

Possible fieldwork tasks 2027 series, the following suggestions are suitable for use by centres following the WJEC GCSE Geography qualification in Wales. Each focus on the approach of **sustainability**.

Context	1.4.1 Urbanisation rates in the local area.
Possible enquiry questions, (add the location to the title).	To what extent is urbanisation in [local area] environmentally sustainable? How does traffic flow impact environmental sustainability in different parts (local area)? How does urbanisation sustainability vary between older and newer developments in (local area)? How does green space distribution influence the sustainability of urban areas in (local area)?
Methodology, data types.	Qualitative – use of bi-polar technique to record environmental quality at different sites, noise perception survey, annotated photographs/field sketches, questionnaires, behaviour observation logs; how do people interact use the differing areas. Quantitative – traffic, noise and pedestrian counts, building age surveys, survey of energy efficiency indicators: solar panels double glazed windows etc, measure green space area % and distance to available green space.
Primary data collection techniques that could be used	Produce a survey / questionnaire of residents to analyse how perceptions of sustainability vary in an area. <i>Use an online survey such as Forms or conduct a questionnaire via a phone call.</i> Find old photographs of the area and re-photograph the same location today. Annotate the features of buildings/street that make it more/less sustainable (such as pelican crossings, traffic calming, CCTV, bollards, cycle paths, solar panels). <i>Photographs could be taken by the teacher or learners and shared in class.</i> Produce a land use map of a section of the High Street to classify and record the number of shops/services to calculate retail diversity. <i>This could be done by using the photographs taken by the teacher or by learners walking the local High Street as homework.</i> Learners use Egan’s Wheel to assess various aspects sustainability of their local area. <i>This could be done from learners’ local knowledge/perceptions, images or a learning walk for homework.</i>

Secondary sources	https://www.geograph.org.uk/ The geograph website collates photographs, taken by the public, of every grid square of the UK. Learners could use this site to see how other people perceive the fieldwork study area by analysing the subject matter of the photographs that people have chosen to take. Maps • Ordnance Survey (OS) maps to analyse surrounding land use Ordnance Survey Great Britain's national mapping service • Google Maps / satellite imagery to observe land use https://www.google.com/maps • The Greenspace Toolkit • Green space calculator Fields in Trust to measure how much open space is needed for housing development.

Context	1.2.5 Human and physical factors that affect the rates of coastline change, sustainability issues of managing coastal change.
Possible enquiry questions, (add the location to the title).	How sustainable is the management of coastal change in (name the area)? To what extent do coastal defences interrupt sediment movement in (name area)? How does sustainability differ between managed and unmanaged sections of coastline (name the area)?
Methodology, data types.	Qualitative – use of bi-polar technique to record environmental quality at different sites, noise perception survey, annotated photographs/field sketches, questionnaires, behaviour observation logs; how do people interact use the differing areas. Quantitative – beach profile measurements, sediment size analysis, coastal defence condition scoring, sediment accumulation alongside groynes, longshore drift measurements.
Primary data collection	Produce a survey / questionnaire of residents to analyse how perceptions of sustainability of the area. <i>Use an online survey such as Forms or conduct a questionnaire via a phone call.</i>

techniques that could be used	Measure the vertical height of the beach on both sides of defences, compare the values to identify sediment build up and erosion. Re photography use archive photographs and take up to date images to compare and identify change in the landforms. Longshore drift rate (m/Min), use float, (biodegradable), measure distance travelled overtime to establish natural processes between managed and unmanaged sections of the coast.
Secondary sources	https://www.geograph.org.uk/ The geograph website collates photographs, taken by the public, of every grid square of the UK. Learners could use this site to see how management has changed the landforms and what impacts on the location have occurred. Natural Resources Wales / Shoreline Management Plans Maps • Ordnance Survey (OS) maps to analyse surrounding land use Ordnance Survey Great Britain's national mapping service • Google Maps / satellite imagery to observe land use https://www.google.com/maps

Context	1.1.6 Inter-relationships between rivers and people, how people use rivers and their landforms in sustainable and non-sustainable ways.
Possible enquiry questions, (add the location to the title).	Is agricultural use of floodplains sustainable in the long term? Is urban expansion onto floodplains (name area) environmentally and economically sustainable?

	Is hydro-electric power generation a sustainable solution for energy production in (name area)? How well is tourism at (named waterfall) managed to ensure sustainability?
Methodology, data types.	Qualitative – use of bi-polar technique to record environmental quality at different sites, noise perception survey, annotated photographs/field sketches, visual impact survey, stakeholder/visitor questionnaires, behaviour observation logs; how do people interact use the differing areas. Quantitative – soil infiltration, to assess impact of activity on resilience, field size and land use % survey, Housing density buildings per km², flood risk scoring/index, river discharge measurements, path erosion measurements, visitor counts, car park occupancy.
Primary data collection techniques that could be used	Produce a survey / questionnaire of residents/visitors to analyse how perceptions of sustainability of the area vary. Re photography use archive photographs and take up to date images to compare and identify change in the area due to human activity, analyse rate of integration with the landscape. Stakeholder interviews consider economic benefits and concerns about flood risk and sustainability. Field size and land use percentage survey, measure different crop types using maps or pacing calculate percentage of land under intensive farming. Water flow velocity, use a float method over a fixed distance, repeat and calculate the mean value, indicates possible HEP reliability.
Secondary sources	https://www.geograph.org.uk/ The geograph website collates photographs, taken by the public, of every grid square of the UK. Learners could use this site to see how human activity has impacted. National parks impact surveys on waterfall and tourism pressures.

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