

GCSE



# WJEC GCSE Geography

Approved by Qualifications Wales

## Guidance for Teaching: Unit 4

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.



## Contents

Introduction .....	4
Aims of the Guidance for Teaching .....	4
Additional ways that WJEC can offer support:.....	4
Qualification Structure.....	5
Assessment .....	6
Summary of Assessment .....	6
Overview of Unit 4.....	7
Unit 4 Assessment objectives and weightings .....	8
Unit 4 Teacher Guidance .....	9
4.1 The concept of sustainability .....	9
4.2 Making sustainable decisions.....	12
Learning Experiences .....	15
Opportunities for embedding elements of the Curriculum for Wales .....	16
Glossary of Terms – Unit 4.....	33

## 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.

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

## Assessment

### Summary of Assessment

#### **Unit 4: Sustainable Solutions**

Non-examination assessment: 6 hours (3 hours for research and 3 hours to respond to tasks)

**15% of qualification**

**60 marks**

Set by WJEC, marked by the Centre and moderated by WJEC.

## Overview of Unit 4

### Sustainable Solutions

Non-examination assessment – Decision making exercise

Set by WJEC, marked by centre and moderated by WJEC

15% of qualification

60 marks

The purpose of this unit is to:

- explore current geographical issues and sustainable futures
- introduce the three pillars of sustainability and sustainability goals, based on taking action
- increase problem solving skills.

### Assessment overview

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.

For this assessment learners are required to undertake a decision-making exercise based on a Resource Pack that contains sustainable issues with several possible options. In Phase 1 of the decision making, candidates will need to research the issue beyond the Resource Pack. Candidates should then produce a maximum of two sides of A4 notes to be used during the assessment. These notes will be submitted alongside the response to the tasks.

The assignment, including the Resource Pack, will be released during the first week of September for assessment in that academic year. The Resource Pack will change annually. Learners should not have access to the Resource Pack until the start of the assessment. Centres have the flexibility to decide when during the year learners undertake the assignment.

This assessment contributes to 15% of the overall qualification grade and will take 5 hours to complete. The assignment could be completed in one sitting, or in multiple, shorter sessions. The assignment will be marked out of a total of 60 marks.

This unit will be assessed through an externally set assignment and will be marked by the centre and moderated by WJEC. Assessments must be submitted digitally (they may be handwritten and scanned or completed digitally).

#### In this unit, learners will develop knowledge, skills and understanding in:

4.1.1	Developing ideas of sustainability
4.1.2	The three pillars of sustainability
4.1.3	Sustainability goals
4.2.1	The skills of decision making
4.2.2	Using evidence to identify issues
4.2.3	Potential benefits of proposed solutions

4.2.4	Potential negative impacts of proposed solutions
4.2.5	Sustainability impact assessment

## Unit 4 Assessment objectives and weightings

AO2	Apply knowledge and understanding of geographical terms, skills and concepts to different contexts	5%
AO3	Analyse, evaluate, or make judgements from a variety of sources, synthesising where appropriate	5%
AO4	Select, use and apply skills and techniques in practice used by geographers to support geographical enquiry.	5%

## Unit 4 Teacher Guidance

4.1 The concept of sustainability		
	Content Amplification	Teacher Guidance
4.1.1 Developing ideas of sustainability	<p>Learners should know a definition of sustainability.</p> <p>Learners should understand the importance of seeking sustainable solutions.</p>	<p>Teachers could consider whether the learning in 4.1 is taught at the start of the course in Year 10. Sustainability is referenced throughout all the other units. Starting with 4.1 would support learners to develop the key knowledge of sustainability and the United Nations' Sustainable Development Goals (SDGs), which would support them when learning in all other units.</p> <p>Learners should be able to provide a definition of sustainability. Although there is no single clear definition, learners may start with the definition from the United Nations Brundtland Commission in 1987 that was 'meeting the needs of the present without compromising the ability of future generations to meet their own needs.'</p> <p>Sustainability is not just environmentalism, and some definitions will focus on the environmental aspect. Most definitions of sustainability will also bring in the aspects of social equity and economic development. Definitions could be explored through online dictionaries. It may be helpful to consider what people value or find desirable, their vested interest, or their viewpoint from economic/social status. When considering this we could ask what do people want for the future, and do they all value the same things?</p> <p>Exploring the ideas of Kate Raworth and the Doughnut Economics Action Lab may support the learners to consider the changing mindset needed when exploring sustainable solutions.</p> <ul style="list-style-type: none"> <li>• <a href="#">Hello Doughnut!   DEAL</a></li> </ul>

<p><b>4.1.2</b> <b>The three pillars of sustainability</b></p>	<p>Learners should understand the three pillars of sustainability:</p> <ul style="list-style-type: none"> <li>• economic</li> <li>• environmental</li> <li>• social.</li> </ul>	<p>Learners should understand that three components need to be considered when making sustainable decisions. Introducing models of sustainability, such as the three pillars (or stool), the overlapping circles or Venn model and the nested circles model will support learners in understanding the interconnection of the three elements.</p> <p>Learners could be introduced to other language used in discussing sustainability as during any independent research online learners may encounter models that refer to the three P's (people, profit and planet).</p> <p>Useful starting points could be articles and blogs such as:</p> <ul style="list-style-type: none"> <li>• <a href="https://earth.org/what-is-sustainability/">https://earth.org/what-is-sustainability/</a></li> <li>• <a href="https://sustainabilityadvantage.com/2010/07/20/3-sustainability-models">https://sustainabilityadvantage.com/2010/07/20/3-sustainability-models</a></li> </ul>
<p><b>4.1.3</b> <b>Sustainability goals</b></p>	<p>Learners should understand:</p> <ul style="list-style-type: none"> <li>• the 17 United Nations' Sustainable Development Goals (SDGs)</li> <li>• how the goals relate to the seven well-being goals in the Well-being of Future Generations Act (Wales) 2015</li> <li>• how the goals relate to the three pillars of sustainability</li> <li>• how the goals can contribute to sustainable solutions.</li> </ul>	<p>Learners should understand how the United Nations developed these goals for all countries to tackle poverty and other deprivations whilst tackling climate change and working to preserve natural habitats. They should be familiar with the UN diagram of the United Nations' Sustainable Development Goals (SDGs):</p> <ul style="list-style-type: none"> <li>• <a href="https://sdgs.un.org/goals">https://sdgs.un.org/goals</a></li> </ul> <p>Learners should understand that the development of the 7 well-being goals in Wales was informed by the 17 UN SDGs. Links can be made between the seven goals in Wales and the UN goals.</p> <ul style="list-style-type: none"> <li>• <a href="https://www.gov.wales/wales-and-the-sustainable-development-goals">https://www.gov.wales/wales-and-the-sustainable-development-goals</a></li> <li>• <a href="https://www.gov.wales/wellbeing-wales-2024">https://www.gov.wales/wellbeing-wales-2024</a> (this link is the most up to date at the time of publication, but is expected to be updated annually)</li> <li>• <a href="https://www.futuregenerations.wales/about-us/future-generations-act">https://www.futuregenerations.wales/about-us/future-generations-act</a></li> </ul>

Whilst learning is being undertaken in other Units of the course, the SDGs and the Welsh goals could be used as a 'lens' when learning about issues, for example in 1.2.5 or 1.4.4. This could support the learner to apply the goals to issues at a range of scales and in different countries, and to develop a deeper appreciation of how the goals can be applied.

Learners should understand that 17 SDGs can be categorised under the headings of the three pillars of sustainability. Models and diagrams could be used to support learners in making those connections.

## SDG & The 3 Pillars of Sustainability



<https://sustainability-success.com/three-pillars-of-sustainability>

Sustainable solutions should be considered through the 17 UN SDGs and learners should understand that more than one of the SDGs may be applied to, or considered, when deciding about an issue or challenge. When studying issues in all units of the course a starting point may be to discuss which of the goals most apply to that issue or challenge. This could be an activity, for example a diamond rank, that supports learners in understanding the interconnected nature of the SDGs and the Welsh goals.

## 4.2 Making sustainable decisions

	Content Amplification	Teacher Guidance
4.2.1 The skills of decision making	<p>Learners should be able to use the following skills when undertaking decision making:</p> <ul style="list-style-type: none"> <li>• cartographic, graphical, numerical and statistical skills</li> <li>• communication skills</li> <li>• evaluative skills</li> <li>• interpretative skills</li> <li>• problem-solving skills</li> <li>• referencing skills.</li> </ul>	<p>Cartographic, graphical, numerical and statistical skills can be applied to issues and challenges addressed in other units e.g. 1.2.5 coastal change, 1.3.3 managing migration, 1.4.1 urbanisation, with a focus on sustainable solutions. Learners should have opportunities throughout the course to use a range of skills applying them to a variety of different resources and information.</p> <p>Opportunities will arise, during the study of issues and challenges, for learners to debate the social, economic and environmental implications and how these could be mitigated through sustainable solutions. Opportunities to debate and discuss issues and challenges will support learners to develop increasingly sophisticated arguments and improve communication of issues, challenges and possible solutions.</p> <p>Using case studies, at a range of scales, learners could be supported to evaluate and interpret a range of data on issues and challenges, e.g. analysis of changes in development indicators or reducing the development gap whilst learning in 3.1.4, or interpreting data on oceanic pollutants whilst learning in 3.5.2 managing the threats to our oceans.</p> <p>Problem-solving skills can be developed throughout the course through a variety of case studies e.g. 3.5.2 managing threats to our oceans or 3.3.1 worldwide hazards caused by extreme low pressure. Learners problem-solving skills could be developed through collaborative investigations of issues, where scaffolds could be used to support their thinking around issues and challenges.</p>

		Learners could develop referencing skills throughout the course, especially in 2.3.3 when referencing secondary data sources. These skills should build upon learning in the Digital Competence Framework and learners should develop the skills to cite and reference sources using appropriate methods.
4.2.2 Using evidence to identify issues	<p>Learners should be able to use and research evidence to identify geographical issues by:</p> <ul style="list-style-type: none"> <li>• identifying key information within sources and supporting materials</li> <li>• researching appropriate information</li> <li>• synthesising the information to clearly identify the issue</li> <li>• referencing the researched information</li> <li>• recognising misleading or invalid information, including bias and vested interest.</li> </ul>	<p>Learners could develop skills in using evidence throughout the course in all units. These skills will build upon learning in the Numeracy Framework and Digital Competence Framework. Opportunities could be developed in all other units, for example:</p> <ul style="list-style-type: none"> <li>• 1.4.4 Urbanisation in contrasting global cities - learners could explore a range of data and information to understand the impacts of urbanisation in two contrasting global cities.</li> <li>• 1.3.2 Managing migration - learners could explore a range of data and information from the media and debate whether this is misleading and how this influences public perceptions.</li> </ul>
4.2.3 Potential benefits of proposed solutions	<p>Learners should be able to consider the potential benefits of proposed options for:</p> <ul style="list-style-type: none"> <li>• society (including human rights and diversity)</li> <li>• the economy</li> <li>• the environment.</li> </ul>	<p>Learners could be supported when studying other units to consider all three components of sustainability in each issue or challenge. Learners could be supported with grids when studying a new issue and over time become increasingly independent in their analysis of the issue or challenge. For example:</p> <ul style="list-style-type: none"> <li>• 3.5.2 Managing threats to our oceans - learners could explore several strategies at a range of scales and with support identify the benefits for the three components of sustainability within each strategy.</li> </ul>

<p><b>4.2.4 Potential negative impacts of proposed solutions</b></p>	<p>Learners should be able to consider the potential negative impacts of proposed options for:</p> <ul style="list-style-type: none"> <li>• society (including human rights and diversity)</li> <li>• the economy</li> <li>• the environment.</li> </ul>	<p>Learners could be supported when studying other units to consider all three components of sustainability in each issue or challenge.</p> <p>Learners could be supported with grids when studying a new issue and over time become increasingly independent in their analysis of the issue or challenge. For example:</p> <ul style="list-style-type: none"> <li>• 3.1.4 Reducing the development gap - learners could explore several strategies that governments and agencies are using to reduce the development gap and identify the potential negative impacts for the three components of sustainability within each strategy.</li> </ul>
<p><b>4.2.5 Sustainability impact assessment</b></p>	<p>Learners should be able to:</p> <ul style="list-style-type: none"> <li>• undertake a sustainability impact assessment of proposed options</li> <li>• explain why some options or ideas may have been rejected</li> <li>• reach a decision based on the sustainability impact assessment of the best potential option.</li> </ul>	<p>Learners could be supported to explore different versions of sustainability impact assessments that can be found online. The learners, with support, could consider the most appropriate questions to consider in creating a basic sustainability impact assessment (SIA). When options have been considered the learners could then create a report to explain why some options are less sustainable than others. This approach could also support learning in other units.</p> <p>One possible online assessment tool that could be used is:</p> <ul style="list-style-type: none"> <li>• <a href="https://sdgimpactassessmenttool.org/en-gb">https://sdgimpactassessmenttool.org/en-gb</a></li> <li>• Example: 3.3.1 Worldwide hazards caused by extreme low pressure - learners could use a SIA approach when studying the sustainability of responses to a specific global extreme low-pressure event.</li> </ul>

## 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.

The learning experiences suggested in the table below are not to be considered as discrete activities and nor are they solely for consideration in Unit 4. Learners could focus on an issue in Unit 1 or Unit 3, in preparation for using the resource booklet, and have opportunities to consider different viewpoints on an issue, explore the study area digitally, or in person, and work collaboratively with others on potential solutions.

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	4.2.1 Learners could use online mapping tools, including OS maps, satellite images and 3D views, to explore study areas. Learners could use these digital tools to develop their locational understanding of the place where there is an issue or challenge.
develop empathy, tolerance, compassion and curiosity, through studying different geographical contexts	4.1.2, 4.1.3, 4.2.2, 4.2.3, 4.2.4, 4.2.5 Learners will need to consider the views and opinions of other people from a range of diverse backgrounds and with different views and perspective. Learners could also consider their own values and attitudes when exploring issues and potential solutions. Learners should be able to explore issues with a greater understanding and tolerance of the views of others. Learners could be encouraged to critically challenge common beliefs and views on a range of issues.
participate in educational visits (other than fieldwork) in person or digitally	4.2.1 Learners could be provided with learning experiences in environments outside of the classroom, or via online platforms, that support them in developing a greater understanding of an issue, challenge or potential solution. E.g. Learners could visit a local site that is being developed in a sustainable way or virtually ‘meet’ a person or organisation that is promoting a sustainable way of working.
engage in collaborative working	4.2.1, 4.2.2, 4.2.3, 4.2.4, 4.2.5 Learners could work collaboratively throughout the study for unit 4. Learners may wish to work together in collating information. They could be encouraged to debate the validity of information and the range of views in relation to the issue or challenge. Learners may benefit from working collaboratively on issues and challenges encountered during the course (e.g. 1.3.3 Managing migration) to discuss and debate the different approaches taken to manage these in a sustainable way.

## Opportunities for embedding elements of the Curriculum for Wales

Curriculum for Wales Strands		
Cross-cutting Themes		
Local, National & International Contexts	<p>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.</p> <p>Below are some examples of how Local, National and International Contexts can be embedded into teaching and learning:</p>	
	Specification Reference	Amplification
	4.2.2	<p><i>Using evidence to identify issues</i></p> <p>The context of the issue or challenge could be exemplified at a range of scales and learners could be provided with a range of evidence, e.g. maps, text, newspaper reports, images that would support their learning. The SDGs and the Welsh goals can be applied to the issue and challenge at any scale, even if the issue is at an international scale the Welsh goals could be used as a 'lens' applied to the country in question to focus the learner's exploration of the issue. For example:</p> <p>A proposal to build new houses in the local area – using plans, traffic data, images and reports from the local newspaper.</p> <p>Or</p> <p>Proposed solutions to tackle plastic pollution in the Pacific Ocean, using images, data and proposals from several different countries.</p>

		Centres could develop their own resource booklet, following the example provided in the SAMs, centred on the interests of the learners and containing references to some or all of the following CfW cross-cutting themes , to support them in preparation for the NEA.
Sustainability	<p><b>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.</b></p> <p><b>Unit 4 has a focus on making decisions that have sustainable solutions, and this topic will be covered in depth throughout the unit.</b></p>	

Relationships and Sexuality Education	<p><b>There are many opportunities to include Relationships and Sexuality Education (RSE) in GCSE Geography.</b> 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.</p> <p>Below are some examples of how RSE can be embedded into teaching and learning:</p>		
	<b>Specification Reference</b>	<b>Amplification</b>	<b>Example</b>
	4.2.2	<i>Using evidence to identify issues</i>	<p>Whilst researching and synthesising information learners should consider the view and perspectives of other people. They should develop empathy and understanding on why people may hold a different view to themselves. They should understand the idea of values and that other people may value economic or social development more than environmental development or vice versa. This will support learners in their understanding of bias and vested interest.</p> <p>For example:</p> <ul style="list-style-type: none"> <li>• 1.3.3 – Understanding the views and opinions of those involved in managing migration in a sustainable way.</li> <li>• 3.1.4 – Understanding the values and opinions of other people when considering the challenges and solutions in reducing the development gap, such as the use of aid.</li> </ul>

Human Rights Education and Diversity	<p><b>There are many opportunities to include Human Rights Education and Diversity in GCSE Geography.</b> 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.</p> <p><b>Below are some examples of how Human Rights Education and Diversity can be embedded into teaching and learning:</b></p>		
	<b>Specification Reference</b>	<b>Amplification</b>	<b>Example</b>
	4.2.3	<i>Potential benefits of proposed solutions</i>	<p>Learners should be able to consider the impact of a solution on people (including human rights and diversity). Learners could be encouraged to consider and reflect on how different groups of people could be positively or negatively affected by any proposed change. The learners could be supported to consider what values and opinions people from different groups might hold about a particular issue and challenge. They could also consider the impact of beliefs and/or worldviews and how this would influence perspectives.</p>
	4.2.4	<i>Potential negative impacts of proposed solutions</i>	<p><a href="https://www.theosthinktank.co.uk/comment/2021/05/12/worldviews-film">https://www.theosthinktank.co.uk/comment/2021/05/12/worldviews-film</a></p> <p>This learning could be developed in other units. For example:</p> <ul style="list-style-type: none"> <li>• 1.3.3 Managing migration, learners could explore different views on migration from a diverse range of perspectives.</li> <li>• 3.5.2 Managing threats to our oceans, learners could consider the different perspectives of people from countries at different levels of development.</li> </ul>

Careers and Work-Related Experiences	<p><b>There are many opportunities to include Career and Work-Related Experiences (CWRE) in GCSE Geography.</b> 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.</p> <p><b>Below are some examples of how CWRE can be embedded into teaching and learning:</b></p>		
	<b>Specification Reference</b>	<b>Amplification</b>	<b>Example</b>
	4.1.2	<i>The three pillars of sustainability</i>	<p>As learners develop their problem-solving and critical thinking skills, using a diverse range of information, they will consider the impact of decisions now and on future generations. These skills will be critical for them as they begin to consider future career pathways. Opportunities exist in other learning within the course:</p> <ul style="list-style-type: none"> <li>• 3.1.4 – Reducing the development gap, when exploring the role of MNCs or tourism in closing the development gap.</li> <li>• 3.4.2 – Human causes of recent climate change, when learning about the role of industries in increasing greenhouse gas emissions.</li> </ul>
	4.2.1	<i>The skills of decision making</i>	

### Cross-curricular Skills – Literacy

	<p>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.</p> <p>Below are some examples of how Literacy can be embedded into teaching and learning:</p>		
Listening	<b>Specification Reference</b> 4.2.1 4.2.2	<b>Amplification</b> <i>The skills of decision making</i> <i>Using evidence to identify issues</i>	<b>Example</b> <p>Learners should have the opportunity to listen to a range of values, views and points of view when considering complex issues surrounding sustainability especially if interviewing people or listening to speakers e.g. as outlined in the earlier learning experiences section on possible educational visits. Other examples include:</p> <ul style="list-style-type: none"> <li>• 1.3.3 – Managing migration, when exploring the role of the media in influencing public perceptions on migration.</li> <li>• 3.5.1 – Managing climate change, learners could respond to a range of sources that reflect different views on climate change.</li> </ul>

	<b>Specification Reference</b>	<b>Amplification</b>	<b>Example</b>
Reading	4.2.2	<i>Using evidence to identify issues</i>	<p>Learners should have the opportunity to independently research a wide range of sources to develop an understanding of complex issues and challenges. They should also be encouraged to explore in detail how information is interpreted and distinguish between facts/evidence and bias and arguments within source materials. This will support them as they explore different interpretations of issues to use written sources to support their opinions. These skills can be explored throughout the course:</p> <ul style="list-style-type: none"> <li>• 1.3.3 – Managing migration, when exploring the role of the media in influencing public perceptions on migration.</li> <li>• 1.1.6 – How rivers and their landforms impact on physical and human environments, when exploring sustainability issues of people managing rivers.</li> </ul>
Speaking	4.2.1	<i>The skills of decision making</i>	<p>Learners can be supported to develop speaking skills through structured debate and argument on issues and challenges. Learners should be encouraged and supported to share thoughts, feelings and opinions on increasingly challenging and contentious issues. Through this, learners will develop the skills to organise talk effectively to critically evaluate and respond to what they read and see in sources.</p> <p>For example:</p> <ul style="list-style-type: none"> <li>• 1.3.3 – Managing migration, learners could debate public perceptions on migration and the different approaches to managing migration.</li> </ul>

	<b>Specification Reference</b>	<b>Amplification</b>	<b>Example</b>
Writing	4.2.5	<i>Sustainability impact assessment</i>	<p>Learners should have the opportunity to write about complex and contentious issues and challenges where they can demonstrate maturity in conveying opinions and feelings about these issues. The learners should have opportunities to convey impartiality and objectivity on these issues. Through expressing themselves in writing, the learners will develop skills in organising their writing appropriately and be able to use discipline specific vocabulary.</p> <p>For example:</p> <ul style="list-style-type: none"><li>• 2.5.1 – Drawing conclusions from fieldwork enquiries, learners could develop supported conclusions in writing for their enquiry.</li><li>• 3.1.1 – Regional inequalities in Wales and the UK, learners could describe the challenges and successes of attempts to reduce regional inequalities.</li></ul>

Cross-curricular Skills – Numeracy			
Developing Mathematical Proficiency	<p>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.</p> <p>Below are some examples of how Numeracy can be embedded into teaching and learning:</p>		
	Specification Reference	Amplification	Example
	4.2.1  4.2.2	<p><i>The skills of decision making</i></p> <p><i>Using evidence to identify issues</i></p>	<p>Learners could be supported through a range of learning experiences across the course to develop skills in mathematical proficiency. When analysing and interpreting data learners could further develop their logical reasoning, conceptual understanding and strategic competence. This could be developed whilst learners interpret information from a range of sources, including tables, graphs and infographics, to then be able to prioritise and organise the next steps needed to reach a solution or decide.</p> <p>For example:</p> <ul style="list-style-type: none"> <li>• 2.4.1 – Selecting relevant data to answer the enquiry question, learners could select and manipulate both primary and secondary data.</li> <li>• 3.1.2 – Measuring development to classify countries, learners could explore and justify the most appropriate data used as indicators of development</li> </ul>

	<b>Specification Reference</b>	<b>Amplification</b>	<b>Example</b>
<p>Understanding the number system helps us to represent and compare relationships between numbers and quantities</p>	<p>4.2.1 4.2.2</p>	<p><i>The skills of decision making</i> <i>Using evidence to identify issues</i></p>	<p>Throughout the course learners could further develop number skills, and number confidence, through regular opportunities to handle data in a variety of formats, such as decimal, percentage, measures per capita. They could have the opportunity to gain confidence through using numbers of any size, for example:</p> <ul style="list-style-type: none"> <li>• 1.4.3 – Global cities, learners could explore the definition of mega cities and global cities and make comparisons on size of populations.</li> <li>• 3.1.2 – Measuring development to classify countries, learners could explore the different measures of economic and social development and understand the value of those measures.</li> </ul>
<p>Learning about geometry helps us understand shape, space and position and learning about measurement helps us quantify in the real world</p>	<p>4.2.1 4.2.2</p>	<p><i>The skills of decision making</i> <i>Using evidence to identify issues</i></p>	<p>Learners could have opportunities to use maps and plans drawn at different scales during the course. Maps and plans could be used to explore features of a site or area to gain a deeper understanding of an issue or challenge, for example:</p> <ul style="list-style-type: none"> <li>• 2.1.3 – Using maps to locate and plan the enquiry.</li> <li>• 3.1.1 – Regional inequalities in Wales and the UK, learners could explore the data available at a local level, for example, employment or services, to develop a deeper understanding of inequalities in the local area.</li> </ul>

	<b>Specification Reference</b>	<b>Amplification</b>	<b>Example</b>
Learning that statistics represent data and that probability models chance help us make informed inferences and decisions	4.2.1 4.2.2	<p><i>The skills of decision making</i></p> <p><i>Using evidence to identify issues</i></p>	<p>Learners could have the opportunity to collect, represent and interpret data throughout the course. Data could be collected in a variety of formats and from a variety of sources to support the learning about an issue or challenge. Learners could select and construct appropriate charts, diagrams and graphs from appropriate data. Using this data they could interpret the data, draw conclusions, make inferences and identify any misleading information or limitations in the data. For example:</p> <ul style="list-style-type: none"> <li>• 3.1.2 – Measuring development to classify countries, learners could explore a variety of data on social and economic development and how that may be misleading.</li> <li>• 3.4.3 – Evidence that our climate is changing, learners could explore a variety of data from different sources such as ice core data and global temperature changes.</li> </ul>

### Cross-curricular Skills – Digital Competence

	<p>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.</p> <p><b>Below are some examples of how Digital Competence can be embedded into teaching and learning:</b></p>		
Citizenship	<b>Specification Reference</b> 4.2.1	<b>Amplification</b> <i>The skills of decision making</i>	<b>Example</b> <p>Learners should be taught to reference and use formal citation conventions when researching an issue and challenge. They should also reference any forms of secondary data. These skills could be developed throughout the course:</p> <ul style="list-style-type: none"> <li>• 2.3.3 – Referencing secondary data sources</li> </ul>

	<b>Specification Reference</b>	<b>Amplification</b>	<b>Example</b>
Interacting and Collaborating	4.2.1	<i>The skills of decision making</i>	<p>Learners should have the opportunity to work collaboratively during the study of issues and challenges. Learners could have the opportunity to work on a shared document when processing and analysing information:</p> <ul style="list-style-type: none"> <li>2.4.2 – Identifying, analysing and interpreting trends and patterns, learners could work collaboratively on a shared spreadsheet or other shared document to make comments on different interpretations.</li> </ul>
Producing	4.2.2 4.2.5	<i>Using evidence to identify issues</i> <i>Sustainability impact assessment</i>	<p>Learners could develop the skills to efficiently search for information on an issue or challenge. They should be able to evaluate the reliability of sources of information and justify their choices. They could also be supported to plan digital work effectively and use the most appropriate digital tools in creating their work:</p> <ul style="list-style-type: none"> <li>2.4.1 / 2.4.2 – Selecting relevant data to answer the enquiry question – learners could make choices about the secondary data they choose to support their enquiries.</li> </ul>
Data and Computational Thinking	4.2.1 4.2.2	<i>The skills of decision making</i> <i>Using evidence to identify issues</i>	<p>Learners could use a range of digital tools to analyse data sets to identify trends and patterns. They could use this analysis to support, explain and add validity to their conclusions:</p> <ul style="list-style-type: none"> <li>2.5.1 – Drawing conclusions from fieldwork enquiries, using data from enquiries that is analysed using digital tools.</li> </ul>

Integral Skills			
Creativity and Innovation	<p>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.</p> <p>Below are some examples of how Creativity and Innovation can be embedded into teaching and learning:</p>		
	Specification Reference	Amplification	Example
	4.2.5	<i>Sustainability impact assessment</i>	<p>“Learners should be given space to be curious and inquisitive, and to generate many ideas” (CfW 2020). Learners should use data and other sources of information to generate possible solutions to the issue or challenge. These skills can be developed throughout the course:</p> <ul style="list-style-type: none"> <li>• 3.3.2 – Worldwide hazards caused by extreme high pressure, learners could explore the viability of sustainable responses and generate ideas for other possible solutions.</li> <li>• 3.5.2 – Managing threats to our oceans, learners could identify solutions and communicate their strategies to others.</li> </ul>

Critical Thinking and Problem Solving	<p><b>There are many opportunities to include Critical Thinking and Problem Solving in GCSE Geography.</b> 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.</p> <p><b>Below are some examples of how Critical Thinking and Problem Solving can be embedded into teaching and learning:</b></p>						
	<table border="1"><thead><tr><th data-bbox="505 552 684 579"><i>Specification Reference</i></th><th data-bbox="684 552 976 579"><i>Amplification</i></th><th data-bbox="976 552 1935 579"><i>Example</i></th></tr></thead><tbody><tr><td data-bbox="505 579 684 1044">4.2.2</td><td data-bbox="684 579 976 1044">Using evidence to identify issues</td><td data-bbox="976 579 1935 1044"><p>Learners should be encouraged to evaluate the information and evidence collect about potential issues and challenges. They should be able to recognise potential issues and problems and become objective in their decision-making. They should be able to justify their decisions and propose solutions:</p><ul style="list-style-type: none"><li>• 3.1.4 – Reducing the development gap, learners could explore the options to reduce the development gap within a place and identify the issues and problems.</li><li>• 3.5.1 – Managing climate change, learners could explore different options, at a range of scales, to manage the physical and human impacts of climate change and propose other solutions.</li></ul></td></tr></tbody></table>	<i>Specification Reference</i>	<i>Amplification</i>	<i>Example</i>	4.2.2	Using evidence to identify issues	<p>Learners should be encouraged to evaluate the information and evidence collect about potential issues and challenges. They should be able to recognise potential issues and problems and become objective in their decision-making. They should be able to justify their decisions and propose solutions:</p> <ul style="list-style-type: none"><li>• 3.1.4 – Reducing the development gap, learners could explore the options to reduce the development gap within a place and identify the issues and problems.</li><li>• 3.5.1 – Managing climate change, learners could explore different options, at a range of scales, to manage the physical and human impacts of climate change and propose other solutions.</li></ul>
<i>Specification Reference</i>	<i>Amplification</i>	<i>Example</i>					
4.2.2	Using evidence to identify issues	<p>Learners should be encouraged to evaluate the information and evidence collect about potential issues and challenges. They should be able to recognise potential issues and problems and become objective in their decision-making. They should be able to justify their decisions and propose solutions:</p> <ul style="list-style-type: none"><li>• 3.1.4 – Reducing the development gap, learners could explore the options to reduce the development gap within a place and identify the issues and problems.</li><li>• 3.5.1 – Managing climate change, learners could explore different options, at a range of scales, to manage the physical and human impacts of climate change and propose other solutions.</li></ul>					

Planning and Organisation	<p>There are many opportunities to include Planning and Organisation in GCSE Geography. These opportunities are important to Learners because when faced with investigations to conduct or decisions to make, learners must be able to plan their time, organise their work and meet deadlines effectively. This is a key skill for learners both in geography when faced with decision making exercises, fieldwork investigations and revision for example, and in the wider world as a part of their future life and work.</p> <p>Below are some examples of how Planning and Organisation can be embedded into teaching and learning:</p>		
	Specification Reference	Amplification	Example
	4.2.2	<i>Using evidence to identify issues</i>	<p>Learners should have the opportunity to plan their own work and manage their time and resources appropriately. Learners should be able to check for accuracy and monitor their own progress:</p> <ul style="list-style-type: none"><li>• 2.1 – Planning an enquiry, learners could develop these skills through planning their enquiry and evaluating each stage of the enquiry.</li></ul>

Personal Effectiveness	<p><b>There are many opportunities to include Personal Effectiveness in GCSE Geography.</b> 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.</p> <p><b>Below are some examples of how Personal Effectiveness can be embedded into teaching and learning:</b></p>						
	<table border="1"> <thead> <tr> <th data-bbox="518 560 713 632"><b>Specification Reference</b></th><th data-bbox="713 560 983 632"><b>Amplification</b></th><th data-bbox="983 560 1937 632"><b>Example</b></th></tr> </thead> <tbody> <tr> <td data-bbox="518 632 713 1106">4.2.5</td><td data-bbox="713 632 983 1106"><i>Sustainability impact assessment</i></td><td data-bbox="983 632 1937 1106"> <p>Learners should, throughout the course, become increasingly aware of social, cultural, ethical and legal implications of their arguments. Through developing increasing emotional intelligence and awareness, the learners should be able to discuss issues and challenges with an increasing understanding and appreciation of the views and opinions of others. For example:</p> <ul style="list-style-type: none"> <li>• 3.1.4 – Reducing the development gap, learners could discuss the success of various strategies to reduce the development gap with an increasing awareness of others' views and opinions.</li> <li>• 3.4.4 – Consequences of climate change, learners should explore information on the impact of climate change on places at different stages of development and appreciate the impact on different groups of people.</li> </ul> </td></tr> </tbody> </table>	<b>Specification Reference</b>	<b>Amplification</b>	<b>Example</b>	4.2.5	<i>Sustainability impact assessment</i>	<p>Learners should, throughout the course, become increasingly aware of social, cultural, ethical and legal implications of their arguments. Through developing increasing emotional intelligence and awareness, the learners should be able to discuss issues and challenges with an increasing understanding and appreciation of the views and opinions of others. For example:</p> <ul style="list-style-type: none"> <li>• 3.1.4 – Reducing the development gap, learners could discuss the success of various strategies to reduce the development gap with an increasing awareness of others' views and opinions.</li> <li>• 3.4.4 – Consequences of climate change, learners should explore information on the impact of climate change on places at different stages of development and appreciate the impact on different groups of people.</li> </ul>
<b>Specification Reference</b>	<b>Amplification</b>	<b>Example</b>					
4.2.5	<i>Sustainability impact assessment</i>	<p>Learners should, throughout the course, become increasingly aware of social, cultural, ethical and legal implications of their arguments. Through developing increasing emotional intelligence and awareness, the learners should be able to discuss issues and challenges with an increasing understanding and appreciation of the views and opinions of others. For example:</p> <ul style="list-style-type: none"> <li>• 3.1.4 – Reducing the development gap, learners could discuss the success of various strategies to reduce the development gap with an increasing awareness of others' views and opinions.</li> <li>• 3.4.4 – Consequences of climate change, learners should explore information on the impact of climate change on places at different stages of development and appreciate the impact on different groups of people.</li> </ul>					

## Glossary of Terms – Unit 4

Please refer to the Unit 1, 2 and 3 glossaries which contain all key terms that may be used when studying sustainability in this Unit.