GCSE

WJEC GCSE Geography

Approved by Qualifications Wales

Guidance for Teaching: Unit 3

Teaching from 2025
For award from 2027

This Qualifications Wales regulated qualification is not available to centres in England.

Made for Wales.
Ready for the world.

WJEC would like to thank the students and teachers of Fitzalan High School, Cardiff and Llanwern High School, Newport for their participation in the creation of these covers.

Contents

Introduction

The WJEC GCSE Geography has been approved by Qualifications Wales and is available to all centres in Wales. It will be awarded for the first time in Summer 2027, using grades A* to G.

Aims of the Guidance for Teaching

The principal aim of the Guidance for Teaching is to support teachers in the delivery of WJEC GCSE Geography and to offer guidance on the requirements of the qualification and the assessment process. The Guidance for Teaching is **not intended as a comprehensive reference**, but as support for teachers to develop stimulating and exciting courses tailored to the needs and skills of their learners. The guide offers possible classroom activities and links to useful resources (including our own, freely available digital materials and some from external sources) to provide ideas for immersive and engaging lessons.

Additional ways that WJEC can offer support:

- sample assessment materials and mark schemes
- professional learning events
- examiners' reports on each unit
- direct access to the subject officer
- free online resources
- Exam Results Analysis
- Online Examination Review

Qualification Structure

WJEC GCSE Geography consists of 4 units. The qualification is unitised and does not contain tiering. Aside from Unit 1, which is an introductory unit, there is no hierarchy to the order the units should be taught.

	Unit title	Type of Assessment	Weighting
Unit 1	**Our Physical and Human World**	Written examination	30%
Unit 2	**Developing Fieldwork Skills**	Non-examination assessment	25%
Unit 3	**Our Dynamic and Diverse World**	Written examination	30%
Unit 4	**Sustainable Solutions**	Non-examination assessment	15%

Assessment

Summary of Assessment

Unit 3: Our Dynamic and Diverse World Written examination: 1 hour 30 minutes **30% of qualification** **90 marks**
Questions requiring objective responses, short and extended answers, with some based around applied situations.

Overview of Unit 3

Our dynamic and diverse world
Written examination:
30% of qualification
90 marks

The purpose of this unit is to introduce learners to key areas of human and physical geography, exploring the economic, social, cultural and political inter-connectedness between people and places. Learners will investigate:

- inequality, focusing on human rights and diversity
- weather
- climate and climate change
- physical and human global challenges, including a focus on endangered environments (land and ocean).

Learners should also develop their mathematical and statistical skills whilst preparing for this Unit. The depth of coverage required of these skills is given in Appendix B on pages 44-45 of the specification.

In this unit, learners will develop knowledge, skills and understanding in:	
3.1.1	Regional inequalities in Wales and the UK
3.1.2	Measuring development to classify countries
3.1.3	The development gap
3.1.4	Reducing the development gap
3.2.1	Weather and climate
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3.5.1	Managing climate change
3.5.2	Managing threats to our oceans

Unit 3 Assessment objectives and weightings

AO1	Demonstrate knowledge and understanding of places, people, environments and processes at a variety of scales	10%
AO2	Apply knowledge and understanding of geographical terms, skills and concepts to different contexts	10%
AO3	Analyse, evaluate, or make judgements from a variety of sources, synthesising where appropriate	10%

Unit 3 Teacher Guidance

3.1 The geography of inequality		
Content Amplification		**Teacher Guidance**
3.1.1 Regional inequalities in Wales and the UK	Learners should know what is meant by inequality. Learners should know the patterns of inequalities in Wales and the UK, such as those seen in: • education • employment • investment • race • religion • rural and urban locations • services (such as broadband connectivity, mobile signal).	It is important that learners develop an understanding of inequality, and the Royal Geographical Society has useful information on inequality in general, such as 'Inequality in geography refers to the idea that different people experience different standards of living.' The Office for National Statistics (ONS) has up to date information, including maps and animated maps, from the most recent census data that can be used to show the patterns of inequalities in both Wales and the UK. For example: • Education - UK patterns show people over 16 with the highest qualifications are found around capital cities Cardiff and London and its commuter belt (with some anomalies), in some more wealthy urban locations e.g. York, and Bath and in university cities e.g. Cambridge and Warwick. People with the least qualifications tend to be mainly in rural and more deprived urban areas particularly in the old industrial areas like the South Wales Valleys, and North East England. • Services (Broadband connectivity) The pattern of average download speed in Wales shows that Cardiff, the Vale of Glamorgan and a small area of west Swansea have the highest speeds, with some of south and north-east Wales being relatively good. Some parts of rural west and north Wales have significantly slower speeds, although there are places e.g. the University settlements of Aberystwyth and Bangor which have high speeds.

	Learners should understand:
	• the physical and human causes of inequalities in Wales and the UK, including:
	  • access to housing and services
	  • demographic characteristics
	  • industrialisation
	  • location, landscape and resources
	  • transport and communications.
	• how the above causes of inequality are often inter-linked, and that they can be seen in positive and negative lights
	• the consequences of inequality in the UK, including:
	  • differing perceptions of inequality amongst different groups of people
	  • regional variations in wealth, employment, school performance and access to housing and services
	  • segregation and its associated benefits and problems, including ethnic enclaves.
	• the impacts of inequality on different groups, including Black, Asian and minority ethnic individuals
	• how governments in Wales and the UK attempt to reduce regional inequalities, such as:
	  • infrastructure projects
	  • improving housing and services
	  • creating employment
	  • education & public awareness
	  • race relations initiatives.
		Learners will need to understand the causes of inequalities and that these causes are interlinked and contextual. Schools should choose to focus on their local area and could choose to use a completely different place for breadth of learning and a Wales and/or UK comparison. This allows local and individual expertise of teachers to be drawn upon. Examples of interlinking causes of inequalities:
		• In the South Wales Valleys rapid industrialisation and urbanisation during the Industrial Revolution, because of natural resources (coal and iron ore), led to the settlement and demographic characteristics we still see today. However, since the decline of heavy industry, economic decline has caused there to be higher unemployment, less investment and fewer services.
		• In Eryri National Park, the landscape and its resources have created inequalities in terms of access and present day employment opportunities in the area (typically tourism and hill farming) which can force young people to leave the area in search of work, but also encourage people into the area to purchase holiday homes or for retirement which can push house prices up and force more people to move away. It should also be noted that this area saw significant historical industrialisation – slate mines for example due its natural resources. The closure of these industries also led to out migration. This can cause a spiral of decline in terms of service provision. Alternatively, the landscape has provided opportunities for adventure sport and tourism industries.
		• It is important for learners to recognise that individuals/groups will have different lived experiences of these inequalities and that they can be viewed positively and negatively.
		
		Learners can consider the consequences of inequalities in the UK, including segregation between different communities e.g. Somalis in Cardiff. The impacts of inequalities in terms of access to services e.g. education, health care and jobs.

		Actions to reduce inequalities: • infrastructure projects – HS2, Northern Powerhouse • improving housing and services – affordable & social homes, taxes on second/holiday homes in Wales, subsidising high speed internet connectivity, Project Gigabit • creating employment – freeports are expected to bring 20,000 new high skilled jobs and £5 billion of private and public investment, apprenticeship programmes, Young Persons Guarantee, circular economy • education – targeted funding e.g. Pupil Development Grant (PDG), recruitment and retention of high-quality teachers in more deprived areas • public awareness and race relations initiatives – race equality action plan, Race Council Cymru (RCC), Equality Act 2010. **Suggested teacher and learning activities:** • this topic area would lend itself to a mystery classroom activity or a carousel • learners could investigate their home area in terms of inequalities • learners could use choropleth maps and other graphical techniques to both present and interpret data. **Possible resources** • WJEC Equality, diversity and inclusion (EDI) notes and resources: Resource WJEC Educational Resources Website • WJEC GCSE textbook theme 2 • BBC Bitesize: https://www.bbc.co.uk/bitesize/guides/z3spj6f/revision/2 • The Equality Trust: https://equalitytrust.org.uk/ • Gapminder: https://www.gapminder.org/dollar-street • Geographical Association: https://geography.org.uk/online-teaching-resources/

		• Geography Education online: https://geographyeducationonline.org/search?c=&t=inequality • Field Studies Council: https://www.field-studies-council.org/resources/16-18-geography/place/inequalities/method/
3.1.2 Measuring development to classify countries	Learners should be aware of a range of indicators used to represent social and economic development, such as: • balance of trade • calorie intake • employment sectors • Gross Domestic Product (GDP) • Human Development Index (HDI) • income levels • literacy rate • Purchasing Power Parity (PPP) • urban population. Learners should know the classification of countries in terms of development and a development continuum. Learners should understand the advantages and disadvantages of the ways to classify countries, for example the use of High-Income Country (HIC), Middle Income Country (MIC) and Low-Income Country (LIC) by the World Bank.	Learners should be given access to a range of global data, maps and graphs to classify and analyse development of various countries along a continuum of social, economic and environmental development. Learners should be given opportunities to assess the limitations of different indicators of development. Learners should appreciate that indicators are often averages and not a true reflection of reality experience by different groups of people within that country. Through the teaching of this content learners should be able to explore the viewpoints that the practices and languages used in global development have their origins in racism and colonialism. Many believe that this has created a hierarchy among nations and given a higher value to some lives, while allowing other groups to extract, exploit and subjugate others. **Suggested teaching and learning activities:** • learners should consider who decides on classifications and who these classifications benefit/hinder • learners could create development top trump cards for a range of countries and use them in groups to discuss and analyse how countries can be classified and exist along a continuum, at different points depending on which indicator is used • debate could be used here to develop critical thinking skills. **Possible Resources:** • WJEC GCSE Geography textbook – Theme 6 covers much of this content point

		• World Bank Group: https://databank.worldbank.org/country/GBR/556d8fa6/Popular_countries • United Nations Country profiles linked to SDGs: https://unstats.un.org/sdgs/dataportal/countryprofiles/
3.1.3 The development gap	Learners should know what is meant by the term development gap. Learners should understand the physical and human causes of the development gap, including: • colonialism • demographic characteristics • geographical location • globalisation • industrialisation • natural resources • urbanisation.	The development gap refers to the disparity in economic development and quality of life between different countries or regions. It highlights the differences in wealth, resources, infrastructure, healthcare, education and living standards. The development gap is often characterised by the divide between most developed countries (HICs) and least developed countries (LICs). HICs typically have a higher GDP per capita, better access to services, advanced technology and higher levels of education and health care, whereas LICss may struggle with poverty, limited access to basic services and lower life expectancy. Understanding the factors that contribute to the development gap is crucial to addressing global inequalities, and to promote sustainable development to raise the quality of life for people in less developed regions. Learners should be taught about the history of the development gap, via colonialism and through post-colonial ties. Learners should understand that colonisers still benefit from their former colonies which impacts their state of development. **Suggested teaching and learning activities:** • Learners should be able to consider the reasons for differences in social and economic development of a country because of a range of interconnected factors. A country fact file may consider a range of factors. For example, Haiti is the least developed country in the western hemisphere due to: • colonialism – independence from France came at a huge economic cost, including subsequent political corruption

		• geographical location – at risk from hurricanes/tropical storms/earthquakes - poor before 2010 earthquake, still not recovered • globalisation – few Multi-National Companies (MNCs) will operate in Haiti due to the political unrest and debt owed to France. • Learners could compare Haiti to France for example and explore why the development levels are so different. **Possible resources:** • WJEC GCSE textbook - Theme 7 • Geography Review – Why is Nepal a poor country • Geography Review – MEDC v LEDC – addressing sweeping misconceptions • Geography education online - Haiti:

3.1.4 Reducing the development gap	Learners should understand:
	• how governments and other agencies are aiming to close the development gap including:
	  • aid
	  • fair trade
	  • Multi-National Companies (MNCs)
	  • tourism
	• the success and sustainability of strategies to close the development gap.
		Learners could study either a single country or a variety of countries to ensure they understand the strategies used to try to close the development gap. Learners could explore the UN sustainable development goals (SDGs) and the Well-being of Future Generations (Wales) Act 2015. These are addressed in Unit 4 but may be studied at the very beginning of the course, to set a context for sustainability in the other units. Governments and agencies work to close the development gap through a combination of aid, fairtrade initiatives, engagement with MNCs and promoting tourism. Each approach has its benefits and challenges, and successful strategies often involve a combination of these elements to create sustainable development that empowers local communities while respecting their rights and environments. In GCSE Geography learners can explore these themes to understand the complexities and interconnections in global development.
		
		Types of Aid:
		• Bilateral Aid - Direct assistance from one country to another. For example, the UK provides bilateral aid to countries such as Tanzania and Uganda through the Department for International Development (DFID), focusing on education and health initiatives.
		• Multilateral Aid - Assistance given by international organizations (such as the UN, World Bank) to help developing countries. For instance, the World Bank funds projects in countries like Ethiopia to enhance agricultural productivity and increase access to markets.
		• Non-Governmental Organisations (NGOs) that work in countries to develop specific areas like health and education over a longer timescale. For examples, Hiwot Ethiopia (https://hiwotet.org/) who aim to improve the health and lives of young people in Ethiopia, or TAHEA (https://tahea.or.tz/) which is focused on improving the livelihoods of women, children, and marginalised communities in Tanzania through education, community development, and sustainable agricultural practices.

		Benefits of giving aid: • provision of financial resources for infrastructure projects (e.g. roads, schools, hospitals) • support for health care and education to improve literacy rates and overall quality of life • emergency aid during natural disasters or crises. Challenges of giving aid: • dependency on aid can diminish self-sufficiency • corruption can hinder effective distribution and use of funds. Fairtrade: Products like Fairtrade coffee from Colombia and cocoa from Ghana showcase how Fairtrade can help small-scale farmers gain fair wages, improve their living conditions and invest in community projects. Example: Divine Chocolate - a company that is a Fairtrade producer of chocolate, where farmers from Ghana receive a fair price for cocoa and a premium that can be reinvested in their communities, allowing for improvements in education and health services. Benefits of Fairtrade include: • ensures that producers in developing countries receive fair wages and working conditions • encourages sustainable farming practices and protects the environment • increases income for farmers and helps lift communities out of poverty • develops local economies by reducing reliance on exploitative practices of larger corporations • educates consumers about ethical purchasing and the impact of their choices.

		Multinational Corporations (MNCs): Example: Unilever has numerous initiatives in developing countries where it sources products, such as its Sustainable Living Plan, which aims to improve health, hygiene, and agricultural practices in countries like India and Kenya, while providing jobs and promoting local procurement. Example: Coca-Cola's 5by20 initiative aims to empower five million women entrepreneurs across their global value chain by 2020. This initiative has a significant impact in countries like Nigeria and South Africa, providing resources and training to women-owned businesses. Example: Huawei has invested in ICT infrastructure in Tanzania, developed jobs and skills including smart education programs, and is training university students in Tanzania in the latest ICT in its Seeds for the Future program. Example: African MNC – Dangote Group is involved in infrastructure projects, building schools, providing scholarships etc. across African nations. Benefits of MNCs: • investments in developing countries can generate jobs and boost local economies • implementation of corporate social responsibility (CSR) initiatives that contribute to community development • technology transfer and skills development through training programs for local workers • increase in tax revenue for governments, which can be used for public services.

		Challenges of MNCs • exploitation of resources and labour, which can lead to environmental degradation • profits often repatriated to home countries rather than reinvested locally. Tourism: Example: The Maldives government promotes sustainable tourism, where eco-friendly resorts help to conserve marine biodiversity while providing income and job opportunities for local communities. Revenues generated from tourism are reinvested into local development. Example: Ghana's Eco-Tourism initiatives involve local communities in the management of national parks and wildlife reserves. This approach not only generates revenue but also empowers communities and promotes conservation. An example is the Kakum National Park, where local guides offer tours. Benefits of development through tourism: • promoting cultural and eco-tourism can provide communities with a sustainable source of income • investment in infrastructure (e.g., roads, airports) to support tourism can also benefit local populations • job creation in hospitality, transportation, and related sectors • Development of local crafts and businesses catering to tourists, promoting cultural exchange. Challenges of development through tourism: • risk of cultural erosion and environmental damage. • dependence on tourism, which can be volatile due to global events (e.g. pandemics, natural disasters).

		Suggested teaching and learning activities • debate the success of strategies to close the development gap • discuss the extent to which strategies are sustainable • create case study infographics. **Possible resources:** • WJEC GCSE Geography textbook - Theme 6 Chapter 1 • Geography review – aid and development https://www.hoddereducationmagazines.com/magazine/geography-review/24/1/who-gives-aid-to-whom/ https://www.hoddereducationmagazines.com/magazine/geography-review/23/1/development/ • Geography Review – Fair trade: https://www.hoddereducationmagazines.com/magazine/geography-review/36/1/fair-trade-3/ • Geography Review: Tourism: https://www.hoddereducationmagazines.com/magazine/geography-review/24/2/tourism-and-indigenous-cultures/ • Wide World Magazine – ecotourism in Costa Rica: https://www.hoddereducationmagazines.com/magazine/wideworld/30/1/costa-ricas-eco-tourism/ https://www.hoddereducationmagazines.com/magazine/wideworld/32/4/eco-tourism-in-monteverde-costa-rica/

3.2 The highs and lows of our weather		
Content Amplification		**Teacher Guidance**
3.2.1 Weather and Climate	Learners should know: • the difference between weather and climate • how the temperature and precipitation of Wales varies spatially and temporally • the climate of Wales.	Weather is the daily changes in the atmosphere, while climate is the average temperature and precipitation (over a 30-year period). Wales has distinct patterns of temperature and precipitation, and learners should be able to use cartographic maps to describe these. The climate of Wales is generally considered to be a maritime climate, characterised by weather that is often cloudy, wet and windy but mild. Learners could compare this to their experiences in their locality. They should compare temperature variations with altitude and latitude and how rainfall varies across the country. **Suggested teaching and learning activities** • identify images, graphs, news reports and whether they related to weather or climate • debate whether Wales has a mild and wet climate • interpret temperature and precipitation maps of Wales for January and June. **Possible resources** • Atlas • Met Office: https://www.metoffice.gov.uk/ • Met Office: PDF document on the climate of Wales • BBC Weather: https://www.bbc.co.uk/weather

3.2.2 Factors affecting temperature	Learners should understand the factors that affect temperature patterns of Wales, including: • air masses • altitude • aspect • latitude • ocean currents • prevailing winds.	There are five air masses that affect Wales – polar maritime, tropical maritime, arctic maritime, tropical continental and polar continental, each bringing distinct atmospheric conditions. Altitude has an impact on temperature - every 100m gained reduces temperature by 1°C. Aspect is the direction faced and affects the temperature particularly in winter when north facing slopes remain in shadow for most of the day. Latitude is the distance from the Equator. The latitude in the south of Wales is 51°N and 53°N in Anglesey. Places closer to the Equator are warmer but there's little difference between north and south of Wales. Ocean currents like the North Atlantic Drift have an impact on the west coast of Wales which is kept milder in winter and cooler in summer. The prevailing wind direction is from the south west, this brings warm wet weather (link to air masses). Learners need to be able to appreciate that these factors do not exist in isolation and are interlinked to impact temperatures across Wales. **suggested teaching and learning activities** • videos from the met office • image and synoptic map interpretation • diagram from memory • infographic factors affecting temperature. **Possible resources** • WJEC GCSE Geography textbook - pages 170-172 • Met Office • PDF document on the climate of Wales: • Met office videos https://www.youtube.com/@metoffice

3.2.3 Factors affecting rainfall	Learners should understand the three types of rainfall formation: • convectional • frontal • relief.	In Wales, the three main types of rainfall - **convectional**, **frontal**, and **relief** (or orographic) - occur due to the region's geography and climate. Convectional Rainfall in Wales: **Occurs**: During warmer months, especially in summer. **Process**: On hot days, the land heats up, causing warm air to rise. As the air ascends, it cools and condenses, forming clouds and often resulting in brief, intense rain showers. **Characteristics**: Less common compared to other types, but it can occur in inland areas during summer, occasionally producing thunderstorms and heavy rain. Frontal Rainfall in Wales: **Occurs**: Throughout the year, especially during autumn and winter. **Process**: Caused by the meeting of warm, moist air from the Atlantic with colder air masses from the north. As the warm air is forced to rise over the colder air, it cools and condenses, leading to widespread and prolonged rainfall. **Characteristics**: Frontal systems, driven by Atlantic depressions, bring frequent and often persistent rain, especially to western parts of the country. Relief (Orographic) Rainfall in Wales: **Occurs**: Mainly in areas with highland terrain, such as Snowdonia, the Brecon Beacons, and the Cambrian Mountains. **Process**: As moist air from the Atlantic moves inland and encounters Wales' mountainous regions, it is forced to rise. The air cools as it ascends, condenses and produces rainfall on the windward side of the mountains. **Characteristics**: This is the most significant type of rainfall in Wales. The western and upland areas receive heavy rainfall, while the leeward sides (e.g. parts of eastern Wales) are drier due to the rain shadow effect.

		In Wales, relief rainfall plays a dominant role due to the rugged landscape, while frontal rainfall is frequent because of the influence of Atlantic weather systems and prevailing south westerly winds. Convectional rainfall occurs less frequently but can lead to heavy showers in warmer months. **Suggested teaching and learning activities** • met office video • act out the different types of rainfall as a series of freeze frames • diagram from memory. **Possible resources** • Wider World textbook • Met Office – different types of rainfall

3.2.4 Global atmospheric circulation	Learners should understand the causes of high and low pressure on the earth's surface, including precipitation trends and seasonal changes: • low pressure (equatorial low) at the equator leading to convectional rainfall • high pressure (sub-tropical high) where the Hadley and Ferrel cells meet leading to arid conditions • low pressure (temperate low) where Ferrel and Polar cells meet, causing depressions moving from west to east across Wales and the UK • influence of axial tilt on global climate.	Global atmospheric circulation significantly influences rainfall patterns in Wales through several key processes related to wind, precipitation patterns, and temperature differences. Global Circulation Patterns: The Earth's atmosphere is divided into three main circulation cells in each hemisphere: • Hadley cell: Near the equator, where warm air rises and moves towards the poles. • Ferrel cell: Located between 30° and 60° latitude, where air moves from high to low pressure, predominantly westerly. • Polar cell: Near the poles, where cold air sinks and moves towards lower latitudes. Wales is situated within the Ferrel Cell, where the prevailing westerlies bring moist air from the Atlantic Ocean. This circulation pattern is crucial in delivering precipitation to Wales. Prevailing westerlies: • Moisture transport: The prevailing westerly winds, part of the Ferrel cell, transport moist, maritime air from the Atlantic Ocean toward the UK. • Impact on rainfall: As this moist air approaches Wales, it is forced to rise when it encounters the higher terrain of the Welsh mountains. This lifting leads to cooling and condensation, resulting in relief (orographic) rainfall. The western regions of Wales, particularly areas like Snowdonia, experience the highest levels of rainfall due to this effect. Low-pressure systems (depressions) & frontal boundaries: • Influence of the jet stream: The position of the jet stream, a fast-flowing ribbon of air high in the atmosphere, is influenced by global circulation. It plays a critical role in steering low-pressure systems (depressions) across the Atlantic toward the UK. • Rainfall generation: These low-pressure systems are often accompanied by frontal rainfall. As depressions move in from the

		Atlantic, they bring warm and cold fronts. When warm, moist air from the Atlantic meets colder air, it is forced to rise, leading to cloud formation and precipitation. This type of rainfall is common in Wales, especially during autumn and winter. Seasonal Variations: • Summer convection: In summer, the warming of the land can lead to localized convection, where rising warm air creates short, intense thunderstorms. While less common, this convection can also contribute to rainfall in inland areas of Wales during hot days. • Winter storms: During winter, the presence of strong low-pressure systems influenced by the polar jet stream leads to heavy rainfall and storms, particularly affecting the western and coastal areas of Wales. The axial tilt of the Earth: • The axial tilt of the Earth, which is about 23.5 degrees, significantly influences the climate in Wales and other parts of the world by creating seasonal variations in temperature and daylight. • Seasonal temperature variations: Due to Earth's tilt, Wales experiences distinct seasons. In summer, the Northern Hemisphere tilts towards the sun, causing longer days and more direct sunlight, which increases temperatures. Conversely, in winter, Wales tilts away from the sun, leading to shorter days and weaker sunlight, resulting in cooler temperatures. • Daylight length: The tilt of the earth's axis means Wales experiences long daylight hours in summer and shorter daylight hours in winter. These changes affect not just the temperature but also the way ecosystems in Wales, such as plants and wildlife, adapt through the seasons. • Precipitation patterns: While the axial tilt doesn't directly cause rainfall, the seasonal temperature changes and varying sunlight affect atmospheric circulation patterns. These can influence weather fronts and storm systems, leading to seasonal variations in

		rainfall. Wales' coastal and mountainous regions, see significant rainfall, especially in autumn and winter. **Suggested teaching and learning activities** • diagram from memory • videos – met office. **Possible resources** • Wider World textbook • WJEC GCSE textbook – page 161 • Met Office

3.2.5 Low pressure weather systems – depressions	Learners should understand:
	• the effect on weather from low pressure systems (depressions) in Wales and the UK
	• the weather conditions brought by depressions
	• how weather changes over time and space as the depression moves from west to east across Wales and the UK, including:
	  • air pressure
	  • cloud cover and type
	  • precipitation frequency and intensity
	  • temperature
	  • wind speed and direction.
		Depressions are a common feature of Welsh weather. Learners should understand how they move across the country and the different types of weather they can bring in each sector and as each front passes.
		
		Depressions move from west to east across Wales and the UK, they can take several hours depending on their speed.
		1. Approaching the west of the UK: When a depression first approaches the UK, it brings thick clouds and light to moderate rain associated with the warm front. Winds begin to pick up, and temperatures may start to rise.
		2. Passage of the warm front: As the warm front moves through, the weather becomes overcast with steady rain. This phase can last several hours, leading to gradual accumulation of rainfall.
		3. The warm sector, post-warm front conditions: In the warm sector there can be sunny spells with occasional showers.
		4. Transition to cold front: The approach of the cold front marks a shift in the weather. The rain can become heavier and more intense, often leading to showers and possible thunderstorms. Wind speeds can increase, resulting in blustery conditions.
		5. Post-cold front conditions: After the cold front passes, the weather typically clears, leading to partly cloudy or even sunny conditions. However, temperatures may drop sharply, and the winds can

		remain strong and gusty. The atmosphere can feel fresher and cooler. 6. Residual showers: In the wake of a depression, particularly behind the cold front, there may be scattered showers, especially in western regions of the UK. These showers can persist for some time as the atmosphere stabilises. **Suggested teaching and learning activities** • deliver a weather forecast using a synoptic chart • interpret synoptic charts and satellite images • create a cross section through a depression outside as a class • diagram from memory • most likely to for different sections of the depression • living diagram activity • video • outdoor learning experience – record the passage of a depression in the school's locality. **Possible resources** • Met office video: https://www.metoffice.gov.uk/weather/learn-about/met-office-for-schools/other-content/other-resources/understanding-weather • Metlink video: https://www.youtube.com/watch?v=S8vKGMXE3tQ • BBC video: https://www.youtube.com/watch?v=1ltM3GYNmtQ • WJEC GCSE textbook - page 175

3.2.6
High pressure weather systems – anticyclones
	Learners should understand:
	• the effect on weather from high pressure systems (anticyclones) in Wales and the UK
	• the difference between summer and winter anticyclones, including:
	  • air pressure
	  • cloud cover
	  • precipitation
	  • temperature
	  • wind speed and direction.
		High pressure systems affect Wales differently in summer and winter. Learners should understand the differences and their impact on the weather.
		
		Summer Anticyclone:
		Clear Skies: Summer anticyclones often lead to dry, clear conditions due to sinking air, which inhibits cloud formation.
		
		High Temperatures: With abundant sunshine, temperatures can rise significantly, resulting in hot weather, especially during the day.
		
		Light Winds: Winds are generally light and variable, which can contribute to the feeling of warmth.
		
		Potential for Heatwaves: Prolonged anticyclonic conditions can lead to heatwaves, with sustained high temperatures over several days or weeks.
		
		Possible Nighttime Cooling: While daytime temperatures are high, nighttime temperatures may drop significantly due to clear skies, leading to cooler evenings.
		
		Winter Anticyclone
		Frost and Fog: Winter anticyclones can lead to cold, clear conditions, often resulting in frost at night and fog in the mornings due to radiational cooling.
		
		Low Temperatures: Temperatures are generally lower, with chilly and sometimes icy conditions, particularly at night.
		
		Dry Weather: Precipitation is usually minimal, leading to dry conditions over extended periods.
		
		Stable Air: The stable air associated with an anticyclone can trap pollution and humidity, leading to poor air quality in urban areas.

		Inversion layers: Inversions can occur, where warmer air traps cooler air at the surface, leading to fog and frost but preventing cloud formation. **Suggested teaching and learning activities** • deliver a weather forecast using a synoptic chart • interpret synoptic charts and satellite images • diagram from memory • most likely to for different seasons of anti-cyclonic weather • video • outdoor learning experience – record the conditions during an anti-cyclone. **Possible resources** • WJEC GCSE textbook - page 173 • Met link: https://www.metlink.org/resource/anticyclone-depressions-and-fronts/ https://www.metlink.org/resource/16-anticyclones/ • BBC Bitesize: https://www.bbc.co.uk/bitesize/guides/zqwpm39/revision/3

3.3 Wild weather		
Content Amplification		**Content Amplification**
3.3.1 Global hazards caused by extreme low pressure	Learners should understand: • the causes (physical and human) • impacts (social, economic and environmental) • responses (emergency and future mitigation) • the sustainability of responses • of a specific global extreme low pressure weather event.	Low pressure events could be tropical storms, hurricanes, cyclones, monsoon. **Causes of Extreme Low-Pressure Systems:** • Warm ocean waters: Tropical storms form over warm ocean waters (typically above 26°C) where evaporation rates are high, providing the necessary moisture and heat to fuel the storm. • Atmospheric instability: A combination of warm, moist air rising rapidly and cooler, drier air descending creates instability, which is essential for storm development. • Coriolis effect: The rotation of the Earth causes the storm to begin rotating, which is crucial for the organization and intensification of the storm. • Low wind shear: Low levels of wind shear (the change in wind speed and direction with height) allow the storm to develop vertically without being disrupted. • Convergence of air: Areas where trade winds converge (the Intertropical Convergence Zone, or ITCZ) can enhance storm formation by forcing air upward. **Impacts of Extreme Low-Pressure Systems:** • Heavy rainfall and flooding: Tropical storms can produce intense rainfall, leading to flash floods, river flooding, and landslides. • Strong winds: Hurricanes can generate sustained winds exceeding 74 mph (119 km/h), causing significant damage to buildings, infrastructure, and vegetation. • Storm surges: The rise in sea level associated with a storm can inundate coastal areas, leading to severe coastal flooding.

		• Economic loss: The destruction of property, infrastructure, and livelihoods can result in substantial economic losses for affected areas. • Displacement and humanitarian crises: People may be forced to evacuate their homes, leading to displacement and increased demand for humanitarian assistance. **Responses to Extreme Low-Pressure Systems:** • Early warning systems: Meteorological agencies use satellite imagery, weather radars, and computer models to track storm development and provide early warnings to communities at risk. • Evacuation plans: Authorities often implement evacuation plans to move people from high-risk areas before a storm strikes, minimizing casualties. • Disaster preparedness: Governments and organizations develop disaster preparedness plans, including stockpiling supplies, establishing shelters and conducting public awareness campaigns. • Post-storm recovery: After a storm, recovery efforts include assessing damage, providing emergency assistance, rebuilding infrastructure and restoring essential services. • Long term mitigation: Strategies such as improving building codes, investing in resilient infrastructure and restoring natural buffers (like wetlands and mangroves) can help reduce future vulnerabilities. There are many examples that could be chosen, however learners should have opportunity to engage with all aspects of the content amplification within one example. Possible examples include Hurricane Milton October 2024 and Typhoon Yagi September 2024 **Suggested Teaching and learning activities:** • learners could create a factsheet or information guide about the chosen example • learners could discuss the sustainability of the chosen responses to extreme low-pressure weather

		Possible resources: • WJEC GCSE Geography textbook - pages 160-165 (2015 South Asian Monsoon/Cyclone Pam 2015) • Geography Review magazine – Cyclones Bangladesh: https://www.hoddereducationmagazines.com/magazine/geography-review/24/1/cyclones-in-bangladesh/ • Geography Review – Hurricane Harvey: https://www.hoddereducationmagazines.com/magazine/geography-review/31/4/record-rainfall-from-hurricane-harvey/ • Wide world magazine – Hurricane Sandy: https://www.hoddereducationmagazines.com/magazine/wideworld/25/1/hurricane-sandy/ • Wide World Magazine – Cyclones Bay of Bengal: https://www.hoddereducationmagazines.com/magazine/geography-review/24/1/cyclones-in-bangladesh/ • Met Office weather case studies: https://www.metoffice.gov.uk/weather/learn-about/weather/case-studies

3.3.2 Global hazards caused by extreme high pressure	Learners should understand: • the causes (physical and human) • impacts (social, economic and environmental) • responses (emergency and future mitigation) • the sustainability of responses • of a specific global extreme high pressure weather event.	High pressure events could be extreme droughts, heatwaves, extreme cold spells. **Causes of extreme high-pressure events:** • Stable atmospheric conditions: High-pressure systems are associated with descending air, which inhibits cloud formation and leads to stable, dry conditions. • Temperature inversions: In certain conditions, warmer air traps cooler air near the surface, preventing mixing and contributing to extreme cold or heat. • Climate patterns: Large-scale climate phenomena, such as El Niño or La Niña, can influence atmospheric circulation patterns, leading to prolonged high-pressure systems. • Geographic features: Mountains and valleys can affect local weather patterns, leading to conditions that promote heatwaves (e.g. in valleys) or extreme cold (e.g. in mountain basins). **Impacts of extreme high-pressure events:** • Drought: Prolonged high-pressure conditions can lead to reduced rainfall, resulting in droughts that affect water supply, agriculture, and ecosystems. • Heatwaves: Extended periods of high pressure can lead to significant temperature increases, causing heatwaves that pose health risks, particularly for vulnerable populations. • Wildfires: Hot, dry conditions increase the risk of wildfires, which can lead to destruction of property, loss of wildlife, and air quality issues. • Impact on agriculture: Drought and heat can stress crops and livestock, reducing yields and leading to food shortages and increased prices. • Extreme cold: Freezing conditions can affect travel, infrastructure and healthcare systems. • Health risks: Extreme heat/cold can exacerbate health issues, leading to heat-related illnesses, increased hospital admissions,

		and strain on healthcare systems. **Responses to Extreme High-Pressure Events:** • Water management: In response to droughts, water conservation measures may be implemented, including restrictions on usage and the promotion of efficient irrigation practices. • Public health initiatives: Authorities may launch awareness campaigns about heat-related illnesses, advising the public on how to stay cool and hydrated during heatwaves. • Emergency services: During extreme cold events, emergency services may provide shelter and support for vulnerable populations, such as the homeless and the elderly. • Wildfire preparedness: In areas prone to wildfires, land management practices, controlled burns and firebreaks can be employed to mitigate risks. • Policy and planning: Long-term strategies can include investing in infrastructure resilient to extreme weather, improving agricultural practices and implementing climate adaptation policies to address the increasing frequency of extreme high-pressure events. There are many examples that could be chosen, however learners should have opportunity to engage with all aspects of the content amplification within one example. Examples could include: California drought 2015 and UK Big Freezes of 2009-10 and 2010-11. **Suggested Teaching and learning activities:** • learners could create a factsheet or information guide about the chosen example. • learners could discuss the sustainability of the chosen responses to extreme high-pressure weather.

		Possible resources: • WJEC GCSE Geography textbook - pages 166-169 (drought and heatwave in California - 2015) • Geography Review magazine: desertification in Spain https://www.hoddereducationmagazines.com/magazine/geography-review/36/4/desertification/ • Geography Review – California https://www.hoddereducationmagazines.com/magazine/geography-review/31/1/drought-and-water-security/ • Wide world magazine – Southern Europe 2017 https://www.hoddereducationmagazines.com/magazine/wideworld/29/4/summer-2017/ • Wide World Magazine – California https://www.hoddereducationmagazines.com/magazine/wideworld/32/2/water-insecurity-in-california/ • Met Office weather case studies: https://www.metoffice.gov.uk/weather/learn-about/weather/case-studies

3.4 Continual climate change		
Content Amplification		**Teacher Guidance**

3.4.1 Natural causes of climate change	Learners should understand:
	• the natural causes of climate change (warming and cooling) over a range of timescales including:
	  • Milankovitch cycles
	  • sunspots
	  • volcanic eruptions.
	
	Learners should know how the current climate compares to previous glacials and interglacials in the Quaternary Period.
		Natural causes of climate change are well documented and can be found in many existing resources. Learners should understand that the Earth's climate has natural variations caused by Milankovitch cycles (eccentricity, precession, obliquity), sunspots and volcanic eruptions. Learners should appreciate that the current period of warming is unlike anything seen before and therefore is unquestionably human induced.
		
		Suggested teaching and learning activities:
		• diagram from memory to learn the natural causes of climate change
		• examination of graphs showing temperatures and carbon dioxide concentrations over the last 420,000 years
		• videos.
		
		Possible resources:
		• WJEC GCSE Geography textbook - p154-155
		• Time for Geography Videos: https://timeforgeography.co.uk/videos-list/climate-change/natural-causes-quaternary-climate-change/

3.4.2 Human causes of recent climate change	Learners should know which greenhouse gases are found in the earth's atmosphere and how the natural greenhouse effect works.
	
	Learners should understand how human activity can increase greenhouse gas emissions and cause an enhanced greenhouse effect, including:
	• carbon dioxide:
	  • burning fossil fuels
	  • deforestation
	• methane:
	  • farming
	  • waste decomposition
	• nitrous oxide:
	  • including industrialisation.
		Greenhouse gases are essential in the Earth's atmosphere, without them the planet would have been too cold for life to develop. The greenhouse gases learners should be aware of are:
		• carbon dioxide
		• methane
		• water vapour
		• nitrous oxide.
		
		These gases absorb heat radiation and re-radiate it keeping the atmosphere warm – the greenhouse effect.
		
		Learners should be able to understand and identify how human activity is contributing to a greater amount of these gases in the atmosphere – leading to the enhanced greenhouse effect.
		
		There are opportunities to discuss the impact of colonialism and imperialism on the land in some countries, as it is believed that overworking the land through plantations and monoculture has accelerated climate change in these regions.
		
		2011-2020 was the warmest decade recorded, with global average temperature reaching 1.1°C above pre-industrial levels in 2019. Human-induced global warming is presently increasing at a rate of 0.2°C per decade.
		
		Suggested teaching and learning activities:
		• diagrams from memory for greenhouse effect/enhanced greenhouse effect
		• flow diagrams to show how human activity leads to increased greenhouse gases.
		
		Possible Resources:
		• WJEC GCSE Geography textbook - p156-157
		• Time for Geography Video:

		https://timeforgeography.co.uk/videos-list/climate-change/human-causes-climate-change/ • EC Causes of Climate change: https://climate.ec.europa.eu/climate-change/causes-climate-change_en

3.4.3 Evidence that our climate is changing	Learners should understand evidence that shows our climate is changing, including:
	• long term evidence:
	  • ice core data
	• short term evidence:
	  • changes to tree rings (dendrochronology)
	  • Intergovernmental Panel on Climate Change (IPCC)/NASA indicators of a warming world
	  • Keeling curve
	  • retreating glaciers, ice caps and sea ice
	  • sea level rise.
		Learners should understand that there is a large range of recent evidence that shows the climate is changing. They should appreciate how evidence for climate change has been researched and be able to discuss its reliability.
		
		Rising Global Temperatures:
		• Temperature records: Instrumental records show a significant increase in average global temperatures, with the last few decades being the warmest in recorded history.
		• Long-term trends: Proxy data, such as ice cores and tree rings, indicate that temperatures have risen significantly since the late 19th century, aligning with increased greenhouse gas emissions.
		
		Increased Greenhouse Gas Concentrations:
		• Carbon Dioxide (CO_2**)**: Measurements from Mauna Loa Observatory and other sites show a steady increase in CO_2 levels since the Industrial Revolution, surpassing 400 ppm. As seen in the Keeling Curve graph.
		• Methane (CH_4) and Nitrous Oxide (N_2O): Levels of other greenhouse gases, such as methane and nitrous oxide, have also risen significantly due to human activities like agriculture and fossil fuel use.
		
		Melting Ice and Rising Sea Levels:
		• Glacier retreat: Glaciers around the world are retreating, with many losing mass rapidly. This is particularly evident in the Arctic and Antarctic regions.

		• Sea-level rise: Global Sea levels have risen due to thermal expansion of seawater and melting ice sheets and glaciers, contributing to increased coastal flooding and erosion. **Ocean Warming and Acidification:** • Temperature increase: Oceans have absorbed much of the excess heat from global warming, leading to increased ocean temperatures. • Ocean acidification: Increased CO_2 levels are leading to higher concentrations of carbonic acid in oceans, affecting marine ecosystems, particularly coral reefs and shellfish. **Changes in Weather Patterns:** • Extreme weather events: There is an increase in the frequency and intensity of extreme weather events, including heatwaves, heavy rainfall, and hurricanes, attributed to climate change. • Shifts in climate zones: Observations show shifts in the distribution of climate zones and changes in precipitation patterns, affecting ecosystems and agriculture. **Ecological Impact:** • Species distribution: Many species are shifting their ranges toward higher altitudes or latitudes in response to changing temperatures and habitats. • Phenological changes: Changes in the timing of seasonal events, such as flowering and migration, have been observed in various species, indicating a response to climate change. **Scientific Consensus:** • Intergovernmental Panel on Climate Change (IPCC): The IPCC reports reflect a strong consensus among climate scientists that climate change is occurring and is largely driven by human activities, particularly greenhouse gas emissions.

		Suggested teaching and learning activities: • videos • photograph analysis – glacial retreat • graph analysis – Keeling curve • analysis of sea level rise using interactive maps. **Possible Resources:** • WJEC GCSE Geography textbook - p158-159 • Time for Geography Video: https://timeforgeography.co.uk/videos-list/climate-change/evidence-climate-change/ • Nasa sea level rise projection tool: https://sealevel.nasa.gov/ipcc-ar6-sea-level-projection-tool • Floodmap UK: https://www.floodmap.net/?ct=GB • Infographic found here: https://www.wri.org/insights/ipcc-climate-report

3.4.4 Consequences of climate change	Learners should understand impacts of changing climate globally. Learners should know the impacts of the changing climate on people and the environment in two contrasting places, such as: • two countries at different stages of the development continuum • an island country compared to a continental country • a country with a coastline compared to a landlocked country • two regions within the same country.	The impacts of climate change are many and vary depending on location, so a careful choice of case study examples should be made. These locations could be the same as is chosen for 3.5 to save duplication e.g. Wales and Lesotho or the UK and Tuvalu. Learners should be able to identify the impacts a changing climate could have on both people and the environment in their chosen locations. For example: • impacts of changes in farming and fishing • impacts of changes in frequency and severity of extreme weather and flooding • impacts of changes in rainfall patterns and frequency/severity of drought • impacts of rising sea levels on coastal communities and in Small Island Developing States (SIDS) • impacts of future climate refugees. **Suggested teaching and learning activities:** • groupwork and presentations about impacts in chosen location • mystery activity – e.g. Why are Tuvaluans moving to New Zealand? • map and graph analysis **Possible resources:** • Geography Review magazine – Nepal case study • Geography review magazine – SIDS in the Pacific • Wide world magazine – Senegal case study • Met Office impacts of climate change maps • Interactive and thought-provoking graphs

3.5 Managing global challenges		
Content Amplification		**Teacher Guidance**
3.5.1 Managing climate change	Learners should understand: • how people at a range of scales (local, national and global) are managing the physical and human impacts of climate change • the sustainability of management approaches.	Learners should be given opportunities to look holistically at how the challenges posed by climate change can be managed at a range of scales. Learners should understand the difference between **mitigation** and **adaptation,** at a range of scales. Learners should understand that sustainability is threefold – social, economic & environmental. Sustainable development meets the needs of the present without compromising the ability of future generations to meet their own needs. Schools could choose to create an in-depth case study of two contrasting countries at different levels of development to illustrate these management approaches. For example, Wales and Lesotho or the UK and Tuvalu (or any SIDS). There are opportunities to focus locally on the school's immediate community and zooming outwards to national and global scales. The contrasting country could be a location that learners are already familiar e.g. some schools may have twin or partner schools, or have a twin town that they can use as an example. **Suggested teaching and learning activities:** • learners could be given a question to research and present their findings to the class • learners could create infographics comparing the sustainability of different approaches to managing climate change • learners could produce a poster or campaign to encourage local changes in behaviour

		• learners could investigate how global agreements e.g. The Paris Agreement have impacted their lives locally • learners could interview local/national politicians about tackling climate change. **Possible resources:** • Wide World Magazine: https://www.hoddereducationmagazines.com/magazine/wideworld/31/4/managing-climate-change/ • Geography Review Magazine: https://www.hoddereducationmagazines.com/magazine/geography-review/30/1/understanding-the-2015-paris-agreement/ • UN website: https://www.un.org/en/climatechange • UN –Sustainable Development Goals website: https://sdgs.un.org/ • WJEC GCSE Textbook - Theme 8 pages 296-300 Carmarthenshire County Council – Net Zero by 2030, excellent examples of local strategies: https://www.carmarthenshire.gov.wales/home/council-democracy/climate-action-carmarthenshire/
3.5.2 Managing threats to our oceans	Learners should know about the large and small-scale physical and human threats to the biodiversity of our oceans from: • climate change • plastics and pollution. Learners should understand: • different ways to manage threats to our oceans at a range of scales (local, national and global) • the sustainability of management approaches.	Threats to the oceans from climate change could include: • ocean acidification • loss of biodiversity • bleaching of tropical coral reefs. Example: The Great Barrier Reef, Australia Threats to the ocean from plastics and pollution could include: • oil spills e.g. The Sea Empress • microplastics and plastics causing loss of biodiversity through ingestion • eutrophication.

		Management of the world's oceans requires many different stakeholders to work together at a range of scales. Oceans extend beyond national boundaries so international co-operation is essential. Learners could be introduced to the United Nations Convention on the Law of the Sea (UNCLOS) as part of their study of global scale conventions, national regulations including bans on single use plastic bags/straws and local actions such as beach cleans. **Suggested teaching and learning activities:** • roleplay or debate different stakeholder opinions • discussion and debate over the most sustainable solution to plastic in the ocean • infographic – encouraging recycling • learners could organise a local beach or river or school litter pick. **Possible resources:** • Geography Review Magazine: https://www.hoddereducationmagazines.com/magazine/geography-review/32/3/can-we-tackle-the-ocean-plastics-problem/ • The Ocean Clean Up website: https://theoceancleanup.com/ • WJEC A Level student guide by Simon Oakes - pages 78-84 • Video - strategies to reduce ocean plastics: https://www.youtube.com/watch?v=ORzahIzKizQ • TedTalk – Ocean Plastic: https://www.youtube.com/watch?v=mT4Qbp89nIQ

Learning Experiences

Learners should be encouraged to consider the following learning experiences and skills to further develop their understanding, appreciation and awareness of the subject content. Information in the table below provides opportunities for teachers to integrate the learning experiences into delivery.

Learning Experience	Exemplification of Learning Experience
make appropriate use of digital technology when completing the qualification, for example through accessing satellite images and digital maps	3.1.1, 3.2.1, 3.2.2, 3.2.3, 3.2.5, 3.2.6, 3.1.1 - Learners could access the Office for National Statistics census data/digital maps. 3.2.5 & 3.2.6 - Learners could access satellite images from the Met Office.
develop empathy, tolerance, compassion and curiosity, through studying different geographical contexts	3.1.1, 3.1.2, 3.1.3, 3.1.4, 3.3.1, 3.3.2, 3.3.4, 3.4.4, 3.5.1, 3.5.2 - Learners could engage with any of the case study material throughout Unit 3 and write first hand diary entries/news reports to demonstrate empathy, tolerance, compassion and curiosity in different contexts.
participate in educational visits (other than fieldwork) in person or digitally	3.1.1, 3.1.3, 3.1.4, 3.2.5, 3.2.6, 3.5.2, 3.1.1 - potential for visits to local government offices or have visits into school. 3.1.3 & 3.1.4 - where schools have links to other schools in countries of a different development level, there are opportunities to explore causes of the development gap and the success of any strategies. 3.5.2 - opportunities to engage and visit with local port/harbour authorities and the Marine Conservation Society.
engage in collaborative working	3.2.1 - potential to link with a local weather station to collect data (citizen science) and collect data around the school site through working collaboratively with their peers.

Opportunities for embedding elements of the Curriculum for Wales

Curriculum for Wales Strands **Cross-cutting Themes**			
Local, National & International Contexts	**There are many opportunities to include Local, National and International Contexts in GCSE Geography. These opportunities are important to Learners because geography encourages them to think about their sense of cynefin and their sense of belonging to the UK and the wider world. These can be explored through real life case studies in Wales, the UK and from around the world across the different themes in the specification and can help to ensure that learners are knowledgeable about their culture, community, society and the world, now and in the past. Below are some examples of how Local, National & International Contexts can be embedded into teaching and learning:**		
	Specification Reference	***Amplification***	***Example***
	3.1.1	*Regional inequalities in Wales and the UK.*	Learners could investigate their home area in terms of inequalities, using census data and compare these with the rest of Wales and the UK.
	3.1.3	*The development gap*	Learners should be able to consider the reasons for differences in social and economic development of a country because of a range of interconnected factors. A country fact file may consider a range of factors. For example – Haiti, the least developed country in the western hemisphere due to: • colonialism – independence from France came at a huge economic cost, including subsequent political corruption • geographical location – at risk from hurricanes/tropical storms/earthquakes - poor before 2010 EQ, still not recovered • globalisation – few MNCs, will operate in Haiti due to the political unrest and debt owed to France

<table>
<tr><td rowspan="5">Sustainability</td><td colspan="3">There are many opportunities to include Sustainability in GCSE Geography. These opportunities are important to Learners because considering the sustainability of their actions in relation to global issues such as climate change, deforestation, over-abstraction of resources and population growth have never been more important than they are now. Learners should be encouraged to think how their actions now may relate to the sustainability of life on earth for future generations, something that could and should be considered across all the different themes in the specification. This gives them the chance to become ethical and informed citizens of Wales and the world, showing their commitment to the sustainability of the planet.
Below are some examples of how Sustainability can be embedded into teaching and learning:</td></tr>
<tr><td>Specification Reference</td><td>Amplification</td><td>Example</td></tr>
<tr><td>3.5.1</td><td>Managing climate change</td><td>Learners could create infographics comparing the sustainability of different approaches to managing climate change.</td></tr>
<tr><td>3.5.2</td><td>Managing threats to our oceans</td><td>Discussion and debate over the most sustainable solution to plastic in the ocean.</td></tr>
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<table>
<tr><td rowspan="2">Relationships and Sexuality Education</td><td colspan="3">There are many opportunities to include Relationships and Sexuality Education (RSE) in GCSE Geography. These opportunities are important to Learners because through the study of people and places in geography, a range of different views and ideologies will be encountered, increasing knowledge of these views and encouraging learners to have fair and unbiased opinions based on what they learn. This will help them develop secure values, establish their spiritual and ethical beliefs and an appreciation of other people’s values and views, both locally, nationally and around the world.
Below are some examples of how RSE can be embedded into teaching and learning:</td></tr>
<tr><td>Specification Reference

3.4

3.5</td><td>Amplification

Continual climate change

Managing global challenges</td><td>Example

In Unit 3, learners will have the opportunity to express empathy with people living in countries around the world as well as development at a range of scales. Learners will be provided with opportunities to consider a range of perspectives and views.</td></tr>
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<table>
<tr><td rowspan="3">Human Rights Education and Diversity</td><td colspan="3">There are many opportunities to include Human Rights Education and Diversity in GCSE Geography. These opportunities are important to Learners because it is vital to consider them when studying key current topics such as migration, settlement growth, and equality of access to resources. Past, present and future issues linked to human rights and diversity must be considered when considering people, places and their interactions between them. Through this, learners can be educated to tackle ignorance and misinformation around this subject and to respect the needs and rights of others, as a member of a diverse society.
Below are some examples of how Human Rights Education and Diversity can be embedded into teaching and learning:</td></tr>
<tr><td>Specification Reference</td><td>Amplification</td><td>Example</td></tr>
<tr><td>3.1.3</td><td>The development gap</td><td>Learners could use their case study knowledge to conduct a role play discussion from different groups in society exploring how the development gap has impacted their lives, for example a corrupt politician in Haiti, a person living in an NGO camp in Haiti and a person running a business in Haiti.</td></tr>
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<table>
<tr><td rowspan="2">Careers and Work-Related Experiences</td><td colspan="3">There are many opportunities to include Career and Work-Related Experiences (CWRE) in GCSE Geography. These opportunities are important to Learners because many will go on to future careers in a world increasingly dominated by key geographical issues such as climate change and management of resources. Learners must be equipped with the knowledge and skills to understand these issues and to fire their interest in taking on a career that will make a positive difference to a sustainable future. Signposting opportunities like this is the first step to producing enterprising, creative contributors who are ready to play a full part in life and work.
Below are some examples of how CWRE can be embedded into teaching and learning:</td></tr>
<tr><td>Specification Reference

3.2.6</td><td>Amplification

High pressure weather systems – anticyclones</td><td>Example

Learners could engage with the Met Office careers information and learn how meteorologists work and impact many industries.

There are also several videos on the Time for Geography site that link the study of various geographical disciplines to the world of work.</td></tr>
</table>

<table>
<tr><th colspan="4">Cross-curricular Skills - Literacy</th></tr>
<tr><td rowspan="4">Listening</td><td colspan="3">There are many opportunities to include Literacy in GCSE Geography. These opportunities are important to Learners because need to be able to communicate effectively in different forms and settings, through both Welsh and English. Learners must be able to write and present succinctly and in depth when required to outline their knowledge and views, make ethical and informed decisions on a range of subjects, write and present fieldwork investigations and explain the concepts they are learning about. Learners should take delight in reading on a range of subjects inside and out of their academic subjects such as geography. This will then prepare them for further study and future careers where these skills will be vital as they get ready to play a full part in life and work.
Below are some examples of how Literacy can be embedded into teaching and learning:</td></tr>
<tr><td>Specification Reference</td><td>Amplification</td><td>Example</td></tr>
<tr><td>3.3.1</td><td>Global hazards caused by extreme low pressure</td><td>Learners could write a diary about the approach, passing and aftermath of a hurricane.</td></tr>
<tr><td>3.3.2</td><td>Global hazards caused by extreme high pressure</td><td>Learners could produce an information leaflet instructing people what to do to prepare for, during and after the hurricane.

Learners could write a news report on the causes and impacts of a high-pressure event.

Learners could debate the extent to which people are to blame for the severity of these hazards.</td></tr>
</table>

Reading	***Specification Reference*** *3.4.4*	***Amplification*** *Consequences of climate change*	***Example*** Learners could read articles that explain the consequences of climate change in various countries e.g. from the Wide World magazine that is produced for GCSE Geography learners or newspaper articles.
Writing	***Specification Reference*** *3.5.2*	***Amplification*** *Managing threats to our oceans*	***Example*** Learners could write to their local water company, rivers trust, or marine conservation society and express their views on plastics and pollution in the rivers and oceans.

Cross-curricular Skills - Numeracy			
	There are many opportunities to include Numeracy in GCSE Geography. These opportunities are important to Learners because using number effectively in different contexts is a key skill geographers need when learning across the topic and collecting, presenting and analysing data from fieldwork investigations. Learning to understand how to interpret data and apply mathematical concepts is a key aspect of both academic study and the world of work and provides geographers with a unique skillset that they can apply to a range of different situations. **Below are some examples of how Numeracy can be embedded into teaching and learning:**		
	Specification Reference	***Amplification***	***Example***
Developing Mathematical Proficiency	*3.1.2*	*Measuring development to classify countries*	Learners could look at data sets for one country taken 20-50 years apart and work out the percentage increase/decrease in that specific development factor e.g. literacy rate/GDP.
	Specification Reference	***Amplification***	***Example***
Learning about geometry helps us understand shape, space and position and learning about measurement helps us quantify in the real world	*3.3.1*	*Global hazards caused by extreme low pressure*	Learners could track the path of a hurricane and work out the distance it travelled over a specific time scale and then the velocity it was travelling at. They could also plot the longitude and latitude of the storm at different times and describe the path it took.
	Specification Reference	***Amplification***	***Example***
Learning that statistics represent data, and that probability models chance help us make informed inferences and decisions	*3.1.1*	*Regional inequalities in Wales and the UK*	Use of census data to represent their local area to map inequalities – ask questions about how representative the data is of them, why do governments need such data, how does it support decision making e.g. whether to spend money on a care home or a new school.

Cross-curricular Skills - Digital Competence			
	There are many opportunities to include Digital Competence in GCSE Geography. These opportunities are important to Learners because in an increasingly digital world, using digital technologies creatively to communicate, find and analyse information provides geographers with vital skills that set them up for future academic studies and careers. As learners become more digitally competent and aware it is vital that they channel this knowledge into using digital technologies safely and with care and apply it to a range of geographical contexts. Combining opportunities for literacy, numeracy and digital competence in geography will allow learners to undertake research, creatively present and analyse results and evaluate critically what they find as well as express emotions through different media, ensuring they are set up to tackle future challenges and are ready to learn throughout their lives. Below are some examples of how Digital Competence can be embedded into teaching and learning:		
	Specification Reference	***Amplification***	***Example***
Data and Computational Thinking	*3.5.1*	*Managing Climate Change*	Data can be used from a variety of sources. Learners could interrogate the validity and reliability of different types of data in a decision-making exercise, on the most sustainable solution in a given country.

<table>
<tr><th colspan="4">Integral Skills</th></tr>
<tr><td rowspan="3">Creativity and Innovation</td><td colspan="3">There are many opportunities to include Creativity and Innovation in GCSE Geography. These opportunities are important to Learners because geography should encourage them to connect and apply their knowledge and skills to create ideas and projects and to think creatively to make decisions and solve problems. When faced with problems to solve and decisions to make on sustainable issues, learners will be able to think about and then make choices that reflect creative ideas and innovative solutions to issues from across the geographical world and beyond.
Below are some examples of how Creativity and Innovation can be embedded into teaching and learning:</td></tr>
<tr><td>Specification Reference</td><td>Amplification</td><td>Example</td></tr>
<tr><td>3.5.2</td><td>Managing threats to our oceans</td><td>Learners could plan a litter pick in a local river side or coastal area to raise awareness of plastic and pollution. They may create something artistic or creative out of the rubbish collected.</td></tr>
</table>

<table>
<tr><td rowspan="3">Critical Thinking and Problem Solving</td><td colspan="3">There are many opportunities to include Critical Thinking and Problem Solving in GCSE Geography. These opportunities are important to Learners because the ability to critically assess resources and arrive at informed solutions to a range of problems is a vital skill learners should develop throughout their study. Learners should aim to question the validity and accuracy of resources and data across the Units in the specification and apply this when making decisions and solving problems related to the key issues they will encounter. Learners should be encouraged to enjoy questioning and solving problems and be given a range of opportunities to do so within the subject of geography.

Below are some examples of how Critical Thinking and Problem Solving can be embedded into teaching and learning:</td></tr>
<tr><td>Specification Reference</td><td>Amplification</td><td>Example</td></tr>
<tr><td>3.5.1</td><td>Managing Climate Change</td><td>Data can be used from a variety of sources. Learners could interrogate the validity and reliability of different types of data in a decision-making exercise, on the most sustainable solution in a given country.</td></tr>
</table>

<table>
<tr><td rowspan="3">Personal Effectiveness</td><td colspan="3">There are many opportunities to include Personal Effectiveness in GCSE Geography. These opportunities are important to Learners because all four purposes of the Curriculum for Wales combine to increase and improve personal effectiveness for the learner. Being organised and digitally literate, with strong literacy and numeracy skills, a critical thinker and innovator with knowledge of human rights and diversity, sustainability and issues at a range of scales will help learners to become ethical and informed citizens, ambitious and capable learners, healthy, confident individuals and enterprising and creative contributors to society.

Below are some examples of how Personal Effectiveness can be embedded into teaching and learning:</td></tr>
<tr><td>Specification Reference</td><td>Amplification</td><td>Example</td></tr>
<tr><td>3.2.5</td><td>Low pressure weather systems - depressions</td><td>After learning the theory, learners could be provided with a range of different data in groups, such as satellite images and synoptic maps, and use their data to provide advice to different groups of people who have activities planned as to what kind of weather they can expect.</td></tr>
</table>

Glossary for Unit 3

Term	Definition
Adaptation	Adjustments or changes made in response to the effects of natural hazards/environmental changes. Adaptation involves modifying behaviours or infrastructure to cope with and live alongside these changes e.g. building flood defences
Aid	The giving of resources by one country, or an organisation, to another country.
Air mass	A large parcel of air in the atmosphere. All parts of the air mass have similar temperature and moisture content at ground level.
Air pressure	The pressure that the air in the atmosphere exerts on the Earth's surface. It is measured in millibars (mb).
Altitude	Height above sea level in metres (m).
Anticyclone	A high-pressure system in the atmosphere associated with dry, settled periods of weather.
Aspect	The direction in which a slope or other feature faces.
Balance of trade	The difference between a country's export and imports over a specific period. A positive balance of trade occurs when export values exceed import values. A negative balance of trade occurs when import values exceed export values.
Biodiversity	The variety of living things.
Choropleth	A type of map that uses different colours or shades to represent data shown in areas of the map.
Climate	The average weather conditions of a place over a given period (usually 30 years).
Colonialism	The practice of establishing control over a foreign territory and its people, often involving settlement, exploitation of resources and cultural domination. The process historically led to political and economic changes in colonised regions, impacting their societies and cultures significantly.
Continuum	A range or sliding scale between two extreme points, where each point is slightly greater or lesser than its neighbours e.g. the development continuum ranges from most developed to least developed.
Convectional rainfall	A type of rainfall that occurs when warm, moist air rises into the atmosphere and cools, causing precipitation to fall.
Coral bleaching	A process which results in zooxanthellae being forced out of the tissue of corals, turning the colourful corals white. The process occurs when the temperature of sea water increases.

Coriolis effect	The way in which the rotation of the Earth deflects the movement of objects such as airplanes or hurricanes.
Cyclone	A low-pressure system in the atmosphere associated with unsettled weather, wind and rain.
Deforestation	The permanent removal of trees from a forest.
Demographic characteristics	The characteristics of the population of a country or place e.g. age, gender, ethnicity, income, population size, population density, age structure, mortality and sex ratio. Demographic characteristics can be examined using census data and population pyramids.
Dendrochronology	The scientific method of dating tree rings (also called growth rings) to the exact year they were formed in a tree. They can be used to examine what climatic conditions existed at the time of growth.
Dependency	When a country relies too heavily on one way of earning foreign income. For example, some Caribbean countries rely too much on money from tourism.
Depression (weather)	A weather system associated with low air pressure. Depressions bring changeable weather that includes rain and windy conditions.
Deprivation	To lack features, such as employment or basic services, which are usually regarded as necessary for a reasonable standard of living.
Desertification	The turning of land into desert, often through physical processes or human mismanagement.
Development	The level of economic growth, social equality and environmental protection of a country or region and the processes of change taking place within it.
Development gap	The difference in development between the world’s richest and poorest countries, or between the richest and poorest people within a country.
Drought	A long period of time with little precipitation.
Ecotourism	Small scale tourist projects that create money for conservation as well as creating local jobs.
Enhanced greenhouse effect	The result of human activity increasing the concentration of greenhouse gases in the Earth's atmosphere, which traps more of the sun's energy and causes global warming.
Environmental refugees	People who must flee their homes because of a natural disaster such as coastal floods, drought or climate change.
Ethical tourism	Tourism that benefits local people and which respects their culture, environment, beliefs and traditions.

Ethnic enclave	A neighbourhood or larger area where a group of people with a common ethnic identity live, which is different from the surrounding area.
EU – European Union	A political and economic union of 27 European countries that operates a single market and has a range of policies.
Eutrophication	A type of water pollution that occurs when an aquatic ecosystem becomes enriched with nutrients, causing excessive plant and algae growth.
Exports	The sale of goods to another country.
Fair trade	A system that ensures that producers, especially in lower income countries, receive a fair price for their products, and are treated fairly and paid properly for their work. Fair trade also aims to promote local sustainability and protect the environment.
Ferrel cell	The Ferrel cell is one of three global convection cells, along with the Hadley and Polar cells. In the middle cells, which are known as the Ferrel cells, air converges at low altitudes to ascend along the boundaries between cool polar air and the warm subtropical air. The Ferrel cell is located between 30° and 60° north and south of the equator
http://ebooks.dynamic-learning.co.uk/prod_content/extracted_books/9781471861338-1.15.8/OEBPS/t6ch01.htmForeign direct investment (FDI)	An investment of money by a company in a development, such as a new factory, located in another country.
Fossil fuel	A non-renewable energy source that is formed from the remains of plants and animals that lived millions of years ago e.g. coal, oil, natural gas.
Frontal rainfall	A type of rainfall that occurs when warm air meets cold air in a weather front, causing the warm air to rise and cool, which leads to cloud formation and precipitation.
GDP - Gross Domestic Product	A measure of a country's economic activity and health over a period of time, typically a year. It is the total value of all goods and services produced within a country's borders during that time. GDP is used as a primary measure of a country's economy and is often used to measure a country's wealth.
Glacial	Cold periods in Earth’s history when glaciers have advanced, and ice sheets increased in size.
Globalisation	Flows of people, ideas, money and goods are making an increasingly complex global web that links people and places from distant continents together.
Greenhouse effect	A natural process that warms the Earth's surface by trapping heat in the atmosphere.

Greenhouse gas	Gases such as carbon dioxide and methane that can trap heat in the atmosphere.
Gross national income (GNI) per person	The average income in a country. It is also known as gross national product (GNP) per person.
Hadley Cell	The low latitude overturning circulations that have air rising at the equator and air sinking at roughly 30° latitude. They are responsible for the trade winds in the Tropics and control low-latitude weather patterns. The Hadley cell is one of three primary circulation cells in Earth's atmosphere, along with the Ferrel cell and the Polar cell. These cells transport heat and moisture around the planet, which influences global weather patterns.
HDI - Human Development Index	A measure of development that considers a country's level of education, its wealth and average life expectancy.
Heatwave	A prolonged period of unusually hot weather that lasts for several days to a few weeks. The Met Office defines a heatwave in the UK as a period of at least three consecutive days where the daily maximum temperatures are higher than a certain threshold. The threshold varies by county.
HIC – High Income country	A country with a high standard of living and a high gross national income (GNI) per capita of more than US$12,696.
Hurricane (cyclone / typhoon)	A tropical storm with sustained winds of at least 74 miles per hour (mph). Hurricanes are areas of low pressure that form over tropical or sub-tropical waters. Hurricanes have strong winds that circulate around a calm central point called the eye of the storm. In the northern hemisphere, the winds rotate counterclockwise, while in the southern hemisphere they rotate clockwise.
Ice core data	A collection of information about the climate that scientists obtain by drilling into glaciers and ice sheets. Ice cores are considered a reliable source of evidence for climate change and can provide information about historical temperature and atmospheric gases.
Imports	The purchase of goods from another country.
Industrialisation	The process of a country or region's economy shifting from agriculture to manufacturing e.g. the UK during the Industrial Revolution.
Inequality	The unfair situation in society when some people have more opportunities, better access to services, greater freedom of expression etc. than other people.
Infrastructure	The basic structures and services needed by any society such as water supplies, sewage systems, roads or bridges.
Inter-glacial	Warmer periods in Earth's history when glaciers have retreated, and ice sheets have decreased in size.

http://ebooks.dynamic-learning.co.uk/prod_content/extracted_books/9781471861338-1.15.8/OEBPS/t5ch02.htmIntertropical convergence zone (ITCZ)	A broad band of atmosphere that circles the tropical latitudes. The ITCZ is characterised by low pressure, cloud and heavy rain.
Intergovernmental Panel on Climate Change (IPCC)	A United Nations body that assesses climate change science and provides information to governments and international negotiations. The IPCC's work is important because it helps societies to understand the causes, consequences, and responses to climate change.
Jet stream	A strong wind that circulates around the Earth.
Landlocked	A country that has no coastline and, therefore, has no seaports. Many of the world's poorest countries are landlocked.
Latitude	A measurement of how far north or south a location is from the equator.
LDC – Least developed Country	These are countries identified by the United Nations as facing severe structural impediments to sustainable development. They typically have low levels of income, human assets, and economic vulnerability.
LIC – Low Income Country	A nation with a relatively low gross national income (GNI) per capita. This means that the average income earned by each person in the country is lower than in developed countries.
Literacy rate	The percentage of a population aged 15 or older who can read and write. It is a common measure of social development and education levels within a country or region.
http://ebooks.dynamic-learning.co.uk/prod_content/extracted_books/9781471861338-1.15.8/OEBPS/t5ch03.htmMaritime (climate)	The climatic condition of land close to sea. The sea moderates temperatures meaning that there are only small variations in temperature.
MDC – More Developed Country	A term used in geography to describe countries with a relatively high level of economic development. These countries typically have: a high GDP per capita, an industrialized economy, high quality of life and advanced technology.
Microplastics	Tiny pieces of plastic, usually less than 5 mm in size. They can come from a variety of sources, including breakdown of larger plastic items, direct production and synthetic fibres. Microplastics pose a significant threat to marine ecosystems. They can be ingested by marine organisms, leading to health problems and even death. Additionally, microplastics can absorb pollutants from the water, concentrating them and further harming marine life.

Milankovitch cycle	Long-term variations in Earth's orbit around the Sun and the tilt and wobble of Earth's axis. These variations affect the amount of sunlight that reaches different parts of Earth, which in turn influences climate.
Mitigation	Strategies and actions taken to reduce the impact of a natural hazard/environmental issue. This could be a range of actions aimed at minimising the severity of the impacts, and lowering the risk and potential damage to people, property and the environment e.g. reducing levels of carbon emissions.
MNC – Multi-National Company	Large businesses such as Sony, Microsoft and McDonalds, who have branches in several countries. Multinational companies are also known as transnational companies.
Multilateral aid	Financial support that is given by many different governments to a large organisation like the United Nations or the World Bank. This organisation then uses the aid to support countries that need support.
Natural resources	Materials found in nature that can be used to meet human needs and wants. These resources are essential for our daily lives and economic activities. They can be categorised into two main types: renewable and non-renewable.
http://ebooks.dynamic-learning.co.uk/prod_content/extracted_books/9781471861338-1.15.8/OEBPS/t6ch01.htmNewly industrialised country (NIC)	Newly industrialised countries such as India, Thailand or Indonesia have a large percentage of the workforce working in the secondary (manufacturing) sector.
Ocean acidification	A process by which the pH level of sea water decreases, making the water more acidic. Acidification is caused when extra CO_2 is absorbed into the sea.
Ocean current	Predictable flows of water through the seas and oceans. Some currents are flows of relatively warm water, like the Gulf Stream. Other currents are relatively cold, like the Labrador.
Polar cell	A polar cell is a large-scale atmospheric circulation pattern that occurs near the Earth's poles. It plays a significant role in global weather patterns. Air descends at the poles, creating high-pressure zones. This cold air then moves towards the mid-latitudes. Polar cells help to create cold, dry climates at the poles and contribute to the formation of polar deserts. Polar cells interact with other atmospheric circulation patterns, such as the Hadley cell and Ferrel cell, to influence global weather systems.
Poverty line	People who live below this amount of income are said to live in poverty.
PPP - Purchasing power Parity	A way of comparing the average wealth of a country by taking the cost of living in those countries into account.

Precipitation	Any form of water that falls from the atmosphere to the Earth's surface. This includes rain, snow, hail, sleet, and drizzle. Precipitation is a crucial component of the Earth's water cycle, as it is responsible for replenishing water sources on the planet.
Prevailing wind	The most common wind direction in a particular region. It's influenced by factors like Earth's rotation, atmospheric pressure, and geographic features.
Quaternary Period	The most recent geological period, spanning from approximately 2.6 million years ago to the present day.
http://ebooks.dynamic-learning.co.uk/prod_content/extracted_books/9781471861338-1.15.8/OEBPS/t6ch01.htmRaw materials	Materials such as timber, stone or crude oil that have not been processed or refined.
Relief rainfall (Orographic)	A type of rainfall that occurs when moist air masses are forced to rise over mountains or hills. As the air ascends, it cools and condenses, forming clouds and eventually precipitation in the form of rain, snow, or hail.
Scale	A geographical concept used to describe the size or area covered by a feature. Scale varies from small (or local) through to regional, national and global.
Segregation	The spatial separation of different groups of people based on factors like race, ethnicity, religion, socioeconomic status, or other characteristics. This separation can occur at various scales, from neighbourhoods to entire cities or regions.
Spatial	Patterns or geographical features that vary over two dimensions so that they can be shown on a map.
Standard of living	The level of wealth and comfort experienced by any group of people or individual.
Sunspot	These are dark, cooler regions on the sun's surface. They are caused by intense magnetic activity, which inhibits the flow of heat to these areas, making them appear darker than the surrounding sunspots. Sunspots can influence space weather and Earth's climate, though the exact nature and extent of these effects are still being studied.
Sustainability	This is meeting the needs of the present without compromising the ability of future generations to meet their own needs. This means using resources responsibly and ensuring that the environment remains healthy for future generations. It involves balancing economic development, social justice, and environmental protection. Environmental sustainability: Protecting natural resources, reducing pollution, and conserving ecosystems. Economic sustainability: Ensuring that economic growth is sustainable and does not harm the environment or society.

	Social sustainability: Promoting social equity, justice, and well-being.
Sustainability Impact Assessment (SIA)	A process for assessing the likely economic, social and environmental effects of plans, policies and strategies before they have been implemented.
Temporal	This relates to time. It's a crucial concept in studying geographical processes and patterns. When we examine geographical features or events, we often consider how they change over time.
Tourism	The business of providing tours and services for tourists.
UN – United Nations	An international organisation that aims to maintain peace and security, promote human rights, and foster international cooperation. It was founded in 1945 after World War II.
UNCLOS	The United Nations Convention on the Law of the Sea. It is a treaty that establishes the legal framework for the use of the world's oceans.
Urbanisation	The physical and human growth of towns and cities.
Vested interest	A person or group with a particular reason for involvement in a situation or issue.
Weather	The atmospheric conditions at a particular place over a short period of time. It includes factors such as temperature, precipitation, wind, humidity, cloud cover, and air pressure.
Wildfire	A large, uncontrolled fire that burns in a natural area, such as a forest, grassland, or moorland. It can be caused by natural factors like lightning strikes or spontaneous combustion, but most often, it is started by human activities such as campfires, discarded cigarettes, or intentional arson.