GCSE MARKING SCHEME

SUMMER 2018

GCSE (NEW)
GEOGRAPHY - UNIT 3 NEA
3110U30-1

INTRODUCTION

This marking scheme was used by WJEC for the 2018 examination. It was finalised after detailed discussion at examiners' conferences by all the examiners involved in the assessment. The conference was held shortly after the paper was taken so that reference could be made to the full range of candidates' responses, with photocopied scripts forming the basis of discussion. The aim of the conference was to ensure that the marking scheme was interpreted and applied in the same way by all examiners.

It is hoped that this information will be of assistance to centres but it is recognised at the same time that, without the benefit of participation in the examiners' conference, teachers may have different views on certain matters of detail or interpretation.

WJEC regrets that it cannot enter into any discussion or correspondence about this marking scheme.

WJEC GCSE Geography Summer 2018
Mark Scheme - Unit 3 NEA

Instructions for examiners of GCSE Geography when applying the marking scheme

1. Positive marking

It should be remembered that learners are writing under examination conditions and credit should be given for what the learner writes, rather than adopting the approach of penalising him/her for any omissions. It should be possible for a very good response to achieve full marks and a very poor one to achieve zero marks. Marks should not be deducted for a less than perfect answer if it satisfies the criteria of the mark scheme.

GCSE Geography marking schemes are presented in a common format as shown below:

This box contains the sub-question.

The columns to the right indicate the assessment objective(s) targeted by the question and its mark tariff.

3 (a) (i) Describe the location of the island of Lefkada.		AO1.1	AO1.2	AO2	AO3	SPAG	Total
Credit up to **two** valid statements based on map evidence. Credit accurate use of compass points max 1. Credit accurate use of scale line max 1.	In western Greece (1) In Ionian Sea (1) north of Cephalonia (1) 275km (+/-10) from Athens (1) 280km (+/-10) from Thesaloniki (1)				2		**2**

This box contains the rationale i.e. it explains the principles that must be applied when marking each sub-question. The examiner must apply this rationale when applying the marking scheme to the response.

This box contains the candidates' expected responses for point-based marking. For some sub-questions, those with a closed question, this box will indicate the only response that is acceptable. For more open ended sub-questions this box will illustrate a number of likely responses that are credit worthy. It may be that this list will be extended at the examiner's conference after actual scripts have been read. For banded mark schemes this box contains indicative content. For further details see below under Banded mark schemes Stage 2.

Low tariff questions should be marked using a points-based system. Each credit worthy response should be ticked in red pen. The number of ticks **must** equal the mark awarded for the sub-question. The mark scheme should be applied precisely using the expected outcomes box as a guide to the responses that are acceptable. Do **not** use crosses to indicate answers that are incorrect. If the candidate has not attempted the question then the examiner should strike through the available dotted lines with a diagonal line.

3.   **Banded mark schemes**

Banded mark schemes are divided so that each band has a relevant descriptor. The descriptor for the band provides a description of the performance level for that band. Each band contains a range of marks. Examiners should first read and annotate a learner's answer to pick out the evidence that is being assessed in that question. **Do not use ticks** on the candidate's response. Once the annotation is complete, the mark scheme can be applied. This is done as a two stage process.

Stage 1 – Deciding on the band

When deciding on a band, the answer should be viewed holistically. Beginning at the lowest band, examiners should look at the learner's answer and check whether it matches the descriptor for that band. Examiners should look at the descriptor for that band and see if it matches the qualities shown in the learner's answer. If the descriptor at the lowest band is satisfied, examiners should move up to the next band and repeat this process for each band until the descriptor matches the answer.

If an answer covers different aspects of different bands within the mark scheme, a 'best fit' approach should be adopted to decide on the band and then the learner's response should be used to decide on the mark within the band. For instance if a response is mainly in band 2 but with a limited amount of band 3 content, the answer would be placed in band 2, but the mark awarded would be close to the top of band 2 as a result of the band 3 content.

Examiners should not seek to mark candidates down as a result of small omissions in minor areas of an answer.

Stage 2 – Deciding on the mark

Once the band has been decided, examiners can then assign a mark. During standardising (marking conference), detailed advice from the Principal Examiner on the qualities of each mark band will be given. Examiners will then receive examples of answers in each mark band that have been awarded a mark by the Principal Examiner. Examiners should mark the examples and compare their marks with those of the Principal Examiner.

When marking, examiners can use these examples to decide whether a learner's response is of a superior, inferior or comparable standard to the example. Examiners are reminded of the need to revisit the answer as they apply the mark scheme in order to confirm that the band and the mark allocated is appropriate to the response provided.

Indicative content is also provided for banded mark schemes. Indicative content is not exhaustive, and any other valid points must be credited. In order to reach the highest bands of the mark scheme a learner need not cover all of the points mentioned in the indicative content but must meet the requirements of the highest mark band. Where a response is not creditworthy, that is contains nothing of any significance to the mark scheme, or where no response has been provided, no marks should be awarded.

4. **Assessing Writing**

The quality of writing is assessed through two separate strands:

(i) Communicating and organising
(ii) Writing accurately

(i) **Communicating and organising** is assessed in items that have a tariff of 6, 8 or 10. These responses should be viewed holistically when deciding on a mark band (see stage 1 above). The definitions below clarify what is meant by the terminology in these descriptors.

Meaning: to have clarity the text must be legible. The meaning of statements should be clear and not require re-reading to make sense.

Purpose: the response should take into account what is required by the question. For example, evaluation requires consideration of pros/cons or the justification of a decision may be assisted by arguments. A suitable tone is adopted for reporting on scientific investigation in Unit 3.

Structure: well-planned responses have an overall structure with use of paragraphs to indicate portions of the response such as introduction, main arguments and conclusion. Chains of reasoning provide a logical structure within paragraphs. Signposting links sections together and is used to assist the reader.

(ii) **Writing accurately** takes into account the candidate's use of specialist language. It also takes into account the accuracy of the candidate's spelling, punctuation and grammar. This assessment is restricted to specific items (one item in each unit). The descriptors for writing accurately are printed in the mark scheme for each relevant item. In applying these descriptors learners may only receive marks for responses that are in the context of the demands of the question; that is, where learners have made a genuine attempt to answer the question.

UNIT 3 MARK SCHEME

SECTION A

	AO1.2	AO2	AO3	Accuracy	Total
1. (a) Flows can be measured in different places or at different times in the same place. Explain why you need to take measurements of flows more than once.					
	4				4

Use the descriptors below, working upwards from the lowest band. Award 0 marks if the answer is incorrect or wholly irrelevant.

Band	Marks	Descriptor
2	3-4	The response provides a clear explanation of one or more **specific** reason(s) that show understanding of variation in flows.
1	1-2	Simple statements that give **general** reason(s) with little (or no) elaboration.
	0	Award 0 marks if the answer is incorrect or wholly irrelevant.

Credit answers in Band 2 that offer only one reason but it is developed in depth so long as it is specific to flows.

Specific reasons for measuring flows more than once:

- flows vary from place to place e.g. across a shopping centre or across a river channel;

- flows vary at different times of a day / week e.g. in response to weather;

- some flows fluctuate over short periods of time e.g. wind speeds or traffic. Taking further measurements, then taking a mean will take account of these variations in flow.

General reasons for more than one reading might include:

- to obtain more data to improve validity

- to overcome the danger of 'chance' readings

- suitability of the method to answer the intended question.

1. (b) Use this list to name **one** type of sampling technique that you used in your investigation. Identify the strengths and weaknesses of your sampling technique for measuring flows.	AO1.2	AO2	AO3	Accuracy	Total
		6			**6**

Band	Marks	Descriptor
3	5-6	The response identifies **specific** strength(s) **and** weakness(es)of a sampling technique that is suitable for measuring flows. Meaning is clear. The response has purpose, is organised and well structured.
2	3-4	The response identifies some **relevant** strength(s) and/or weakness(es) with reference to flows. Meaning is generally clear. The response is structured.
1	1-2	Simple statements based on **general** comments about strength(s) and / or weakness(es) which may not be specific to flows. Meaning may lack clarity in parts. Statements are linked by a basic structure.
	0	Award 0 marks if the answer is incorrect or wholly irrelevant.

Examiners must be satisfied that the candidate is referring to an actual fieldwork experience of measuring flows to award level 2 or 3.

Do not credit naming the technique.

Systematic Sampling

Strengths: Quicker, easier and more convenient to carry out than random sampling and can be more accurate because avoids the remote possibility that the random sample selects too many examples from one part of the distribution

- Accurately reflects continuous changes in variables e.g. velocity across river channel or wind speed in dune transect.

Weaknesses: Can inadvertently pick up bias, e.g. sampling every 50m may also coincide with main crossing points for pedestrians

- access at regular intervals along a river to measure flows may be impossible due to private land ownership / dangerous steep river banks.

Opportunistic Sampling

Strengths: Allows access to river sites that are safe or on public land.

- less time consuming / easiest method to use.

Weaknesses: Data is unlikely to accurately represent the population.

Random Sampling

Strengths: Removes human bias involved in the selection process of sites to measure flows of traffic or people where students might be tempted to select sites that appear to confirm their own hypothesis e.g. pavements are busiest outside chain stores.

Weaknesses: If sample size is quite small you might obtain an unrepresentative result

Stratified Sampling

Strengths: Ensures all areas/types/categories are represented. For example, stratified sampling would ensure that traffic flows are measured on a variety of different types of road OR it would ensure wind speed measurements were taken on dune ridges and in troughs.

Weaknesses: Difficult to know exactly which subsets of data you want to include without a pilot study or prior use of secondary data

- Access to specific sites along a river to measure flows may be a problem.

Do not credit name of sampling technique

1. (c) Evaluate the use of secondary data when investigating geographical flows.	AO1.2	AO2	AO3	Accuracy	Total
		6			6

Use the descriptors below, working upwards from the lowest band. Award 0 marks if the answer is incorrect or wholly irrelevant.

Band	Marks	Descriptor
3	5-6	The response provides clear and detailed evaluation of **specific** strength(s) and weakness(es) of using secondary data when investigating flows. (balance is not required). Meaning is clear. The response has purpose, is organised and well structured.
2	3-4	The response provides some evaluation of **relevant** strength(s) and/or weakness(es) of secondary data with reference to flows. Meaning is generally clear. The response is structured.
1	1-2	Simple statements based on **general** comments about strength(s) and / or weakness(es) of secondary data which may not be specific to flows. Meaning may lack clarity in parts. Statements are linked by a basic structure.
	0	Award 0 marks if the answer is incorrect or wholly irrelevant.

Evaluation must include specific reference to secondary data used to support an investigation of flows.

Specific strengths may include:

Secondary data on river discharge (sourced from a named website) could be compared to primary data to help analyse the impact of antecedent weather conditions on flow of the river. Such data has a number of advantages:

- the websites publish scientific research so allow reliable conclusions to be drawn

- they remove the safety risk of entering a river when it is in flood.

Secondary data about footfall outside major shops is available on the google search engine. This shows flows at different times of day and for different days of the week. These can be compared with primary data to analyse patterns and trends. However, the google data has significant disadvantages – it has no scale and is only available for selected locations.

Expect references to OS maps and Google Maps.

General strengths may include:
- saves time and money
- accessibility of data on internet
- allows comparisons with many other locations

General weaknesses may include:
- inappropriateness - not directly linked to field locations
- data may be unreliable or out of date.

End of Section A

SECTION B

2. (a) Represent fieldwork data using one graphical technique. You need to: • Select the data from your portfolio. • Draw a table in your answer booklet to show the data. • Draw one graph or map of your choice to represent the information in your table accurately. Describe the trend or pattern shown by your graph or map.	AO1.2	AO2	AO3	Accuracy	Total
				10	**10**

Use the descriptors below, working upwards from the lowest band. Award 0 marks if the answer is incorrect or wholly irrelevant.

Band	Marks	Descriptor
4	9-10	Data is clearly recorded in a table. The response uses one suitable and effective, accurate and complete cartographic or graphical technique to represent the data. The trend or pattern is described in detail with clear reference to the data. Meaning is unambiguous. The response has clear purpose, is fluent and logically structured.
3	6-8	Data is clearly recorded in a table. The response uses one suitable, accurate and largely complete cartographic or graphical technique to represent data. The trend or pattern is described in some detail with some reference to the data. Meaning is clear. The response has purpose, is organised and well structured.
2	3-5	Data may be recorded in a table. The response uses a suitable cartographic of graphical technique which has some accuracy and is largely complete. The trend or pattern is described with limited reference to the data. Meaning is generally clear. The response is structured.
1	1-2	Some data may be recorded in a table. The response shows one cartographic or graphical technique though this lacks accuracy and / or completeness. Some valid statements are made about the map/graph/table. Meaning may lack clarity in parts. Statements are linked by a basic structure. Maximum band 1 with no graph/map.
	0	Award 0 marks if the answer is incorrect or wholly irrelevant.

The **table** needs row/column headings. Units need to be clearly communicated.

Examiners should consider the appropriateness, the effectiveness, the completeness and the accuracy of the technique:

Suitable and effective -S

For example, discrete data should be graphed using a bar chart whereas a line graph is appropriate for continuous data.

For example, located bars or flow line maps might each be appropriate for showing number of pedestrians in different parts of a town but the flow lines are more effective because they show vector as well as magnitude.

Accurate - A

Have values in the table been represented accurately in the graph/map using a scale or axis that can be accurately read?

Complete - C

Title, label; values have been added; that maps have scale lines, north arrows and legends.

2. (b) Evaluate the techniques you used to present data on the concept of cycles and flows. *Select up to 3 different tables, graphs or maps from your fieldwork portfolio to support your answer and include them in an Appendix.*	AO1.2	AO2	AO3	Accuracy	Total
		8			8

Use the descriptors below, working upwards from the lowest band. Award 0 marks if the answer is incorrect or wholly irrelevant.

Band	Marks	Descriptor
4	7-8	The response provides a clear and detailed evaluation of the effectiveness of different data presentation techniques. It considers **specific** strength(s) **and** weakness(es) (balance is not required in terms of number or specificity). Meaning is unambiguous. The response has clear purpose, is fluent and logically structured.
3	5-6	The response provides a clear evaluation of different data presentation techniques. It considers some **relevant** strength(s) and weakness(es) (balance is not required). Meaning is clear. The response has purpose, is organised and well structured.
2	3-4	The response provides an evaluation of different data presentation techniques. The depth of evaluation varies across the techniques. Meaning is generally clear. The response is structured.
1	1-2	The response provides a limited evaluation of one or more data presentation techniques. Meaning may lack clarity in parts. Statements are linked by a basic structure.
	0	Award 0 marks if the answer is incorrect or wholly irrelevant.

The tables/maps/graphs from the portfolio included in the appendix MUST NOT be assessed. It can be used to help the examiner visualize the techniques that are evaluated by the candidate.

Responses will depend on the technique used. Some examples are given below:

Flow line maps: Effective way of representing flow patterns over space because it shows magnitude and direction. Difficult to construct and read the scale for proportional arrows/flow lines especially where range of values is large.

Located bars: Effective way of representing absolute values and making comparisons across space. Bars do not show direction of flow. The position of the located symbol may obscure important data on the base map. Located bars may begin in one area of the map and end in another creating confusion for the reader.

Bar charts: Simple to construct and read. Effective for showing discrete data such as traffic flows and for making comparisons, especially if bars are arranged in rank order. Bars do not show direction of flow. Difficult to represent data that covers a very large range.

Line graphs: Simple to construct and read. Effective for showing continuous data such as wind speeds or discharge. Can be difficult to construct and read if values are large and the variation in data is relatively small and accuracy is required.

Scatter graphs: Visually effective for representing the relationships (correlations) in bivariate data where one variable is dependent on the other such as wind speed and altitude. Difficult to determine whether relationships are positive or negative if the scatter points are not close to a line of best fit or if each axis is significantly different in length. The strength of a suspected correlation cannot be measured without use of a statistical test.

2. (c) What do the conclusions from your portfolio tell you about how and why cycles and flows change over-time or how they change from one place to another? Use examples of primary and secondary evidence to support your answer.	AO1.2	AO2	AO3	Accuracy	Total
	6			4	**10**

Use the descriptors below, working upwards from the lowest band. Award 0 marks if the answer is incorrect or wholly irrelevant.

Band	Marks	Descriptor
3	5-6	Accurate and elaborated conclusion(s) are developed which demonstrate clear understanding of cycles and / or flows. Selection of supporting primary and / or secondary evidence is purposeful and well considered. Meaning is clear. The response has purpose, is organised and well structured.
2	3-4	Elaborated conclusion(s) demonstrate understanding of cycles and / or flows. Selection of supporting primary and / or secondary evidence is useful and adds support. Meaning is generally clear. The response is structured.
1	1-2	Simple statements demonstrate limited understanding of cycles and / or flows. Selection of supporting primary and / or secondary evidence is limited or lacks purpose. Meaning may lack clarity in parts. Statements are linked by a basic structure.
	0	Award 0 marks if the answer is incorrect or wholly irrelevant.

Examiners must be satisfied that the candidate is referring to an actual fieldwork experience to award level 2 or above.

This question assesses the candidates' understanding of the concept of cycles/flows. Responses will vary depending on the context. For example, candidates who have worked in the context of a river should show understanding of the water cycle and the factors that affect river discharge such as geology, land use, antecedent weather or river management.

Responses should offer a conclusion which:
- Considers the evidence (primary or secondary)
- Draws this together to reach a decision about whether the aims of the enquiry were met, for example, the extent to which the fieldwork confirmed reasons why cycles / flows changed over-time or varied across space. For example:
  o number of pedestrians or cars are linked to times of day and also over longer periods of time to different planning decisions about retail location or transport routes.
  o changes in river flow linked to changing weather and in response to changes in management strategies.

After awarding a level and mark for the geographical response, apply the performance descriptors for writing accurately on the following page. Having decided on a band, award a second mark (out of 4).

In applying these indicators, learners may only receive marks for responses that are in the context of the demands of the question; that is, where learners have made a genuine attempt to answer the question.

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Band	Marks	Performance descriptions
High	4	• Learners spell and punctuate with consistent accuracy • Learners use rules of grammar with effective control of meaning overall • Learners use a wide range of specialist terms as appropriate
Intermediate	2-3	• Learners spell and punctuate with considerable accuracy • Learners use rules of grammar with general control of meaning overall • Learners use a good range of specialist terms as appropriate
Threshold	1	• Learners spell and punctuate with reasonable accuracy • Learners use rules of grammar with some control of meaning and any errors do not significantly hinder meaning overall • Learners use a limited range of specialist terms as appropriate
	0	• The learner writes nothing • The learner's response does not relate to the question • The learner's achievement in writing accurately does not reach the threshold performance level, for example errors in spelling, punctuation and grammar severely hinder meaning

End of Section B