

2018 MOCK COMPONENT 3 – MARK SCHEME

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 must **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	AO2.1	AO2.2	AO3	AO4	Total
Credit two simple 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 Thessaloniki (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.					

2 Tick marking

Low tariff questions should be marked using a points-based system. Each credit worthy response should be ticked in red pen or using the equivalent online tool. The number of ticks must equal the mark awarded for the sub-question.

The mark scheme should be applied precisely using the expected responses (indicative content) in the mark scheme 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 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, as shown below:

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.

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 Indicative content

Expected responses (indicative content) are provided for point marked and 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.

Part A: Investigating the use of transects in fieldwork

1. (a) Tick (✓) two hypotheses that could be investigated by using a transect in the environment shown in Figure 1.		AO1	AO2.1	AO2.2	AO3	AO4	Total
Credit these responses only.	The risk of flooding decreases with distance from the river. (1) Buildings increase in height as you get closer to the city centre. (1)				2		2

1. (b) (i) Complete the graph below. Show the sustainability score and quality of shopping score for neighbourhood E . You must use the same style of graph used for neighbourhoods A to D.		AO1	AO2.1	AO2.2	AO3	AO4	Total
No half marks. One mark reserved for each column. The column must be the correct width and height and must have the same method of shading for the mark.	Horizontal shading to 7 (1) Diagonal shading to 1 (1)					2	2

1. (b) (ii) Describe the pattern of house prices shown in this pictogram. Use the key to support your answer.		AO1	AO2.1	AO2.2	AO3	AO4	Total
						4	4

Use a banded mark scheme. Work upwards from the lowest band.

Band	Mark	Band descriptor
2	3 - 4	Elaborated statements accurately use figures from the pictogram to identify patterns. Meaning is unambiguous. The response has purpose, is organised and well structured.
1	1 - 2	Valid statements describe patterns. Meaning is clear. Statements are linked by a basic structure.
	0	Award 0 marks if the answer is incorrect or wholly irrelevant.

This question targets two elements of AO4: the use of techniques and the ability to communicate findings.

Accurate figures for the cost of houses ascertained using the scale and key:

Highest house price sector D = £275 000

Lowest house price sector B = £100 000

Expected observations:

The *general* trend is that house prices increase along transect.

That said, two anomalies are worthy of note: Sector A, close to the CBD, has relative high prices. The sector in the outer most suburb shows a slight decline in prices.

No reward for offering an explanation of the pattern(s), even if the reason is plausible.

1. (b) (iii) Using evidence from this transect, the students reached some conclusions about the relationship (the link) between sustainable neighbourhoods, quality of shopping services and house prices. Tick (✓) two accurate statements in the table.		AO1	AO2.1	AO2.2	AO3	AO4	Total
Credit these responses only.	3. there is a strong link between neighbourhoods which are considered to be sustainable and those with higher house prices.(1) 4. people are prepared to pay higher prices for houses, even if an area has poor shopping services.(1)				2		2

1.(c) Other students repeated this enquiry using two transects. One transect went west from the CBD on Map 1 in the Resource Folder. The second transect went north from the CBD.		AO1	AO2.1	AO2.2	AO3	AO4	Total
Identify one strength and one possible weakness of this sampling strategy.							
Credit each valid statement of weakness with one mark, Credit each elaboration with one mark to a max of 3 marks. Credit each valid statement of strength with one mark, Credit each elaboration with one mark to a max of 3 marks.	Weakness: more time consuming (1) so more people needed (1) different people may not give consistent results (1). It may not be possible to conduct another transect (1) due to road layout and river to the west of the CBD (1). Strength: greater rigour (1) in the analysis phase (1); more representative of variations across the wider urban area (1) so more representative view (1).				4		4

1. (d) This question is about your own experience of using transects in fieldwork.		AO1	AO2.1	AO2.2	AO3	AO4	Total
Suggest two ways that you could make your use of transects more reliable.							
Credit up to two valid statements each with one mark (to a max of 2 marks). Reference must be made to the candidates' own fieldwork experiences of transects . For either valid statement, credit the elaboration / development points (i.e. the solution) to a max of 2 further marks. Thus, max marks can be achieved through: (1+1)(1+1) or 1 + (1 + 2).	Responses for the recognised ways / ideas will vary greatly, depending on the environment they carried out their fieldwork in. Responses may refer to: > careful creation of data collection sheets so that data is collected consistently by different groups. > consistent use of data collection techniques used by different groups > the number of sampling points along the transect / location > when (time of day / week / year the transect survey was carried out. > the number of transects surveyed within the study area. > the location / length / direction of the transect(s)				4		4

Part B: Investigating spheres of influence

2. (a) Describe one way that data could be collected to investigate the sphere of influence of this road. Your chosen method must take into account the students' aims.		AO1	AO2.1	AO2.2	AO3	AO4	Total
<p>Credit each valid statement with one mark.</p> <p>The response must ascribe meaning to this photograph i.e. it needs to recognise at least one potential impact of heavy traffic in a residential area.</p> <p>Reserve one mark for statement that distance from road is one variable.</p>	<p>Use a transect/sample along lines (1)</p> <p>Increasing distance from/at right angles to the road (1)</p> <p>Measure an impact of the road e.g.:</p> <ul style="list-style-type: none"> noise nuisance (1) use of a quantitative technique/ noise meter (1) air quality (1) using a qualitative technique / Lickert scale (1) house prices (1) using secondary data / estate agent (1) 				4		4
2. (b) Add two more pairs of bi-polar statements to rows C and D in the table that could be used to investigate the impacts of the coastline on people who live nearby.		AO1	AO2.1	AO2.2	AO3	AO4	Total
<p>Award one mark for each pair.</p> <p>Credit statements that are opposites. The positive statement must be on the left.</p> <p>Credit statements that refer to the possible impacts of coastal processes/landscapes on people.</p>	<p>The following are examples only.</p> <p>The sea defences will prevent flooding < > The sea defences will not prevent flooding (1)</p> <p>The sea defences will prevent erosion < > The sea defences will not prevent erosion (1)</p> <p>House prices on the coast will be highest < > house prices on the coast will be lowest (1)</p>					2	2
2. (c) (i) In a total sample size of 100, calculate how many people should be questioned in each of the three age groups using a stratified sample. Put your answers in the table below.		AO1	AO2.1	AO2.2	AO3	AO4	Total
<p>Credit each correct answer with one mark.</p> <p>Credit the correct method of working (for at least one age category) with one mark.</p>	<p>Answers</p> <p>Over 65 = 22</p> <p>30-64 = 48</p> <p>Under 30 = 29 (allow 30)</p> <p>Working</p> <p>$(460/2070) \times 100$</p> <p>$(1000/2070) \times 100$</p> <p>$(610/2070) \times 100$</p>					4	4

2. (c) (ii) This question is about your own experience of using secondary data to support your fieldwork. How useful is secondary data when investigating spheres of influence?			AO1	AO2.1	AO2.2	AO3	AO4	Total
Use a banded mark scheme. Work upwards from the lowest band.						4		4
Band	Mark	Band descriptor	<p>Responses will be influenced by the candidates' own fieldwork. The following is illustrative. Other types of secondary data must be credited.</p> <p>House prices are useful because they are influenced by positive and negative features in the environment. Websites present this data on maps so spatial patterns are easy to see.</p> <p>One limitation is that house prices are also influenced by size and condition of the house. This makes patterns due to spheres of influence harder to see.</p> <p>Allow view that sufficient evidence can be collected as primary data as a valid limitation.</p>					
2	3-4	Evaluation of strengths and limitations (not necessarily balanced) with specific reference to data relevant to spheres of influence.						
1	1-2	Valid but generic statements about strengths and/or limitations of secondary data.						
	0	Award 0 marks if answer is incorrect or wholly irrelevant.						

2. (d) Study the information on page 4 of the Resource Folder .			AO1	AO2.1	AO2.2	AO3	AO4	Total
What conclusion do you reach when you consider the evidence in these two graphs?						4		4
Use a banded mark scheme. Work upwards from the lowest band.			<p>Graph 4 shows there is no correlation between house prices and distance from the sea. There is a wide range of prices (£280k) within 100m of the sea.</p> <p>Graph 5 shows that median house prices are £115k higher for houses that are above sea level. Also that the range of house prices for houses above sea level is wider than at sea level.</p> <p>Overall, height above sea level is a more important influence on house prices than distance from the sea.</p>					
Band	Mark	Band descriptor						
2	3-4	Sophisticated analysis of each piece of evidence. An overall conclusion is reached.						
1	1-2	Valid but limited analysis of one or both pieces of evidence.						
	0	Award 0 marks if answer is incorrect or wholly irrelevant.						

Part C: The wider UK dimension

3. (a) London is the UK's most important global city. Tick two reasons why cities such as London are described as global cities.		AO1	AO2.1	AO2.2	AO3	AO4	Total
Credit these responses only.	London has... Attracted migrants from many other countries over the last 200 years so has a multicultural population (1) Offices of many banks and other trans national companies (1)		2				2

3. (b) Heathrow is the UK's largest airport. It is located close to London.		AO1	AO2.1	AO2.2	AO3	AO4	Total
Study Map 6 on page 5 of the Resource Folder. Use this map to tick (✓) two true statements in the list below.							
Credit these responses only.	Heathrow is located inside the M25 at the end of the M3 and M4. (1) Heathrow is about 30km from the City of London and 170km from Birmingham. (1)					2	2

3. (c) London is connected to other parts of the UK and the rest of the world by Heathrow airport. A lot of imports and exports go through Heathrow. Study Table 7 on page 6 of the Resource Folder.		AO1	AO2.1	AO2.2	AO3	AO4	Total
(i) Calculate the median value for imports/exports for these 10 airports. Show you working in the space below.							
Credit this response only for one mark.	<u>Correct answer</u> 51.5 (1)					2	2
Credit the working for one mark.	<u>Working</u> (73+30) divide by 2						
Credit the correct working with one mark if the answer is incorrect.							

3. (c) (ii) Give one reason why median is a better way than mean to express the average for this table of data.		AO1	AO2.1	AO2.2	AO3	AO4	Total
Credit one valid statement about this data set with one mark and its elaboration with one mark. Allow converse i.e allow strength of median or limitation of mean.	This data set has a very large range (1) one extreme value (1) Median is the better measure of average because it is not affected by extremes (1) OR <i>Mean is not suitable in this data set because its values is influenced by the extremes (1)</i>					2	

3. (c) (iii) Study Graph 8 and Graph 9 on page 6 of the Resource Folder. Which of these graphs is the most appropriate way to represent the data in Table 7? Explain why you have chosen this graph.		AO1	AO2.1	AO2.2	AO3	AO4	Total
Credit the choice of graph with one mark. Credit one valid statement with one mark and its elaboration with further marks. (1+1+1). Allow converse i.e. why the line graph is not appropriate. OR Credit one valid statement about each graph with one mark for each statement and the elaboration of one statement (1+1) + (1)	The bar graph is most appropriate (1). This is discrete data (1) Bar graphs are used to represent discrete data /line graphs are never used to represent discrete data (1). Bar graphs are useful for comparing amounts (1) and displaying the data in rank order makes comparison easier (1) and makes analysis of range easier (1). Line graphs should only be used to represent continuous data (1)					4	4

3. (c) (iv) Give one reason why exports are important to business in the UK.		AO1	AO2.1	AO2.2	AO3	AO4	Total
Credit one valid reason for one mark and its explanation for a further mark.	Exports earn (foreign) income (1) <i>which can be invested in development of new products (1)</i>			2			2

3. (c) (v) Apart from imports and exports, give one other reason why it is important for global cities to have good transport links like airports.		AO1	AO2.1	AO2.2	AO3	AO4	Total
Credit one valid reason for one mark and its explanation for a further mark.	They allow easy access for business travellers (1) <i>so they can visit TNC offices/make finance deals (1)</i> . They allow easy access for foreign students (1) <i>so they can attend universities abroad (1)</i>			2			2

<p>3. (d) The UK Government thinks that Heathrow should expand. This would mean an extra runway and new airport buildings would be built. More flights would be able to take off and land.</p> <p>Explain why the expansion of Heathrow is likely to have positive effects on people and the economy in the South East of England.</p>	AO1	AO2.1	AO2.2	AO3	AO4	Total															
		6				6															
<p>Use a banded mark scheme. Work upwards from the lowest band.</p> <table border="1" data-bbox="193 629 858 1205"> <thead> <tr> <th>Band</th> <th>Mark</th> <th>Band descriptor</th> </tr> </thead> <tbody> <tr> <td>3</td> <td>5-6</td> <td>Thorough and elaborated understanding of the positive multiplier with balanced reference to people and economy.</td> </tr> <tr> <td>2</td> <td>3-4</td> <td>Elaborated understanding of the positive multiplier with unbalanced reference to people /economy.</td> </tr> <tr> <td>1</td> <td>1-2</td> <td>Simple, valid statements that demonstrate a basic understanding of the positive multiplier.</td> </tr> <tr> <td></td> <td>0</td> <td>Award 0 marks if answer is incorrect or wholly irrelevant.</td> </tr> </tbody> </table>	Band	Mark	Band descriptor	3	5-6	Thorough and elaborated understanding of the positive multiplier with balanced reference to people and economy.	2	3-4	Elaborated understanding of the positive multiplier with unbalanced reference to people /economy.	1	1-2	Simple, valid statements that demonstrate a basic understanding of the positive multiplier.		0	Award 0 marks if answer is incorrect or wholly irrelevant.	<p>The positive multiplier effect will benefit people by:</p> <ul style="list-style-type: none"> • Creation of jobs directly at the airport eg security, cleaning, air traffic control so a range of skills and pay levels • Creation of jobs indirectly in the local area as the airport employs external suppliers and services eg in finance • Higher wages/greater employment will create benefits for local people e.g more money to save and invest or spend on non-essential items such as holidays. <p>The positive multiplier effect will benefit the economy of SE England by:</p> <ul style="list-style-type: none"> • will create greater security in suppliers and service industries which will encourage them to invest and grow. • economic benefits may trickle down into wider community / ease regional deprivation. • image of the region is improved nationally and internationally attracting further investment from other companies including TNCs 					
Band	Mark	Band descriptor																			
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3. (e) Describe how the size and shape of noise nuisance from Heathrow changed between 1974 and 2014.			AO1	AO2.1	AO2.2	AO3	AO4	Total
Use a banded mark scheme. Work upwards from the lowest band.							4	4
Band	Mark	Band descriptor	<p>Responses will use map evidence such as the spacing and orientation of the isolines lines to provide a description of change of the sphere of influence.</p> <p>Responses should identify that:</p> <ul style="list-style-type: none"> both isolines have a similar shape which is elongated to the west and east. that the 2014 isoline includes a significantly smaller area. in 1974 the nuisance affected a large part of western Greater London and 4 towns whereas in 2014 the area of Greater London was reduced and only two towns were affected. <p>Credit accurate use of scale and/or compass, for example: In 1974 the nuisance extended for 45km from east to west whereas in 2014 it was 26km.</p>					
2	3-4	Elaborated statements successfully use map evidence to describe changes in shape and area. Meaning is unambiguous. The response has purpose, is organised and well structured.						
1	1-2	Valid statements use some map evidence to provide description of the isolines. Meaning is clear. Statements are linked by a basic structure.						
	0	Award 0 marks if answer is incorrect or wholly irrelevant.						

3. (f) Do you think that the expansion of Heathrow should go ahead? Study Image 11 and the Fact File on page 8 of the Resource Folder. Use this evidence, and evidence from other parts of the Resource Folder, to support your answer.	AO1	AO2.1	AO2.2	AO3	AO4	SPaG	Total
<i>Your ability to spell, punctuate and use grammar and specialist terms accurately will be assessed in your answer to this question.</i>				12		4	16

Use the descriptors in the banded mark scheme below. Work upwards from the lowest to the highest level.

Band	Mark	Descriptor
4	10-12	The candidate writes a comprehensive response that : <ul style="list-style-type: none"> reaches a substantiated decision that includes an effective justification. provides consistently detailed analysis throughout that is substantiated by a range of evidence from the Resource Folder. provides effective evaluation of the issue(s) applies a wider geographical knowledge and understanding of the issue to effectively substantiate the chain of reasoning.
3	7-9	The candidate writes a detailed response that: <ul style="list-style-type: none"> reaches a decision that is justified provides detailed analysis that is supported by evidence in the Resource Folder provides some evaluation of the issue(s) applies a wider geographical knowledge and understanding of the issue to support reasoning
2	4-6	The candidate writes a response that: <ul style="list-style-type: none"> provides a decision that is simply justified provides some analysis that is supported by evidence in the Resource Folder makes limited evaluation of the issue(s) applies some limited geographical knowledge/understanding of the issue.
1	1-3	The candidate writes a basic response that: <ul style="list-style-type: none"> provides a simple but unsubstantiated decision briefly explores the issue.
	0	Award 0 marks if the answer is incorrect or wholly irrelevant.

Credit answers that either agree **or** disagree with the expansion of Heathrow.

Credit responses that make use of the evidence in the exam paper and resource folder to support the decision. Credit application of the candidate's own understanding of spheres of influence and multiplier effects. For example:

For: Table 7 provides evidence that Heathrow is essential to the economy of the UK. Map 10 shows that improved technology can significantly reduce the area affected by noise nuisance. The positive (economic) sphere of influence covers a much wider geographical area than the negative (environmental) Sol. London needs to compete with other global cities in Europe (e.g. Paris) and Image 11 provides evidence that Heathrow is ideally located to provide sustainable transport links.

Against: Map 6 proves that other airports are also well connected to London by motorway e.g. Birmingham is only 170km away and connected by M6/M1 and M40. If Birmingham was developed instead the multiplier effects would benefit the Midlands rather than the SE and demand for new housing in the SE might be reduced. The area affected by noise shown in Map 10 is still affecting a significant area of London.

Once a mark (out of 12) has been awarded for the geographical content, apply the performance descriptors for spelling, punctuation and the accurate use of grammar and specialist terms that follow.

Band	Marks	Performance descriptions
<i>High</i>	4	<ul style="list-style-type: none"> • 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
<i>Intermediate</i>	2 – 3	<ul style="list-style-type: none"> • 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
<i>Threshold</i>	1	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • The learner writes nothing • The learner's response does not relate to the question • The learner's achievement in SPaG does not reach the threshold performance level, for example errors in spelling, punctuation and grammar severely hinder meaning.