cost, but expensive to set up and lacks variety.

### Efficiency

- A measure of how well resources are used to produce goods or services.
- Efficient production means high output with low waste and cost.

### Productivity

- The output per worker over a period of time.
- Higher productivity means more is produced using the same or fewer resources.

### Just-in-Time (JIT)

- Stock is delivered only when needed for production or sales.
- Reduces storage costs and waste but requires reliable suppliers.
- If supply is disrupted, production stops.

### Quality Control

- Involves inspecting finished products for defects.
- Faults are spotted at the end, which can cause waste.

### Quality Assurance

- Quality is checked throughout the process, not just at the end.
- Prevents problems earlier, reduces waste and improves consistency.

## Technology in Production

- **Automation** uses machines to replace human labour, improving speed and reducing long-term costs.
- **CAD (Computer-Aided Design)** helps design products digitally, making it easier to customise and develop prototypes.
- **CAM (Computer-Aided Manufacture)** uses software-controlled machinery for consistent, high-precision manufacturing.

Benefits of technology include improved quality, speed, and efficiency.  
However, drawbacks include high initial costs, training needs, and possible job losses.

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## Managing Stock

### Types of Stock:

- **Raw materials:** inputs used to make the product.
- **Work-in-progress:** partly completed goods.
- **Finished goods:** completed and ready for sale.

### Bar Gate Stock Graph Concepts:

- **Maximum stock level:** the most a business plans to hold.
- **Re-order level:** the point at which new stock is ordered.
- **Lead time:** time between ordering and delivery.
- **Buffer stock:** extra stock held in case of unexpected demand or delays.

**Just-in-Time (JIT)** advantages include lower storage costs and less waste.  
However, it depends on reliable suppliers and can't easily handle sudden changes in demand.

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## Customer Service

Good customer service includes:

- Friendly, knowledgeable staff who understand products and can help customers.
- Speedy responses to questions, complaints, and problems.
- Clear and helpful after-sales service, such as returns, repairs, or warranties.
- Listening to customer feedback to make improvements.

### Why it matters:

- Good service builds loyalty, encourages repeat business, and creates positive word-of-mouth.
  - Poor service can lead to lost sales, bad reviews, and long-term brand damage.
- 

## E-commerce and Customer Expectations

In the digital age, customers expect:

- 24/7 access to websites and support.
- Fast and reliable delivery services.
- Easy and transparent returns or refund policies.

To stay competitive, businesses must use technology to meet these expectations — from automated order tracking to live chat support.

**Engagement patterns of different social groups in physical activities and sports**

**Physical activity and sport in the UK.**

Be familiar with current trends in participation in physical activity and sport-

**Participation By Gender-**

**Children and young people-**  
Boys (51% or 1.8 million) are more likely to be active than girls (43% or 1.5 million)

**Adults-**  
Men (65% or 14.2 million) are more likely to be active than women (61% or 14.2 million).

Participation by age	
• The proportion of adults taking part in at least one sport or physical activity decreases with age (except for walking)	
Proportion of adults who take part in at least one sport or physical activity (including walking)	
15-24 year olds	84%
65-74 years	83%
Proportion of adults who take part in at least one sport or physical activity (excluding walking)	
15-24 year olds	53%
70+ years	19%

Source: Sport England - Active Lives Adult Survey 2017/18

Activity levels of adults generally decrease with age. The sharpest decrease is at age 75+

Disability	
Proportion of adults with a long term limiting illness or disability that played sport at least once a week	
2015/16	2017/18
60.9%	61.8%*

\* compared to 81.6% without a disability

Source: Sport England - Active Lives Adult Survey 2015/16 and 2017/18

**Adults**

Activity is less common for adults with limiting disability and long-term health conditions. Activity levels decrease sharply the more impairments and individual has. Just 39% of people with 3 or more impairments are active.

**Children**

Children and young people with a disability or long term health condition are more likely to be less active than those without.

**Socio-economic groups**  
The rate of participation among people aged 16 and over is greater in those from higher socio-economic groups (more money) than those from lower socio-economic groups (less money).

Proportion of adults who take part in at least one sport or physical activity	
Higher socio-economic groups	71%
Manual and unskilled socio-economic groups	54%

**Ethnicity**

Proportion of adults who play sports once a week	
2017/2018	
Black and other minority ethnic groups	57%
White British groups	63%

Among women, those from white backgrounds are more likely to take part in sport compared to those from Chinese, black and other ethnic backgrounds.

**Both sources- Sport England - Active Lives Adult Survey 2017/18**

**Participation in physical activity and sport**

**Understand strategies which can be used to improve participation-**

**Promotion-** Advertising the opportunities to be involved and offering trials/discounts.

**Provision-** Funding a range of facilities across many activities and locations.

**Access-** Ensuring that everyone is able to get their local facilities by improving infrastructure.

**Understand how different factors can affect participation-Age-**

Average life expectancy has risen, so more and more people could participate. There is an increase in the number of teams for older people (veterans' teams). Sport is often perceived as a 'young person's activity'. Some older people lack confidence to participate. Some older people's participation may be affected by medical conditions or illness.

Some activities have age restrictions-minimum age for London Marathon is 18 years/minimum age is for Olympic snowboarding is 15 years/some fitness gyms have a minimum age restriction.

Some NGBs have regulations that restrict the age gap between players (2 years etc.)- In rugby players Under 12 years of age cannot 'play up'.

Many NGBs have developed adaptations of their sport that are suitable for older people- Walking netball, walking basketball and walking football are examples.

**Gender-** There are far more men than women who get involved in sport either to participate or spectate.

Women's opportunities at elite level are growing all the time. With an increase in the women's sport profile, sponsorship and financial gain is becoming more readily available. Many female sports have seen a rise in media coverage and ultimately popularity.

Opportunities for female officials and management roles within teams have grown too and there are a great deal more female presenters on TV.

Barriers to women playing sport are...

Lack of time and childcare

Lack of self confidence

Personal safety

Parental and adult influence

Male dominated culture of sport

Funding

Body image

Lack of media exposure

Lack of role models

Sexism

**Ethnicity/Religion/Culture-** The number of both black and minority ethnic and white British adults playing sport is increasing. Taking up a sport or activity may be influenced by ethnic background e.g. cricket is very popular within Asian countries. Some cultures or religious beliefs may act as barriers- can't drive on Jewish Sabbath/women wearing certain clothing/some cultures spend more time with family- less time available/religious commitments such as ceremonies give less time for sport/some ethnicities have larger proportions of lower socio-economic groups- less income for sport.

**Family-** You are more likely to participate in sport if your parents do. You are less likely to participate if there is little interest shown by your family.

Family support is crucial: Transport/Equipment/kit costs/Membership/match fees/Teaching sporting etiquette/sportsmanship

Negative influences might include: Poor sportsmanship/deviance/Unrealistic expectations/Placing undue pressures on children/Keeping children away from peers to gain higher levels of competitions.

**Disability-** Participation rates have increased since 2012 London Paralympic Games, but overall those with a disability show a comparatively low percentage in participation. This may be due to the lack of adapted equipment, access, clubs, discrimination and/or a lack of confidence.

**Media coverage-** some sports get a great deal more media coverage than others which makes them more popular e.g. football vs hockey. Male sport still dominates although there is much more interest in women's sport in recent years due to increased success e.g. GB women's football. The media can stimulate participation in sports e.g. huge increase in tennis participation during Wimbledon as people watch it on TV and want to participate themselves.

**Environment and climate** - this can dictate which sports/activities people take part in e.g. if you live in an area that receives regular snow and has hills, then you are more likely to ski than someone who doesn't.

**Cost/disposable income-** Some activities/equipment/kit are too costly for everyone to be able to participate.

**Discrimination** may prevent certain people from participating in a sports activity, due to: Race/colour: in some countries certain ethnic minorities are prevented from joining clubs/Gender:golf clubs not allowing women to participate at certain times or not at all leisure centres having female only fitness

classes/Disability: people with disabilities not being allowed to join certain clubs/Age: clubs making an upper age limit for membership to prevent older people joining.

**Opportunity/Access-** You may not have appropriate sports clubs or facilities near you which may prevent you from participating. Some local authorities provide transport to help increase participation e.g. buses to leisure centres for elderly people.

**Role models-** Like parents, other significant others can influence whether you participate in sport. These may include: High level performers you have seen or read about in the media/Players in an older team at your club/PE teachers/Sports coaches who visit your school to coach specific sports activities.

**Education-** some people are not aware of the benefits of sport.

**Time/ Work commitments-** Work commitments can get in the way of finding enough time for sport. Travel time to and from work may reduce time available for participating. Family commitments may reduce the time available for parents to participate.

**Commercialisation of physical activity and sport**

**Commercialisation of sport:-**

The influence of the media on the commercialisation of physical activity and sport.

There are 5 types of media.

- Social Media
- Radio
- Newspapers/magazines
- Internet
- Television/visual

Influences of media include:-

**Event time changes**

- Live Football and rugby being shown on different days (Friday nights, Sundays, Monday nights)
- Olympic events & international events being shown at irregular times because of the demands of TV companies showing the event live in different countries.

**Rules changes**

- 2016 netball rule changes to make game faster and more attractive to television companies & viewers
- Table tennis, 21 points changed to 11 points to win a game.

**Adapted versions of sports**

- British basketball championships, 12 minute games with powerplays and shooting zones for 5 points
- 1 hour cricket to fit programming times
- Fast 5 netball.

**Technological innovations**

Replays and slow motion improve the home viewer's experience  
 'Hawkeye' in tennis, Television match officials in rugby and VAR in football have all improved the viewer's experience.

**Sponsorship-** Due to the extent of coverage, sponsorship and advertising revenue has increased tremendously for players, clubs and National Governing Bodies of sport.

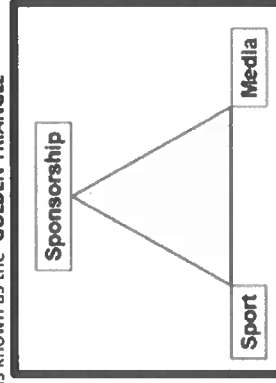
**Negative influences of media include:**

- Only main sports shown, so minority sports do not gain exposure.
- More money to major sports and performers, so less funds to minority sports.
- Can expose poor behaviour by teams/performers and potential danger of some activities.
- Role models behaviour is exposed, poor behaviour on and off the performance area is exposed, and quickly.
- The exposure/advertising of some sponsors may be unethical. Examples include alcohol, smoking products and gambling companies.
- Pay per view channels/events may make it difficult for low-income families to watch their favourite sports.
- Media's influence on game programming might be seen as too great.
- Where games/events are shown live, spectators may chose to watch on television rather than go to the live game as it is cheaper and they get a better experience from replays, pundits etc.
- If you are watching you are not being active, so media can add to the 'couch potato' syndrome.

**What is Commercialisation?**

**Definition:** Commercialisation refers to the influence of commerce, trade on an industry (e.g. SPORT) to make a profit.

Sport, media and sponsorship are closely linked in a what is known as the 'GOLDEN TRIANGLE'



- Each side of the triangle benefits from the other sides in some way
- Therefore, each side is dependent on the other sides in some way
- Usually financially or for promotion.

**Influence of sponsorship**

The exercise and sport market is now very big business, with large amounts of money being spent by commercial companies on sports' participants, clubs and events.

**Types of sponsorship**

**Facilities (stadiums and grounds)**

- New stands or grounds will often be named after the sponsor who has put money towards the development.

**Financial**

-Money may be invested into teams or sports by external sources or wealthy individuals.

**Clothing and equipment**

-Teams usually get a shirt sponsor and often individual players will get deals for footwear. Companies will often sponsor a players equipment, usually one of the companies who manufacture the equipment.

**Positive & negative effects of sponsorship for the performer**

**Positive-**

- Allows athletes to earn income as a full time job
- Performers gain maximum exposure to promote their personal brand
- Can lead to additional roles post playing career within the sport (TV pundit)
- Relieves financial worries.

**Negative-**

-Can result in deviant behaviour due to the pressure of success

-Generally, favours male over female and able bodied over disabled

-Sponsorship might be short term

-Performers may have to advertise a product that they do not like

-Performers might be contracted to put in appearances and attend public speaking.

**Positive & negative effects of sponsorship for the sport**

**Positive-**

- Raises the profile of the sport due to increased exposure
- Provides an increased level of funding to improve resources, coaching or facilities
- Gives the sport financial security for a period of time
- Attracts the best players in the world to that sport.

**Negative-**

-Commercialisation tends to support the popular sports leaving the 'lesser' sports to lose out

-Changes to the sport format and rules have being introduced to make the sport audience friendly

-The influence of TV has caused an increase in adverts and TV timings and lost some of sports traditions.

**Positive & negative effects of sponsorship for the official**

**Positive-**

- Offers a professional career and earn an income from officiating
- Media coverage leads to officials gaining a high profile
- Advancements in technology/better equipment/facilities which assists with decisions.

**Negative-**

- Bad decisions highlighted and analysed by media
- Personal and sporting behaviour has to be controlled as the image of the sport, coaches and players are on view to the world
- Some sports get more funding and therefore officials are paid better.

**Positive & negative effects of sponsorship for the audience/spectator**

**Positive-**

- Offers a wider choice of sports available to watch
- Viewing experience has been enhanced due to investment into technology and audience participation
- Fans can watch their team when on holiday
- Cheaper than watching games live.

**Negative-**

- Can pull fans away from watching their club/team live as it is cheaper to watch at home
- Encourages spectating not participating
- Can become very expensive for fans/spectators
- Can affect view experience due to increased TV breaks and time outs.

**Positive & negative effects of sponsorship for the sponsor/company**

**Positive-**

- Sport can offer an excellent opportunity for the sponsor to promote a product/service to a widespread audience
- Advertising brand name
- Promote a caring attitude and increasing goodwill
- Tax concessions help the company.

**Negative-**

- Poor behaviour from athletes/ clubs can cause negative press
- Smaller sponsors might struggle to compete with larger more global brands
- Some sponsors are not suitable to be promoted within sport. i.e. tobacco or alcohol, gambling
- Investing in teams and individuals can backfire if they do not achieve success i.e. teams not qualifying for major competitions.

## Subject: GCSE PE 2.1 c

### Ethical and socio-cultural issues in physical activity and sport

#### Ethics in Sport

#### **The value of sportsmanship-**

**Sportsmanship** involves behaviour that shows fair play, respect for opponents and gracious behaviour, whether winning or losing.

Showing good sportsmanship means sticking to the rules and regulations.

Sportsmanship shows that you can lose gracefully and win with good humour.

Each sport has its own code of behaviour and 'sportsmanship gestures'

#### **Examples of sportsmanship may include:**

- shake hands with your opponent
- thank anyone who has been participating with you or against you
- show concern for others, especially when they are injured or under stress
- never swear or be abusive

#### **The reasons for gamesmanship and deviance in sport**

**-Gamesmanship** is the use of unethical, although not illegal, methods to win or gain a serious advantage in a game or sport by 'bending' the rules

#### **Examples of gamesmanship may include:**

- sledging to distract batters in cricket-
- not walking in cricket
- coughing or stamping feet to distract shooter at free throws in basketball
- grunting in tennis in order to intimidate opponents
- distracting penalty takers in football (goalkeepers)
- holding to prevent opponents punching in boxing
- diving in the 18 yard area to gain a penalty and opponent a 'yellow card' in football
- standing over the ball to gain defenders organisation time at free kicks in football

**Deviance**- involves human behaviour that is against your society's norms and values. Behaviour of this kind is often against the rules/laws of the game

#### **Reasons for deviance may include:**

- the pressure/expectation to win or to gain an (unfair) advantage or pressure from fans/spectators/parents/coaches/team mates
- to enhance performance, like bowling with a slightly bend arm to bowl faster
- because you are losing
- to gain financial reward if you win
- a reaction to (poor) decisions by officials

#### Drugs in Sport

#### **Know and understand the reasons why sports performers use drugs**

Why might athletes use performance enhancing drugs?

- to perform better

-peer pressure (everyone else is doing it, so why shouldn't I?)

-pressure to become and/or remain the best

-pressure from their coach/trainer

-financial benefits that come with being the best

-to improve physically -increase strength/improve aggression/have more energy/be able to control emotions more easily.

#### **Know the types of drugs and their effects on performance**

**Anabolic Steroids**-A drug that mimics the male sex hormone testosterone which promotes bone and muscle growth

Why use them-Anabolic Steroids increase muscle mass and develop bone growth, thereby increasing the athletes strength whilst at the same time allowing the athlete to train harder and recover quicker.

**Beta Blockers**-A drug that is used to control the heart rate and have a calming and relaxing effect

Why use them-in medicine, commonly prescribed for people with heart problems as their main function is to maintain a low heart rate

- reduce stress and anxiety levels

- can help sports where precision and a steady hand are needed (e.g. archery/shooting/snooker/golf).

**Stimulants**- A drug that has an effect on the central nervous system, such as increased mental and/or physical alertness

Why use them-they increase alertness, enabling people to think more quickly by stimulating the central nervous system (CNS). Helps to overcome tiredness but also offsets the negative effects of lactic acid build up within the working muscles.

#### **Know and understand the impact of drug use in sport**

Advantages to the performer-

- Increased chances of success
- Fame
- Olympic/World/National champion
- Athletes would be on an even playing field as 'others' are taking the drugs already
- Wealth
- Gain world records.

Disadvantages to the performer-

- It is cheating and immoral
- There are too many associated health risks
- Fines and bans for those caught
- Significant reputation damage
- Loss of friends/team mates.

Disadvantages to the sport-

- reputation – a sport can become known for cheating and may affect young people taking it up
- credibility – performance will be difficult to believe and will affect the number of spectators.

#### Violence in Sport

#### **Know and understand the reasons for player violence**

Controlled aggression is a fundamental part of many sports. Sometimes, however, this spills over into an uncontrolled situation where serious physical injury can be caused.

#### **Violent behaviour can be caused by the following reasons:**

- pressures of the media
- frustration as a result of losing
- sponsorships deals
- pressure from spectators/taunting from crowd/opponents
- as physical retaliation/as a reaction to a challenge/tackle
- over arousal during the game
- annoyed by poor decisions by officials
- to gain an advantage/to hurt your opponent
- controlled aggression may be required for effective play
- as a result of the influence of drugs
- we copy others.

#### **Give practical examples of violence in sport**

**boxing** – in the WBA Heavyweight championship fight, Mike Tyson was disqualified for biting off part of Evander Holyfield's ear

**rugby** – in the 2015 World Cup, Argentina's Mariano Galarza was banned for eye gouging

**rugby-in 2010**, South African lock Bakkies Botha head-butted New Zealand halfback Jimmy Cowan during a Tri-Nations tournament match and was subsequently suspended for 9 weeks

**football** – Francesco Totti assaulted Mario Balotelli with a career-threatening kick in 2010

**football** –2005: Newcastle United teammates Lee Bowyer and Kieron Dyer were sent off after fighting one another near the end of the team's 3–0 loss to Aston Villa. Several Newcastle players and a Villa player separated the two before either was seriously hurt, but Bowyer's shirt was ripped

**Sports Psychology**

**Characteristics of skilful movement**

**Know the definition of motor skills-** An action or task that has a target or goal and that requires voluntary body and/or limb movement to achieve this goal.

**Understand and be able to apply examples of the Characteristics of skilful movement-**

- Pre-determined** - A player will perform skills having already planned them e.g. a skilled footballer will know where they are going to kick the ball before taking a penalty
- Efficiency** - A skilled player is able to perform the task without any wasted energy e.g. a swimmer gliding through water, not fighting it
- Aesthetic** - They look good. A top-class dance routine is pleasing to watch
- Fluent** - A skilled player is able to perform the task making it look effortless and movements flow from one to the next e.g. a trampoline routine
- Coordination** - The skilled performer in volleyball can jump and then 'spike/smash' successfully whilst still in the air.

**Classification of skills**

**Know continua used in the classification of skills**  
**-Simple to complex (difficulty continuum).** Skills can be classified according to the types of judgements and decisions that you have to make to perform the skill.

**Simple:**

- straightforward, with hardly any judgements and decisions to make
- can be taught as a whole in a repetitive way
- e.g. a sprint start in swimming where there are very few decisions - other than to dive - to be made.

**Complex:**

- many decisions or judgements to make
- may have to be learned in stages
- e.g. slip catch in cricket, or a pass by a midfielder player in hockey who has to make lots of decisions before she passes.

**Open to closed (environmental continuum).**

**-Open skill** : the skill is effected by the environment and requires the performer to make perceptual decisions.

**-Closed skill** : the skill is not affected at all by the environment.

**Be able to apply practical examples of skills for each continuum along with justification of their placement on both continua.**

Hockey is a complex skill = is vague and gains zero marks.

*BUT an attacker in hockey dribbling to beat defenders into the circle, is an example of a complex skill, is more specific and gains marks*

Kite surfing is an Open skill = is vague and gains zero marks.  
*BUT a kite surfer riding a high wave on a windy day is an example of an Open skill, is more specific and gains marks.*

**Goal Setting**

**Understand and be able to apply examples of the use of goal setting**

**Why use Goal Setting?**

- motivates** performers and keeps them working hard
- gives performers** a better chance to improve fitness levels
- helps to **improve/optmise** performance
- allows progress to be made in your training.

**Understand the SMART principle of goal setting with practical examples**

**Specific-** The goal must be specific so the performer knows exactly what they aim to achieve.

'To get better at my sport sometime' is much too vague.

**Measurable-**You must be able to measure your progress. Example - to improve shot success in basketball by 20% is measurable.  
 Improve concentration can't be measured.

**Achievable-** The goal must be possible for the performer to reach. Example - A sprinter trying to knock 8 seconds off their 100m time would be wasting their time, they need to work in 10ths or 100ths secs

**Recorded-** Logging the goal and the progress made will enable the performer to see how close they are getting to their target. It is also motivating to do this.

Using a table/graph or spreadsheet are ways of recording the goal & progress.

**Timed-**The goal must have a definite BEGINNING and END, which gives the performer a time limit in which to achieve the goal.  
 This could be months or a whole season.

**Mental Preparation**

**Know mental preparation techniques and be able to apply practical examples to their use-**

**Imagery-** The creation of pictures in our minds is imagery. Imagery can improve concentration.

**Mental Rehearsal-** Similar to imagery, an athlete sees pictures of themselves completing a task (external imagery) or imagines themselves completing the task (internal imagery).

**Selective Attention-** This is the process of focusing on a particular object in the environment for a certain period of time. Selective attention allows us to tune out unimportant details and focus on what really matters.

**Positive thinking-** sometimes called 'self-talk.

This involves recognising that the athlete has started worrying about a performance and refocusing by using positive inner thoughts. This technique has been shown to help with self-confidence and to raise levels of aspiration.

**Types of Guidance**

**Understand types of guidance, their advantages and disadvantages and be able to apply practical examples to their use-**

**Visual-** Learners can see the whole action and interpret it for themselves e.g. demonstration

**Verbal-** Terminology and phrases associated to certain skills can be made simple and straightforward in a clear verbal explanation e.g. teaching points 'cheek to cheek'

**Manual-** This method is used when the skills learnt are dangerous or are complex. Coaches or teachers will use a 'hands on' approach to ensure safety e.g. gymnastics coach holding the legs of the performer in a handstand.

**Mechanical-** involves the use of equipment to help support the learner whilst practising the skill e.g. the use of belts in gymnastics and trampolining to help support somersaults.

**Types of Feedback**

**Understand types of feedback and be able to apply practical examples to their use-**

**Intrinsic-** This type of feedback happens within the performer. Information received by the athlete as a direct result of producing a movement through the kinaesthetic senses - feelings from muscles, joints and balance.

**Extrinsic-**This feedback comes from external sources. For example from sound or vision.  
 Practical example - a footballer seeing that their penalty kick was successful as it hits the back of the net.

**Knowledge of Performance-**This type of feedback is normally related to External (extrinsic) Feedback, but can be gained through kinaesthetic awareness. Example: a gymnast feeling that their legs are not straight whilst performing a handstand (in this case the gymnast tends to be highly skilled as they can feel if the performance is good).

**Knowledge of Results-**This feedback is External (extrinsic) and can come from the performer themselves or another person (coach, teacher or sometimes a spectator). It is very important for performers to know the outcome (results) of their actions, otherwise little learning is possible.

**Positive-**Beginners will need more positive feedback to encourage and motivate.

**Negative-**Elite athletes can take negative feedback more constructively. Other performers are demotivated by negative feedback and will 'give up' as they 'will never be good enough'.

## Subject: GCSE PE 2.3

### Health, fitness and well-being

**Know what is meant by health, fitness and well-being**

**Health:** a state of complete **mental, physical and social** well-being and not merely the absence of disease and infirmity  
**Fitness:** the ability to meet the **demands** of the environment efficiently and effectively.  
**Well-being:** refers to a feeling or mental state of being **contented, happy, prosperous** and healthy.

**Understand the different health benefits of physical activity and consequences of a sedentary lifestyle**

Physical
<ul style="list-style-type: none"> <li>injury</li> <li>coronary heart disease (CHD)</li> <li>blood pressure</li> <li>bone density,</li> <li>obesity</li> <li>Type 2 diabetes</li> <li>posture</li> <li>fitness.</li> </ul>

Emotional	Social
<ul style="list-style-type: none"> <li>self-esteem/confidence</li> <li>stress management</li> <li>Image.</li> </ul>	<ul style="list-style-type: none"> <li>friendship</li> <li>belonging to a group</li> <li>loneliness.</li> </ul>

Health can be split into 3 categories:

- Physical
- Mental
- Social.

### Physical health

To increase fitness - regular exercise can lead to an increase in muscle growth (strength), muscle elasticity (flexibility), increased lung capacity (aerobic capacity) and reduced heart rate.

To improve health - people who are physically fitter cope better with illness.

### Mental health

To feel good:

exercise/physical activity produces **SEROTONIN** (the feel good hormone) proving exercise is not only good for the body but also the mind!

To look good:

exercise will make us look good as well, better muscle tone, less fat etc. will all increase emotional health.

To relieve stress:

exercise can provide a **distraction** from the problems of daily life, relieving the stress and tension caused by life.

To increase self esteem & confidence:

many activities provide a **physical challenge**. Overcoming such challenges can give you a sense of achievement, which can lead to a boost in confidence/self esteem.

For enjoyment:

most people who regularly take part in exercise do so because they enjoy it, and benefit from increased **social interaction**.

For a mental challenge:

many sporting activities provide a **mental challenge** as well as physical. The drive to go on and/or get better spurs many people on in sport and exercise.

### Social health

#### Mix with others

-when playing in teams, you mix with other people of the same interest, you develop teamwork, co-operation and empathy skills  
 -you also play against others and develop qualities such as good sportsmanship. Being able to win and lose.

#### Make new friends

-you might meet someone at an aerobics class and become friends, socialising away from the class  
 -in team sports you come up against people you have never met, they could become new friends, inviting you to visit them.  
 equipment is developing your co-operation skills.

### Develop teamwork and cooperation

-being part of a fitness class, sports team, health club you will need to be able to co-operate

-following instructions from the aerobics coach

-playing your part/role in a team game

-showing good etiquette by wiping fitness equipment is developing your co-operation skills

### Diet and nutrition

#### Know the definition of a balanced diet

A balanced diet means eating a variety of food types in the right proportions. It involves consuming the right amount of food and drink to achieve and maintain a healthy body weight i.e. matching energy input with energy output.

A balanced diet is a diet based on:

-starchy foods such as potatoes, bread, rice and pasta

-plenty of fruit and vegetables

-some protein-rich foods such as meat, fish and lentils

-some milk and dairy foods

-not too much fat, salt or sugar.

#### Know the components of a balanced diet

##### Macro Nutrients:

1. Carbohydrates
2. Fats
3. Protein

##### Micro Nutrients:

4. Vitamins
5. Minerals
6. Water
7. Fibre

Come up with an acronym to remember these 7 factors e.g.

- C – Can
- P – Pinocchio
- F – From
- V – Verona
- M – Manage
- W – Walking
- F – Fast

### Understand the effect of diet and hydration on energy use in physical activity

#### Hydration before, during and after exercise

**Day of event-** Athletes will usually have a larger meal 3 to 4 hours before the competition. They should make sure fluid levels are **high**.

**During the event-** Any prolonged exercise reduces water levels in the body. Low water levels will result in a decrease in performance. Regular water intake will prevent **dehydration**.

**After the event-** An athlete will continue to drink fluids to replace the water and carbohydrate levels that are depleted.

Factors to consider with sports performers and nutrition-

Elite athletes have aspects to consider when planning nutritional intake

-Timing? Around training and events

-Ensure there is balance to the diet

-Diet should be suitable for high work load, depending on the activity

-Sharing of ideas between athlete, coach and dietician

-Ensure there is adequate fluid intake

-Ensure there is adequate iron intake

-Psychological well-being, happy with diet, positive psychological effects

Ensuring that the body has enough glycogen is crucial for optimum energy supply. One method of increasing the glycogen available is through glycogen 'loading'- sometimes know as carb-loading. This involves depleting glycogen stores by cutting down on carbohydrates and then loading back up once the body is craving the carbohydrates. A marathon runner would benefit from glycogen 'loading' as they will need a high amount of energy to complete their race.

The effects of exercise on body systems

Short Term Effects of exercise-

Understand the short term effects of exercise

The short term effects of exercise on the muscles:

- 1- Working muscles produce heat therefore **increasing muscle temperature.**
- 2- Increased muscle fatigue due to **lactic acid** production.
- 3- Blood is **re-distributed** to working muscles in an attempt to provide more oxygen to these working areas (Blood / Vascular shunting).

Short term effects of exercise -- Cardiovascular system

1. Increase in **heart rate** (beats per minute)
2. Increase in **stroke volume** (the volume of blood that is pumped out of the heart by each ventricle during one contraction)
3. Increase in **cardiac output** (the volume of blood ejected from the left ventricle in one minute. The cardiac output is equal to the stroke volume x heart rate).

Short term effects of exercise -- Cardiovascular system

1. Increase in **respiratory rate** (rate of breathing)
2. Increase in **minute ventilation** (the volume of air either inspired or expired in one minute)
3. Increase in **tidal volume** (the volume of air either inspired or expired per breath)

Long Term Effects of exercise-

Understand the long term effects of exercise

**Increased bone density-** Regular training will increase bone density & strengthen bone matter helping to reduce the risk of Osteoporosis

**Hypertrophy of muscle-** Training results in skeletal muscle being damaged as the tiny muscle fibers are pulled apart causing trauma. With **REST** and time to **RECOVER** these muscle fibers are re-built **stronger (increase muscular strength)** than before.

**Muscular endurance-** Following endurance (stamina) training, muscular endurance increases. Slow twitch fibres will get larger by about 20%. This means that there is greater potential for energy production.

**Resistance to Fatigue-** Endurance training will also increase the capacity to carry oxygen and the athlete becomes aerobically fitter.

**Hypertrophy of the Heart-** With most training programmes the size of the heart will increase. This increase in size is known as cardiac hypertrophy. The wall of the left ventricle becomes thicker, thus increasing the strength of contractions in the heart.

**Decreased resting heart rate and**

**Increased Stroke Volume-** The increased size of the heart means it takes less beats in a minute to supply the body with enough oxygen at rest and Can pump more blood with each pulse (increased **STROKE VOLUME**).

**Cardiac Output-**

As more blood is pumped from the heart per beat (increased stroke volume). Cardiac output will also therefore increase during high or maximal levels of exercise.

**Rate of recovery-**

Training will result in heart rate recovering quicker after exercise.

**Aerobic Capacity-**

There is a slight increase in vital capacity, which means more air can be inspired, and also a slight increase in tidal volume, which means again more oxygen can enter the lungs. The exchange of gases at the alveoli (pulmonary diffusion) becomes more efficient and therefore the body can work harder and longer due to the increased surface area of alveoli.

**Respiratory muscles-**

There is greater intercostal muscle strength, allowing more air to be breathed in and out, and a reduction in resting respiratory rate, which makes the body more efficient.

**Tidal volume and minute volume during exercise-**

There will also be an increase in Minute Volume, the amount of air inspired or expired in one minute. There is a slight increase in tidal volume, which means again more oxygen can enter the lungs.

**Capillarisation-**

There is an increase in capillary density (capillarisation), which increases the efficiency of oxygen uptake for energy.

**Other long term effects on the CV system-** Blood vessels become more efficient with the vascular shunt mechanism.

Blood pressure, if previously high, decreases at rest- this is because the cardiovascular system has become more efficient.

There is an increase in the number of red blood cells. This will mean that haemoglobin content is higher and therefore more oxygen can be delivered to muscles.

There is a decrease in blood viscosity that again makes oxygen carriage more effective and can reduce blood pressure.

**Applying the short-term effects of exercise to examples from physical activity-**

-When sculling a rower will experience a rise in muscle temperature.  
 -Over the first few metres in a race a BMX cyclist's heart rate will increase.  
 -A volleyball player performing shuttles in training will have a raised stroke volume.  
 -A water polo player will have a higher cardiac output when swimming over the ball during a competition.

-A 400m athlete (when running) will experience a redistribution of blood away from the body's organs and to the working muscles (vascular shunt).

-During a competitive rally, a table tennis players respiratory rate will increase.

-A wheelchair rugby players tidal volume increases as they intercept the ball.

-A handball players minute ventilation increases as they run into space during competition.

-As a figure skater progresses through their routine, their levels of lactic acid production will increase.

**Applying the long-term effects of exercise to examples from physical activity-**

-A tennis player will experience an increase in bone density.

-An amateur boxer will have hypertrophy of muscle.

-A skier will experience an increase in muscular strength.

-A cross-country runner will have an increase in muscular endurance.

-A swimmer will have more resistance to fatigue.

-A marathon runner will have hypertrophy of the heart.

-An inline roller hockey player will have a lower resting heart rate and resting stroke volume.

-A netball player will have an increased cardiac output.

-A footballer will increase their rate of recovery.

-An ice hockey players aerobic capacity will increase.

Year 11 Unit 1 - Computer systems

	Keywords
<p><b>What is hardware?</b> Hardware is the physical components in a computer system, e.g. keyboard, cpu, etc.</p> <p><b>What is software?</b> Software is the programs that a computer system runs, e.g. operating system, games, web browser, etc.</p> <p><b>What is an embedded system?</b> An embedded system is a computer built into another device, e.g. microwaves, dishwashers, etc.</p>	<p><b>Hardware</b> - Physical components of a computer system.</p> <p><b>Software</b> - Programs that enable a computer system to run and be productive.</p> <p><b>Embedded system</b> - A computer built into another device.</p> <p>- spaces that hold data.</p> <p><b>CPU</b> - The central processing unit. Also known as the processor.</p> <p><b>Control unit (CU)</b> - Controls the flow of data in and out of the CPU.</p> <p><b>ALU (Arithmetic Logic Unit)</b> - The ALU performs all of the calculations</p> <p><b>Cache</b> - Stores regularly used data for quick access.</p> <p><b>Registers</b> - Temporarily hold small amounts of data.</p> <p><b>Core</b> - A core is a part of a processor that processes data independently</p> <p><b>Clock speed</b> - The number of instructions a single processor core can carry out per second</p> <p><b>Program counter (PC)</b> - Holds memory address of the next instruction.</p> <p><b>Accumulator</b> - Stores intermediate results of calculations in the ALU.</p>
<p><b>What is the purpose of the CPU?</b> The function of the Central Processing Unit is to fetch, decode, and execute instructions. The program code instructions are stored in the system's RAM. They are fetched, one at a time, and retrieved along the data bus on the computer.</p> <p><b>What are the common CPU components and their function:</b> <b>ALU (Arithmetic Logic Unit)</b> The ALU performs all of the calculations including addition, subtraction, multiplication and division. Also performs binary shifts and logic operations.</p> <p><b>CU (Control Unit)</b> Controls the flow of data in and out of the CPU. Manages the fetching, decoding and execution of instructions.</p> <p><b>Cache</b> Stores regularly used data for quick access. Low capacity and expensive. There are three levels of cache memory: L1 - Smallest size but quickest and most expensive L2 - Larger than L1 but slower and less expensive L3 - The largest of the three types of cache memory but the slowest and cheapest</p> <p><b>Registers</b> Temporarily hold small amounts of data. They're extremely fast to read/write to.</p> <p><b>Describe three factors that will affect the performance of a CPU.</b> <b>Number of cores</b> Each core processes data independently, so more cores means more instructions can be carried</p>	
<p>Computer systems</p>	

	<p>out per second. Some software is designed to take advantage of multicore processing.</p> <p><b>Clock speed</b> The number of instructions a single processor core can carry out per second.</p> <p><b>Cache size</b> A larger CPU cache gives the CPU faster access to more data.</p>	<p><b>Memory Address Register (MAR)</b>- Holds any memory address about to be used by the CPU.</p> <p><b>Memory Data Register (MDR)</b> - Holds the actual data or instruction, either fetched from memory or waiting to be written to memory.</p>
<p>Von Neumann Architecture</p>	<p><b>What are the four main elements in the Von Neumann architecture?</b></p> <p><b>Program counter (PC)</b> - Holds memory address of the next instruction.</p> <p><b>Accumulator</b> - Stores intermediate results of calculations in the ALU.</p> <p><b>Memory Address Register (MAR)</b>- Holds any memory address about to be used by the CPU.</p> <p><b>Memory Data Register (MDR)</b> - Holds the actual data or instruction, either fetched from memory or waiting to be written to memory.</p>	<p><b>Fetch</b> - 1st part of the Fetch - Execute - Cycle (FEC). The next instruction is given to the CPU.</p> <p><b>Decode</b> - 2nd part of the FEC. The instruction is decoded by the control unit.</p> <p><b>Execute</b> - The 3rd and last part of the FEC. The instruction is carried out.</p>
<p>Fetch Execute Cycle</p>	<p><b>Describe the fetch execute cycle.</b> The fetch execute cycle repeats continuously while the computer is running:</p> <p><b>Fetch</b> Memory address copied from the program counter to the MAR Instruction copied from the memory to the MDR Program counter incremented to point to the next instruction</p> <p><b>Decode</b> Instruction in the MDR decoded by the control unit Control unit prepares for the next step, e.g. by loading values into the MDR or MAR.</p> <p><b>Execute</b> Decoded instruction is carried out</p>	<p><b>Primary storage</b> - Memory that the CPU can read / write to quickly</p> <p><b>Volatile</b> - Power is required for the component to retain data</p> <p><b>Non-volatile</b> - The component retains data even when the power is turned off.</p> <p><b>RAM</b> - This is the main memory for the computer when it is running.</p> <p><b>Virtual Memory</b> - An area on a secondary storage device that is set aside and used as main memory when the actual main memory is full.</p> <p><b>Read only memory (ROM)</b> - non-volatile primary memory . Its contents are not lost when the computer is turned off.</p>

**Why do we need primary storage?**

The need and purpose of primary storage is to hold both data and programs that are in current use by the CPU. Primary storage devices have a direct connection to the CPU core and some of them are built into the CPU chip itself.

Examples of primary storage include:

- Random Access Memory (RAM)
- ROM chips
- Cache
- CPU registers

**What is RAM?**

RAM is used as main memory. It acts as a temporary store for program instructions and data. It can only store things temporarily because it is volatile - it must constantly be powered or it will lose any data it is holding.

**When might virtual memory be used?**

There are times when the amount of RAM needed to hold all running programs and data is greater than the amount of RAM available to the computer. When this happens, part of the computer's secondary storage, such as the hard disk, can be used to store data temporarily.

**What is ROM?**

ROM can be read from, but not written to, hence the term 'read only'. This makes ROM ideal for storing instructions and data that are needed for the computer to run. These instructions and data are usually programmed by the computer's manufacturer and cannot be overwritten.

**Explain the need for secondary storage.**

General purpose computers, such as personal computers and tablets, need to be able to store programs and data for later use.

**Secondary Storage** - Secondary storage is non-volatile, long-term storage. It is used to keep programs and data indefinitely. Without secondary storage all programs and data would be lost the moment the computer is switched off.

**Magnetic storage devices** -

Magnetic devices such as hard disk drives use magnetic fields to magnetise tiny individual sections of a metal spinning disk.

**Optical storage devices** - Optical

devices use a laser to scan the surface of a spinning disc made from metal and plastic. The disc surface is divided into tracks, with each track containing many flat areas and hollows. The flat areas are known as lands and the hollows as pits.

**Solid state devices** - Solid state

devices use non-volatile random access memory (RAM) to store data indefinitely.

**Operating system** - The software that manages the hardware and software resources in a computer system.

**Utility** - A program which performs important maintenance tasks to improve the performance of a computer system.

	<p><b>Describe two types of internal storage.</b></p> <p><b>Hard disk drives (HDD)</b> use magnetic fields to magnetise tiny individual sections of a metal spinning disk.</p> <p><b>Solid state drives (SSD)</b> use non-volatile random access memory (RAM) to store data indefinitely.</p> <p><b>List four types of external storage.</b></p> <ul style="list-style-type: none"> <li>Flash drives and memory cards</li> <li>Optical discs</li> <li>Magnetic tape</li> <li>External HDD &amp; SSDs</li> </ul>	
System Software	<p><b>Describe the features of an operating system.</b></p> <p>Systems software is software that governs the computer system. It:</p> <ul style="list-style-type: none"> <li>Controls the hardware, including any peripherals</li> <li>Allows other programs (applications) to run</li> <li>Provides an interface for the user to interact with the computer</li> <li>Maintains the system</li> </ul> <p><b>What is data compression?</b></p> <p>Compression software reduces the size of a file stored on secondary storage. Smaller files are easier to transmit across a network as they require fewer packets to be sent. Their reduced size also means more files can be stored in any given area of storage.</p> <p><b>What is encryption?</b></p> <p>Encryption software disguises the contents of files so they can only be understood by authorised users.</p>	

Year 11 Unit 2 - Data representation

		Keywords
Number systems	<p><b>Describe the three important number systems.</b></p> <p><b>Denary</b> The denary system has ten digits (0, 1, 2, 3, 4, 5, 6, 7, 8 and 9). Each denary place value is calculated by multiplying the previous place value by ten.</p> <p><b>Binary</b> Binary has just two units, 0 and 1. The value of each binary place value is calculated by multiplying the previous place value by two.</p> <p><b>Hexadecimal</b> Hexadecimal, also known as hex, is the third commonly used number system. It has 16 units (0-9) and the letters A, B, C, D, E and F. Hex is useful because large numbers can be represented using fewer digits. For example, colour values and MAC addresses are often represented in hex. Additionally, hex is easier to understand than binary. Programmers often use hex to represent binary values as they are simpler to write and check than when using binary.</p>	<p><b>Denary</b> - also known as "decimal" or "base 10," is the standard number system used around the world. It uses ten digits (0, 1, 2, 3, 4, 5, 6, 7, 8, and 9) to represent all numbers.</p> <p><b>Binary</b> - describes a numbering scheme in which there are only two possible values for each digit -- 0 or 1</p> <p><b>Hexadecimal</b> - Hexadecimal, also known as hex, is the third commonly used number system. It has 16 units (0-9) and the letters A, B, C, D, E and F.</p> <p><b>Lossy compression</b> - A form of compression that reduces digital file sizes by removing data.</p> <p><b>Lossless compression</b> - A form of compression that encodes digital files without losing detail. Files can also be restored to their uncompressed quality.</p> <p><b>ASCII</b> - American Standard Code for Information Interchange. A 7-bit character set used for representing English</p>
Using Binary	<p><b>Describe the 4 rules of binary addition.</b></p> <ul style="list-style-type: none"> <li>• <math>0 + 0 = 0</math></li> <li>• <math>1 + 0 = 1</math></li> <li>• <math>1 + 1 = 10</math> (binary for denary 2)</li> <li>• <math>1 + 1 + 1 = 11</math> (binary for denary 3)</li> </ul> <p><b>What is overflow?</b> Overflow occurs when the result of a calculation requires more bits (place values) than are in the available range.</p> <p><b>Describe binary shifts.</b> Binary numbers are multiplied and divided through a process called shifting.</p>	

<p>Units and compression</p>	<p><b>Describe the units used to store data.</b>          In a computer, all data is stored in binary form. A binary digit has two possible states, 1 and 0. A binary digit is known as a bit. A bit is the smallest unit of data a computer can use. The binary unit system is used to describe bigger numbers too. Eight bits are known as a byte.          The binary unit system is as follows:</p> <table border="0"> <tr> <td>Size</td> <td>Unit</td> </tr> <tr> <td>4 bits</td> <td>0.5 byte (B)</td> </tr> <tr> <td>8 bits</td> <td>1 byte (B)</td> </tr> <tr> <td>1,000 bytes (1,000 B)</td> <td>1 kilobyte (KB)</td> </tr> <tr> <td>1,000 kilobytes (1,000 KB)</td> <td>1 megabyte (MB)</td> </tr> <tr> <td>1,000 megabytes (1,000 MB)</td> <td>1 gigabyte (GB)</td> </tr> <tr> <td>1,000 gigabytes (1,000 GB)</td> <td>1 terabyte (TB)</td> </tr> <tr> <td>1,000 terabytes (1,000 TB)</td> <td>1 petabyte (PB)</td> </tr> </table> <p><b>What is data compression?</b>          Modern computers often generate files of very large sizes. For example, audio files often run to megabytes, while high definition video can be gigabytes in size. Such files require lots of storage space, and, because of their size, are difficult to transmit. These problems can be overcome by using compression. There are two types of compression that can be applied to files:</p> <ul style="list-style-type: none"> <li>Lossy compression</li> <li>Lossless compression</li> </ul>	Size	Unit	4 bits	0.5 byte (B)	8 bits	1 byte (B)	1,000 bytes (1,000 B)	1 kilobyte (KB)	1,000 kilobytes (1,000 KB)	1 megabyte (MB)	1,000 megabytes (1,000 MB)	1 gigabyte (GB)	1,000 gigabytes (1,000 GB)	1 terabyte (TB)	1,000 terabytes (1,000 TB)	1 petabyte (PB)	<p>keyboard characters.  <b>Character set</b> - A table of data that links a character to a number. This allows the computer system to convert text into binary. Examples are ASCII and Unicode.  <b>Unicode</b> - A system of encoding text in computing widely used on the internet.  <b>Pixel</b> - Picture element - a single dot of colour in a digital bitmap image or on a computer screen.  <b>Colour depth</b> - The amount of bits available for colours in an image.  <b>Image size</b> - Image size is simply the number of pixels that an image contains. It is expressed as height and width.  <b>Image file size</b> - The size of an image file can be estimated using:          the image height in pixels          the image width in pixels          the colour depth per pixel  <b>Resolution</b> - The fineness of detail that can be seen in an image - the higher the resolution of an image, the more detail it holds. In</p>
Size	Unit																	
4 bits	0.5 byte (B)																	
8 bits	1 byte (B)																	
1,000 bytes (1,000 B)	1 kilobyte (KB)																	
1,000 kilobytes (1,000 KB)	1 megabyte (MB)																	
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1,000 gigabytes (1,000 GB)	1 terabyte (TB)																	
1,000 terabytes (1,000 TB)	1 petabyte (PB)																	
<p>Characters</p>	<p><b>What are characters and character sets?</b>          Computers work in binary. As a result, all characters, whether they are letters, punctuation or digits are stored as binary numbers. All of the characters that a computer can use are called a</p>																	

	<p>character set. Two standard character sets in common use are:     American Standard Code for Information Interchange (ASCII)     Unicode</p> <p>ASCII uses seven bits, giving a character set of 128 characters. The characters are represented in a table, called the ASCII table. The 128 characters include:</p> <ul style="list-style-type: none"> <li>32 control codes (mainly to do with printing)</li> <li>32 punctuation codes, symbols, and space</li> <li>26 upper case letters</li> <li>26 lower case letters</li> <li>numeric digits 0-9</li> </ul> <p>Unicode</p> <p>While suitable for representing English characters, 256 characters is far too small to hold every character in other languages, such as Chinese or Arabic. Unicode uses 16 bits, giving a range of over 65,000 characters. This makes it more suitable for those situations.</p>	<p>computing terms, resolution is measured in dots per inch (dpi).</p> <p><b>Sample</b> - A digitally recorded fragment of sound, taken from an existing track or sound environment.</p> <p><b>Sample rate</b> - How many samples of data are taken per second. This is normally measured in hertz, e.g. an audio file usually uses samples of 44.1 kHz (44,100 audio samples per second).</p> <p><b>Bit depth</b> - The number of bits available to store an audio sample.</p> <p><b>Bit rate</b> - In computing, the number of bits processed per second.</p>
Storing Images	<p><b>How are images stored on a computer?</b> Digital images are made up of pixels. Each pixel is represented by a binary number.</p> <p><b>How are colour images stored on a computer?</b> Many images need to use colours. To add colour, more bits are required for each pixel. The number of bits determines the range of colours. This is known as an image's colour depth.</p>	

Storing sound	<p><b>How is sound stored on a computer?</b></p> <p>Computers work in binary. All data must be converted into binary in order for a computer to process it. Sound is no exception. To do this, sound is captured - usually by a microphone - and then converted into a digital signal. For example, a sound wave like this can be sampled at each time sample point:</p> <p>Sample rate is the number of samples recorded in any given period of time. The higher the sample rate, the closer the recorded signal is to the original. Sample rate is measured in Hertz.</p>	
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**Key terms:**

Temples, shrines, monasteries (viharas), stupa, Puja, mala, meditation, anapanasti, Vipassana, thangka, mandala, Wesak, Parinirvana Day, eightfold path, Nibbana, enlightenment, Buddhahood, Bodhisattva

**KPI: To know the main features of Theravada Buddhism**

- 'School of the elders', seen as orthodox
- The Buddha is seen as the main focus of commitment.
- An 'Arhat' is seen as a 'perfected person'. Achieved enlightenment.

**KPI: To know the main features of Mahayana Buddhism**

- Buddha remains active and can influence the world and can be encountered.
- Main aim is to achieve **Buddhahood**, to become a Buddha.
- **Bodhisattva**- someone who sees their own enlightenment as being bound to others and remain in the cycle of Samsara.
- Pure land Buddhism is part of the Mahayana Buddhism.
- Based on the faith of Amitabha Buddha.
- Pure land Buddhism focuses upon faith in Amitabha and believing that he will help Buddhist to be reborn in Sukhavati.

**Paper One – Year 11 Term 1 Buddhist belief, worship and practices**

**KPI: To understand the meaning of the 3rd noble truth.**

- The **third noble truth** teaches that there is an end to suffering.
  - It can be achieved by overcoming ignorance and craving.
  - **Nibbana** literally means the extinction- the extinction of the three poisons.
- KPI: To understand the meaning of the fourth noble truth.**
- The fourth noble truth '**magga**' is seen as the cure to end suffering.
  - The fourth noble truth is the **eightfold path**, which consists of 8 aspects that Buddhist can practice and follow in order to achieve **enlightenment**.
  - The eightfold path is split into ethics, mediation, wisdom.

**KPI: To understanding the techniques and purpose of the samatha meditation and the practice of zazen meditation.**

- **Samatha** or calming meditation – this kind of meditation helps to calm the mind by focusing on one object, feeling or idea, it is practices amongst **Theravada** Buddhism. The idea is to become more 'mindful' of your breathing.
- **Vipassana** meditation is often called 'insight meditation'. This form of meditation is used to achieve insight into the true nature of things. The aim is a complete change of the way we perceive and understand the universe, and unlike the temporary changes brought about by Samatha, the aim of Vipassana is permanent change.
- **Zazen** is a Japanese word 'seated meditation', it is practiced by Zen Buddhist. It is intended to lead to a deeper understanding of the nature of existence.

**KPI: To be able to describe how Buddhists use visualisation of Buddha's and Bodhisattvas as a form of worship.**

- Various Buddhist use visualisation as a part of **mediation**, it involves imagining an object on one's mind.
- Tibetan Buddhist will often visualise a 'deity' when they mediate, for a Buddhist a deity is not a God but a being who has become fully enlightened.
- **A thangka**, is a Tibetan Buddhist painting on cotton.
- One of the richest visual objects in Tibetan Buddhism is the mandala. A mandala is a symbolic picture of the universe. It can be a painting on a wall or scroll, created in coloured sands on a table.
- The **mandala's** purpose is to help transform ordinary minds into enlightened ones and to assist with healing.

**KPI: To explain the nature, use and importance of Buddhist places of worship.**

- A **temple** is often at the heart of a Buddhist community; a temple may include meditation hall (**gompa**) shine depicted to the Buddha or in Mahayana temples a **Bodhisattva**.
- A **stupa** is designed to symbolise the 5 Buddhist elements; water, earth, fire, water and wisdom.
- Buddhist will make offerings at a **shrine** for example light – wisdom, flowers- reminder that all things are impermanent, incense- purity.

**KPI: To understand the significance of worship for Buddhist.**

- **Worship (Puja)** allows Buddhist to express their gratitude and respect for the Buddha and his teachings.
- **Chanting**- is a devotional practice
- A **mantra** is a word, a syllable, a phrase or a short prayer that is spoken once or repeated over and over again.

**KPI: To be able to explain the importance and aim of meditation in the Buddhist path.**

- Meditation is an important practice for Buddhist it provides a spiritual exercise that calms the mind and leads to the development of insight into the nature of existence.
- Before mediation, Buddhist may recite the **three refuges**. The purpose of mediation is to develop a still and calm and focuses mind.

**KPI- To understand the origins and celebrations and importance of Wesak**

- **Wesak** is the most important of the Buddhist festivals
- It celebrates the Buddha's birthday, and, for some Buddhists, also marks his enlightenment and death.
- Buddhists will visit their local temple for services and teaching, and will give offerings to the monks of food, candles and flowers.

**KPI- To understand the origins and celebrations and importance of Parinirvana Day**

- This is a Mahayana Buddhist festival that marks the death of the Buddha. It is also known as **Nirvana Day**. Buddhists celebrate the death of the Buddha, because they believe that having attained **Enlightenment** he achieved freedom from physical existence and its sufferings.