Knowledge Organiser

Criminology
Year 12
Term 4
2024/25

The Abbey School

Criminology Year 12 Term 2 – Unit 2 Criminology Theories

In this third term you will begin to investigate how biology, psychology and sociological theories explain criminality.

Prior Learning Links:

KS4 required skills of Biology, cells, inheritance, evolution, DNA, sex determination.

Some students studying Politics and Psychology in Year 12 have some familiarity early with some key theories and ideas.

Future Learning Links:

Synoptic link to unit 1 and will be needed for unit 3 & 4 next year.

KEY VOCABULARY

Criminology Unit 2- Criminological Theories

Learning outcome 1- understanding social constructions of criminality

Crime- an act or omission which breaks the criminal law and for which a suction will be issued.
Deviance- acting against social norms.
Actus reus- Latin for guilty act
Mens rea- Latin for guilty mind
Strict liability- where the law will impose criminal liability even if the defendant does not have a mens rea or guilty mind. For example health and safety offences such as pollution or the sale of unfit meat.
Combination order- A sentence of the court that combines a probation order and a community service order
Culture- the ideas, customs and social behaviour of as particular people or society.
Moral Crimes- crimes against morality, often considered to be victimless crimes because there is no specific victim.
Capital punishment- also known as the death penalty- the legally authorised killing of someone a punishment for a crime.
Social construction- something based on the collective views developed and maintained within a society or social group.
Civil partnership- Legally recognised agreement for both same-sex couples and heterosexual couples
Execute- To kill someone as a legal punishment
Statute- An Act of Parliament or legislation
Miscarriage of justice- The conviction and punishment of a person for crime that they had not committed
Acquittal- Verdict of a court when someone is found not guilty of a crime they have been charged with doing
Soliciting- To offer sex for money usually in a public place
Kerb crawling- Driving slowly along a road close to a pavement or walkway, in order to ask a prostitute for sex
Brothel- A place where men go to pay to have sex with a prostitute
Manslaughter- An unlawful killing without malice or aforethought and in circumstances when it is not murder
Diminished responsibility- A particular defence for murder resulting in a conviction for manslaughter instead of murder
Mandatory- Required by law
Consent- A defence in law that proves permission was provided by the appropriate person for the crime to occur
Self-defence- A defence in law allowing the use of reasonable force to avoid conviction
Automatism- A defence in law where the defendant is not in control of their actions

Learning outcome 2- know theories of crime:

Biological- relating to processes or activities concerned with living things. For our purposes, it relates to the body, both inside and outside, as reasons for committing crimes.
Genetic- relating to genes or heredity.
Physiology- the functions of living organisms, in our case human beings and their parts, and in particular, the way I which they function.
Neurochemical- a chemical that can transfer signals that regulate thoughts and emotions.
Monozygotic- Identical twins
Dizygotic- Non-identical (fraternal) twins

Concordance- In agreement or harmony
Atavistic- relating to something ancient or ancestral
Somatotype- Body shape
PET scan- Positron emission tomography (PET) scans are used to produce detailed- three dimensional images of the inside of the body
Individualistic- relating to an individual rather than a group or society as a whole.
Observational learning- When an observer's behaviour changes after viewing the behaviour of a model
Differential associations- Interactions with others
Juvenile delinquent- Someone under the age of 18 years who has broken the law
Control group- A group in an experiment or study that does not receive treatment by the researchers and is then used as a benchmark to measure how other subjects tested did
Extraversion- Being mainly concerned with and gaining pleasure from things outside of the self
Introversion- Directing your interests inwards or to things within the self
Neuroticism- To have feelings of anxiety, worry or anger or fear
Stability- Unlikely to move or change
Psychoticism- A personality pattern that is typified by aggression and hostility towards other people
Bourgeoisie- the middle and upper classes who own the means of production in industry.
Proletariat- the lower social class, who must provide their labour to the upper classes for a wage.
Criminogenic- causing or likely to cause criminal behaviour.
American dream- the idea of equal opportunity for all to achieve high aspirations and goals.
Anomie- loss of shared principled or norms.
Relative deprivation- how someone feels in relation to others (in terms of wealth, for example) or compared with their own expectations.
Marxism- The political and economic theories of Karl Marx, which states that capitalism is unequal and undemocratic, being based on the exploitation of the working class by the capitalist class/ bourgeoisie
Capitalism- The social systems in which the means for producing and distributing goods (the country's trade and industry) are controlled by a small minority of people for profit (the capitalist class). The majority of people must sell their ability to work in return for a wage or salary (the working class/proletariat)
Ritualistic- Performing in the same way
Retreatist- Rejecting society's prescribes goals and the conventional means of attaining them
Folk devils- A person of bad influence on society
Deviance amplification- A process often performed by the media, in which the extent and seriousness of deviant behaviour is exaggerated, creating a greater awareness and interest in deviance
Stereotyping- A widely held but fixed, over-enlarged image or idea of a type of person
Learning outcome 3- understanding cause of criminality:
Analyse- examine in detail, break into component parts, examine relationships.
Evaluate- to make a judgment about the quality or importance of a theory by providing strengths and weaknesses of how well the theory supports the reasons for criminality. Ideally, come to a conclusion and justify how you have made your choice.
Ecological validity- the extent to which findings of a research study are able to be generalised to real-life settings.
Assess- make a judgment about the quality or value of something. Is the theory, for example useful when discussing crimes and, if so how?
Eugenics- the science of improving a population by controlled breeding, to increase the occurrence of desirable heritable characteristics.
Inform- give knowledge or have an impact or effect on, for example policy.
Recidivism- The tendency of a convicted criminal to reoffend

Learning outcome 4- understanding causes of policy change:
Biological determinism- A person's personality or behaviour is caused by the genes they've inherited rather than by social or cultural factors, i.e. by nature rather than nurture
Incarcerated criminals- People who have been found guilty of a criminal offence and received a term of imprisonment as a punishment
Punitive laws- Laws that intend to punish
Custodial sentences- A punishment of being sent to prison
Facilitator- Someone who assist in making a task easier or helps somebody to find a solution
Safeguarding- Protecting form harm or damage with an appropriate measure
Demographics- statistical information about a population.

Miscarriage of justice- a criminal cases where the defendant has been convicted for a crime that they did not commit. The conviction of an innocent person.
Sex Offenders Register- Contains the details of anybody convicted, cautioned or released from prison for sexual offences against children or adults since September 1997. It is kept by the police has around 9,000 people on it
Pilot scheme- Used to test an idea before deciding whether to introduce it on a large scale
Young Offenders Institution- A type of prison for 18- to 20-year-olds

Learning outcome 2- Know theories of criminality (Individualistic) p41 **Learning outcome 3- Understanding causes of criminality (Individualistic) p71** **Learning outcome 4- Understanding causes of policy change (Individualistic) p81**			
AC2.2: Describe Individualistic theories of crime (p59)	**Red**	**Amber**	**Green**
• learning theories • psychodynamic • psychological theories			
AC3.1: Analyse situations of criminality (Individualistic) (p71)	**Red**	**Amber**	**Green**
• different types of crime • individual criminal behaviour			
AC3.2: Evaluate the effectiveness of criminological theories to explain causes of criminality (individualistic) (p75)	**Red**	**Amber**	**Green**
• learning theories • psychodynamic • psychological theories			
AC4.1: Assess the use of criminological (Individualistic) theories in policy development (p81)	**Red**	**Amber**	**Green**
• individualistic Policy development • informal policy making • formal policy making o crime control policies o state punishment policies			
Learning outcome 2- Know theories of criminality (Sociological) p65 **Learning outcome 3- Understanding causes of criminality (Sociological) p71** **Learning outcome 4- Understanding causes of policy change (Sociological) p81**			
AC2.3: Describe Sociological theories of crime (p65)	**Red**	**Amber**	**Green**
• social structure • interactionism • realism			
AC3.1: Analyse situations of criminality (Sociological) (p71)	**Red**	**Amber**	**Green**
• different types of crime • individual criminal behaviour			
AC3.2: Evaluate the effectiveness of criminological theories to explain causes of criminality (Sociological) (p75)	**Red**	**Amber**	**Green**
• Marxism •Labelling •Functionalism •Left and Right realism			
AC4.1: Assess the use of criminological (Sociological) theories in policy development (p81)	**Red**	**Amber**	**Green**
• Sociological Policy development • informal policy making • formal policy making o crime control policies o state punishment policies			
AC4.2: Explain how social changes affect policy development (p88)			
• social values, norms and mores • public perception of crime • structure of society o demographic changes • cultural changes			
AC4.3: Discuss how campaigns affect policy making (p94)			
• newspaper campaigns			

• individual campaigns
• pressure group campaigns
SYNOPTIC: Refer to campaigns considered in Unit 1 to identify the policies they introduced, try to include a range of policies such as:
Newspaper Campaigns: Sarah's Law
Individual Campaigns: Ann Ming
Pressure Group Campaigns: Howard League for Penal Reform

HOME LEARNING TASKS	
Task Description	**Done?**
Complete all Cornell notes for past lessons.	
Complete A3 notes for controlled assessment.	
Completed practice attempts for each AC.	
Complete additional reading and research on current AC.	
Completed Quizlet tasks to improve use and understanding of key terms.	

Knowledge Organiser

Geography
Year 12
Term 4
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Geography Year 12 Term 4 – Changing Places

The transformation of places over time is shaped by a complex interplay of economic, social, and political forces. In this topic, students will explore how industrial growth, decline, and regeneration impact urban areas, using Stratford (London) and Detroit (USA) as case studies. Key themes include the role of deindustrialisation in shaping urban landscapes, the impact of government policies and international investment in regeneration, and the social consequences of change, such as gentrification and community displacement. By comparing these two cities, students will gain insight into how places evolve in response to local and global influences.

Prior Learning Links

- Term 3 changing places
- Term 1 and 2 Globalisation

Future Learning Links

- Population and the environment

KEY WORDS

- **Place**
  A specific location with meaning, shaped by physical characteristics, human activities, and individual or collective perceptions. Places can evoke emotional or cultural connections, forming part of people's identities.
- **Space**
  An abstract area without inherent meaning until human interaction assigns significance. Space becomes place when it gains a sense of purpose or attachment.
- **Sense of Place**
  The subjective feelings, experiences, and cultural meanings that individuals or groups associate with a location, influenced by personal experiences, memories, and societal narratives.
- **Endogenous**
  Internal factors originating within a place that shape its character, such as topography, natural resources, demographics, and local businesses.
- **Exogenous**
  External factors or influences acting on a place, including connections to other places, migration, trade, investment, and globalisation. These can reshape a place's identity and function.
- **Disneyfication**
  The transformation of a place to resemble a sanitized, idealized, or commercialized version of reality, often for tourism or consumer appeal, leading to a loss of authenticity.
- **Migration**
  The movement of people from one place to another, either within or across borders, which significantly affects the economic, social, and cultural characteristics of places.
- **Economic**
  Relating to the production, distribution, and consumption of goods and services within a place, including factors like employment, industry, wealth, and investment.
- **Cultural**
  The shared practices, values, traditions, and expressions of people within a place, shaping its identity and influencing how it is perceived and experienced.
- **Deprivation**
  A condition where people or places lack essential resources, services, or opportunities, leading to reduced quality of life. This can manifest in economic, social, or environmental terms.

- **Reimaging**
  Changing perceptions of a place to improve its reputation, often focusing on cultural, historical, or economic assets to attract visitors, investment, or residents.
- **Rebranding**
  The process of altering the identity of a place through marketing, regeneration projects, or promotion to create a new image and attract economic activity or tourism.
- **Place Marketing**
  Strategies used to promote a place to potential visitors, residents, or investors, often by highlighting unique features or cultural significance to enhance its appeal.
- **Contemporary**
  Relating to present-day characteristics, issues, or events in a place, often influenced by modern trends, technologies, or global interactions.
- **Urban**
  Relating to towns or cities, where population density is high, and economic, cultural, and social activities are concentrated. Urban areas are dynamic and often experience significant change over time.

1. How International Bodies, Governments, and Corporations Affect Places | Red | Amber | Green

The character of a place is shaped by a complex interplay of **endogenous** (internal) and **exogenous** (external) factors. While local geography, history, and culture contribute to a place's identity, **international bodies, governments, and corporations** also play a significant role in reshaping places over time. These actors influence places through policies, investment, infrastructure development, and economic restructuring, often leading to dramatic shifts in identity and function.

The Role of Key Actors in Shaping Place

1. International Bodies (e.g., UN, World Bank, EU, IMF, WTO)

International organisations influence places through **trade agreements, aid, development projects, and environmental regulations**. Their decisions often shape the economic and social landscape of a location.

- **EU Investment in Infrastructure:** EU structural funds have contributed to large-scale regeneration in cities such as **Liverpool**, funding transport and business development projects that reshaped the city's economy post-industrial decline.
- **World Bank and IMF Policies:** Structural adjustment programmes in countries like **Jamaica** and **Ghana** have influenced local economies by encouraging privatisation and foreign direct investment, altering the role of government in shaping place identity.
- **Climate Agreements and Place Identity:** International agreements such as the **Paris Climate Accord** impact how governments plan urban spaces, encouraging sustainable city projects like **Copenhagen's carbon-neutral initiatives**.

2. National and Local Governments

Governments shape places through **planning laws, regeneration projects, and economic policies**, often changing their function and character over time.

- **Urban Regeneration:** In the UK, large-scale government-led projects like the **London Docklands Development Corporation (LDDC)** in the 1980s transformed former industrial areas into financial and commercial hubs. This process altered both the economic function and social makeup of the area, leading to debates about gentrification.

- **Planning and Policy:** Green Belt policies limit urban sprawl, preserving rural character, while schemes like **Enterprise Zones** (e.g., Salford Quays) attract businesses, reshaping economic geography.
- **Government Response to Deindustrialisation:** The decline of heavy industry in places like **South Wales** led to government-led diversification efforts, such as investment in technology and service sectors.

3. Transnational Corporations (TNCs) and Businesses

Corporations influence places through **investment, employment, and branding**, often bringing economic growth but also concerns about homogenisation and loss of local identity.

- **High Streets and Retail Chains:** The dominance of multinational chains such as **McDonald's, Starbucks, and Tesco** creates a sense of place uniformity, with independent businesses struggling to survive.
- **Corporate Investment and Economic Shift:** The arrival of Nissan in **Sunderland** in the 1980s created thousands of manufacturing jobs, helping the city transition from shipbuilding to a hub for automobile production.
- **Tech Hubs and Gentrification:** The expansion of **Google and Apple** into areas like **Silicon Roundabout (London)** and **Silicon Valley (California)** has transformed these places into technology centres but has also led to rising living costs and social inequalities.

Shifts Over Time: The Changing Character of Places

The impact of international bodies, governments, and corporations varies over time, often leading to cycles of economic and social transformation. Some key processes include:

- **Deindustrialisation and Regeneration:** Industrial cities such as **Manchester, Sheffield, and Detroit** have shifted from manufacturing to service-based economies due to global economic changes and government-led regeneration efforts.
- **Globalisation and Economic Hubs:** Financial centres like **London, New York, and Shanghai** have been shaped by global financial markets and policies that favour foreign direct investment.
- **Tourism and Rebranding:** Places like **Barcelona and Dubai** have been strategically marketed by governments and corporations to attract global tourism and investment, reshaping their urban landscapes.

Exogenous and Endogenous Factors Influencing Place Identity

A place's character is shaped by both **internal (endogenous) factors** such as location, topography, and demographics, and **external (exogenous) factors** such as global investment, migration, and trade.

Endogenous Factors	Exogenous Factors
Physical geography (rivers, mountains, coastlines)	Globalisation and economic change
Local industries and employment sectors	Investment from international corporations
Population demographics and culture	Influence of international organisations (e.g., EU, UN)
Infrastructure and built environment	Migration and movement of people
Heritage and historical identity	Trade agreements and foreign policy

For example, **Birmingham** has both endogenous factors (its historical role as a manufacturing city) and exogenous influences (investment from TNCs and government-led regeneration) that have shaped its modern identity as a service-based economy.

2. Near Place study: Stratford | Red | Amber | Green

1. Location and Background

Stratford is a district in the **London Borough of Newham**, situated in East London. Historically, it developed as a **rural settlement** before transitioning into an **industrial hub**, later suffering from economic decline before undergoing large-scale **regeneration**, particularly due to the **2012 London Olympics**.

2. Historical Development of Stratford

Early History to Industrialisation

- Stratford was first recorded in **1067** as "Straetforda," meaning "ford on a Roman road." It served as a crossing over the **River Lea**, linking London to Colchester.
- Originally **an agricultural village**, Stratford became a major producer of **potatoes and other crops** for London.
- **Mid-1700s to 19th century:** Industrialisation led to Stratford becoming a centre for **manufacturing**, benefiting from its **proximity to the Royal Docks and railway expansion**.

Role of the Railway and Decline

- The **Stratford Railway Works** (built in **1839**) became one of the UK's largest locomotive manufacturing sites, employing **thousands of workers**.
- Stratford continued to grow as a **transport hub**, with the railway and the Royal Docks supporting a thriving **manufacturing economy**.
- **World War II:** Heavy bombing caused widespread destruction, but industry was rebuilt in the post-war period.
- **1960s–1990s:** Deindustrialisation led to the **closure of the railway works** in **1992**, causing economic decline, job losses, and high unemployment. Stratford became one of the most deprived areas in the UK.

3. Key Factors Driving Change in Stratford

Stratford's transformation has been driven by **endogenous (internal) and exogenous (external) factors**.

Endogenous Factors (Internal to the Area)

- **Geographical Location:** Close proximity to central London, the River Lea, and major transport links made it an attractive location for regeneration.
- **Infrastructure:** Stratford Station remained a major transport hub, which helped encourage investment.

- **Derelict Land:** Large amounts of brownfield land allowed for large-scale redevelopment projects.

Exogenous Factors (External Influences)

- **Government Policy & Investment:** The UK government and London authorities pushed regeneration initiatives in Stratford.
- **The 2012 Olympics:** The biggest catalyst for change—brought global attention and large-scale redevelopment.
- **Private Investment:** Westfield and other businesses invested heavily in Stratford, helping to create jobs and new commercial spaces.
- **International Influence:** Stratford became home to major corporate offices, cultural institutions, and global retail brands, shifting its economic base.

4. The Impact of the 2012 London Olympics

Why Stratford was Chosen

- The **Lower Lea Valley**, where the Olympic Park was built, was in desperate need of regeneration, suffering from **derelict industrial sites, unemployment, poor housing, and pollution**.
- The UK government aimed to **use the Olympics as a catalyst for urban transformation**.

Regeneration Efforts

1. **Infrastructure Development**
    - £200m investment in Stratford Station, making it **one of the busiest in Britain**.
    - The construction of **Stratford International Station**, linking Stratford to high-speed rail networks.
2. **Physical and Environmental Changes**
    - **110 hectares of brownfield land reclaimed** and redeveloped.
    - Old factories and industrial buildings **demolished**.
    - Land **decontaminated**, and new green spaces developed.
3. **New Developments**
    - **Queen Elizabeth Olympic Park**: Transformed into a public space with sports facilities and natural habitats.
    - **London Stadium (formerly Olympic Stadium)**: Now home to **West Ham United** and used for concerts and events.
    - **East Village**: The Olympic Athlete's Village was converted into **2,800 new homes**.
    - **Here East**: The former Olympics media centre is now a **hub for creative industries**, employing 5,000 people.
    - **The International Quarter**: A high-rise business district employing 25,000 people.
    - **Westfield Stratford City**: A major shopping and entertainment complex, attracting 50 million visitors per year.

Social and Economic Impact of Regeneration

Positive Impacts	Negative Impacts
Created **thousands of jobs** and attracted investment.	**Rising house prices and rent** led to gentrification.
Improved **transport connections** and infrastructure.	Some **businesses and residents were displaced**.
Increased **green space and recreational facilities**.	**Not all new jobs went to local people**.

Boosted **London's global reputation**.	Some argue the Olympic legacy has **not fully benefited locals**.

5. How Stratford's Character Has Changed

Before regeneration, Stratford was characterised by:

- **Industrial heritage** with working-class communities.
- **High unemployment** and economic decline.
- **Pollution and environmental degradation**.

After regeneration, Stratford is now:

- A **major commercial and business hub**, attracting global companies.
- A **mixed-use urban area** with luxury apartments, shopping centres, and cultural institutions.
- A place with **higher property prices** and signs of **gentrification**, leading to a change in its demographic and economic profile.

6. Has Regeneration Been Successful?

While Stratford has undergone remarkable transformation, **debates continue** about whether regeneration has truly benefited local communities.

Successes:

- Major economic growth and increased investment.
- Vastly improved **transport links and infrastructure**.
- Stratford is now a **major retail and business centre**.

Challenges:

- Many **affordable homes promised** during regeneration have not materialised.
- Local residents and businesses **displaced due to gentrification**.
- Some **areas of Newham remain deprived**, with ongoing social challenges.

7. Conclusion

Stratford's transformation from an **industrial hub to an Olympic city and business centre** showcases how **government policies, international events, and corporate investment** can dramatically change a place. While the area has benefited economically, the **social consequences remain mixed**, with debates over affordability and inclusivity continuing today.

3. Far Place study: Detroit

Red Amber Green

1. Location and Background

Detroit is located in southeastern Michigan, near the border with Canada, and is famously known as the "Motor City." Once the thriving heart of America's automotive industry, Detroit has experienced dramatic shifts—from industrial boom to urban decline and, more recently, attempts at regeneration. This transformation is driven by both local (endogenous) forces and broader external (exogenous) influences.

2. Historical Development of Detroit

Early Growth and the Automotive Boom

- **Early 20th Century Rise:**
  Detroit grew rapidly in the early 1900s as the center of the U.S. automobile industry. Companies like Ford, General Motors, and Chrysler established large manufacturing plants, which not only provided thousands of jobs but also spurred the development of related industries and infrastructure.
- **Economic and Demographic Expansion:**
  During its peak, Detroit was a magnet for rural migrants and immigrants alike. The city's population soared as the promise of steady employment in auto manufacturing drew workers from across the nation and the world.

Decline and Deindustrialisation

- **Mid-to-Late 20th Century Challenges:**
  By the latter half of the 20th century, several factors converged to cause dramatic economic decline. Global competition, automation, and outsourcing reduced the demand for traditional manufacturing labor.
- **Social and Fiscal Strains:**
  These economic shifts led to widespread job losses, population decline, and fiscal challenges for the city. Issues such as racial tensions and suburbanization (commonly known as "white flight") further exacerbated the decline, leaving vast areas of the city economically and physically blighted.
- **Legacy of Industrialization:**
  Much like Stratford's deindustrialisation following the closure of its railway works, Detroit's industrial legacy left behind large tracts of underused or abandoned land and infrastructure that became both an opportunity and a challenge for future regeneration efforts.

3. Key Factors Driving Change in Detroit

Detroit's transformation has been influenced by a combination of endogenous and exogenous factors:

Endogenous Factors (Internal to Detroit)

- **Geographic Location & Infrastructure:**
  Detroit's location as a transportation hub—with extensive rail, road, and water links (via the Detroit River)—has long made it attractive for industrial and logistical activities.
- **Industrial Heritage:**
  The city's historical reliance on the automobile industry shaped its urban layout, labor market, and social fabric.
- **Local Demographics and Community:**
  Shifts in the local population—driven by both economic opportunities and later disinvestment—have deeply affected neighborhood identities and community cohesion.

Exogenous Factors (External Influences)

- **Global Economic Shifts:**
  The rise of global competition in the automotive sector and the advent of automation transformed manufacturing worldwide, impacting Detroit's economic base.
- **Government Policies and Fiscal Challenges:**
  Decisions at the federal, state, and local levels—including policies on trade, taxation, and urban spending—played a significant role in both the city's decline and its later efforts at revitalization.

- **Corporate Investment and Private Sector Involvement:**
  In recent decades, private investment in downtown Detroit—ranging from tech start-ups to cultural redevelopment—has sought to diversify the economy beyond manufacturing.
- **International Influences:**
  As with many post-industrial cities, international capital flows and global economic trends have affected both the decline and the resurgence of Detroit.

4. Impact of Deindustrialisation and Regeneration Efforts

The Era of Decline

- **Economic Downturn:**
  The decline of the auto industry led to massive job losses and a shrinking tax base. As factories closed, large areas of the city were left vacant and in disrepair, contributing to a cycle of urban decay.
- **Social Consequences:**
  The economic decline resulted in population loss, high unemployment, and challenges in public services. Neighborhoods experienced disinvestment, leading to deteriorating infrastructure and rising crime in some areas.

Regeneration and Revitalisation Initiatives

Recent decades have seen efforts to reverse the decline, driven by a mix of public policy initiatives, corporate investment, and community-led redevelopment:

- **Downtown and Midtown Revitalisation:**
  Investment in downtown Detroit has led to the development of new office spaces, cultural venues, and residential projects. Landmark projects such as the renovation of historic buildings and the creation of new public spaces have helped redefine the city's image.
- **Diversification of the Economy:**
  Efforts to move beyond automotive manufacturing have focused on technology, healthcare, education, and the creative industries. Initiatives to attract start-ups and international investors have begun to diversify Detroit's economic base.
- **Government and Public-Private Partnerships:**
  Federal and state funding, along with initiatives by local governments, have supported infrastructure improvements, educational programs, and incentives for business development. Public–private partnerships have played a crucial role in projects ranging from transportation upgrades to urban green spaces.

Urban Regeneration: Pros and Cons

Positive Impacts	Negative Impacts
Economic Diversification: New industries and investments have created jobs and spurred innovation.	**Gentrification:** Rising property values and new developments have sometimes led to the displacement of long-time residents.
Infrastructure Improvements: Revitalisation projects have improved transportation, public spaces, and city services.	**Uneven Benefits:** Regeneration efforts have been concentrated in downtown areas, leaving some peripheral neighborhoods still struggling.
Cultural Renaissance: A burgeoning arts and cultural scene is attracting tourism and community engagement.	**Social Disparities:** Despite progress, some communities continue to face high levels of poverty and social challenges.

5. How Detroit's Character Has Changed

Before Regeneration

- **Industrial Identity:**
  Detroit was long defined by its manufacturing might, characterized by sprawling factories, assembly lines, and a working-class culture.
- **Urban Decay:**
  After deindustrialisation, the city became synonymous with abandoned buildings, declining infrastructure, and a loss of civic pride.

After Regeneration Efforts

- **A New Urban Core:**
  Downtown Detroit has transformed into a vibrant center with modern office spaces, restaurants, cultural institutions, and sports arenas (such as Little Caesars Arena).
- **Economic and Cultural Rebirth:**
  The city is increasingly recognized for its resilience, creative energy, and efforts to reimagine its future beyond its industrial past.
- **Mixed Outcomes:**
  While some neighborhoods have flourished, challenges remain in ensuring that regeneration benefits all residents. The legacy of economic inequality and urban blight still influences parts of the city.

6. Conclusion

Detroit's evolution from an automotive powerhouse to a city marked by decline—and now to one cautiously embracing regeneration—illustrates the powerful interplay of local and global forces. Endogenous factors, such as its industrial heritage and geographic location, combined with exogenous influences like global economic shifts and government policies, have reshaped Detroit's character over the decades. While revitalisation efforts have sparked hope and transformation in the downtown core, ongoing debates about social equity, displacement, and the distribution of benefits continue to shape the narrative of this iconic American city.

4. Stratford vs Detroit Comparison | **Red** | **Amber** | **Green**

1. Shared Trends in Industrial Rise, Decline, and Regeneration

Industrial Roots and Decline

- **Industrial Boom:**
  Both Stratford and Detroit were built on robust industrial foundations. Stratford's economy was long tied to manufacturing—from railways and docklands to chemical industries—while Detroit earned its nickname as the "Motor City" through its auto manufacturing dominance.
- **Deindustrialisation:**
  In each case, technological change, global competition, and shifts in production led to the closure of core industries. Stratford's railway works and associated manufacturing gave way to urban decay, and Detroit's auto industry collapse spurred widespread job losses and population decline.
- **Legacy of Decline:**
  The deindustrialisation left large areas of derelict land and infrastructural challenges in both places. In Stratford, the abandoned industrial sites and polluted brownfield land became both a symbol of decline and an opportunity for regeneration, while Detroit faced severe urban blight and fiscal crises as its manufacturing base eroded.

Regeneration Initiatives

- **Strategic Regeneration:**
  Both cities have seen significant regeneration efforts aimed at reversing decline. Stratford's transformation was closely linked to a high-profile, centrally planned event—the 2012 London Olympics—which drove major investments in infrastructure, housing, and public spaces. Similarly, Detroit's downtown and Midtown have experienced a renaissance fueled by public–private partnerships, diversified economic initiatives, and a growing cultural and tech scene.
- **Infrastructure Upgrades:**
  Stratford's regeneration included massive investments such as the redevelopment of Stratford Station and the creation of the Queen Elizabeth Olympic Park. In Detroit, infrastructural improvements have centered around revitalizing downtown corridors, upgrading transportation links, and repurposing historic buildings for new uses.

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2. Key Similarities

Economic and Social Impacts

- **Economic Revitalisation:**
  Both examples show how regeneration can breathe new life into a declining urban area by attracting investment, creating jobs, and diversifying the economy. Stratford's planned developments and Detroit's organic urban renewal have transformed their economic landscapes from single-industry dependency toward mixed-use, service-oriented economies.
- **Social Challenges and Gentrification:**
  Despite regeneration successes, both cities face challenges with gentrification. In Stratford, rising property prices and redevelopment have sometimes displaced long-term residents. In Detroit, the revitalisation of the downtown core has similarly raised concerns about uneven benefits and the potential displacement of poorer communities.

Role of Exogenous Influences

- **Government and Policy Interventions:**
  Strategic planning played a crucial role in both cases. Stratford benefited from the targeted intervention of the Olympic Delivery Authority and strong governmental support for regeneration, while Detroit's transformation has involved a mix of federal, state, and local policy efforts to stabilize the economy and promote investment.
- **Global Economic Shifts:**
  Both cities were significantly affected by global economic forces—technological advancements, global competition, and changes in trade—all of which reshaped their industrial landscapes and necessitated regeneration.

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3. Notable Differences

Catalysts and Scale of Regeneration

- **Stratford's Olympic Catalyst:**
  Stratford's regeneration was catalysed by a single, high-profile event. The 2012 Olympics not only provided a clear timeline and funding stream but also created a legacy of public spaces and modern infrastructure. This top-down approach was able to rapidly transform a specific geographic area, leading to a marked improvement in both the physical and economic environment.
- **Detroit's Gradual Renaissance:**
  In contrast, Detroit's revitalisation has been more incremental. The city's decline was deeper and more widespread, and its recovery has relied heavily on a combination of private investment, grassroots

initiatives, and public policies over several decades. This has resulted in a patchwork of regenerated zones—primarily in the downtown area—amid persistent challenges in peripheral neighborhoods.

Economic and Demographic Context

- **Scale and Concentration of Decline:**
  Detroit's decline was marked by a dramatic population loss and a more pervasive level of urban blight across vast areas of the city. Stratford, while deeply affected by deindustrialisation, retained a strategic location in East London that allowed regeneration efforts to be concentrated more effectively.
- **Cultural and Political Contexts:**
  The political environment in the UK—with its capacity for rapid, large-scale planning interventions—enabled Stratford's focused regeneration, whereas Detroit's recovery has been shaped by the unique challenges of American urban politics, fiscal crises, and a legacy of segregation and suburbanisation. These differences have influenced not only the pace and nature of regeneration but also its social outcomes.

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4. Insights into the Underlying Causes of Similarities and Differences

- **Global Industrial Change:**
  Both cities' experiences underscore how global shifts—from industrialisation to deindustrialisation—have similar impacts regardless of geography. The loss of core industries leads to urban decline, which then necessitates regeneration. However, the methods of response can vary widely depending on local governance, available resources, and strategic priorities.
- **Government Interventions:**
  Stratford's rapid regeneration highlights the potential benefits of coordinated, government-led initiatives. The Olympics provided a clear mandate and the necessary funding to bring together disparate parts of the area under a unified vision. In contrast, Detroit's reliance on more gradual, market-driven regeneration reflects the challenges of mobilising public policy in an environment of fiscal constraints and entrenched socio-economic divides.
- **Local Versus Global Factors:**
  While global economic trends set the stage for decline in both cities, local conditions—such as pre-existing infrastructure, cultural identity, and political will—shaped the regeneration paths. Stratford's proximity to central London and its strategic location in a globally influential city offered advantages that Detroit, with its legacy of industrial over-reliance and more severe demographic decline, continues to grapple with.

Conclusion

Both Stratford and Detroit illustrate the complex, dynamic nature of urban transformation. Their experiences reveal common patterns—industrial growth, subsequent decline, and attempts at regeneration—while also highlighting how the specifics of local context, government intervention, and cultural legacy can lead to divergent outcomes. Stratford's rapid, event-driven regeneration contrasts with Detroit's slower, more organic revival, offering a rich comparison of how different strategies can be applied to similar challenges in the urban landscape.

Physical Geography Year 12 Term 4 – Natural Hazards

Natural hazards, such as earthquakes and volcanic eruptions, are events that occur due to the dynamic processes occurring within the Earth's crust. These hazards are often linked to the movement of tectonic plates, which make up the Earth's lithosphere. As these plates shift, they create a range of geological events that can cause significant damage to both human settlements and the environment. Understanding the underlying tectonic processes—such as plate boundaries, seismicity, and vulcanicity—helps us assess the risks and prepare for the potential impacts of these powerful natural forces. This topic explores how plate tectonics drives volcanic and seismic activity, the hazards they pose, and the ways in which societies respond to mitigate their effects.

Prior Learning Links

Students need a solid grasp of basic geological concepts, including the Earth's structure and plate tectonics, which should be covered at the GCSE level. They should also be familiar with general concepts of natural hazards and their impacts. Understanding the principles of tectonic processes, the nature of volcanic and seismic activities, and their potential hazards will build on this foundational knowledge

Future Learning Links

This topic extends the exploration of natural hazards by delving deeper into the processes behind volcanic and seismic events. It builds on previous lessons about general hazard types by introducing specific geological mechanisms, such as plate tectonics and volcanic activity. This is essential for understanding the underlying causes of these hazards and their impact on human societies. L

KEY WORDS

- **Hazard**: A potential source of harm or danger to people, property, or the environment.
- **Natural hazard**: A naturally occurring physical event that has the potential to cause damage or loss to life and property (e.g., earthquakes, volcanoes, floods).
- **Disaster**: The real-world impact of a natural hazard when it affects people, infrastructure, and the environment, leading to significant damage and loss.
- **Geophysical**: Hazards resulting from Earth's internal processes, such as earthquakes, tsunamis, and volcanic eruptions.
- **Atmospheric**: Hazards caused by atmospheric conditions, such as hurricanes, tornadoes, and heatwaves.
- **Hydrological**: Hazards related to water systems, including floods and landslides caused by heavy rainfall.
- **Risk**: The likelihood or probability of a hazard event occurring and causing harm to people or property.
- **Vulnerability**: The susceptibility of people, infrastructure, and ecosystems to the impacts of a hazard, depending on factors such as preparedness and resilience.
- **Distribution**: The geographical spread or pattern of a hazard or event across a region or the globe.
- **Frequency**: How often a particular hazard event occurs in a specific area over time.
- **Magnitude**: The size or severity of a hazard event, often used in reference to earthquakes, volcanic eruptions, or storms.
- **Seismic**: Related to earthquakes or the study of earthquakes and their effects.
- **Crust**: The outermost layer of the Earth, composed of solid rock, beneath the atmosphere.
- **Lithosphere**: The rigid outer layer of the Earth, including the crust and the uppermost part of the mantle.

- **Asthenosphere**: A layer of the Earth's mantle beneath the lithosphere, which is partially molten and allows for tectonic plate movement.
- **Mantle**: The thick layer of the Earth's interior, lying beneath the crust and above the core, made of semi-solid rock.
- **Outer/inner core**: The central layers of the Earth. The outer core is liquid, made of iron and nickel, while the inner core is solid and composed mostly of iron.
- **Tectonic plate boundaries**: The edges where two tectonic plates meet, which are associated with geological activity such as earthquakes, volcanoes, and mountain formation.
- **Convection currents**: The circular movement of molten rock in the mantle caused by heat from the Earth's core, driving tectonic plate movement.
- **Continental**: Referring to the Earth's landmasses, as opposed to the oceans.
- **Oceanic**: Referring to the Earth's ocean floors, typically thinner and denser than continental crust.
- **Residual heat**: The remaining heat within the Earth's interior from its formation and radioactive decay, driving convection currents.
- **Radioactive decay**: The process by which unstable isotopes break down and release energy, contributing to the heat within the Earth.
- **Gravitational sliding**: The movement of tectonic plates driven by gravity, particularly at subduction zones.
- **Ridge push**: The process by which newly formed oceanic crust at mid-ocean ridges pushes older crust away due to the buildup of pressure.
- **Slab pull**: The force exerted by a subducting tectonic plate pulling the rest of the plate behind it.
- **Paleomagnetism**: The study of magnetic properties in ancient rocks to understand the movement of tectonic plates and the history of the Earth's magnetic field.
- **Destructive**: A type of plate boundary where two plates move towards each other, leading to subduction, volcanic activity, or mountain building.
- **Constructive**: A type of plate boundary where two plates move apart, allowing magma to rise and form new crust, such as at mid-ocean ridges.
- **Conservative**: A type of plate boundary where two plates slide past each other, often causing earthquakes without creating or destroying crust.
- **Young fold mountains**: Mountains formed by the collision and folding of tectonic plates, typically found at destructive plate boundaries.
- **Rift valleys**: Long, narrow valleys formed by the movement of tectonic plates pulling apart, typically at constructive plate boundaries.
- **Ocean ridges**: Underwater mountain ranges formed by tectonic plate movements at mid-ocean ridges.
- **Deep sea trenches**: Deep, narrow depressions in the ocean floor formed by the subduction of one tectonic plate beneath another.
- **Island arcs**: Chains of volcanic islands formed at subduction zones where one oceanic plate is subducted beneath another.
- **Volcanoes**: Openings in the Earth's crust where molten rock, ash, and gases escape, typically at tectonic plate boundaries or hotspots.
- **Subduction zones**: Areas where one tectonic plate is forced beneath another, often leading to volcanic activity and earthquakes.
- **Intraplate vulcanicity**: Volcanic activity that occurs away from plate boundaries, often associated with mantle hotspots.
- **Viscosity**: The thickness or resistance to flow of a liquid, which in volcanoes affects the explosiveness of eruptions.
- **Silica**: A compound found in molten rock, influencing the viscosity and type of volcanic eruption.
- **Volcanic explosivity index**: A scale used to measure the explosiveness of volcanic eruptions based on factors such as eruption height and volume of erupted material.

- **Acidic**: Refers to rocks or magma with high silica content, often leading to explosive volcanic eruptions.
- **Rhyolitic**: A type of volcanic magma that is high in silica, producing thick, slow-moving lava and explosive eruptions.
- **Andesitic**: A type of volcanic magma with intermediate silica content, commonly associated with moderate volcanic eruptions.
- **Active**: A volcano that has erupted recently or is expected to erupt in the future.
- **Dormant**: A volcano that has not erupted in recent history but may still erupt in the future.
- **Extinct**: A volcano that is no longer expected to erupt due to lack of activity for a prolonged period.
- **Nuees ardentes**: A French term for pyroclastic flows—fast-moving clouds of gas, ash, and volcanic material that flow down the sides of a volcano.
- **Pyroclastic flow/events**: A hot, fast-moving flow of volcanic gases and material, often deadly and destructive.
- **Tephra**: Volcanic ash and debris ejected during an eruption, ranging from fine ash to larger rocks.
- **Acid rain**: Precipitation with a lower pH than normal, caused by volcanic eruptions releasing sulfur dioxide into the atmosphere.
- **Tsunami**: A large ocean wave caused by the displacement of water, often due to undersea earthquakes or volcanic eruptions.
- **Preparation**: Actions taken in advance of a hazard to reduce risks and impacts, such as evacuation plans or building codes.
- **Mitigation**: Efforts to reduce or prevent the damage caused by hazards through physical infrastructure, policy, and planning.
- **Prevention**: Measures to stop hazards from occurring or to prevent their negative consequences, such as earthquake-resistant buildings or tsunami warning systems.
- **Adaptation**: Adjustments made to cope with the impacts of hazards, especially in vulnerable areas, such as raising buildings above flood levels.
- **Richter scale**: A scale for measuring the magnitude of an earthquake, based on the amplitude of seismic waves.
- **Mercalli scale**: A scale measuring the intensity of an earthquake based on its observed effects on people, buildings, and the Earth's surface.
- **Moment Magnitude scale**: A scale for measuring the size of an earthquake based on the total energy released during the event.
- **Soil liquefaction**: The process in which saturated soil temporarily loses its strength and behaves like a liquid during an earthquake.
- **Avalanche**: A mass of snow, ice, and debris rapidly descending down a slope, typically triggered by a disturbance like an earthquake or heavy snowfall.
- **Landslide**: The downward movement of rock, soil, and debris due to gravity, often triggered by earthquakes or heavy rainfall.
- **Coriolis effect**: The deflection of moving objects (such as winds or ocean currents) due to the Earth's rotation.
- **Latent heat**: The heat absorbed or released by a substance during a change of state (e.g., from liquid to gas), contributing to the development of storms and weather systems.
- **Converging air**: Air masses moving towards each other, often creating areas of low pressure and storm development.
- **Saffir-Simpson scale**: A scale for measuring the intensity of tropical cyclones (hurricanes), based on wind speed and potential damage.

What is the Earth's Structure and Internal Energy Sources?

The Earth’s internal structure is made up of several layers, each with unique properties that contribute to the movement of tectonic plates.

- **Crust**: The Earth’s outermost layer, relatively thin and solid. There are two types: the **continental crust**, thicker and less dense, and the **oceanic crust**, thinner but denser.
- **Lithosphere**: The rigid outer layer of the Earth, including the crust and the uppermost part of the mantle. This layer is broken into tectonic plates.
- **Asthenosphere**: A layer of the mantle beneath the lithosphere, composed of partially molten rock that flows slowly over long periods. This layer allows the lithosphere to move on top of it.
- **Mantle**: Below the asthenosphere, the mantle is made of hot, semi-solid rock. Heat from the mantle drives the movement of tectonic plates.
- **Outer Core**: Composed of liquid iron and nickel, the outer core generates the Earth’s magnetic field through its movement.
- **Inner Core**: The deepest part of the Earth, made of solid iron and nickel, with temperatures higher than the surface of the Sun.

The internal heat of the Earth originates from two main sources:

1. **Residual heat** from the formation of the Earth about 4.5 billion years ago, when the planet was molten.
2. **Radioactive decay** of elements such as uranium and thorium in the mantle and core, which releases heat.

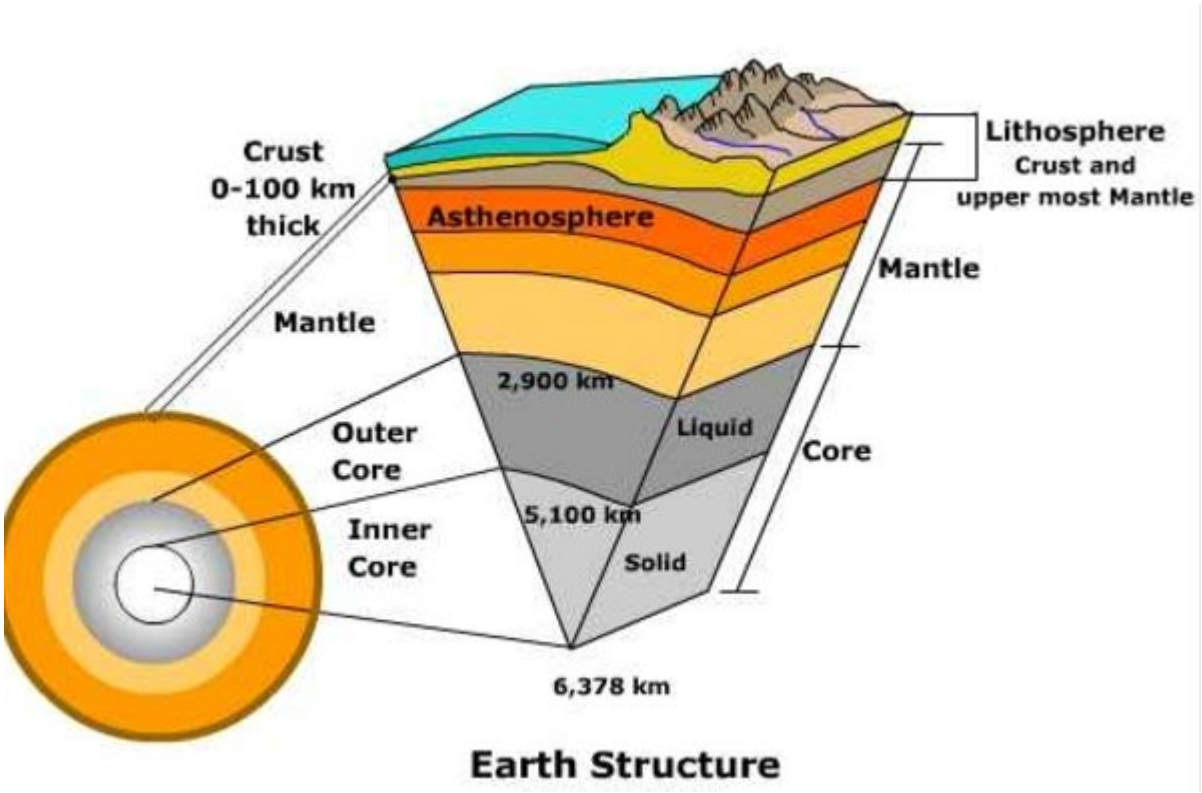
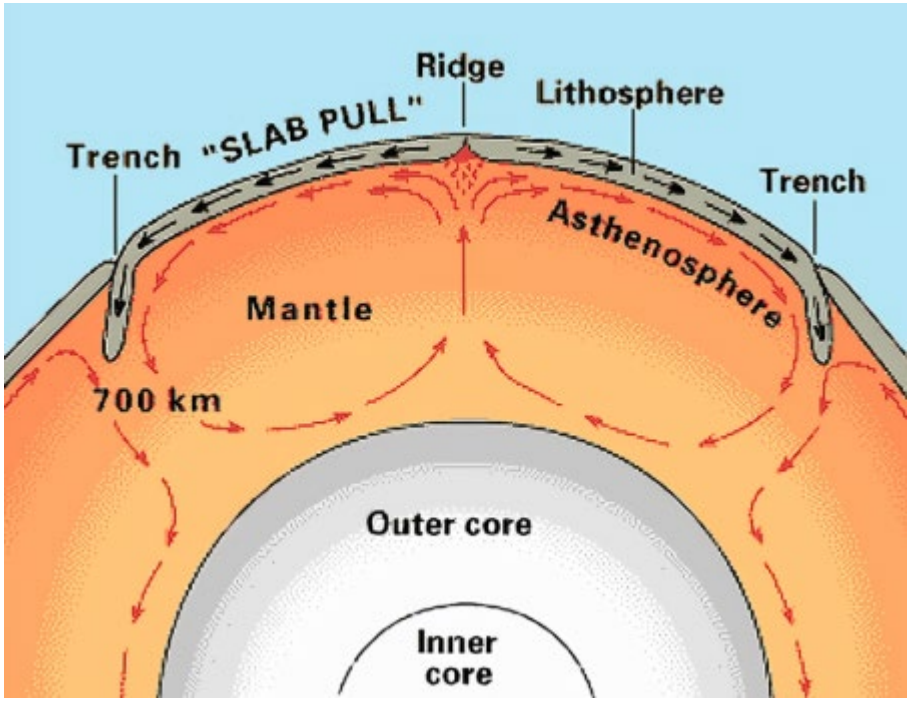


Plate Tectonic Theory and Plate Movement

The theory of plate tectonics explains how the Earth's lithosphere is divided into rigid plates that float on the semi-fluid asthenosphere beneath them. The movement of these plates shapes the Earth’s surface, causing earthquakes, volcanic activity, and the formation of mountains.

- **Gravitational Sliding**: When a tectonic plate moves downward at a subduction zone, gravity pulls the rest of the plate down as well.

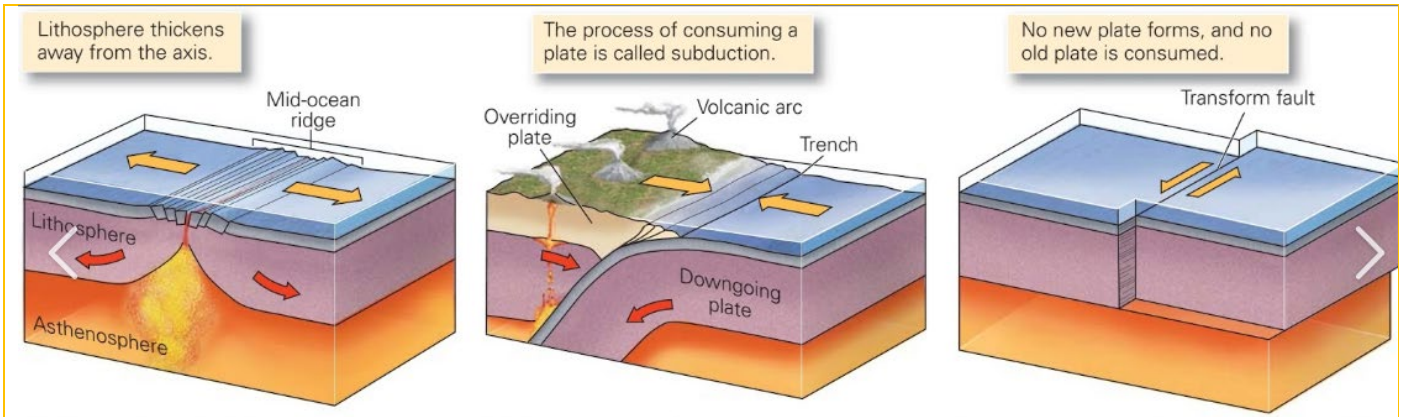
- **Ridge Push**: At mid-ocean ridges, new crust is created, pushing older crust away, aiding the plate's movement.
- **Slab Pull**: When one tectonic plate is forced down into the mantle at a subduction zone, it pulls the rest of the plate along behind it, driving plate movement.
- **Convection Currents**: Heat from the mantle causes the hotter, less dense material to rise, while cooler, denser material sinks. These currents help drive the movement of the plates above.



Types of Plate Margins and Associated Processes

There are three primary types of plate boundaries: **destructive**, **constructive**, and **conservative**, each associated with characteristic geological processes.

1. **Destructive Plate Margins** (also known as **Convergent Boundaries**): At these boundaries, two plates move toward each other, often causing one plate to be forced beneath another in a process called **subduction**.
    - **Seismicity**: As one plate slides beneath the other, pressure builds and eventually causes earthquakes.
    - **Vulcanicity**: As the subducting plate melts, magma rises to the surface, creating volcanoes.
    - **Landforms**: Deep-sea trenches, island arcs, and young fold mountains form at destructive boundaries. Example: The **Andes Mountains** in South America.
2. **Constructive Plate Margins** (also known as **Divergent Boundaries**): At these boundaries, two plates move apart, allowing magma to rise from the mantle and solidify to create new crust.
    - **Seismicity**: Earthquakes are usually shallow but can still be powerful due to the rapid movement of plates.
    - **Vulcanicity**: New volcanic islands and ocean ridges are formed as magma reaches the surface.
    - **Landforms**: Ocean ridges (e.g., the **Mid-Atlantic Ridge**) and rift valleys. Example: The **Iceland** hotspot along the Mid-Atlantic Ridge.
3. **Conservative Plate Margins** (also known as **Transform Boundaries**): At these boundaries, two plates slide past each other, neither creating nor destroying crust.
    - **Seismicity**: Major earthquakes can occur as plates grind past each other, causing friction that is released suddenly.
    - **Landforms**: **Fault lines** (e.g., the **San Andreas Fault** in California).



(a) At a divergent boundary, two plates move away from the axis of a mid-ocean ridge. New oceanic lithosphere forms.

(b) At a convergent boundary, two plates move toward each other; the downgoing plate sinks beneath the overriding plate.

(c) At a transform boundary, two plates slide past each other on a vertical fault surface.

Role of Magma Plumes and Their Relationship to Plate Movement

Magma plumes are columns of hot, molten rock that rise from the deep mantle towards the Earth's crust. These plumes are thought to be responsible for some intraplate volcanic activity, such as hotspots.

- **Hotspots**: These are areas where plumes of magma rise from deep within the mantle, independent of plate boundaries. As the tectonic plate moves over the stationary hotspot, volcanic islands and chains can form. The **Hawaiian Islands** are a classic example of this process.

2. Volcanic Hazards	**Red**	**Amber**	**Green**

Nature of Vulcanicity and its Relation to Plate Tectonics

Volcanic activity primarily occurs at plate boundaries, where the Earth's lithospheric plates interact. However, volcanic activity can also happen away from plate boundaries due to **hotspots**.

- **Volcanic Hazards**: The hazards associated with volcanoes include:
  - **Nuées Ardentes** (pyroclastic flows): Fast-moving clouds of hot gas, ash, and rock that can travel at speeds of up to 700 km/h.
  - **Lava Flows**: Streams of molten rock that can destroy everything in their path.
  - **Mudflows** (lahars): Mixtures of water, ash, and volcanic debris that can cause significant destruction, particularly when they occur during heavy rainfall.
  - **Pyroclastic and Ash Fallout**: Ash clouds that can disrupt air travel, damage crops, and affect human health.
  - **Tephra**: Volcanic material ejected during an eruption that can fall over wide areas.
  - **Gases/Acid Rain**: Gases such as sulfur dioxide can lead to acid rain, which harms ecosystems and infrastructure.

Volcanic activity tends to occur most frequently at **destructive plate boundaries** and **hotspots**.

Impacts of Volcanic Hazards

Volcanic hazards have a wide range of environmental, social, economic, and political impacts, which can be categorized as **primary** and **secondary**:

1. **Primary Impacts**:
   - **Ash fallout** can suffocate crops and buildings.
   - **Lava flows** destroy infrastructure and settlements.
   - **Pyroclastic flows** cause immediate destruction in their path.
   - **Gas emissions** can cause air pollution and health problems.
2. **Secondary Impacts**:
   - **Climate change** due to large quantities of volcanic gases released into the atmosphere.
   - **Tsunamis** can be generated by underwater volcanic eruptions.
   - **Flooding** due to the melting of ice or ash-induced rains.

Volcanic Risk Management and Responses

Volcanic events require effective risk management strategies. These can be grouped into **short-term** and **long-term** responses:

- **Preparedness**: Educating populations on volcanic risks and evacuation plans.
- **Mitigation**: Engineering solutions to divert lava flows or strengthen buildings.
- **Prevention**: While volcanic eruptions cannot be prevented, activities like monitoring seismic and volcanic activity can provide early warnings.
- **Adaptation**: Modifying human practices to cope with the ongoing risks, such as building settlements in less vulnerable areas.

Case studies should examine the effectiveness of these strategies in response to recent eruptions, such as those in **Mount St. Helens** or **Mount Pinatubo**.

3. Seismic Hazards	**Red**	**Amber**	**Green**

Nature of Seismicity and Its Relation to Plate Tectonics

Seismicity refers to the occurrence of earthquakes. Earthquakes are most often associated with plate tectonic activity, particularly at **destructive**, **constructive**, and **conservative** plate boundaries.

- **Earthquakes**: Caused by the sudden release of energy from the movement of tectonic plates. Most earthquakes occur along plate boundaries, though some can happen within plates (intraplate earthquakes).
- **Shockwaves**: The seismic waves generated by an earthquake that spread out from the focus and cause ground shaking.
- **Tsunamis**: Large ocean waves generated by undersea earthquakes or volcanic eruptions.
- **Liquefaction**: The process by which saturated soil temporarily loses its solidity during an earthquake, causing buildings and structures to sink or collapse.
- **Landslides**: Earthquakes can trigger landslides in mountainous areas, further exacerbating the impacts.

Seismic Risk Management and Responses

Earthquakes require **effective planning** and **building techniques** to reduce the loss of life and damage. These include:

- **Building Codes**: Construction of earthquake-resistant buildings with flexible materials.
- **Early Warning Systems**: Using seismic sensors to detect tremors and provide warnings before major shaking occurs.
- **Public Awareness**: Educating the public on what to do during an earthquake to reduce harm (e.g., "Drop, Cover, and Hold On").

Knowledge Organiser

Psychology
Year 12
Term 4
2024/25

The Abbey School

Psychology Year 12 Term 4 – Biopsychology and Social Influence

TJP- In term 4 we will revisit Biopsychology as part of our preparation for the summer exams.
EMD- The second topic will focus on revision of the core concepts of Social Influence.

Prior Learning Links:
Firm understanding of the Biological approach and biological elements from Psychopathology. Research methods the scientific principles used in Psychology.

Future Learning Links:
At this stage students have the foundational knowledge of research methods and basic biopsychology visited in the approaches and psychopathology.

Psychboost-

Biopsychology

Social Influence

KEY VOCABULARY

KEY TERMINOLOGY- Biopsychology (TJP)	KEY TERMINOLOGY- Social Influence (EMD)
Autonomic nervous system (ANS) Governs the brain's involuntary activities (e.g. stress, heartbeat) and is self-regulating (i.e. autonomous). It is divided into the sympathetic branch (fight or flight) and the parasympathetic branch (rest and digest). **Brain** That part of the central nervous system that is responsible for coordinating sensation, intellectual and nervous activity. **Central nervous system (CNS)** Comprises the brain and spinal cord. It receives information from the senses and controls the body's responses. **Peripheral nervous system (PNS)** The part of the nervous system that is outside the brain and spinal cord. **Somatic nervous system (SNS)** The part of the peripheral nervous system responsible for carrying sensory and motor information to and from the central nervous system. **Spinal cord** A bundle of nerve fibres enclosed within the spinal column and which connects nearly all parts of the body with the brain. **Motor neurons** form synapses with muscles and control their contractions.	**Compliance** occurs when an individual accepts influence because they hope to achieve a favourable reaction from those around them. An attitude or behaviour is adopted not because of its content, but because of the rewards or approval associated with its adoption. **Conformity** is a form of social influence that results from exposure to the majority position and leads to compliance with that position. It is the tendency for people to adopt the behaviour, attitudes and values of other members of a reference group. **Identification** A form of influence where an individual adopts an attitude or behaviour because they want to be associated with a particular person or group. Informational social influence is a form of influence, which is the result of a desire to be right – looking to others as a way of gaining evidence about reality. **Internalisation** occurs when an individual accepts influence because the content of the attitude or behaviour proposed is consistent with their own value system.

Neurotransmitter Chemical substances that play an important part in the workings of the nervous system by transmitting nerve impulses across a synapse.
Relay neurons These neurons are the most common type of neuron in the CNS. They allow sensory and motor neurons to communicate with each other.
Sensory neurons carry nerve impulses from sensory receptors to the spinal cord and the brain.
Synapse The conjunction of the end of the axon of one neuron and the dendrite or cell body of another.
Synaptic transmission refers to the process by which a nerve impulse passes across the synaptic cleft from one neuron (the presynaptic neuron) to another (the postsynaptic neuron).
Endocrine glands Special groups of cells within the endocrine system, whose function is to produce and secrete hormones.
Endocrine system A network of glands throughout the body that manufacture and secrete chemical messengers known as hormones.
Hormones The body's chemical messengers. They travel through the bloodstream, influencing many different processes including mood, the stress response and bonding between mother and newborn baby.
Pituitary gland The 'master gland', whose primary function is to influence the release of hormones from other glands.
Fight-or-flight response A sequence of activity within the body that is triggered when the body prepares itself for defending or attacking (fight) or running away to safety (flight). This activity involves changes in the nervous system and the secretion of hormones that are necessary to sustain arousal.
HPA axis describes the sequence of bodily activity in response to stress that involves the hypothalamus, pituitary and adrenal cortex.
Broca's area An area in the frontal lobe of the brain, usually in the left hemisphere, related to speech production.
Localisation of function Refers to the belief that specific areas of the brain are associated with specific cognitive processes.
Motor cortex A region of the brain responsible for the generation of voluntary motor movements.
Somatosensory cortex A region of the brain that processes input from sensory receptors in the body that are sensitive to touch.
Wernicke's area An area in the temporal lobe of the brain important in the comprehension of language.
Hemispheric lateralisation refers to the fact that some mental processes in the brain are mainly specialised to either the left or right hemisphere.
Split-brain research Research that studies individuals who have been subjected to the surgical separation of the two hemispheres of the brain as a result of severing the corpus callosum.
Brain plasticity refers to the brain's ability to modify its own structure and function as a result of experience.

Normative social influence (NSI) is a form of influence whereby an individual conforms with the expectations of the majority in order to gain approval or to avoid social disapproval.
Informational social influence (ISI)- is a form of influence, which is the result of a desire to be right – looking to others as a way of gaining evidence about reality.
Social roles are the behaviours expected of an individual who occupies a given social position or status.
Obedience to authority Obedience refers to a type of social influence whereby somebody acts in response to a direct order from a figure with perceived authority. There is also the implication that the person receiving the order is made to respond in a way that they would not otherwise have done without the order.
Agentic state A person sees himself or herself as an agent for carrying out another person's wishes.
Legitimate authority A person who is perceived to be in a position of social control within a situation.
Legitimate authority A person who is perceived to be in a position of social control within a situation.
Authoritarian Personality A distinct personality pattern characterised by strict adherence to conventional values and a belief in absolute obedience or submission to authority.
Dispositional Explanations of behaviours such as obedience emphasise them being caused by an individual's own personal characteristics rather than situational influences within the environment.
F scale Also known as the 'California F scale' or the 'Fascism scale', the F scale was developed in California in 1947 as a measure of authoritarian traits or tendencies.
Right-wing authoritarianism A cluster of personality variables (conventionalism, authority submission and authoritarian aggression) that are associated with a 'rightwing' attitude to life.
Externality Individuals who tend to believe that their behaviour and experience is caused by events outside their control.
Internality Individuals who tend to believe that they are responsible for their behaviour and experience rather than external forces.
Locus of control People differ in their beliefs about whether the outcomes of their actions are dependent on what they do (internal locus of control) or on events outside their personal control (external locus of control).
Social support The perception that an individual has assistance available from other people, and that they are part of a supportive network.
Commitment The degree to which members of a minority are dedicated to a particular cause or

Functional recovery refers to the recovery of abilities and mental processes that have been compromised as a result of brain injury or disease.
Electroencephalogram (EEG) A method of recording changes in the electrical activity of the brain using electrodes attached to the scalp.
Event-related potential (ERP) A technique that takes raw EEG data and uses it to investigate cognitive processing of a specific event. It achieves this by taking multiple readings and averaging them in order to filter out all brain activity that is not related to the appearance of the stimulus.
Functional magnetic resonance imaging (fMRI) A technique for measuring brain activity. It works by detecting changes in blood oxygenation and flow that indicate increased neural activity.
Post-mortem examinations Ways of examining the brains of people who have shown particular psychological abnormalities prior to their death in an attempt to establish the possible neurobiological cause for this behaviour.
Circadian rhythm A pattern of behaviour that occurs or recurs approximately every 24 hours, and which is set and reset by environmental light levels.
Sleep–wake cycle refers to alternating states of sleep and waking that are dependent on the 24-hour circadian cycle.
Infradian rhythms Rhythms that have a duration of over 24 hours, and may be weekly, monthly or even annually.
Ultradian rhythms Cycles that last less than 24 hours, such as the cycle of sleep stages that occur throughout the night.
Endogenous pacemakers Mechanisms within the body that govern the internal, biological bodily rhythms.
Exogenous zeitgeber An environmental cue, such as light, that helps to regulate the biological clock in an organism.

activity. The greater the perceived commitment, the greater the influence.
Consistency Minority influence is effective provided there is stability in the expressed position over time and agreement among different members of the minority.
Flexibility A willingness to be flexible and to compromise when expressing a position.
Minority influence A form of social influence where members of the majority group change their beliefs or behaviours as a result of their exposure to a persuasive minority.
Social change occurs when a society or section of society adopts a new belief or way of behaving which then becomes widely accepted as the norm.
Social norms interventions attempt to correct misperceptions of the normative behaviour of peers in an attempt to change the risky behaviour of a target population.

Biopsychology (TJP)			
1. Divisions of the nervous system. (p83)	**Red**	**Amber**	**Green**
2. Neurons and synaptic transmission. (p84)	**Red**	**Amber**	**Green**
3. Endocrine system. (p85)	**Red**	**Amber**	**Green**
Discuss the fight or flight response. (16 marks)			
4. Localisation of function in the brain (p86)	**Red**	**Amber**	**Green**
Discuss what research has shown about localisation of function in the brain. (16 marks)			
5. Lateralisation and split brain research. (p87)	**Red**	**Amber**	**Green**
Discuss research on hemispheric lateralisation. (16 marks)			
6. Plasticity and functional recovery. (p88)	**Red**	**Amber**	**Green**
Discuss research into plasticity and functional recovery of the brain after trauma. (16 marks)			
7. Ways of studying the brain. (p89)	**Red**	**Amber**	**Green**
Describe and evaluate scanning techniques as a way of studying the brain. (16 marks)			
8. Biological rhythms. (p90)	**Red**	**Amber**	**Green**
Discuss research into circadian rhythms. (16 marks) Discuss research into infradian and/or ultradian rhythms. (16 marks)			
9. Endogenous pacemakers and exogenous zeitgebers. (91)	**Red**	**Amber**	**Green**
Discuss the effect of endogenous pacemakers and exogenous zeitgebers on the sleep/wake cycle. (16 marks)			
Social Influence (EMD)			
1. Types of conformity. (p1)	**Red**	**Amber**	**Green**
Describe and evaluate informational social influence and normative social influence as explanations for conformity. (16 marks)			

2. The Asch study. (p2)	**Red**	**Amber**	**Green**
Describe and evaluate Asch's research into conformity. (16 marks)			
3. Variables affecting conformity. (p3)	**Red**	**Amber**	**Green**
Describe and evaluate Asch's research into conformity. (16 marks)			
4. The Stanford Prison experiment. (p4)	**Red**	**Amber**	**Green**
Discuss research into conformity to social roles. (16 marks)			
5. Milgram's study of obedience. (p5)	**Red**	**Amber**	**Green**
Describe and evaluate two situational variables that have been shown by Milgram to affect obedience to authority. (16 marks)			
6. Explanations of obedience. (p6)	**Red**	**Amber**	**Green**
Outline and evaluate one or more explanations of obedience. (16 marks)			
7. Situational variables. (p7)	**Red**	**Amber**	**Green**
Outline and evaluate one or more explanations of obedience. (16 marks)			
8. Obedience: dispositional explanation. (p8)	**Red**	**Amber**	**Green**
Discuss the Authoritarian Personality as an explanation for obedience.			
9. Resistance to social influence. (p9)	**Red**	**Amber**	**Green**
Describe and evaluate two explanations of resistance to social influence. (16 marks)			
10. Resistance to social influence through social support. (p10)	**Red**	**Amber**	**Green**
Describe and evaluate two explanations of resistance to social influence. (16 marks)			
11. Minority influence. (p11)	**Red**	**Amber**	**Green**
Describe and evaluate research into minority influence. (16 marks)			
12. How social influence affect social change. (p12)	**Red**	**Amber**	**Green**
Discuss the role of social influence processes in social change. (16 marks)			

HOME LEARNING TASKS	
Task Description	**Done?**
Complete all Cornell notes for past lessons.	
Key reading of pages of revision guide/workbook.	
Completed essay plan A3 sheet up to current lessons.	
Completed additional exam questions available from Teams.	
Used QR code to watch PsychBoost videos to improve knowledge.	
Completed Quizlet tasks to improve use and understanding of key terms.	