AS
GEOGRAPHY
7036/2
Paper 2 Human Geography and Geography Fieldwork Investigation

Mark scheme

June 2020

Version: 1.0 Final Mark Scheme

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 Examiner.

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.

Further copies of this mark scheme are available from aqa.org.uk

Level of response marking instructions

Level of response mark schemes are broken down into levels, each of which has a descriptor. The descriptor for the level shows the typical performance for the level. There are marks in each level.

Before you apply the mark scheme to a student's answer read through the answer and annotate it (as instructed) to show the qualities that are being looked for. You can then apply the mark scheme.

The notes for answers provide indicative content. Students' responses may take a different approach in relation to that which is typical or expected. It is important to stress that examiners must consider all a student's work and the extent to which this answered the question, irrespective of whether a response follows an expected structure. If in doubt the examiner should contact their team leader for advice and guidance.

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 descriptor for that level. The descriptor for the level indicates the different qualities that might be seen in the student's answer for that level. If it meets 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 descriptor and the answer. With practice and familiarity you will find that for better answers you will be able to quickly skip through the lower levels of the mark scheme.

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 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, ie if the response is predominantly level 3 with a small amount of level 4 material it would be placed in level 3 but be awarded a mark near the top of the level because of the level 4 content.

Step 2 Determine a mark

Once you have assigned a level you need to decide on the mark. The descriptors on how to allocate marks can help with this. The exemplar materials used during standardisation will help. There will be an answer in the standardising materials which 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 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.

Indicative content in the mark scheme is provided as a guide for examiners. It is not intended to be exhaustive and you must credit other valid points. Students do not have to cover all of the points mentioned in the indicative content to reach the highest level of the mark scheme.

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

Qu	Part	Marking guidance	Total marks

Section A

01	1	**Which <u>one</u> of the following is an exogenous factor that contributes to the character of a village in north west England?** A	**1** **AO1 = 1**

01	2	**In which of the following lists are <u>two</u> pieces of qualitative secondary data that would show change over time in a place being studied?** A	**1** **AO1 = 1**

01	3	**Outline the concept of a media place**. <u>Point marked</u> Award one mark for each relevant point with extra mark(s) for developed points (d). For example: <u>Notes for answers</u> • Media places are those portrayed by TV, film, radio or books (1); they can be/are often fictitious places based on real locations (1d) • Media places are places that people have not experienced (1), but which they have developed a sense of place for / about through books, TV, art and films. (1d) • Media may represent a place in a particular way and for a particular purpose (1). For example, East London is portrayed in the BBC's EastEnders soap opera in a particular way to attract audiences to the show (1d) • Places in tourist brochures are media places for people who have not visited these places and they may not be accurate representations of these places (1). For example, pictures of green, lush golf courses in Southern Spain do not reflect the issues these places have with water shortages (1d). • Other creditworthy suggestions/examples: Rural/countryside places are often portrayed as idyllic in the media reinforcing nostalgic images of rural life (1). Cities are often stereotyped in a negative way, for example with portrayals of economic and social deprivation, crime, vandalism, pollution etc.(1) The notes for answers are not exhaustive. Credit any valid points.	**3** **AO1 = 3**

01	4	**Using Figure 1a and Figure 1b, analyse the representations of place.** **AO3** – Analysis of factors that contribute to a sense of place. Mark scheme **Level 2** (4–6 marks) **AO3** – Clear analysis of the qualitative evidence provided, which makes appropriate use of data in support. Clear connection(s) between different aspects of the data and evidence. **Level 1** (1–3 marks) **AO3** – Basic analysis of the qualitative evidence provided, which makes limited use of data and evidence in support. Basic connection(s) between different aspects of the data and evidence. Notes for answers The question requires analysis of the **qualitative data** shown in the figures. Many of the features from the Figures are implied rather than definitive, part of the nature of qualitative data. • The location of the town beside a river/bridge and surrounded by mountains are alluded to in both sources suggesting that physical geography and the situation of this town are important. • Strong community is a key factor and it is a place where 'people talk to each other' and 'businesses work together'. • The experience of those living and working here is portrayed as overwhelmingly positive. • The tourists are viewed as a fully integrated group in this place. There is a suggestion of harmony between tourists and residents. • There is a high degree of civic pride evident in the sources. This is coupled with a sense that it is a 'unique' or 'special' place. • There is a sense that the town is 'inward looking' and not part of a more globalised world. The sources stress the importance of 'independent' shops rather than 'chain' stores. • There is a suggestion that the town is busy and 'bustling' and this is also seen in the photo evidence but at the same time 'rural'. • The mention of festivals suggests that there are key annual events that have become associated with this place. • A long history is alluded to and the historic bridge appears to be an important aspect of place character. • Continuity is important in relation to a long history of tourism and shops that have been passed through the generations. • There is a suggestion that it is a socially and economically sound place to live and a safe place to live. • Some may suggest that the image of the town has been influenced by the media as it has been named 'Best Place to Live' by the Sunday Times and Great British High Street and may only show partial aspects of this place. Credit any other valid approach.	**6** **AO3 = 6**

01	5	**Evaluate the extent to which external forces can influence the economic or demographic character of a place.** **AO1** – Knowledge and understanding of the characteristics and impacts of external forces operating at different scales from local to global. Knowledge and understanding of economic or demographic characteristics of a place. **AO2** – Application of knowledge and understanding by an evaluation of to what extent external force(s) may influence the economic or demographic character of a place, using appropriate evidence to support judgement. Mark scheme **Level 3 (7–9 marks)** **AO1** – Demonstrate detailed knowledge and understanding of how external forces may contribute to the economic or demographic character of a place. **AO2** – Demonstrate detailed application of knowledge and understanding of to what extent external forces may contribute to place character. Synthesises information and uses appropriate evidence to fully support a conclusion about to what extent external forces may contribute economic or demographic character of a place. **Level 2 (4–6 marks)** **AO1** – Demonstrates clear knowledge and understanding of how external forces may influence the economic or demographic character of a place. **AO2** – Demonstrate clear application of knowledge and understanding to what extent external forces may contribute to place character. Partially synthesises information and uses appropriate evidence to support a conclusion about to what extent external forces may contribute economic or demographic character of a place. **Level 1 (1–3 marks)** **AO1** – Demonstrate basic knowledge and understanding of to what extent external forces may influence the economic or demographic character of a place. **AO2** – Demonstrate basic application of knowledge and understanding of to what extent external forces may contribute to place character. Uses limited evidence to reach a conclusion about to what extent external forces may contribute economic or demographic character of a place. Notes for answers This question makes connections between different parts of the specification content on Changing Places, specifically linking the economic **or** demographic characteristics of place and characteristics and impacts of external forces. Responses should focus on to what extent external forces may influence economic or demographic characteristics of place.	**9** **AO1 = 4** **AO2 = 5**

External forces can operate from local to global scales but there should be mention of either **government policies**, **decisions of MNCs** or the **impacts of international or global institutions.** A broader interpretation of external forces might include other external/exogenous factors, including flows of people into an area. Credit can be given to these suggestions but some link should be made to one of the external forces listed in the specification for credit above level 1.

AO1

- Knowledge and understanding of the characteristics and impacts of external forces.
- Knowledge and understanding of government policies and / **or** a decision of a multi-national corporation and / **or** an international or global institution
- Knowledge and understanding of demographic or economic characteristics that contribute to the character of places.
- Knowledge and understanding of how past and present processes of development can be seen to influence the social and economic character of places.
- Knowledge and understanding of external forces in a local or distant place studied.
- Knowledge and understanding of factors contributing to the character of place in a local or distant place studied.
- Knowledge and understanding of other processes of development that can influence the economic or demographic character of a place, for example, flows of people or global economic connections.

AO2

- An evaluation of to what extent external forces can influence the economic or demographic character of a place. Responses might examine, for example, how the decisions of MNCs can influence the economic characteristics of a place. For example, the decision by an MNC to locate or close-down a large factory in a particular place can change the economic or demographic character of that place. For example, the decision by Honda to locate a large car plant in Swindon has contributed to the economic character of the town. Conversely, the decision of an MNC to leave a town or relocate may have a negative impact on economic and demographic place characteristics e.g. the closure of the Honda factory in Swindon in 2021 is likely to influence both the economic and demographic character of the town.
- Reponses might examine, for example, the role of government policy and how this has influenced economic or demographic character of a place. For example, the regeneration of Salford Quays and the policy of decentralisation have led to the relocation of the BBC at Media City. These policies have helped to shape the present economic and demographic character of Salford Quays.
- Responses may also examine the impacts of international or global institutions on economic or demographic place character. For example, investments by the World Bank in some slum areas, for example, Djibouti Ville, can significantly change the economic or demographic character of these places.

		• External forces may, in turn, encourage local, regional and global connections that help to shape economic or demographic character of a place. • Some may argue that external forces have little influence on economic or demographic place character. For example, coal mining communities developed a distinct economic character as a result of rich natural resources located nearby. Flows of people, rather than external forces, have helped to shape the economic and demographic character of many places, e.g. Spitalfields in East London. • A conclusion should make a judgement about how far external forces can influence the economic or demographic character of a place. Some may argue that external forces can be more influential at different times or at different scales within a place. Some answers may make reference to a local or distant place they have studied, or both. Other answers may make reference to a wider range of examples. Credit any other valid evaluation.	

01	6	**With reference to a place you have studied, evaluate the usefulness of quantitative data sources such as statistics and maps in representing the lived experience of a place.** **AO1** – Knowledge and understanding of how lived experience of a place can be represented through a variety of data sources. Knowledge and understanding of a local or distant place studied and the experience(s) of people who live there. **AO2** – Assessment of to what extent maps and statistics, or other quantitative data sources represent the lived experience(s) in the local or distant place studied. Notes for answers This question makes connections between different parts of the specification content on Changing Places, specifically the linking the way that maps and statistics, or other quantitative data sources represent the experience of the people living in a place. Responses should focus on evaluating the usefulness of statistics and maps, or other quantitative data sources in representing the lived experience(s) in a local or distant place they have studied. **AO1** • Knowledge and understanding of the concept of place and the importance of place in human experience. • Knowledge and understanding of lived experiences in a local or distant place, both past and present. • Knowledge and understanding of how place can be represented in a variety of ways and for a variety of purposes. • Knowledge and understanding of how external agencies may make attempts to influence or create specific place-meanings. • Knowledge and understanding of a range of qualitative and quantitative sources from a local or distant place studied. **AO2** • An evaluation of how useful maps and statistics (or other quantitative sources) are for representing lived experience of people in a place. • Evaluation of whether statistics are a useful representation of lived experience in a place. For example, census data may be seen as an accurate and reliable representation of lived experience as quantitative data is objective data, derived from full coverage of the population at regular 10-year intervals and is compiled by a reliable source (the government). It provides a variety of social and economic data that can be used to objectively analyse lived experience in a place, for example, average income levels and population structure. Some may suggest that the 10-year interval means that data becomes out-dated and this makes it a less reliable representation of lived experience. • Evaluation of how far other sources of statistical or mapped data such as crime data, Index of Multiple Derivation and health data are reliable and accurate representations of lived experience.	**20** **AO1 = 10** **AO2 = 10**

- Statistics can be graphed or overlaid on to local maps to show possible variations in lived experience within a place. Some may suggest that mapping this data across very small areas is a reliable and accurate way to represent spatial patterns of lived experience. Others may suggest that the stark contrasts between areas on choropleth maps give a misleading representation of changes in lived experience between areas.
- Evaluation of the usefulness of other statistical data sets. For example, it may not be possible to determine the source of all ‘Big Data’ sets and some samples may not be representative of the whole population of a place. Also, websites such as checkmystreet.co.uk, which provide reports of social and economic data in a place, may be viewed as less reliable or representative as they are selecting data for a particular purpose. Data from local surveys may give a more accurate and reliable representation of lived experience or may be seen to have a small sample size or bias.
- Evaluation of whether statistics and maps may be manipulated by external agencies to reflect a particular lived experience in a place. For example, housing developers may market a place using a small selection of statistical indicators that show a very positive lived experience of this place. Also, there may be inaccuracies in maps, for example, historical maps that can be misleading.
- An evaluation of how far statistics, as objective data, may not represent people’s own perceptions or views of their lived experience as they do not reflect a ‘sense of place’ or people’s own perceptions of place. It may be argued that this is more reliably represented by the use of qualitative data sources. Some maps and graphs may show qualitative data, for example, happiness levels and this may be seen to make them more representative of lived experience.
- An evaluation of quantitative data might compare it with the use of qualitative data in representing lived experience. This is a valid approach to the evaluation, especially if there is some balance in considering the relative usefulness of both types of data.
- A conclusion should make a judgement about the extent to which statistics and maps (or other quantitative data sources) are useful for representing lived experience of a place. Some may argue that they are very useful for representing the lived experience and others may argue that they are often not a reliable means to represent lived experience, or at best a partial representation of the lived experience of some groups or some areas within a place and that qualitative data sources may be more useful for representing lived experience. Some students may adopt a more balanced perspective and argue that some quantitative data sources are useful for representing lived experience, whilst other sources less so.
- Any view is acceptable, as long as it is supported with reasoned argument and illustrative examples and evidence.

Credit any other valid assessment.

Marking grid for Question 01.6

Level/ Mark Range	Criteria/Descriptor
Level 4 (16–20 marks)	• Detailed evaluative conclusion that is rational and firmly based on knowledge and understanding which is applied to the context of the question (AO2). • Detailed, coherent and relevant analysis and evaluation in the application of knowledge and understanding throughout (AO2). • Full evidence of links between knowledge and understanding to the application of knowledge and understanding in different contexts (AO2). • Detailed, highly relevant and appropriate knowledge and understanding of place(s) and environments used throughout (AO1). • Full and accurate knowledge and understanding of key concepts and processes throughout (AO1). • Detailed awareness of scale and temporal change which is well integrated where appropriate (AO1).
Level 3 (11–15 marks)	• Clear evaluative conclusion that is based on knowledge and understanding which is applied to the context of the question (AO2). • Generally clear, coherent and relevant analysis and evaluation in the application of knowledge and understanding (AO2). • Generally clear evidence of links between knowledge and understanding to the application of knowledge and understanding in different contexts (AO2). • Generally clear and relevant knowledge and understanding of place(s) and environments (AO1). • Generally clear and accurate knowledge and understanding of key concepts and processes (AO1). • Generally clear awareness of scale and temporal change which is integrated where appropriate (AO1).
Level 2 (6–10 marks)	• Some sense of an evaluative conclusion partially based upon knowledge and understanding which is applied to the context of the question (AO2). • Some partially relevant analysis and evaluation in the application of knowledge and understanding (AO2). • Some evidence of links between knowledge and understanding to the application of knowledge and understanding in different contexts (AO2). • Some relevant knowledge and understanding of place(s) and environments which is partially relevant (AO1). • Some knowledge and understanding of key concepts, processes and interactions and change (AO1). • Some awareness of scale and temporal change which is sometimes integrated where appropriate. There may be a few inaccuracies (AO1).
Level 1 (1–5 marks)	• Very limited and/or unsupported evaluative conclusion that is loosely based upon knowledge and understanding which is applied to the context of the question (AO2). • Very limited analysis and evaluation in the application of knowledge and understanding. This lacks clarity and coherence (AO2). • Very limited and rarely logical evidence of links between knowledge and understanding to the application of knowledge and understanding in different contexts (AO2). • Very limited relevant knowledge and understanding of place(s) and environments (AO1). • Isolated knowledge and understanding of key concepts and processes. • Very limited awareness of scale and temporal change which is rarely integrated where appropriate. There may be a number of inaccuracies (AO1).
Level 0 (0 marks)	• Nothing worthy of credit.

Qu	Part	Marking guidance	Total marks

Section B

Qu	Part	Marking guidance	Total marks
02	1	**Outline an example of when qualitative data collection may be suitable for a human geography fieldwork enquiry.** Point marked Award one mark for an accurate stated example/reason (1) and one mark for development (1d). For example: Notes for answers This will involve learned knowledge and understanding of the specification and/or of fieldwork carried out. • The fieldwork enquiry may be investigating opinions or perceptions of a place (1) and interviews or open-ended questions would be a more appropriate method of collecting 'subjective' data (1d). • Qualitative data collection lends itself to finding out subjective opinions about a place or issue that may form the basis of an enquiry (1). • The fieldwork may not have a set hypothesis and be more 'exploratory' and lend itself to qualitative data collection (1). • Participant observation may be used to understand a local community and gain a 'sense of place' (1). • Qualitative data collection may be used as an initial stage of a fieldwork enquiry in order to formulate a hypothesis or more objective set of questions (1). • Taking photographs for image analysis would enable analysis about the character of a place (1) and this could be used in conjunction with secondary data (old photos) to determine change over time (1d). • Open-ended questions may form part of a questionnaire and be used alongside more objective, quantitative data (1). • Place check surveys or other established tools for qualitative data collection would be appropriate for perception of place (1) as they are semi-structured and can be compared to qualitative data collected in other places (1d). The Notes for answers are not exhaustive. Credit any valid points.	**2** **AO1 = 2**

Qu	Part	Marking guidance	Total marks
02	2	**Using Figure 2, suggest how this GIS map could be useful for planning primary data collection in a local human geography fieldwork enquiry.** Point Marked Award one mark for each suggestion of the usefulness of this map for planning a local human geography fieldwork enquiry. Allow additional mark for developed point (1d).	**4** **AO3 = 4**

		• The map could be useful for identifying an area where the issue for investigation is more or less severe so study areas to compare and contrast may be identified (1). For example, an LSOA in the deprived area of Ardwick could be compared to one in less-deprived Didsbury West (1d). • The map could be useful for helping to decide a sampling strategy (1) for example, if there are clear areas to investigate within the whole area, the student may decide that stratified-random sampling would be most appropriate (1d). For example, on this map areas of high deprivation may be identified for sampling rather than systematically sampling the whole area (1d). • Other 'layers' could be applied to the GIS map such as local streets (1) and this could be useful to identify health and safety concerns around primary data collection (1d). Credit any other reasonable suggestions related to human geography fieldwork in relation to the GIS map.	

02	3	**Using <u>Figure 2</u>, suggest limitations of this map for planning fieldwork.** <u>Point Marked</u> Award one mark for any reasonable suggestion linked to Figure 2. • The map only displays one indicator (1). • The data on the map is from 2015 and the geographical patterns may have changed limiting its usefulness for planning current data collection (1). • The areas mapped may not show differences at a smaller scale (street level) which might have been more useful for a local fieldwork investigation (1). Credit other relevant suggestions.	**2** **AO3 = 2**

02	4	**Outline how data processing <u>or</u> presentation helped with the analysis of primary data.** **AO1** – Knowledge of the fieldwork enquiry that was carried out. Knowledge of data processing or presentation. Knowledge and understanding of analysis of primary data. **AO2** – Application of knowledge and understanding to show how data processing or presentation helped with analysis primary data. <u>Mark scheme</u> **Level 2 (4–6 marks)** **AO1** – Clear knowledge and understanding of data processing or presentation technique(s). Clear knowledge and understanding of how data was analysed.	**6** **AO1 = 2** **AO2 = 4**

AO2 – Clearly applies knowledge and understanding of data processing or presentation to explain how it helped with the analysis of data.
Clear outline of the link between data processing or presentation and the analysis of data, supported with evidence from the enquiry. Clear explanation of how the data processing or presentation helped with analysis of data.

Level 1 (1–3 marks)
AO1 – Basic knowledge and understanding of data processing or presentation technique. Basic knowledge and understanding of how data was analysed.

AO2 – Basic application of knowledge and understanding of data processing or presentation to explain how it helped with the analysis of data.
Basic outline of the link between data processing or presentation and the analysis of data, supported with basic evidence from the enquiry. Partial explanation of how the data processing or presentation helped with analysis of data.

Notes for answers

There is some requirement for description of data processing or data presentation technique(s) used in the fieldwork enquiry to allow a clear understanding of how this was linked to analysis of data. However, the emphasis is on the link between the data processing or presentation technique(s) and the analysis. The description of data processing or presentation should show how this was useful for analysis of primary data. The processing or presentation must be of primary data so there should be a clear sense that the candidate processed or presented data collected.

AO1
- Knowledge and understanding of the fieldwork enquiry carried out.
- Knowledge and understanding of how primary data collected was processed or presented, such as coding textual data, image annotation, tables, graphs, maps, geocoding data, adding data to a spreadsheet.
- Knowledge of how analysis of primary data was carried out, including using statistical techniques and /or other techniques for data analysis.

AO2
- Application of knowledge and understanding of the data processing or presentation technique to explain how it helped with primary data analysis.
- Application of knowledge and understanding of data processing or presentation to show how it helped identify patterns in the data or anomalies.
- Explanation of why processing or presentation techniques might be useful for analysis. For example, maps or graphs may make analysis easier than tables of data.

		• Explanation of why types of graphs chosen to present data may facilitate analysis. For example, compound bar graphs may be useful to compare data sets. • Explanation of the usefulness of types of maps for the analysis of spatial patterns, for example choropleth maps or maps showing movement. • Explanation of the usefulness of maps with graphical data, for example, located proportional symbols are useful for analysing quantity and distribution or maps that show movement. • Qualitative data may be processed and 'coded' or tabulated to facilitate analysis. • Collation of data into spreadsheets or tables may be useful to facilitate statistical analysis, for example, Spearman's Rank correlation. • Scatter graphs may help to identify whether there is a relationship between two variables, and this may have been used in conjunction with other statistical techniques to analyse data. • An overall sense of the usefulness of data processing or data presentation techniques for primary data analysis. For some fieldwork this may be seen as more or less important. For example, presentation techniques may be seen as less important for analysis using statistical techniques such as Spearman's Rank or for analysis of qualitative data. Credit any other valid approach.	

02	5	**Evaluate the usefulness of background reading in developing the aim of your investigation.** **AO1** – Knowledge and understanding of background reading and the aim of the investigation. Knowledge of how background reading was used to develop the aim of the investigation. **AO2** – Application of knowledge and understanding of background reading to evaluate the usefulness of this for developing the aim of the investigation. Makes a direct link between the background reading how far this was useful for developing the aim of this investigation. Mark scheme **Level 3 (7–9 marks)** **AO1** – Detailed knowledge and understanding of the background reading. Detailed knowledge of the aim of the investigation. **AO2** – Detailed application of knowledge and understanding of the background reading to evaluate how far this was useful for developing the aim of the investigation. Makes a direct link between background reading and how this was useful for developing the aim. **Level 2 (4–6 marks)** **AO1** – Clear knowledge and understanding of the background reading. Clear knowledge of the aim of the investigation. **AO2** – Clear application of knowledge and understanding of the background reading to evaluate how far this was useful for developing the aim of the investigation. Makes a direct link between background reading and how this was useful for developing the aim.	**9** **AO1 = 3** **AO2 = 6**

Level 1 (1–3 marks)
AO1 – Basic knowledge and understanding of the background reading. Basic knowledge of the aim of the investigation.
AO2 – Basic application of knowledge and understanding of the background reading to evaluate how far this was useful for developing the aim of the investigation. Makes a direct link between background reading and how this was useful for developing the aim.

<u>Notes for answers</u>
There is some requirement for knowledge and understanding of the background reading, but the emphasis in this question is on applying knowledge and understanding of the background reading to evaluate how far this contributed to developing the aim of the investigation. The background reading should be clearly linked to the candidate's own fieldwork investigation.

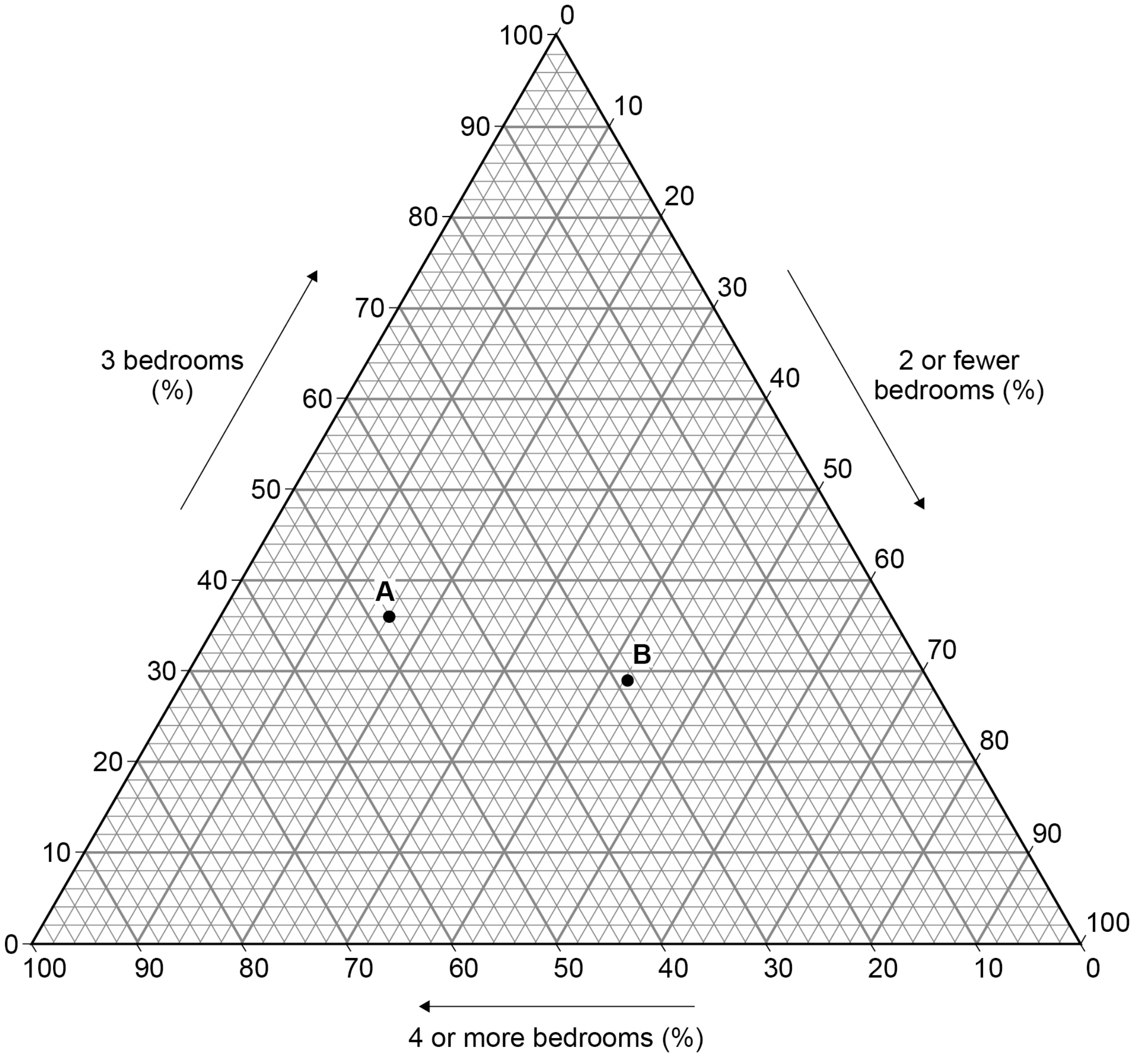
AO1

- Knowledge and understanding of the different stages of the enquiry process.
- Knowledge and understanding of background reading carried out as part of the enquiry process.
- Knowledge and understanding of the aim of the investigation.
- Knowledge and understanding of secondary sources of data used in the investigation
- Knowledge and understanding of the planning and preparation stage of the investigation.
- Knowledge and understanding of how background reading contributed to developing the aims of the investigation.
- Knowledge and understanding of other factors that contributed to developing the aim of the investigation, for example, pilot surveys, designing a sampling framework, risk assessments, etc.

AO2

- Application of knowledge and understanding to evaluate how useful their own background reading was for developing the aim of the fieldwork investigation.
- Background reading, for example, a newspaper article that highlighted a particular issue may have contributed to the student choosing a location where the investigation would be carried out.
- Background reading, for example, from textbooks could have been useful for linking the investigation to geographical theory that would underpin the investigation.
- Qualitative secondary data may have been part of background reading and could have helped to identify a research question or an area of focus for the student's investigation.
- Quantitative secondary data such as weather data, census data or 'big data' may have helped to identify an issue to investigate and enabled the student to draw up clearer aims and objectives or even a hypothesis for the investigation.
- Background reading about similar geographical investigations may have helped students to develop similar aims but in a different location so that results could be compared.

		• Background reading may have been useful for helping to narrow down the focus of the investigation in order to develop an achievable aim for the investigation. • Some students may suggest that some background reading was more or less useful for formulating aims for a variety of reasons relating to their own investigation. • Some students may have found background reading to have been more useful during the planning and preparation stages of the investigation rather than for developing the initial aims of the investigation which may have developed from personal observation in the local area. Others may have found that background reading was more useful for helping to develop a sampling strategy or draw conclusions from their own findings. • Some students may suggest that pilot surveys, risk assessments, timescales etc had an equal or bigger influence on developing the aims of their investigation than background reading. Credit any other valid approach.	

0 3	1	**Referring to <u>Figure 3</u>, plot and label the data for <u>Site A</u> and <u>Site B</u> onto the triangular graph in <u>Figure 4</u>.** <u>Point marked</u> 1 mark for each accurate plot and label. 	**2 AO 3 = 2**

03	2	**Complete <u>Figure 6</u> by calculating the mean and the inter-quartile range (IQR) for <u>Site A</u>.** <u>Point marked</u> • 1 mark for completing the LQ and the UQ and mean for Site A correctly. • 1 mark for calculating the IQR for Site A correctly. **Site A** Mean = 29 Inter-quartile Range Upper-quartile (UQ) = n+1/4 th position = 33 Lower-quartile (LQ) = 3(n +1)/4 th position = 25 IQR = 8	**4** **AO3 = 4**

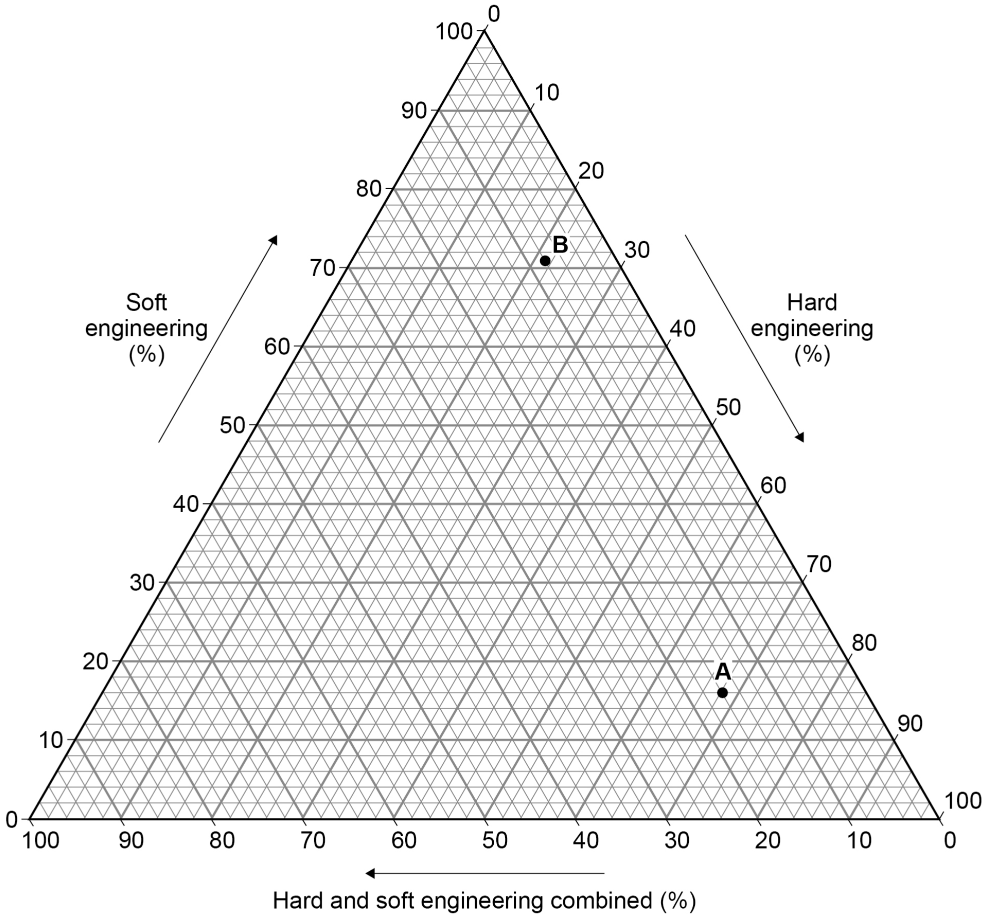
03	3	**Interpret the findings from <u>Figure 6</u>.** <u>Point marked</u> 2 marks for interpreting and comparing the results of Site A and Site B. • The mean scores for each site are similar suggesting that place satisfaction is similar (and quite high) in both locations, although the slightly higher mean for Site A suggests that residents here were slightly more satisfied overall (1). • There is a significant difference between the IQR for each site suggesting that Site A has place satisfaction scores that are more clustered around the median value whereas in Site B there is much greater variation in the way people scored place satisfaction (1) suggesting that some people were highly satisfied with the area they lived in but other not so (1d). • The spread of data around the median in Site B could be due to some very low or high scores for the individual criteria reflecting particular issue or strengths of the area (1) whereas Site A scores may have been more consistent across all 4 criteria assessed (1d). Credit any other valid points.	**2** **AO3=2**

03	4	**Using Figures 3, 4, 5 and 6, evaluate how far the data collected and the way it was processed would be useful for proving her hypothesis.** **AO3** – Use a range of information and techniques to synthesise and draw aspects of the study together. Evaluation of primary and secondary data collection and data processing in relation to the aim of the investigation. Mark scheme **Level 3 (7–9 marks)** Detailed use of information about the enquiry which is used to evaluate how far primary and secondary data collection and processing are useful for proving a hypothesis. Detailed evidence of drawing together different elements of the study in order to support the response. **Level 2 (4–6 marks)** Clear use of information about the enquiry which is used to evaluate how far primary and secondary data collection and processing are useful for proving a hypothesis. Clear evidence of drawing together different elements of the study in order to support the response. **Level 1 (1–3 marks)** Basic use of information about the enquiry which is used to evaluate how far primary and secondary data collection and processing are useful for proving a hypothesis. Basic evidence of drawing together different elements of the study in order to support the response. Notes for answers • The secondary data would appear to have limited use in testing the hypothesis as the size of house may be more useful as a measure of social or environmental inequality rather than place satisfaction. Other secondary data such as photo analysis may have been more relevant. • In addition, the triangular graph is not really a useful tool for helping to analyse the differences between the two areas and the data could have been graphed using a pie chart or percentage/compound bar graph to make comparisons. • The quantitative data collected could be used to test the hypothesis. However, the qualitative data lends itself to a more ‘exploratory’ investigation and may not be helpful for testing a specific hypothesis. • There is no mention of any sampling strategy which is an important part of quantitative primary data collection to ensure the hypothesis can be reliably tested. Also, there is a small sample size which may make testing the hypothesis unreliable. However, this survey could be a pilot survey leading to a larger survey following a review process. • The sliding scale used to record place satisfaction was simple and easy to use to quantify subjective opinions. However, a bi-polar scale may have made it easier to test for dissatisfaction. The categories that were scored were quite vague and large aspects of place satisfaction and this may have affected the reliability of responses to test the hypothesis. • The student processes the data to focus on a total place satisfaction score. Using the individual category scores may have enabled a more	**9** **AO3 = 9**

detailed analysis that may help to reliably test the hypothesis as one issue or problem with a place may have skewed the total place satisfaction scores. Also, there were no weightings given to scores and some aspects of place satisfaction may be deemed to be more or less important.

- The use of statistical analysis (comparing means and inter-quartile range) could help to test the hypothesis by comparing a single number for each site and highlighting differences. The IQR then helped to show the spread of values around the median which would lead to a more detailed analysis of the data. However, some may argue that calculation of standard deviation would be a more reliable way to further statistically test the data.
- The qualitative data may be less useful for testing a hypothesis as it is subjective data and is probably more useful for looking at the reasons for the differences in place satisfaction. The qualitative data could have been useful to help set up the categories for scoring, but it appeared to take place after the questionnaire survey. However, by using narrow prompts that are closely linked to the quantitative data collection, the data collected could have been used to support the findings from the questionnaire, therefore contributing to the testing of the hypothesis.
- Some candidates may interpret the question as a requirement to complete the study using the data available. If this is the case, their evaluation may be that the data collected would enable a valid conclusion to be reached and thus the hypothesis proved. This is an acceptable approach providing it states a conclusion that is supported by the data collected in the Figures.
- Overall, the student has collected and processed some data that would be useful for testing the hypothesis. However, there are questions about the appropriateness and reliability of the data collected. There are also questions about the role of qualitative data in hypothesis testing. The data processing would enable the hypothesis to be tested but more could have been done to enable a more detailed analysis in relation to the hypothesis.

Credit any other valid approach.

04	1	**Referring to Figure 7, plot and label the data for River A and River B onto the triangular graph in Figure 8.** Point marked 1 mark for each accurate plot and label.  	**2** **AO3 = 2**

04 2

Complete Figure 10 by calculating the mean and the inter-quartile range (IQR) for River A.

4
AO3 = 4

- 1 mark for completing the LQ and the UQ and mean for Site A correctly.
- 1 mark for calculating the IQR for Site A correctly.

River A
Mean = 29

Inter-quartile Range

Upper-quartile (UQ) = n+1/4 th position = 33

Lower quartile (LQ) = 3(n +1)/4 th position = 25

IQR = 8

04 3

Interpret the findings from Figure 10.

2
AO3=2

Point marked

2 marks for interpreting and comparing the results of River A and River B.

- The mean scores for each site are similar suggesting that flood management quality is similar (and quite high) in both locations (1).
- There is a significant difference between the IQR for each site suggesting that River A has flood management quality scores that are more clustered around the median value whereas in River B there is much greater variation in the way flood management quality was scored (1) suggesting that some sites had high flood management quality whereas others did not (1d).
- The spread of data around the median in River B could be due to some very low or high scores for the individual criteria reflecting particular issue or strengths of the sites (1) whereas River A scores may have been more consistent across all 4 criteria assessed (d).

Credit any other valid points.

04	4	**Using <u>Figures 7, 8, 9</u> and <u>10</u>, evaluate how far the data collected and the way it was processed would be useful for proving his hypothesis.** **AO3** – Use a range of information and techniques to synthesise and draw aspects of the study together. Evaluation of primary and secondary data collection and data processing in relation to the aim of the investigation. **Mark scheme** **Level 3 (7–9 marks)** Detailed use of information about the enquiry which is used to evaluate how far primary and secondary data collection and processing are useful for proving a hypothesis. Detailed evidence of drawing together different elements of the study in order to support the response. **Level 2 (4–6 marks)** Clear use of information about the enquiry which is used to evaluate how far primary and secondary data collection and processing are useful for proving a hypothesis. Clear evidence of drawing together different elements of the study in order to support the response. **Level 1 (1–3 marks)** Basic use of information about the enquiry which is used to evaluate how far primary and secondary data collection and processing are useful for proving a hypothesis. Basic evidence of drawing together different elements of the study in order to support the response. <u>Notes for answers</u> • The secondary data would appear to have limited use in testing the hypothesis as it is just a classification of the flood management strategies and does not indicate quality in line with the hypothesis. Other secondary data such as photo analysis may have been more relevant for examining quality of flood management. However, the secondary data is useful for identifying the river with the greater number of hard engineering strategies. • The triangular graph is not the most useful tool for helping to analyse differences in types of strategies used on each river and the data could have been graphed using a pie chart or percentage/compound bar graph to make comparisons. • The quantitative data collected could be used to test the hypothesis. However, the qualitative data lends itself to a more ‘exploratory’ investigation and may not be helpful for testing a specific hypothesis. • There is no mention of any sampling strategy which an important part of quantitative primary data collection is to ensure the hypothesis can be reliably tested. Also, there is a small sample size which may make testing the hypothesis unreliable. However, this survey could be a pilot survey leading to a larger survey following a review process. • The sliding scale used to record flood management quality was simple and easy to use to quantify subjective opinion. However, a bi-polar scale may have made it easier to test for negative aspects. The categories that were scored were quite vague and large aspects of	**9** **AO3 = 9**

		flood management that may also have been difficult to assess. This may have affected the reliability of scores to test the hypothesis. • The student processes the data to focus on a total flood management quality score. Using the individual category scores may have enabled a more detailed analysis that may help to reliably test the hypothesis as one issue or problem with a location may have skewed the flood management quality scores . Also, there were no weightings given to scores and some aspects of flood management quality may be deemed to be more or less important. • The use of statistical analysis (comparing means and inter-quartile range) could help to test the hypothesis by comparing a single number for each site and highlighting differences. The IQR then helped to show the spread of values around the median which would lead to a more detailed analysis of the data. However, some may argue that calculation of standard deviation would be a more reliable way to further statistically test the data. • The qualitative data may be less useful for testing a hypothesis as it is subjective data and is probably more useful for looking at the reasons for the differences in flood management quality. The qualitative data could have been useful to help set up the categories for scoring, but it appeared to take place after the quantitative survey. However, by using narrow prompts that are closely linked to the quantitative data collection, the data collected could have been used to support the findings from the questionnaire, therefore contributing to the testing of the hypothesis. • Some candidates may interpret the question as a requirement to complete the study using the data available. If this is the case, their evaluation may be that the data collected would enable a valid conclusion to be reached and thus the hypothesis proved. This is an acceptable approach providing it states a conclusion that is supported by the data collected in the Figures. • Overall, the student has collected and processed some data that would be useful for testing the hypothesis. However, there are questions about the appropriateness and reliability of the data collected. There are also questions about the role of qualitative data in hypothesis testing. The data processing would enable the hypothesis to be tested but more could have been done to enable a more detailed analysis in relation to the hypothesis. Credit any other valid response.	