

# INTERNATIONAL A-LEVEL GEOGRAPHY

(9635) Mark scheme

Unit 5: Fieldwork skills

Specimen 2018

Mark schemes are prepared by the lead assessment writer and considered, together with the relevant questions, by a panel of subject teachers. This mark scheme includes any amendments made at the standardisation events which all associates participate in and is the scheme which was used by them in this examination. The standardisation process ensures that the mark scheme covers the students' responses to questions and that every associate understands and applies it in the same, correct way. As preparation for standardisation each associate analyses a number of students' scripts. Alternative answers not already covered by the mark scheme are discussed and legislated for. If, after the standardisation process, associates encounter unusual answers which have not been raised they are required to refer these to the lead assessment writer.

It must be stressed that a mark scheme is a working document, in many cases further developed and expanded on the basis of students' reactions to a particular paper. Assumptions about future mark schemes on the basis of one year's document should be avoided; whilst the guiding principles of assessment remain constant, details will change, depending on the content of a particular examination paper.

# International A-level Geography mark scheme

#### How to mark

#### **Aims**

When you are marking your allocation of scripts your main aims should be to:

- · recognise and identify the achievements of students
- place students in the appropriate mark band and in the appropriate part of that mark band (high, low, middle) for **each** Assessment Objective
- record your judgements with brief notes, annotations and comments that are relevant to the mark scheme and make it clear to other examiners how you have arrived at the numerical mark awarded for each Assessment Objective
- ensure comparability of assessment for all students, regardless of question or examiner.

#### Approach

It is important to be **open-minded** and **positive** when marking scripts.

The specification recognises the variety of experiences and knowledge that students will have. It encourages them to study geography in a way that is relevant to them. The questions have been designed to give them opportunities to discuss what they have found out about geography. It is important to assess the quality of **what the student offers**.

Do not mark scripts based on the answer **you** would have written. The mark schemes have been composed to assess **quality of response** and not to identify expected items of knowledge.

## **Assessment Objectives**

This component requires students to:

AO1	Demonstrate knowledge and understanding of places, environments, concepts, processes, interactions and change, at a variety of scales.
AO2	Apply knowledge and understanding in different contexts to interpret, analyse and evaluate geographical information and issues.
AO3	Use a variety of relevant quantitative, qualitative and fieldwork skills to:
	investigate geographical questions and issues
	interpret, analyse and evaluate data and evidence
	construct arguments and draw conclusions.

# The marking grids

Do not think of levels equalling grade boundaries.

Depending on the part of the examination, the levels will have different mark ranges assigned to them. This will reflect the different weighting of Assessment Objectives in particular tasks and across the examination as a whole.

#### Using the grids

Having familiarised yourself with the descriptors and indicative content, read through the answer and annotate it (as instructed below) to identify the qualities that are being looked for and that it shows. You can now check the levels and award a mark.

### Step 1 Determine a level

Start at the lowest level of the mark scheme and use it as a ladder to see whether the answer meets the descriptors for that level. The descriptors for the level indicate the different qualities that might be seen in the student's answer for that level. If it meets all the descriptors for the lowest level then go to the next one and decide if it meets this level, and so on, until you have a match between the level descriptors and the answer. With practice and familiarity you will find that for better answers you will be able to skip through the lower levels of the mark scheme quickly.

When assigning a level you should look at the overall quality of the answer and not look to pick holes in small and specific parts of the answer where the student has not performed quite as well as in the rest. If the answer covers different aspects of different levels of the mark scheme you should use a best-fit approach for defining the level and then use the variability of the response to help decide the mark within the level.

#### Step 2 Determine a mark

Once you have assigned a level you need to decide on the mark.

It is often best to start in the middle of the level's mark range and then check and adjust. If there is a lot of indicative content fully identifiable in the work you need to give the highest mark in the level. If only some is identifiable or it is only partially fulfilled, then give the lower mark.

The exemplar materials used during standardisation will also help. There will be an answer in the standardising materials that will correspond with each level of the mark scheme. This answer will have been awarded a mark by the lead examiner. You can compare the student's answer with the example to determine if it is of the same standard, better or worse than the example. You can then use this to allocate a mark for the answer based on the Lead Examiner's mark on the example.

You may well need to read back through the answer as you apply the mark scheme to clarify points and assure yourself that the level and the mark are appropriate.

In addition to the levels descriptors, question specific indicative content is provided as a guide for examiners. This is not intended to be exhaustive and you must credit other valid points.

An answer that contains nothing of relevance to the question must be awarded no marks.

# **Annotating scripts**

You should write a summative comment at the end for each Assessment Objective and indicate the marks for each Assessment Objective being tested at the end of the answer in the margin in sequence. It is vital that the way you arrive at a mark should be recorded on the script. This will help you with making accurate judgements and it will help any subsequent markers to identify how you are thinking. Please do not write negative comments about students' work or their alleged aptitudes.

The below mark scheme is used to assess both Question 1 and Question 2.

Total for this paper: 60 marks

Question	Part	Marking guidance	Total marks
01		Explain why some form of sampling is almost always used when students are carrying out fieldwork to collect data for a	3 AO1=3
		geographical investigation.  AO1 – Award 3 marks for knowledge and understanding of concepts and processes. Up to 2 marks can be awarded for well-developed points.	
		Notes for answers:	
		From a practical point of view there is rarely enough time/energy/resources/access to measure every part of the site or area being studied (up to 2 marks).	
		<ul> <li>A carefully selected sample will be representative of the whole population if it is large enough to be statistically valid (up to 2 marks).</li> </ul>	

A group of students was planning a piece of fieldwork.	12			
They decided to carry out a study of an area of sand dunes to see how (a) slope and (b) vegetation varied along a 100 metre stretch of the dunes.	AO1=4 AO2=8			
They laid out a rope along the transect line.				
They decided to take ten readings of slope and vegetation along that transect line and then they had a discussion about how to select their ten sample points.				
Student A said that they should take a random sample by drawing ten numbers out of a hat.				
Student B said they should a systematic sample, at ten 10 metre intervals.				
Student C said they should take a structured sample, choosing ten points where there was a change of slope or of vegetation.				
Discuss the strengths and weaknesses of the three sampling techniques. Choose the most appropriate method and justify your choice.				
AO1 – Knowledge and understanding of the processes of selecting and carrying out a sample.				
Knowledge and understanding of the strengths and weaknesses of different kinds of sampling technique.				
AO2 – Application of the sampling techniques in this unfamiliar situation, and selection of the most appropriate technique for the given situation.				
	see how (a) slope and (b) vegetation varied along a 100 metre stretch of the dunes.  They laid out a rope along the transect line.  They decided to take ten readings of slope and vegetation along that transect line and then they had a discussion about how to select their ten sample points.  Student A said that they should take a random sample by drawing ten numbers out of a hat.  Student B said they should a systematic sample, at ten 10 metre intervals.  Student C said they should take a structured sample, choosing ten points where there was a change of slope or of vegetation.  Discuss the strengths and weaknesses of the three sampling techniques. Choose the most appropriate method and justify your choice.  AO1 – Knowledge and understanding of the processes of selecting and carrying out a sample.  Knowledge and understanding of the strengths and weaknesses of different kinds of sampling technique.  AO2 – Application of the sampling techniques in this unfamiliar situation, and selection of the most appropriate technique for the			

Question	Part	Marking	guidance		Total marks
02		Mark sc	heme		
		Level	Marks	Description	
		3	9–12	AO1 – Detailed knowledge is shown of more than one technique.	
				The strengths and weaknesses of more than one technique are understood and explained in some detail.	
				AO2 – An appropriate technique is selected and its use is fully justified in this particular situation.	
				Credit can be awarded if the decision is reached by a negative process of elimination, if this process is followed through fully.	
		2	5–8	AO1 – Clear knowledge is shown of more than one technique. The strengths and weaknesses of more than one technique are understood and explained clearly.	
				AO2 – An appropriate technique is selected and its use is clearly justified in this particular situation.	
				Credit can be awarded if the decision is reached by a negative process of elimination if this process is clearly supported.	
		1	1–4	AO1 – Basic knowledge is shown of at least one technique.	
				The strengths and weaknesses of at least one technique are understood and explained in some detail.	
				AO2 – An appropriate technique is selected and its use is justified at a basic level.	
				Credit can be awarded if the decision is reached by a negative process of elimination.	
			0	No creditable content.	
		Notes fo	r answer	rs:	
		Random	sample		
		• less c	hance of	a biased sample	
		• each			
		-	to comple le, but:	te if you have access to a means of generating the	
		• it n	nay miss o	out some important features	
		• po	ints may,	by chance, be clustered	

Question	Part	Marking guidance	Total marks
02		some points may be in impractical positions	
		<ul> <li>in this case some important slope elements might be completely missed out.</li> </ul>	
		Systematic sample	
		easy to carry out	
		saves time and is convenient	
		completely free from operator bias on the day, but:	
		it may miss out some important features	
		some points may be in impractical positions	
		<ul> <li>in this case some important slope elements might be completely missed out.</li> </ul>	
		Structured sample	
		ensures that all key features are measured	
		allows operator to avoid impractical positions	
		therefore may give more interesting geographical results but:	
		is the most open to bias	
		may lead to prejudiced results	
		assumes that the operator is a skilled geographer who has clear knowledge of the area	
		<ul> <li>in this case the 10 points chosen could be at breaks of slope, with sightings of gradient taken to the next break of slope, thus giving a full transect of gradient.</li> </ul>	

Question	Part	Marking	Marking guidance					
03	1	Outline a would prinformal	6 AO1=3 AO3=3					
				wledge and understanding of the principles of and of how an assessment should be carried out.	A03=3			
		the photo	s and the	to interpret and analyse the environment shown in en applies knowledge and understanding of risk ples to ensure safe work in this area.				
		Mark scl	neme					
		Level	Marks	Description				
		2	4–6	AO1 – Shows clear knowledge and understanding of the principles of a risk assessment.				
				AO3 – Applies skills, knowledge and understanding to the novel situation, offering				
				clear analysis and evaluation, drawn appropriately from the context provided.				
				Connections and relationships between different aspects of study are evident and relevant.				
		1	1–3	AO1 – Shows basic knowledge and understanding of the principles of a risk assessment.				
				AO3 – Applies basic skills, knowledge and understanding to the novel situation, offering some basic analysis and evaluation, drawn from the context provided.				
				Connections and relationships between different aspects of study are basic and maybe of limited relevance.				
			0	No creditable content.				
		Notes fo	r answer	rs:				
		AO1						
		May inclu						
		• the se	riousness	s of the risks				
		• the lik						
		• the wa						
		AO3						
				ks hot, dry and sunny, presenting high risk of eat exhaustion and/or sunstroke.				
		• Condi	tions und	erfoot look sandy or rocky in places.				

Question	Part	Marking	Total marks								
03	1		re probab	of the area look to house traditional Arab people bly fairly conservative and who are probably							
		• Parts	<ul> <li>Parts of the area look quite poor.</li> <li>Students need to take water, loose, light clothing, hats or headscarves, sunglasses, etc.</li> </ul>								
			•	d to have close contact with teacher or driver of the at they can be taken to shelter when necessary.							
		•and	need to d	carry mobile phones with contact numbers.							
		• Stude	nts need	to wear 'sensible' shoes.							
		need t	to be prep	to dress modestly so as not to cause offence and pared for ways to approach, or not approach, e opposite sex.							
		so as		d be warned against obviously displaying wealth causing offence and to avoid the risk of							
03	2			provided the above framework for an urvey of housing areas shown in Figures 1, 2,	6 AO3=6						
		-	In the space below write three more criteria for assessment that would be useful for your survey. Justify each of your three criteria.								
				ety of relevant fieldwork skills to investigate a stion or issue.							
		Mark scl	heme								
		Level	Marks	Description							
		2	4–6	AO3 – The criteria are clear – relevant and concise.							
				They complement the criteria already listed.							
				They are stated so as to fit the 'very high' to 'very poor' grading system.							
				At the top of the level all three criteria are justified clearly and at the bottom of the level at least one is justified clearly.							
		1	1–3	AO3 – The criteria are basic – they have some relevance.							
				They go some way towards complementing the criteria already listed.							
				At least one criterion is stated so as to fit the 'very high' to 'very poor' grading system.							
				There is some basic justification of at least one							

Question	Part	Marking guidance	Total marks			
03	2		of the criteria.			
	0 No creditable content.					
		Notes for answers	s:			
		AO3				
			nclude many different aspects of the environment aims of the work and judged in terms of the ed, for instance:			
		access to fresh need regular support	water, because in an area such as this people will pplies			
			icity, because this allows a modern life style, and as this air conditioning and refrigeration would be ortant			
		•	ng land, because some of these settlements look mps and they may have flocks of sheep and goats,			
		safety from land unstable hills ne	Islides and rock falls, because there are steep, earby			
		<ul><li>privacy</li></ul>				
		sense of commu	unity			
		access to work				
		• views.				

Question	Part	Marking guidance	Total marks
04	1	A group of students was carrying out an investigation into rates of infiltration at different points on a transect down a valley side. Their aim was to test the hypothesis that 'The rate of infiltration will be faster on the higher land than it is on the lower land that is on or close to the flood plain'.  They timed how long it took for a measured volume of water to infiltrate into the soil at the points along the transact. They also	4 AO3=4
		infiltrate into the soil at ten points along the transect. They also measured the angle of slope and the altitude at each of the ten points.	
		Complete the calculation of Rs (show your working).	
		Allow 1 mark for each stage in the calculation.	
		20.25 (1 mark)	
		124.5 and 747 (1 mark)	
		0.755 (1 mark)	
		0.245 (1 mark)	

Question	Part	Marking gui	dance					Total marks
04	1	See below f	or fully co	mpleted tab	le:			
		Sample site	Rank altitude	Infiltration time	Rank time	d	d <sup>2</sup>	
		Altitude (m)	R1	(secs)	R2	(R1-R2)		
		155	1	55	8	<b>-</b> 7	49	
		150	2	33	6	-4	16	
		145	3	28	5	<b>–</b> 2	4	
		140	4	26	4	0	0	
		135	5	22	3	2	4	
		130	6	20	1.5	4.5	20.25	
		125	7	20	1.5	5.5	30.25	
		120	8	40	7	1	1	
		115	9	82	9	0	0	
		110	10	120	10	0	0	
		$\sum d^2 = 124.5$						
		6 × ∑d <sup>2</sup> = <b>74</b> 7	<u>'</u>					
		$Rs = 1 - \frac{6\sum c}{n^3 - 1}$	12					
			<b>747</b> 990					
		= 1 - 0.755						
		= Rs _ <b>0.245</b>						
04	2	How confident can you be that the student's hypothesis, 'The rate of infiltration will be faster on the high land than it is on the lower land that is on or close to the flood plain', is supported by the data?						
		Mark scher						
		The correlat		•		95% level ar	nd therefore	
04	3	Why would in Figure 7		difficult to	o draw a be	est-fit line o	n the graph	2
		Mark scher	AO3=2					
		Because the U shape wit	-	-	spread and	seem to for	rm a	
04	4	'The rate of				_	than it is on	
		To what ex	tent does			-	7 support	AO3=9
		Mark scher						
		AO3 – Use study togeth meaningful	er. Analys	sis and eval	uation of da	ita in order t		

Question	Part	Marking	guidance	<b>?</b>	Total marks
04	4	Level	Marks	Description	
		3	7–9	AO3 – Detailed use of data from the enquiry which is analysed and evaluated to construct sound arguments and draw valid conclusions. Detailed evidence of drawing together different elements of the study in order to support the response.	
		2	4–6	AO3 – Data from the enquiry is analysed and evaluated clearly to construct arguments and draw conclusions. Clear evidence of drawing together different elements of the study in order to support the response.	
		1	1–3	AO3 – Basic use of data from the enquiry which is analysed and evaluated to construct limited arguments and draw basic conclusions. Basic evidence of drawing together different elements of the study in order to support the response.	
			0	No creditable content.	
		The que evaluatir hypothes  AO3  Uses synth concl	ng the link sis. a range o esise and usion.	dires an evidence-based summary and conclusion, a between the two variables stated in the initial of data available from the information provided to draw aspects of the study together into an overall	
				r trend reflected in the data plot. The graph shows e U-shaped curve.	
		infiltra	ation but th	e the low flat land close to the river shows very slow ne high, gently sloping land on the upper valley side slow infiltration.	
				es of infiltration are recorded at the intermediate ansect, which also happen to have steeper slopes.	
		the hi	igh land th	hypothesis 'The rate of infiltration will be faster on nan it is on the lower land that is on or close to the nly partially supported by the evidence.	
		is pro highly	bably an a	that the land near the river is on a flood plain which area where water accumulates and so the soil is d. The land on the hill top is also fairly flat and so ow.	
				e hill top may also be an area of peat accumulation lds water, it may also be close to saturation.	
			-	lopes will have more rapid runoff and so the soil is er drained and less saturated.	

Question	Part	Marking guidance	Total marks
04	4	Other explanations might be offered. Any such explanation might lead to a development of the original hypothesis.	
		Overall conclusion may emphasise that the association between the two variables is unclear and that the hypothesis is too simplistic. Other geographical factors are relevant in explaining the anomalous readings.	

Question	Part	Marking	Total marks			
05	1	Explain how the investigation helped you develop your geographical understanding of the place studied.			6 AO1=2 AO2=4	
		AO1 – Knowledge and understanding of the investigation process and aims, as well as outcomes.				
		AO2 – Application of knowledge and understanding to show how the findings of the study have helped develop geographical understanding of place.				
		Level	Marks	Description		
		2	4–6	AO1 – Clear knowledge and understanding of the findings of the study. Appropriate knowledge and understanding of the characteristics of place and how this has been developed as a result of the study.		
				AO2 – Clearly applies knowledge and understanding to interpret findings of the study. Interprets findings to suggest how these have supported the wider fieldwork aims by linking directly to improved understanding at the study site.		
		1	1–3	AO1 – Basic knowledge and understanding of the findings of the study. Appropriate knowledge and understanding of the characteristics of place and how this has been developed as a result of the study.		
				AO2 – Basic application of knowledge and understanding to findings of the study. Limited interpretation of findings to suggest how these have supported the wider fieldwork aims. Basic links to improved understanding at the study site.		
			0	No creditable content.		
		Notes fo				
		methods knowled	undertal ge and u	quirement for knowledge and understanding of the ken, but the emphasis in this question is on applying nderstanding to make judgments, evaluate and of the fieldwork investigation.		

Question	Part	Marking guidance	Total marks
05	1	AO1	
		Knowledge and understanding of the different stages of the enquiry process.	
		<ul> <li>Knowledge and understanding of the conceptual basis of the investigation, links to geographical theory, the results and final outcomes.</li> </ul>	
		<ul> <li>Characteristics of the place studied, including its physical and human features. Selected endogenous and exogenous factors affecting the character of the place as relevant to the investigation, for instance the location, topography, relief and drainage, land use, built environment, infrastructure, demographic and economic characteristics.</li> </ul>	
		AO2	
		Application of knowledge and understanding to interpret the impact of the study in developing geographical understanding of the place. Assessment of any aspect of geographical understanding of the specific place investigated can be credited.	
		Similarly, any stage in the investigation process, (such as secondary research, observation and recording of field data, evaluation and reflection) may help to give an appreciation of the type of place being studied.	
		<ul> <li>Application of knowledge and understanding to show how the findings of the study have further developed geographical understanding of place. The investigation may provide insight into the physical characteristics of the place, or may yield information about the land use, built environment and infrastructure.</li> </ul>	
		Depending on the nature of their investigation, responses may focus on the demographic, economic or cultural aspects of the place. Urban studies may give information about social inequalities, patterns of land use and changes in commercial activity over time. A study of a coastal landscape may reveal details of its physical setting, its topography, accessibility and physical landforms.	
		Accept explanations which focus on how specific methods of investigation may help in understanding the nature of a place.	
		For example, questionnaires may indicate people's perception of place, land use studies may show the range of economic activities, and field sketching/photo annotation may help to show variation in the landscape and built-up area.	
05	2	Evaluate the success of your data collection methods and explain how you would make use of an opportunity to revisit the location to develop your enquiry further.	9 AO1=3 AO2=6
		<b>AO1</b> – Describes the chosen method of data collection. Refers to the strengths and weaknesses of the method.	AUZ=0
		AO2 – Evaluates the degree of success. Uses that evaluation to consider how the method could be developed and re-used on a subsequent visit to the site.	
		Mark scheme	

Question	Part	Marking	Total marks				
05	2	Level	Marks	Description			
		3	7–9	AO1 – Detailed description of the use of the technique in the enquiry.			
				Detailed consideration of the strengths and weaknesses of the technique.			
				AO2 – Analysis and evaluation of the success of the technique leading to valid conclusions.  Development of detailed plans for a re-visit in response to the critique of the method used.			
		2	4–6	AO1 – Clear description of the use of the technique in the enquiry.			
				Clear consideration of the strengths and weaknesses of the technique.			
				AO2 – An attempt made to analyse and evaluate the success of the technique leading to some conclusions.			
				Development of a plan for a re-visit showing some response to the critique of the method used.			
		1	1–3	AO1 – Basic description of the use of the technique in the enquiry.			
				Some basic consideration of the strengths and weaknesses of the technique.			
				AO2 – A basic attempt made to evaluate the success of the technique leading to a basic conclusion.			
				Development of a plan for a re-visit which might show a basic response to the critique of the method used.			
			0	No creditable content.			
		Notes fo	or answer	·s:			
		evaluatir	•	ires an evidence based summary and conclusion, k done so far and suggesting how the work can be			
		AO1					
		Describes how the work was planned, showing awareness of the aims and objectives.					
		Describes how the work was actually carried out.					
		but is	also awa	nderstanding of the strengths of the technique used re of any short-comings in the technique itself or			

Question	Part	Marking guidance	Total marks
05	2	Knowledge of the technique's strengths and weaknesses allows an analysis and appraisal of the overall level of success of the technique, and of the way the technique was applied in the field on the day of the fieldwork.	
		This appraisal then allows the refinement of the method, or of the way it was applied, or of the extent to which it was used.	
		This leads to realistic suggestions for work on return visit to the site.	

MARK SCHEME -	- INTERNATIONAL	A-LEVEL GEOG	RAPHY UNIT 5

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