



Pearson

GCSE Geography

Fieldwork Pack

Urban Areas

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Introduction

This pack is designed for you to work through if your school has chosen to opt for a fieldwork study of an urban area as part of your course.

You can use these materials either as part of your revision process or, as preparation with your teacher. In your course you will be prepared to answer some questions about your own fieldwork experiences; what you did, how you gathered information and so on and so forth; so-called **familiar topics**.

This is what the Exam Board know when they set these questions based upon **familiar** fieldwork experiences:

1. That you have had a chance to discuss what fieldwork is for – in other words what you are trying to find out and why you are trying to find it out. This will be in the form of a ‘question’ – for example, ‘How does the quality of the urban area vary in the city centre?’.
2. That you studied an urban area, investigating ‘changing city environments’ especially the ‘change in central/inner urban areas (Specification A) or ‘how and why the quality of life varies in urban areas’ (Specification B).
3. That you have used **at least one** quantitative method to gather data about land use (Specification A) or environmental quality (Specification B) – a technique that will involve numbers and measurement.
4. They know that you have used **at least one** qualitative method which will not involve numbers or measurement. For Specification A, this must include a qualitative method of ‘recording the quality of the environment’; whilst for Specification B, it must include ‘views and perceptions of the quality of life’.

There are minor differences depending on what specification that you are following Pearson Edexcel (9-1) Geography Specification A or Pearson Edexcel (9-1) Geography Specification Edexcel B. These are explained on page 4.

Specification A and Specification B

You will be following *either* Pearson Edexcel GCSE (9-1) Geography Specification **A**, or Specification **B**. Check with your teacher if you're unsure which one you are doing.

Specification A

Task	Changing city environments – investigating change in central/inner urban area(s)
Fieldwork Methods	Fieldwork data collection must include at least: <ul style="list-style-type: none">• one qualitative fieldwork method to record the quality of the urban environment• one quantitative fieldwork method to measure land use function. <p>Physical interaction: students must develop their understanding of the interaction between physical landscape features, the central/inner urban area and residents and visitors.</p>
Secondary data sources	The use of at least two different secondary sources of data, including: <ul style="list-style-type: none">• Census data e.g. Office for National Statistics (ONS) website• one other chosen by the centre.

Specification B

Task	Investigate how and why quality of life varies within urban areas.
Fieldwork Methods	Fieldwork data collection must include at least: <ul style="list-style-type: none">• one qualitative fieldwork method to collect data on the views and perceptions of quality of life• one quantitative fieldwork method to collect data on environmental quality.
Secondary data sources	<ul style="list-style-type: none">• Census data e.g. Office for National Statistics (ONS) Neighbourhood Statistics• One other source chosen by the centre.

Urban Fieldwork: Prior Knowledge Quiz (Answers on page 37)

Q.1. Which two of the following are usually important functions of a Central Business District?					
Retail	Industry	Agriculture	Commercial (offices)		
Q.2. Which of the following statements is generally true of city centres? (more than one answer might be correct).					
The buildings are often older than those in the suburbs		The buildings are usually taller/higher than those in the suburbs			
There are fewer people in the streets than in the suburbs during the day		Many people who work in the city centre do not live there			
Q.3. Which of the following is the correct definition of urbanisation?					
When people come from abroad to settle in towns cities		When cities lose population as people move out into surrounding rural areas			
When the proportion of the total population living in cities increases		When new buildings are constructed in city centres			
Q.4. What type of migration is mainly responsible for the growth of cities in the past 50 years?					
Q.5. Which of the following is an environmental factor that varies within a city?					
Sea- level	Air pollution	De-industrialisation	Climate change		
Q.6. Explain what is meant by 'analysing' fieldwork results					
Q.7. Explain the difference between the accuracy and reliability of the data that is collected					
Q.8. Which of the following is an example of quantitative data?					
An interview with a planning officer			A survey of land-use in a city centre		
Q.9. Name one type of qualitative fieldwork method that could be used to investigate an urban area					
Data collected by GCSE students last year			Data that is collected by me		
Q.10. Which TWO stages of the enquiry process are missing?					
Formulating Question	Presenting Data	Processing Data	Analysing Data		

Background information: Changing Cities and their Quality of Life.

1. Useful links and starting points

- The Time for Geography website has lots of short video clips to help you boost your geographical knowledge about cities [here](#)
- The BBC Bitesize website [here](#) also has an Edexcel-specific section that covers changing cities.
- To find out more about how cities are managed, have a look at this from the Joseph Rowntree Foundation website. It is a little more challenging but with much useful information [here](#).
- This webpage from the Climate Reality project also provides very useful material about how cities are facing up to environmental challenges [here](#).

2. Urban Forms and Functions

- **Cities** are large urban areas with a range of functions which are common to most cities.
- These **functions** vary from place to place in the city so cities have a varied land use pattern.
- Cities are the most important centres of economic, social, political and cultural activity in a country but some cities are more important than others.
- Cities vary in their structure but in the UK there are some common patterns.

Central Business District	Inner suburbs	Outer suburbs	Commuter zone on the urban-rural fringe
An area dominated by retail and commerce with relatively few residents. Buildings are taller and green space is limited. Some city centres have experienced decline in recent years.	Dominated by 19 th and 20 th century housing but also once the location of manufacturing industry, now largely gone and replaced by other types of land use.	These grew rapidly from the early 20 th century as car ownership spread – dominantly residential these areas are less densely populated than the inner suburbs and properties are often more expensive.	As transport has developed and central city areas have become more expensive the commuting zone has expanded well beyond the city boundaries into the surrounding countryside.

3. City management

What goes where in cities in the UK is controlled by two processes:

1. The cost of land, making more desirable land more expensive.
2. The planning process – local and national governments need to give permission for almost all plans, large and small.

The Six Stages of Enquiry

The Exam Board also know that you will have been talked through the six stages of the fieldwork process, as shown below.

The right-hand column is a trimmed down version of the 'Description'.

Stage in the enquiry process	Description (in the specification – 'teacher speak')	Which means...
1	Understanding of the kinds of question capable of being investigated through fieldwork and an understanding of the geographical enquiry processes appropriate to investigate them.	What were we actually trying to find out? How was our fieldwork organised?
2	Understanding of the range of techniques and methods used in fieldwork, including observation and different kinds of measurement.	Why did we take the measurements that we did? How did that help answer the question in Stage 1?
3	Processing and presenting fieldwork data in various ways, including maps, GIS, graphs and diagrams (hand-drawn and computer-generated).	How did we show our results? What maps, diagrams graphs did we use?
4	Analysing and explaining data collected in the field, using knowledge of relevant geographical case studies and theories.	What did our results show? Were they what we expected from our understanding of geography?
5	Drawing evidenced conclusions and summaries from fieldwork transcripts and data.	Overall and looking back to our question in Stage 1, what did we find out?
6	Reflecting critically on fieldwork data, methods used, conclusions drawn and knowledge gained.	Was the design of this day OK? Could we have done things better?

Now see how far you can get in answering the questions below. You will not be able to answer all of these until the end of the learning period, but they can be answered as you go along.

Stage in the enquiry process	Possible questions	Responses for your fieldwork
1	<p>Explain* how you chose the location for your fieldwork</p> <p>Explain why the enquiry question that you chose was appropriate to investigate</p>	
2	<p>Explain how you selected the sites/location for your data collection</p> <p>Explain one quantitative method that you chose for your data collection</p> <p>Explain two reasons why your data collection may not always have been accurate/reliable.</p> <p>Explain one qualitative method of data collection that you used</p> <p>Explain the role of secondary data in your enquiry.</p>	

3	<p>Explain how you presented one set of results of your data collection.</p> <p>Draw an annotated diagram/graph to show how you presented/explained some of your fieldwork data.</p> <p>Explain how you used GIS to help show your results.</p>	
4	Explain how case studies/theories helped you explain your results	
5	Explain the methods you used to analyse your data	
6	Explain how you would improve your enquiry.	

*You will notice that all these questions use the command word 'explain' that requires you to give **reasons for something** – it is not enough to describe what you did.

For example:

1. Why did you select six sites?
2. Why did you use a radar graph to present your data
3. Why did you choose that particular urban area or city to collect your data.

Remember that the examiner has no idea at all where you went or why.

The material below show answers prepared by a class with their teacher after completing their fieldwork and follow-up work; these are not 'model' answers and some are better than others. You should compare them with your own, probably once you have completed the rest of the material in this booklet.

Stage in the enquiry process	Possible questions	Responses for Northborough urban fieldwork
1	<p>Explain how you chose the location for your fieldwork</p> <p>Explain why the enquiry question that you chose was appropriate to investigate</p>	<p><i>It needed to be close to school to ensure that we had enough time to collect data. There are also legal and practical issues when conducting urban fieldwork. These had been checked by a pilot study in 2015 and the classes of 2018 and 2019 had collected data at the same sites without any incidents or issues.</i></p> <p><i>Enquiry question – ‘Does the environmental quality improve with distance from the town centre’.</i></p> <p><i>Four transects had been drawn on a 1:6000 map of Northborough, each starting at the same point in the centre (Site 1) and moving outwards to the edge of the town (Site 6) – these sites were broadly northwards, eastwards, southwards and westwards from the town centre for the four groups of students. The transects passed through areas that were built at different times showing a variety of land use and building age.</i></p> <p><i>We were also asked that before we began the transect that we should write down five words that best summarised our view of the town.</i></p>
2	<p>Explain how you selected the sites/location for your data collection</p>	<p><i>We selected Northborough because it is only 30 minutes' drive from our school and a manageable size with a population of about 30,000. It also has easy parking in the town centre. We used the copies of the map to decide on the transect sites with advice from our teacher. We decided to that all groups would start at the same site as a type of cross-check on our results. We had to consider the length of time needed to walk along these transects and the time that we would need to actually gather and record all the data. then complete the transects. We tried to use a systematic sampling with sites separated by about 250 metres but it wasn't always possible because road patterns do not follow straight lines and not all areas could be accessed safely. Before we went to Northborough we used Google street map to see the actual sites, which would help us identify them in the field.</i></p>

	<p>Explain one quantitative method that you chose for your data collection</p> <p>Explain two reasons why your data collection may not always have been accurate or reliable.</p>	<p>Method 1</p> <p><i>We measured environmental quality by using a score sheet that included 5 categories with questions covering condition of buildings, traffic, open/green space, shops and services, and litter. At each site we scored each of these factors using a scale ranging from +2 for a very positive impression and -2 for a very negative impression. A score of 10 would be the best possible. Site 1 was in the town centre and Site 6 was about 1250 metres from the centre</i></p> <p>Method 2</p> <p><i>We also mapped the land-use at each of the six areas between the sites along each transect with each estimating the % of land use in and around the six sites –the categories were residential, retail, industrial, professional and commercial, recreation and leisure, public buildings and finally open space</i></p> <p>Method 1 - Accuracy</p> <ol style="list-style-type: none"> <i>1.It was sometimes difficult to follow the maps and be absolutely sure that we were assessing the EQ at the correct sites.</i> <i>2. We had to decide what area or point we were actually considering. In some locations (site 2) we could see quite a lot of variation in traffic along the road.</i> <i>3. It wasn't always easy to agree on a score within the group and sometimes we chose an 'average' response.</i> <p>Method 1 - Reliability</p> <ol style="list-style-type: none"> <i>1. Reliability considerations might include the how typical the day was – for example roadworks had a big impact on traffic at one site but obviously they were not going to an issue for more than a few days. At another site a couple of houses were being virtually rebuilt and obviously improved. It was hard to score this.</i> <i>2. We collected our data in June on a working afternoon but as we finished the transect it was the end of the school day so traffic increased with many on the school run. That also increased the noise which would distort the results.</i> <p>Method 2</p> <p><i>This had very similar accuracy problems to Method 1 with disagreements about some of decisions made. Hopefully these would even out across the groups – some groups gave the land-use mapping job to one member of group.</i></p>
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	<p>Explain one qualitative method of data collection that you used</p> <p>Explain the role of secondary data in your enquiry.</p>	<p><i>We had been asked to write down five words that we thought best summarised Northborough before completing the transect. Back in the classroom each group constructed a 'wordle' diagram to show the results. We were interested in whether that would vary from group to group according to the route they taken but were also able to compare it with results from previous years including the results of a similar survey of residents' opinions taken in 2018 by a previous class. One of our teachers sent the whole group results to a local planning officer to ask for his views. He has promised to give us an interview about the environment of the town.</i></p> <p><i>We used 2011 census data derived from Datashine as part of our preparation and planning, to help choose contrasting areas of Northborough.</i> https://datashine.org.uk/</p> <p><i>We also used the Index of Multiple Deprivation data so that we could stratify our site selection to include a range of both IMD and Living Environment scores at different levels of deprivation. We used the IMD maps available on</i> http://dclgapps.communities.gov.uk/imd/idmap.html</p>
<p>3</p>	<p>Explain how you presented one set of results of your data collection.</p> <p>Draw an annotated diagram/graph to show how you presented/explained some of your fieldwork data.</p> <p>Explain how you used GIS to help show your results.</p>	<p>Method 1</p> <p><i>We chose to show our EQ scores using a radar graph – one for each transect (see figure 3b. This allowed us to compare the sites. We then annotated this radar graph with the secondary data on deprivation using the 'Living Environment' element of that index to help explain the differences.</i></p> <p><i>We also showed the land use changes on a divided bar group after combining the data from each group. On the y-axis we recorded the % for each of the six land use categories. On the x-axis we had the five areas (1-5 from left to right) with details about each location (e.g. Street name and OS grid reference) (see Figure 3e)</i></p> <p>See completed graphs in the answers section at the back of this booklet (page 39)</p> <p><i>We used GIS to add layers to the Digimap of our routes to show the changing EQ at the six data collection sites along each route, which we marked on the map showing the IMD data for the LSOAs and then added the total Environmental Quality scores at each of the sites.</i></p>
<p>4</p>	<p>Explain how case studies/theories</p>	<p><i>UK towns tend to grow outwards over time with an older core and younger suburbs. That can suggest that EQ might improve away from noisier, more congested and the more varied land-</i></p>

	helped you explain your results	<i>uses of city/town centres. However, planning also affects their urban geography with regeneration of inner areas and the development of suburbs or varying type from expensive private developments to older municipal housing areas now run by housing associations. Our results, which showed quite of lot of unevenness, did broadly reflect this.</i>
5	Explain the methods you used to analyse your data	<p><i>We entered our data on the data sheets provided by our teachers to show the EQ scores at each of our six sites on our allocated route. We recorded any issues with the data collection on those sheets.</i></p> <p><i>Once we returned to school we calculated the total scores for each of the sites which could range from +10 to -10, at least in theory. Once we had the same data from the other three routes we were able to put together four line graphs that showed how the EQ changed as we moved outwards from Site 1 at the centre to Site six on the rural-urban fringe. This method allowed a visual comparison to be made and also allowed us to compare with the other half of the year group who visited Northborough in the afternoon. We discussed possible reasons for differences; these might have had something to do with the precise places chosen to take the measurements or different perceptions across different groups, maybe because of social or ethnic background, but also because things could have changed in the afternoon, e.g. people on the school run affecting traffic noise. We also had access to data collected by the previous year's students so that we could look at differences which may affect the reliability of our results.</i></p>
6	Explain how you would improve your enquiry.	<i>Obviously, accuracy could be improved by better equipment especially for locating the precise points at which to carry out our EQ survey. One group had got quite lost and better use of mobile phone apps would have helped. We suggested that the precise coordinates be used in future studies. It would also have been helpful to have used Google Street View before we left and after we returned to check on the locations and also to check on the reliability issues – was our day 'typical'? If we had used it beforehand we might have been able to make the EQS a little more objective by having a discussion about some of the choices.</i>

Remember that **you do not need to learn** the detail of your results; that would be a memory test and not a test of your geography. If you do remember a few details then use them but it is much more important to understand what you did and why you did it rather than learning the precise environmental quality score or land use at Site 1 – but handy to remember how these varied in the urban area.

Student Tasks

You will also be presented with **unfamiliar** material which you will be asked about. Some of these questions will be based on resources. These questions may be asking you to make judgements about the quality of the plans whilst others will be about the conclusions that were drawn.

In total these questions will make up half of your total 'fieldwork' related marks.

The same six stage process will provide the basis for the questions that you will be asked.

In the next section there are a series of questions and you should try to answer them all. Some are very straightforward, others will need a bit more thought. Once again you can do this in any order but the final questions are the most challenging and best left until last. These questions are designed to 'walk you through' the whole fieldwork experience improving your marks in both the familiar and unfamiliar sections of your examination papers.

It is very important for you to note that most of these questions are NOT questions that are likely to see on an examination paper. They are designed to get you used to the special nature of the fieldwork section of this course and what it includes.

Question 1:

Have a look at the resource below (Figure 1a) used by students studying environmental quality in two contrasting areas of a city, and then answer the questions.




				
Very dirty				Very clean
Cold weather				Hot weather
Run down appearance				Modern appearance
Lots of traffic noise				No traffic noise
Roads with moving traffic				Fully pedestrianised zone

Figure 1a

(a) (i) Identify which of the factors that the students chose to use is not a useful measure of environmental quality when measuring contrasts in two areas of a city.

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(a) (ii) Suggest three other environmental variables that the students could have chosen to measure.

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The students are investigating differences in the environmental quality in two contrasting wards (areas) in the City of Bath, shown below on a map that indicates levels of income deprivation. The darker the colour the more deprived the area is.

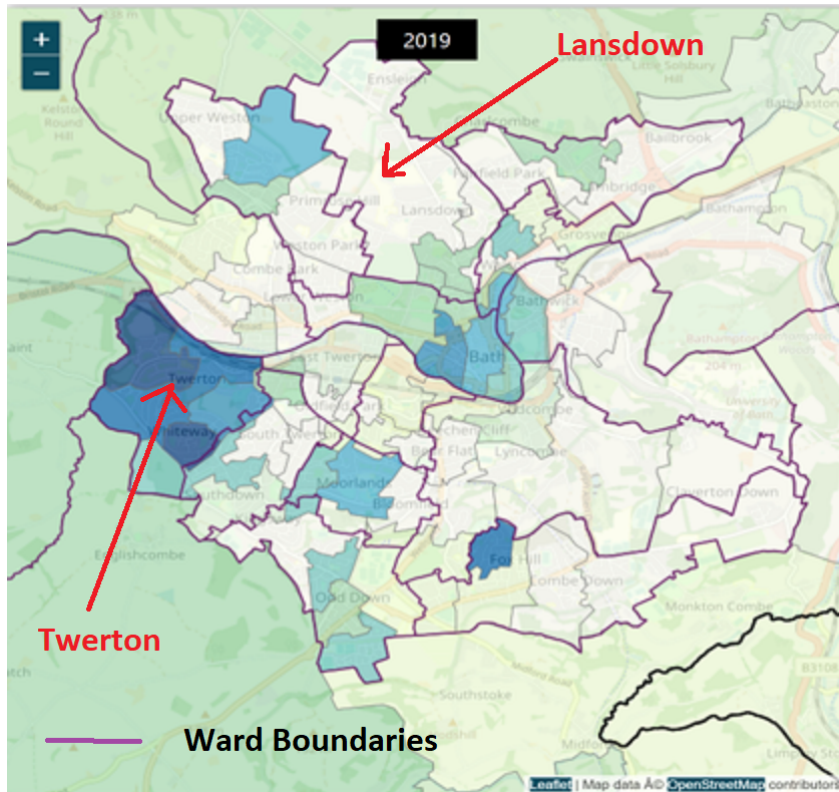


Figure 1b

(b) (i) The students measured environmental quality in both wards.
Suggest a suitable enquiry question that the students could have investigated.

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(b) (ii) Now look at the following responses to (b)(i):

Answer A: Are the wards different in income?

Answer B: Does environmental quality vary between the two wards?

Answer C: Does Twerton have a worse environment than Lansdown?

Answer D: Does the deprivation of the ward affect the environmental quality?

For each of these responses, write a quick comment – good, bad, what’s missing?

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B.
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(b) (iii) The students have 90 minutes to gather data in each of the two locations. One group of 16 students will visit Twerton in the morning, the other 16 will go to Lansdown in the morning. In the afternoon, they will change places.

Two possible recording sheets are shown below (Figure 1c and Figure 1d) and maps of the two areas (Figure 1e and Figure 1f)

boring	1	2	3	4	5	stimulating
ugly	1	2	3	4	5	attractive
crowded	1	2	3	4	5	peaceful
threatening	1	2	3	4	5	welcoming
private	1	2	3	4	5	public
cold/wet	1	2	3	4	5	warm/dry
monotonous	1	2	3	4	5	varied
obvious	1	2	3	4	5	mysterious
drab	1	2	3	4	5	colourful
weak	1	2	3	4	5	strong
confining	1	2	3	4	5	spacious
lonely	1	2	3	4	5	sociable
modern	1	2	3	4	5	historic

Figure 1c – A recording sheet used to measure Environmental Quality

Qualities being assessed		Very High +2	High +1	Average 0	Poor -1	Very Poor -2	
BUILDINGS	Well-designed/Pleasing to the eye						Poorly designed/Ugly
	In good condition						In poor condition
	Evidence of maintenance and improvement						Poorly maintained/ no improvement
	Outside – land, garden spaces in good condition						Outside – no gardens or open space or in poor condition
	No signs of vandalism						Extensive vandalism
TRAFFIC	Roads have no traffic congestion						Streets badly congested
	Parking is easy						Parking very difficult
	No traffic noise						High noise volume from traffic
	Safe for people						Dangerous for people
	No smell from traffic or other pollution						Obvious traffic smell and./or other pollution
OPEN SPACE	Large gardens and open spaces						No garden/open space – doors open onto streets
	Trees and shrubs visible close by						No greenery visible from houses
	Public parks/open space very close						No easily accessible public parks
GENERAL	No litter						Much litter
	Roads and paving well maintained						Roads and paving poorly maintained
	Close to public transport						Long walk to public transport
	Close to shops and services – a short walk						Remote from shops and services

Figure 1d – An alternative recording sheet used to measure environmental quality

**Which recording sheet would you use? Figure 1c or Figure 1d?
Explain your answer**

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(b) (iv) Using the two maps below (Figure 1e and Figure 1f), explain how the students should collect their data about the environmental quality of the two locations in the limited time that they have (90 minutes in each ward).

Remember that there are 16 students in each group.

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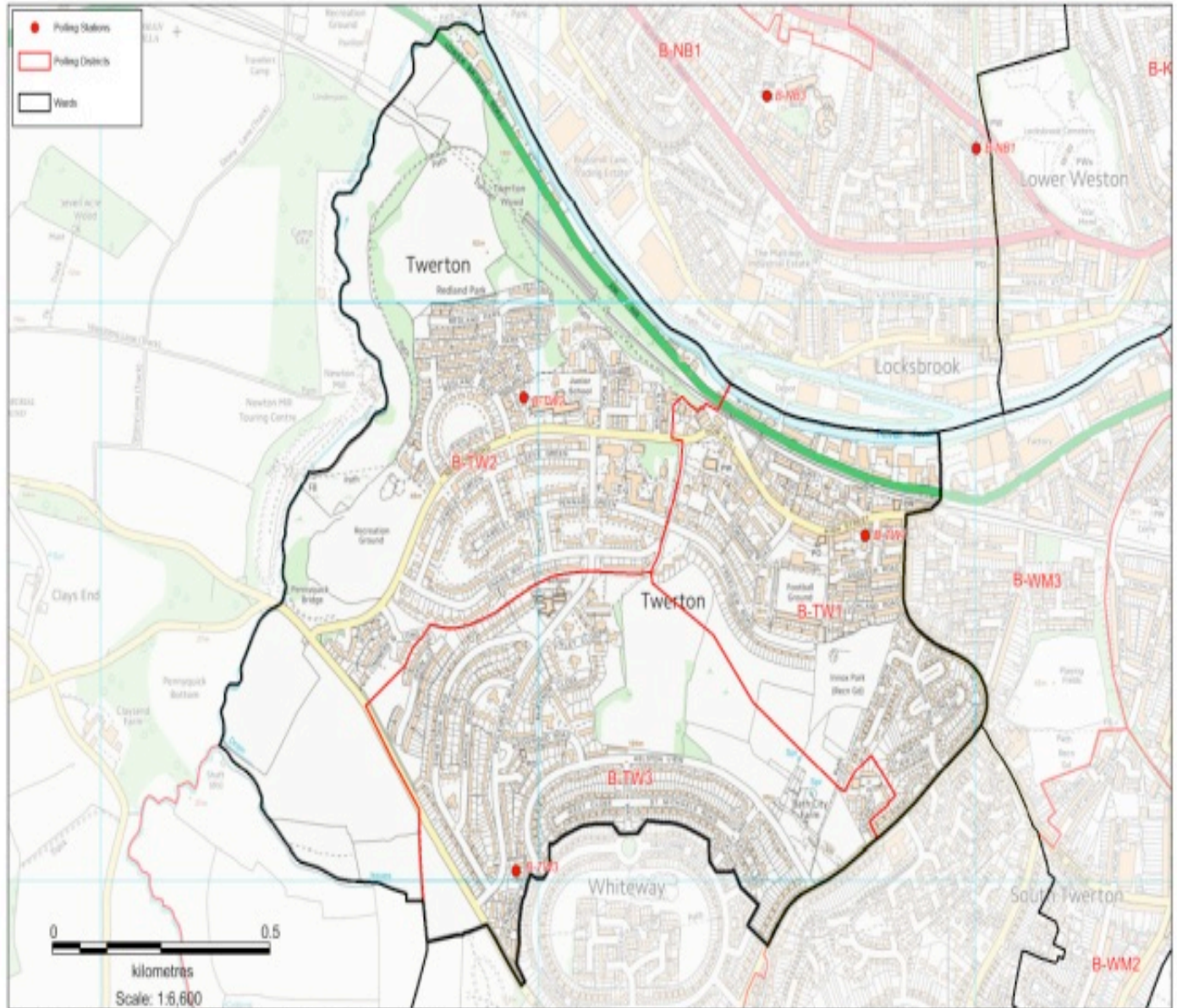
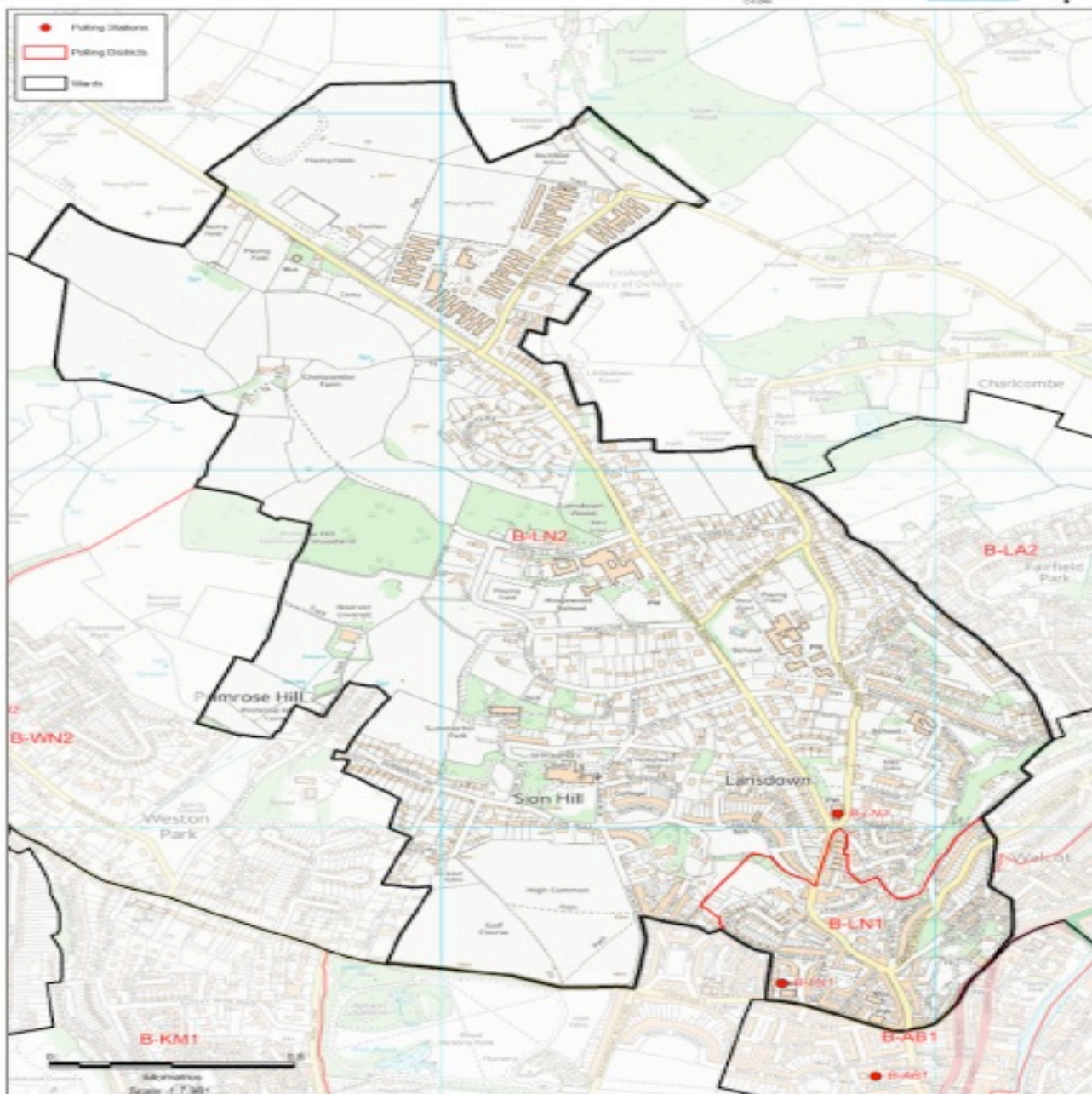


Figure 1e – Twerton ward



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Figure 1f – Lansdown ward

Question 2:

(a) Now look at Figure 2a and Figure 2b below. This was included in a piece of fieldwork when students measured land use patterns in the centre of the urban area and then presented their data in the form of a pie-chart. They carried out this fieldwork in June 2019.

The student described their methods as follows:

Type of data collection	Method used	Issues and problems
Land use mapping	We were split into four groups and given different parts of the town centre to map. We measured land use on the ground floor by recording every shop on a tally sheet placing it in one of 6 categories.	It wasn't always easy to tell what a shop was for – some seemed to be offices which were not places that people could enter. In other cases, the shop was empty but it was obvious what it was going to be so we recorded it that way and not as vacant. We weren't sure exactly what part of the town to stop mapping in so there may have been overlap or bits missing
Data presentation	When we got back to school we drew a pie chart to present that data (Figure 2b)	This was easy to do using excel

Figure 2a

(i) From the student's description of their fieldwork what do you think the enquiry question was? In other words, why were they collecting this data?

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(ii) Suggest one way in which their data collection method might be improved.

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(iii) Explain two reasons why the mapping of land use in the centre of the urban area may be unreliable.

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(b) Now look at the pie-chart that the students produced to record the land use in Northborough town centre, Figure 2b below.

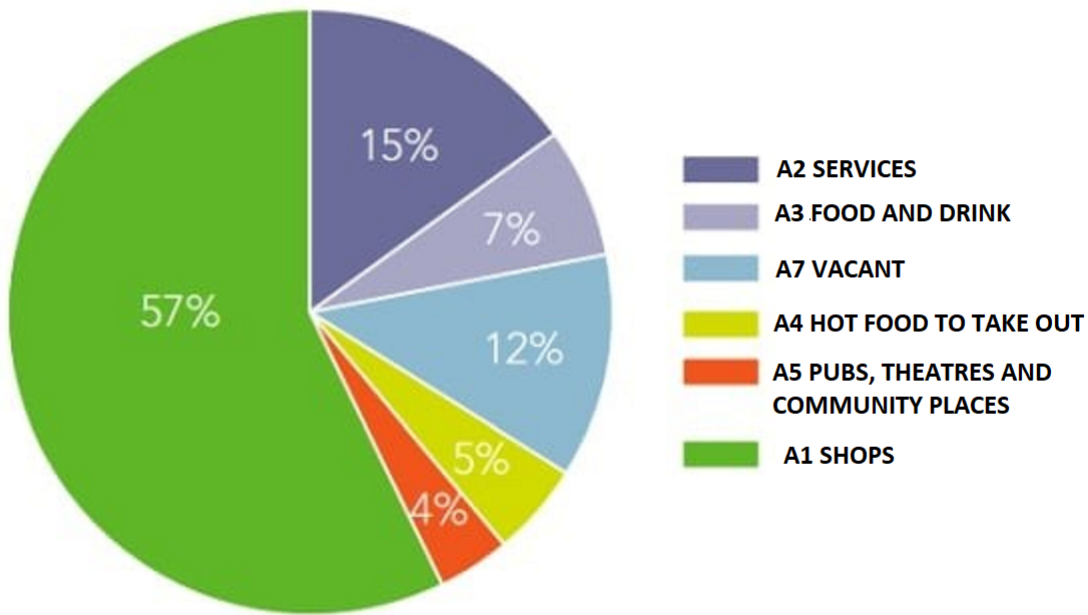


Figure 2b

(b) (i) Explain two ways in which you would improve this pie chart?

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(b) (ii) Suggest one other way in which this data could be presented.

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(c) Whilst following up their fieldwork, the students were given a 2017 GOAD map of the centre of Northborough. The teacher asks them to think how they could use this map.

The students agree that they should compare their fieldwork with this secondary source of data.



Figure 2c

(c) (i) Why is this a secondary source of data?

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(c) (ii) Now they have Figure 2b as secondary data, what question or hypothesis should the students create to investigate changes in Northborough’s city centre land use between 2017 and 2019?

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(c) (iii) Explain the methods that the students should use to produce a pie chart based on the GOAD map to compare with their own (Figure 2b).

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Question 3:

A group of 20 students carried out fieldwork in the central area of their local urban area to investigate variations in land use functions and environmental quality. They visited the city in early July 2019.

Before carrying out their fieldwork they chose six different sites along a transect from the CBD (Central Business District) to an inner city suburb.

The CBD is in Whitecliffe ward (urban area) (Sites 1,2 and 3) whilst the inner-city suburb is in Edgecombe ward (sites 4,5 and 6)

They designed their transect so that Sites 1,2 and 3 were all in Whitecliffe whilst Sites 4,5 and 6 were all in Edgecombe. The sites were about 250 metres apart.

Before carrying out their primary fieldwork, they used the census website to find out more about these two wards (areas) in the city. They put this information into a table: please see Figure 3a below.

Census Data 2011	Whitecliffe	Edgecombe	City as a whole	UK average
% in bad or very bad health	8	3	4	6
% unemployed	5	2	2	3
% with no qualifications	32	6	17	22
% in professional, scientific and technical jobs	4	14	8	72
% living in a detached house	2	20	21	22

Figure 3a

Their primary data was in two parts:

1. The students measured the environmental quality at each of the six sites of their transect measuring the condition of buildings, litter, shops and services, traffic and green spaces. They scored each of these factors out of 10 with 10 being excellent, and 0, very poor (see Figure 3c).
2. They also gathered data estimating the land uses in the areas between the sites which they entered as percentages on their record sheet. (see Figure 3e).

Their two enquiry hypotheses were:

1. **The environmental quality will be better in Edgecombe than in Whitecliffe.**
2. **Residential areas will have better environmental scores than areas with more mixed land use.**

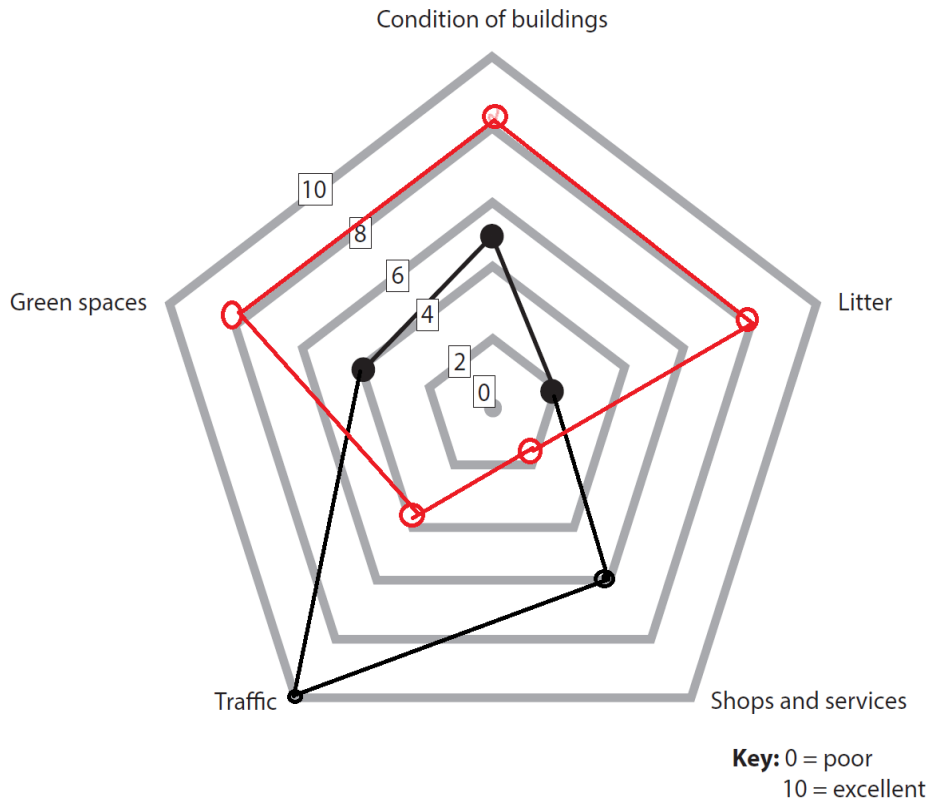


Figure 3b

(a) Identify which of the two completed radar graphs is Site 1, Whitecliffe.

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(b) Explain your answer.

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(c) The data below (Figure 3c) is for Site 6 – enter this data on the radar graph (Figure 3b)

Factor	Score
Condition of buildings	9
Litter	10
Shops and services	2
Traffic	7
Green Spaces	9

Figure 3c

The scores for all six sites are shown below on Figure 3d.

Factor	Whitecliffe			Edgecombe		
	Site 1	Site 2	Site 3	Site 4	Site 5	Site 6
Condition of buildings	5	4	6	8	9	9
Litter	2	3	5	8	7	10
Shops and services	6	5	2	2	2	2
Traffic	10	4	3	4	6	7
Green Spaces	4	5	4	8	2	9

Figure 3d

(d) Re-read Hypothesis 1 below.

The environmental quality will be better in Edgecombe than in Whitecliffe.

Suggest one piece of evidence that supports this hypothesis.

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(e) Suggest one piece of evidence that does not support this hypothesis.

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(f) The students concluded the environment of Edgecombe is better than that of Whitecliffe?

Assess the evidence for this view.

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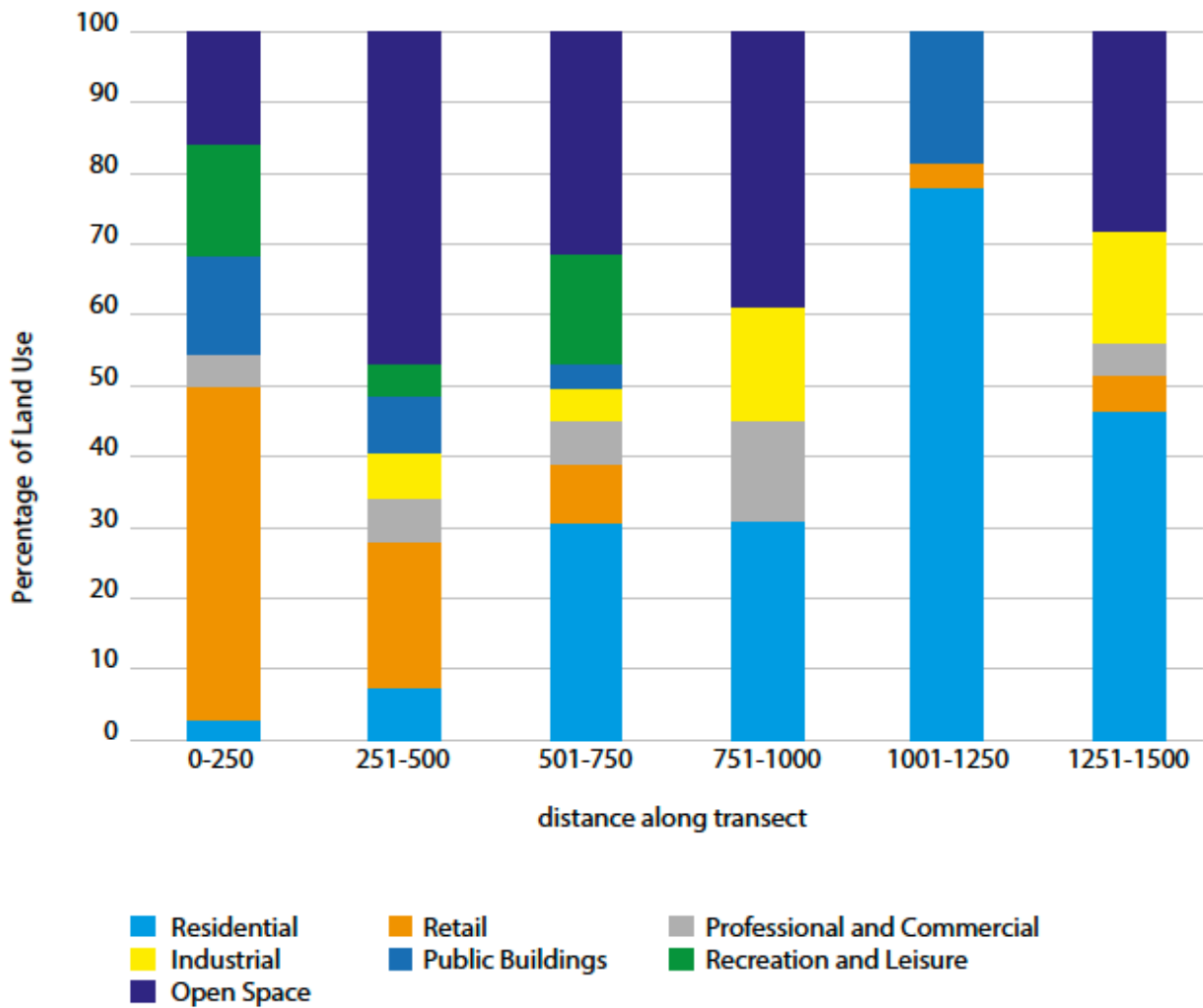


Figure 3e

(g) The students decided to show the changing land use in the town with a divided bar chart. Explain one advantage of using divided bar charts.

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(h) Suggest one other method that could be used to show this data.

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(i) Re-read Figure 3a and the students' second hypothesis (see below).

Residential areas will have better environmental scores than areas with more mixed land use.

What further enquiry question might have been developed using that data?

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Question 4:

Introduction to question 4

This two-part question brings together some of the skills that we have been covering in the earlier part of this booklet. It is in the style of an exam question although rather 'fatter' than any question that you actually have to answer will be. The 'answers' that are provided are written in the style of a proper mark scheme and you may need some help with that, especially understanding the AOs (Assessment Objectives) and how they affect the marking.

Question 4

A group of 20 students carried out fieldwork, investigating the perceptions of the quality of life in a popular seaside town on the Cornish coast. They visited the town in early July.

The town's summer population is made up of three main groups:

1. A resident population who live and work in the town but also include people who have retired there.
2. Second-home owners who tend to visit at weekends, especially in school holidays.
3. Tourists who rent properties in the area or camp nearby; this includes families but also groups of young people attending music festivals.

Working in pairs, the students were asked to interview at least 5 people, per pair.

They first asked them whether they were residents, second home owners or tourists.

They then asked the interviewees to describe the town using five words that best summarised their views noting their answers under one of their three headings: residents, second-home owners and visitors.

The results are shown below on the 'Wordle' diagrams where the frequency that a word is used is shown by the size of font of that word; the more frequently it is used the larger the font.

Figure 4a shows the views of residents; Figure 4b shows the views of the second-home owners and Figure 4c shows the views of the visitors.



Figure 4a: Residents (13 were interviewed)



Figure 4b: Second home owners (7 were interviewed)

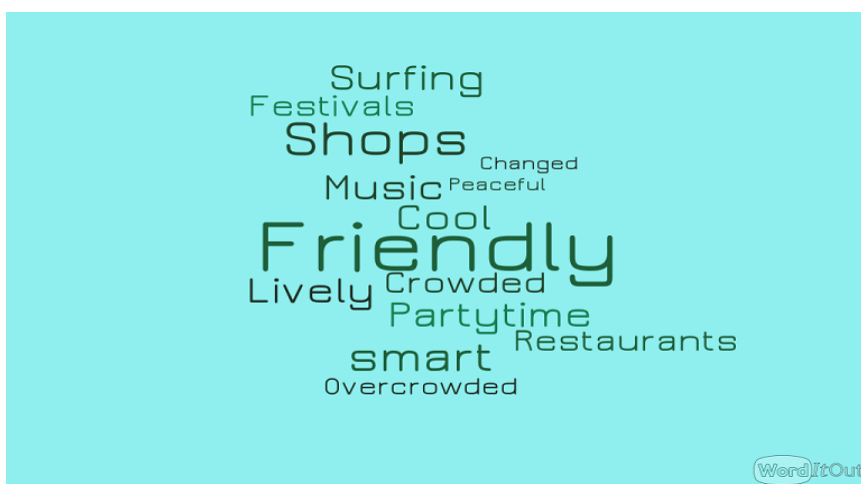


Figure 4c: Visitors (28 were interviewed)

Appendix 1: Answers to Urban Prior Knowledge Quiz

Q.1. Which two of the following are usually important functions of a Central Business District?					
Retail	Industry	Agriculture	Commercial (offices)		
Q.2. Which of the following statements is generally true of city centres? (more than one answer might be correct).					
The buildings are often older than those in the suburbs		The buildings are usually taller/higher than those in the suburbs			
There are fewer people in the streets than in the suburbs during the day		Many people who work in the city centre do not live there			
Q.3. Which of the following is the correct definition of urbanisation?					
When people come from abroad to settle in towns cities		When cities lose population as people move out into surrounding rural areas			
When the proportion of the total population living in cities increases		When new buildings are constructed in city centres			
Q.4. What type of migration is mainly responsible for the growth of cities in the past 50 years?					
Rural to Urban migration					
Q.5. Which of the following is an environmental factor that varies within a city?					
Sea- level	Air pollution	De-industrialisation	Climate change		
Q.6. Explain what is meant by 'analysing' fieldwork results					
Explaining any trends or patterns in your results that help you answer your original questions or hypotheses.					
Q.7. Explain the difference between the accuracy and reliability of the data that is collected					
Accurate data records what you measured without error. Reliable data is data that would be collected again with similar results – it is a fair reflection of the 'real' situation					
Q.8. Which of the following is an example of quantitative data?					
An interview with a planning officer		A survey of land-use in a city centre			
Q.9. Name one type of qualitative fieldwork method that could be used to investigate an urban area.					
Data collected by GCSE students last year		Data that is collected by me			
Q.10. Which TWO stages of the enquiry process are missing?					
Formulating Question	Presenting Data	Processing Data	Analysing Data	Drawing conclusions	Evaluating the fieldwork

Appendix 2: Answers to Question 1 – 4

Question 1:

(a)

(i) Cold weather/hot weather – weather is unlikely to vary greatly at the scale of a city

(ii) There is a wide range of possible choices here from 'green spaces', 'litter', 'graffiti' to 'air quality'. Obviously there is overlap here but the scale used on Figure 1a is quite simple and the categories are not always easy to assess.

(b)

(i) Possible enquiry questions would be different versions of - **Is Twerton's environment worse than that of Lansdown because it is more deprived?**

In other words, does the primary data (an environmental survey) mirror the pattern shown on Figure 1b – the secondary data showing deprivation is far higher in Twerton than Lansdown.

(ii) The best of these is D because it includes a reference to both the primary data and the secondary data.

A – This is very limited because the map answers the question and environmental quality is ignored

B – The reverse of A – here the Secondary data is ignored – the map!

C – Better because of the use of 'worse' rather than just 'vary' as in B but still one sided – no use of the map

D – the closest to the 'ideal; answer (see answer to (b) (i))

(iii) There is no 'right' answer here but here are some of the positives and negatives of the two forms.

Figure 1c would be:

- More of a quick impression – just opposites based on one word
- So quicker to carry out – 13 pairs of words

But:

- 'less' of a measure so more likely to be different with different people and groups
- Some words just confusing and hard to understand 'confining', 'spacious'.

Figure 1d would be:

- More scientific – more objective.

But:

- It would take longer – 17 different decisions to make and a more complex scale, all in 90 minutes.

(iv) The most basic problem here is time – 90 minutes to carry out this task which has already been assessed as quite time consuming (see (b) (iii) answers).

A choice needs to be made between trying to map the whole area which looks to be more of a challenge in Lansdown which is both bigger and an awkward shape with more distance to cover, or sampling. If the whole area is to be mapped then 4 groups of four might be a

possible plan. However even that looks very hard to achieve – using the map scale (which you should have done!) the walk up to the north-west corner of Lansdown is at least 2.5 km from the south-east corner – so a round trip of about 5 km and that is without walking down the side streets to record their environmental quality.

So, for Lansdown, it will be obviously be necessary to select sites with, perhaps two or even four transects being drawn on the map to cover different areas on Lansdown – a systematic sample if possible – if sites are kept to 4 or 5 per transect then and distances kept to 1km or a little more then that would work.

At the same time, it is much easier to get around Twerton in the time allowed, given that it is so much more compact, and a complete map might be achievable there. If not, transects then systematic site selection would have to be used.

Question 2:

(a)

(i) It isn't easy to know what the enquiry question might be. It could be about variations in land use from one part of the town centre to another or perhaps changes over time comparing their primary data with older secondary data.

(ii) Either one of:

- They needed to be clear about the classification of vacant properties
- They needed to be clear about their location to avoid inaccuracies

(iii) There are two main issues:

- Almost all the buildings will have more than one floor and those floors are not included in the ground floor land use mapping making it an unreliable guide to land use,
- They could have used the maps to estimate the area occupied by different types of land use – the method just counts the units however large or big they might be.

(b)

(i) There are several examples of possible improvements here:

1. Usually the largest 'slice' of the pie is placed first and not last as here.
2. Usually the key would be presented from A1 to A7
3. A6 appears to be missing, which is odd
4. Colour choices would be difficult for colour-blind students

(ii) As a divided bar chart, a doughnut pie chart, a bar chart.

(c)

(i) Because it wasn't collected by the individual or individuals carrying out the fieldwork in the town – primary data collection.

(ii) There are a couple of possible variations on the same theme of 'before and after'.

1. That the retail land use has changed significantly.
2. That there has been a decline in the 'health' of the town centre with an increase in vacant lots.

(iii) This is a process with several stages but needs a decision to be made that adds theatre and 'community' land uses to A5 (on Figure 2b) to keep it consistent. So:

1. Count up the total number for each category and note it
2. Add all these numbers together to produce a grand total of shops and other services in the town centre
3. Work out the % for each category so, for example, if the grand total is 120 and there are 60 shops then $60/120 \times 100 = 50\%$ - you may have to round up/round down your numbers
4. Once all 6 categories of land use have been calculated work out the angle of the pie 'slice' as a % of 360 degrees, so for shops it is $50/360 \times 100 = 180^\circ$
5. Now plot these values on a pie chart with the title 'Land use in Northborough's town centre in 2017'

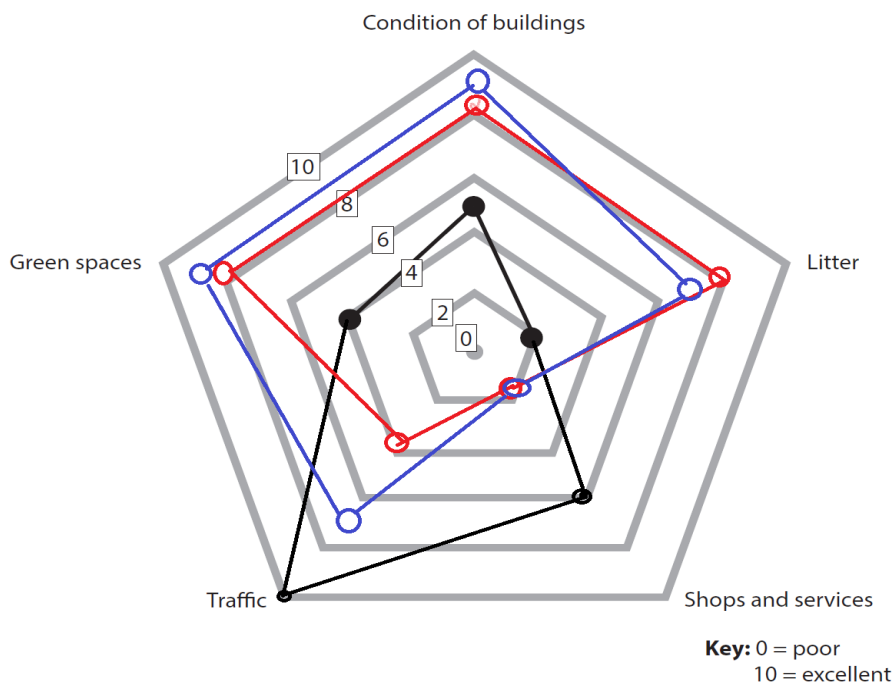
Question 3:

(a) Site 1 is the black line on the radar graph.

(b) There are two main reasons

1. Site 1 has a much higher score for shops on the black line than the red line and that is typical of town centre.
2. Site 1 has much less green space on the black line than the red line – again, that is typical of town centre.
3. Site 1 is right in the middle of the town and may well be pedestrianised so scores very well for traffic – in other words not much of it.

(c) Please see below – the blue line is Site 6



(d) There are several options here:

1. The buildings are in better condition.
2. There is much less litter.

3. The two highest scores for green space are both in Edgecombe.

(e) There are two options here;

1. Shops and services appear to be few and far between in Edgecombe.
2. Traffic doesn't really support it – given a 10 at Site 1.

(f) For the most part their results do confirm the hypothesis that they began with. However, the results are not conclusive because there are poorer scores for shops and services whilst traffic is also less clear. Another less obvious issue is that they have measured five environmental factors and others might be very different – for example air pollution or noise.

(g) There are three possible answers;

1. It is easy to compare the different areas and...
2. ...see trends for individual land uses
3. It is possible to read the exact data off the graph.

(h) Pie-charts, proportional circles, histograms for each element

(i) One or two possibilities;

1. Environmental problems are more serious in more deprived areas of the city
2. Less deprived people can afford to live in better environments

These could be followed up with a little further research into the city using the IMD database ([here](#))

Question 4:

Question	Indicative content
4 a	<p data-bbox="288 304 1241 338">Explain the possible reasons for these differences in opinions</p> <p data-bbox="619 342 1107 376">AO2/3 (4 marks) / AO4 (4 marks)</p> <ul data-bbox="339 416 1433 1727" style="list-style-type: none">• Some residents may be resentful of second home owners and tourists because they ‘take over’ the town in summer months leading to congestion e.g. shortage of parking (AO4) they may push prices up and ‘spoil’ the town (AO2/3)• However the residents are likely to have mixed opinions because some see a ‘darker’ side to the town because they may have grown up in it seeing its deprivation and its changes (AO3 and AO4) although others who own business in the town or work in the tourist business may be much more positive about it using terms such as ‘lively’ (AO2 and AO4) some may profit from second home owners pushing up property prices and holiday rental incomes (AO2 and AO3) hence seeing it as ‘improving’ (AO4)• Second homeowners who have made a positive choice to buy in this area (rather than somewhere else) are likely to be attached to the place and thus positive (AO2/3 and AO4)• Restaurants and shops feature high on their list of words (AO4) suggesting that they spend money in the town and support its businesses which perhaps help explain why some residents are positive (AO3)• There are some contradictions which may result from different visiting patterns and of course where exactly they live – in the town or in the surrounding countryside (AO3) for example equal weighting to ‘peaceful’ as to ‘lively’ (AO4) with some regarding it as ‘home’ suggesting a real attachment to the place (AO3)• The ‘tourist’ responses are also largely positive, also partly explained by the fact that they have made an active choice to visit this area as opposed to others (AO3) ‘Friendly’ is the top response as opposed to the ‘shops and restaurants’ beloved by the second-home owners (AO4) suggesting less money (perhaps) and different motives for their visit (AO3) including the music (festivals) and the ‘surfing’ and ‘partytime’ (AO4) these all suggest a much younger profile of interviewees which will help explain their different responses (AO3) <p data-bbox="288 1776 842 1809">Accept other appropriate responses</p>

Level	Mark	Descriptor
	0	No rewardable material.
Level 1	1–3	<ul style="list-style-type: none"> • Attempts to apply understanding to deconstruct information but understanding and connections are flawed. An unbalanced or incomplete argument that provides limited synthesis of understanding. Judgements that are supported by limited evidence. (AO2/3) • Uses some geographical skills to obtain information with limited relevance and accuracy, which supports few aspects of the argument. (AO4)
Level 2	4-6	<ul style="list-style-type: none"> • Applies understanding to deconstruct information and provide some logical connections between concepts. An imbalanced argument that synthesises mostly relevant understanding, but not entirely coherently, leading to judgements that are supported by evidence occasionally. (AO2/3) • Uses geographical skills to obtain accurate information that supports some aspects of the argument. (AO4)
Level 3	7-8	<ul style="list-style-type: none"> • Applies understanding to deconstruct information and provide logical connections between concepts throughout. A balanced, well-developed argument that synthesises relevant understanding coherently leading to judgements that are supported by evidence throughout. (AO2/3) • Uses geographical skills to obtain accurate information that supports all aspects of the argument. (AO4)

Question	Indicative content
4 b	<p>Assess the reliability of the results gathered by the students to investigate perception (12)</p> <p>AO3 (6 marks) / AO4 (6 marks)</p>
	<ul style="list-style-type: none"> • This question is not about the accuracy of the data collection in terms of whether or not students recorded the answers correctly but errors in data recording will, of course feed through to the reliability of the results. • Instant responses choosing only five words may lead to misleading results as people do not reflect on how the word might be interpreted (AO3) – for some ‘quiet’ might be intended as a positive response whereas for other it might be meant negatively (AO3) in general this a very impressionistic guide to perception and thus not entirely reliable. (AO3) • In order to explore perception further it would have been useful to ask about likes and dislikes asking for 5 positives and 5 negatives (AO3) • There may be issues over how representative the interviewees were (AO3) for example there are only 7 second home owners interviewed – a small number relative to the 28 visitors interviewed (AO4) 35 ‘words’ as opposed to 140 words (AO4) that might be explained by where the interviews took place or unconscious bias of students approaching young people of their own generation in preference to older people (AO3) • There may also be issues about repetition (AO3) it could be that some people were interviewed twice thus affecting reliability (AO3) • Grouping ‘visitors’ into one group (AO4) might have affected reliability visitors on family holidays may have very different perceptions from a teenager attending a music festival with a group of friends (AO3) • Music festivals take place occasionally and thus the responses from those attending these festivals may not be representative of the general demographic profile in the town and so not reliable (AO3) • It is unknown what the weather conditions were on the day the data was collected and thus whether people’s moods might be affected (AO3) • The recorded responses make a visual impact but some of the words are just synonyms (AO3) lively and crowded are obvious examples (AO4) <p>Accept other appropriate responses</p>

Level	Mark	Descriptor
	0	No rewardable material.
Level 1	1–4	<ul style="list-style-type: none"> • Attempts to apply understanding to deconstruct information but understanding and connections are flawed. An unbalanced or incomplete argument that provides limited synthesis of understanding. Judgements that are supported by limited evidence. (AO3) • Uses some geographical skills to obtain information with limited relevance and accuracy, which supports few aspects of the argument. (AO4)
Level 2	5-8	<ul style="list-style-type: none"> • Applies understanding to deconstruct information and provide some logical connections between concepts. An imbalanced argument that synthesises mostly relevant understanding, but not entirely coherently, leading to judgements that are supported by evidence occasionally. (AO3) • Uses geographical skills to obtain accurate information that supports some aspects of the argument. (AO4)
Level 3	9-12	<ul style="list-style-type: none"> • Applies understanding to deconstruct information and provide logical connections between concepts throughout. A balanced, well-developed argument that synthesises relevant understanding coherently leading to judgements that are supported by evidence throughout. (AO3) • Uses geographical skills to obtain accurate information that supports all aspects of the argument. (AO4)

Appendix 3: Useful Links

Specifications, Sample Assessment Materials (SAMS) and Past Exam Papers:

- Specification A: [click here](#)
- Specification B: [click here](#)

Fieldwork Guides:

- Specification A: [click here](#)
- Specification B: [click here](#)

Key terms pack:

- Specification A: [click here](#)
- Specification B: [click here](#)