

Surname	Centre Number	Candidate Number
First name(s)		0



GCSE

C112U30-1



O21-C112U30-1



WEDNESDAY, 1 DECEMBER 2021 – MORNING

GEOGRAPHY B – Component 3

Applied Fieldwork Enquiry

1 hour 15 minutes

For Examiner's use only		
	Maximum Mark	Awarded Mark
Part A	12	
Part B	12	
Part C	36	
SPaG	4	
Total Marks	64	

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ADDITIONAL MATERIALS

Resource folder. You may also require a calculator and a ruler.

INSTRUCTIONS TO CANDIDATES

Answer **all** of the questions in this examination paper.

Use black ink or black ball-point pen. Do not use gel pen or correction fluid.

You may use a pencil for graphs and diagrams only.

Write your name, centre number and candidate number in the spaces at the top of this page.

Write your answers in the spaces provided in this booklet.

Additional space is provided for some questions within the booklet (if required). If further space is required for any question, you should use the additional page(s) at the end of this booklet. The question number(s) should be clearly shown.

INFORMATION FOR CANDIDATES

The number of marks is given in brackets at the end of each question or part-question.

You are reminded that assessment will take into account your ability to spell, punctuate and use grammar and specialist terms accurately in your answer to Part C, Question 3(d).



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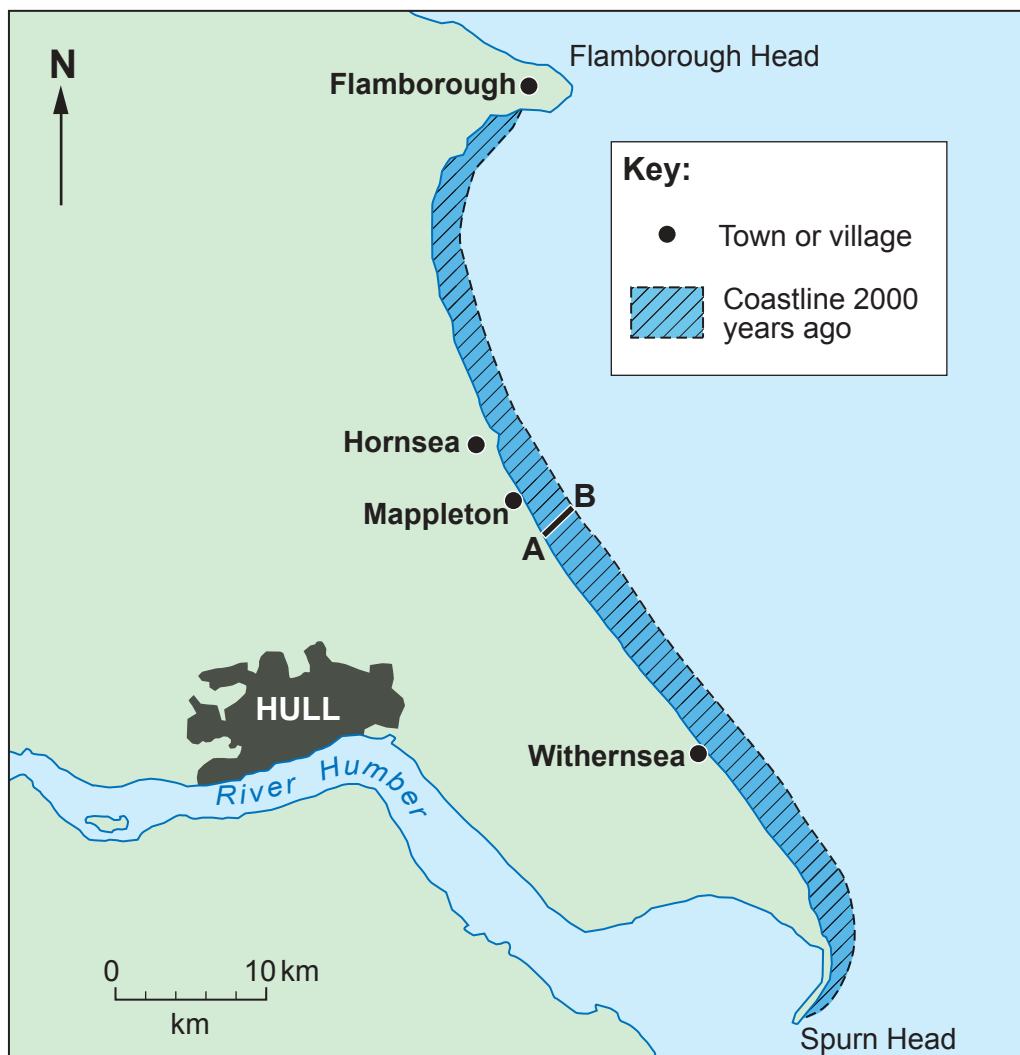


Part A: Investigating change over time

Answer **all** parts of this question. You should use your experience of investigating **change over time** in fieldwork to support your answers.

1. (a) Students decided to investigate the changing rate of erosion on a stretch of local coastline. They collected secondary data including **Map 1.1**.

Map 1.1 – Coastal erosion on the Yorkshire coast



- (i) Calculate the distance the coast has eroded between points **A** and **B**, as shown on **Map 1.1**. [1]

Answer km



The students collected secondary data of the rates of more recent erosion along the same stretch of coastline. This data is shown in **Table 1.2** below.

Table 1.2 – Recent rates of coastal erosion at Mappleton on the Yorkshire coast 2009–2018

Year	Coastal erosion (m)
2009	1.83
2010	6.93
2011	10.32
2012	9.05
2013	4.39
2014	1.74
2015	5.78
2016	6.03
2017	6.30
2018	3.80

The students decided to compare two 5-year periods of coastal erosion by calculating the mean.

Table 1.3 – Compares two 5-year periods

	Mean
2009–2013	6.5 m
2014–2018	

- (ii) Calculate the mean value of coastal erosion for 2014–2018.
Show your working.

[2]

Answer m



(iii) **Tick (✓) two** advantages of using the mean to analyse this data.

[2]

	Tick (✓)
It takes the middle value of the data.	
It can be affected by outliers.	
The range of the data set is small.	
It allows comparison of the data between time periods.	
It shows a clear difference between the highest and lowest values.	

(iv) **Tick (✓) the only** appropriate graph that could be used to present the data in **Table 1.2**.

[1]

	Tick (✓)
Line graph	
Radial graph	
Scatter graph	

(v) The students used the mean data in **Table 1.3** to draw conclusions about the coastal erosion at Mappleton. What are the limitations of using only this data?

[4]

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Students used photographs as part of their data collection.

Photograph 1.4 – Secondary data Skipsea 2009



Photograph 1.5 – Primary data Skipsea 2018



(b) Give **two** disadvantages of using these photographs to investigate change over time. [2]

Disadvantage 1

Disadvantage 2

End of Part A



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Part B: Investigating cycles and flows

Answer **all** parts of this question. You should use your fieldwork experience of **cycles and flows** to support your answers.

2. Students decided to investigate the impact of counter-urbanisation on a local village shown in **Photograph 2.1**.

Photograph 2.1 – An aerial photograph of the village



- (a) **Tick (✓) one** enquiry question that could be chosen to study cycles and flows in this area. [1]

	Tick (✓)
Is the quality of life better in the village than the local city?	
What is the age profile of this place?	
How has the population in this village changed in the last 20 years?	



Students wanted to investigate the perceptions of local people about counter-urbanisation in the village. They used questionnaires.

- (b) (i) Name a suitable sampling strategy that they could have used.

Name of sampling strategy

What are the strengths of this sampling strategy?

[3]

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The students decided to also use an online questionnaire using social media.

- (ii) Give **two** advantages of using an online questionnaire.

[2]

Advantage 1

Advantage 2

- (c) The students also used a bi-polar survey to investigate people's perceptions of counter-urbanisation in the village. **Table 2.2** shows a section of the bi-polar survey.

Table 2.2 – Bi-polar survey

Over the last five years the village has become...

	2	1	-1	-2	
Quieter					Noisier
Less congested					More congested
More friendly					Less friendly
.....					

- (i) Complete **Table 2.2** above by adding a suitable pair of statements.

[2]

- (ii) Give **one** reason why the students gave an even number, rather than an odd number, of possible responses.

[1]

.....



- (d) The students also collected primary data on the time it took 75 local people to commute to work. The data is shown in the table below.

	Number of people
Less than 10 minutes	12
11–30 minutes	23
31–60 minutes	36
More than 61 minutes	4

- (i) Calculate the percentage of people who travel between 31 and 60 minutes. [2]
Show your working.

Answer %

- (ii) Suggest why collecting the data in time intervals is a suitable method for this data collection. [1]

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End of Part B



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Part C: The wider UK dimension

Answer **all** parts of this question. You should use your understanding of UK geography to support your answers.

3. Study the map of net migration in the UK on **page 2** of the **Resource Folder**.

(a) **Tick (✓)** the **three** correct statements in the table below, using information from the map on **page 2** of the **Resource Folder**. [3]

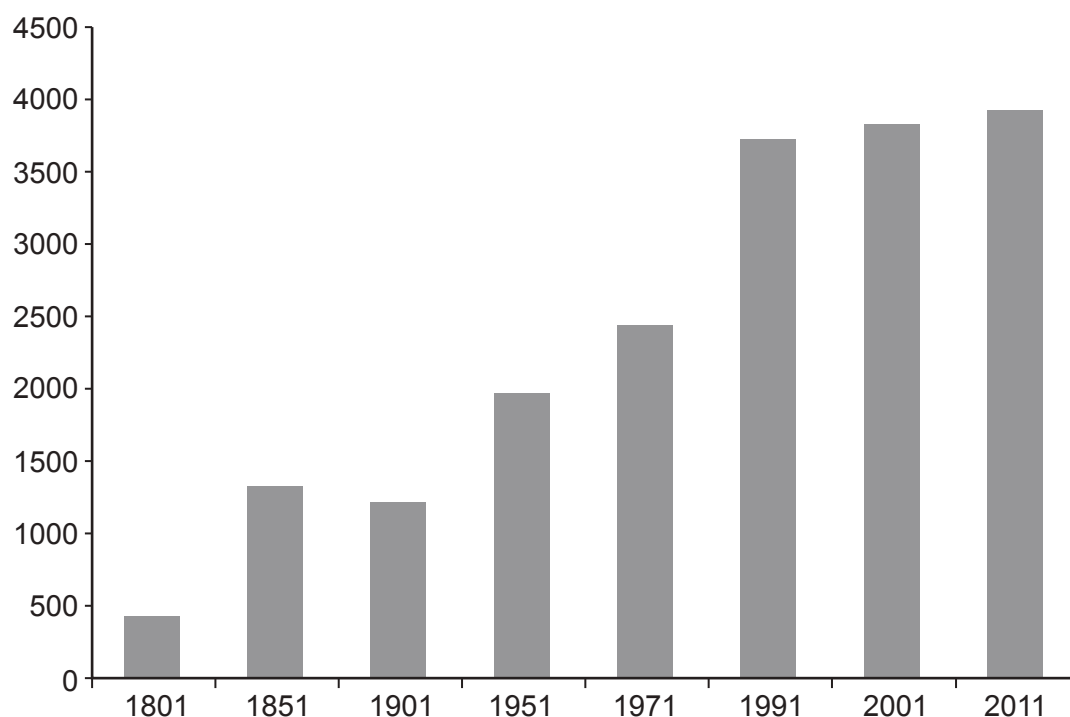
	Tick (✓)
There are more towns and cities experiencing positive net migration than negative net migration.	
There are four towns and cities on the south coast of England experiencing positive net migration.	
There is a cluster of positive migration in north west England.	
London's net migration is less than 100,000.	
Four towns and cities in Scotland are experiencing negative net migration.	
Newport is the only city in Wales with negative net migration.	

(b) **Table 3.1** below and **Graph 3.2** opposite show population data for a village in the UK.

Table 3.1 – Population data for a UK village between 1801 and 2011

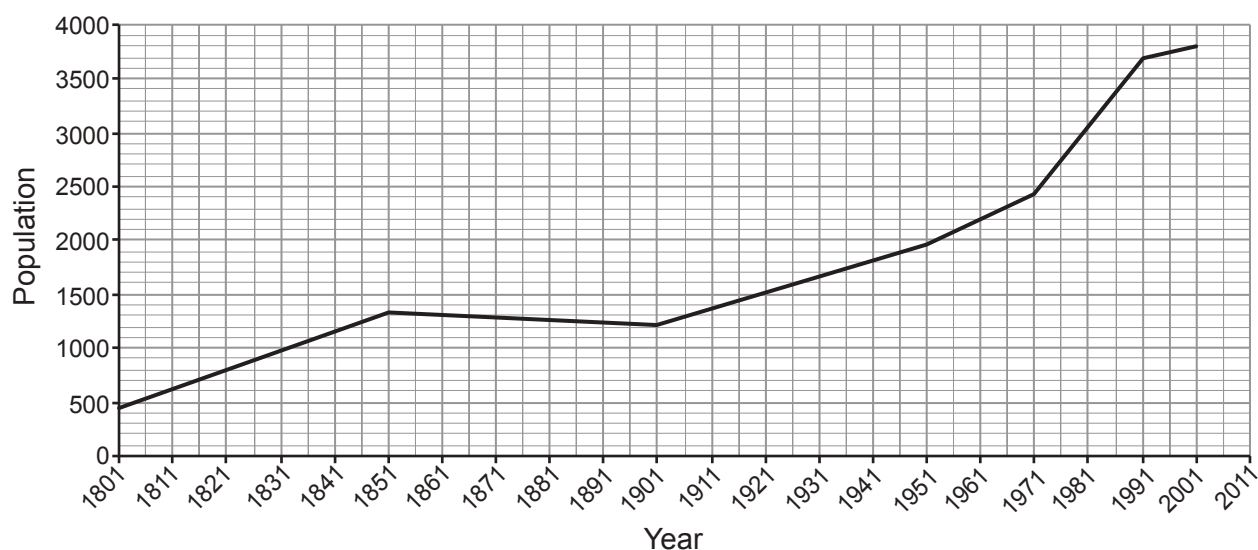
Year	1801	1851	1901	1951	1971	1991	2001	2011
Population	445	1325	1216	1963	2435	3695	3800	3900



Graph 3.2 – Population data for a UK village between 1801 and 2011

- (i) Suggest **one** improvement to **Graph 3.2** to show the data more effectively. [1]

- (ii) **Graph 3.3** shows the population data from **Table 3.1** in a line graph. Complete **Graph 3.3** for the year 2011. Use the data in **Table 3.1**. [1]

Graph 3.3 – population data for a UK village between 1801 and 2011

- (iii) Give **two** reasons why a line graph is a more suitable method of data presentation for this data than a bar chart. [2]

Reason 1

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Reason 2

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- (iv) Use **Table 3.1** and **Graph 3.3**.

Tick (✓) the **three** statements that are correct.

[3]

	Tick (✓)
The graph shows a decreasing population.	
The mean growth per year between 1971 and 1991 was 63 people.	
There was a decrease in population between 1851 and 1901.	
The slowest growth was between 1801 and 1851.	
Between 1991 and 2011 the population grew by 205 people.	

- (v) There has been a huge growth in the population of the village.

Calculate the percentage increase of population between 1801 and 2011.
Show your working.

[2]

Answer %



- (vi) Some villages in the UK are experiencing an increase in population. Explain why. [6]

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- (vii) Give **two** reasons why population growth can cause positive impacts in rural areas. [4]

Reason 1

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Reason 2

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Additional space for question 3(d) only:



End of Part C

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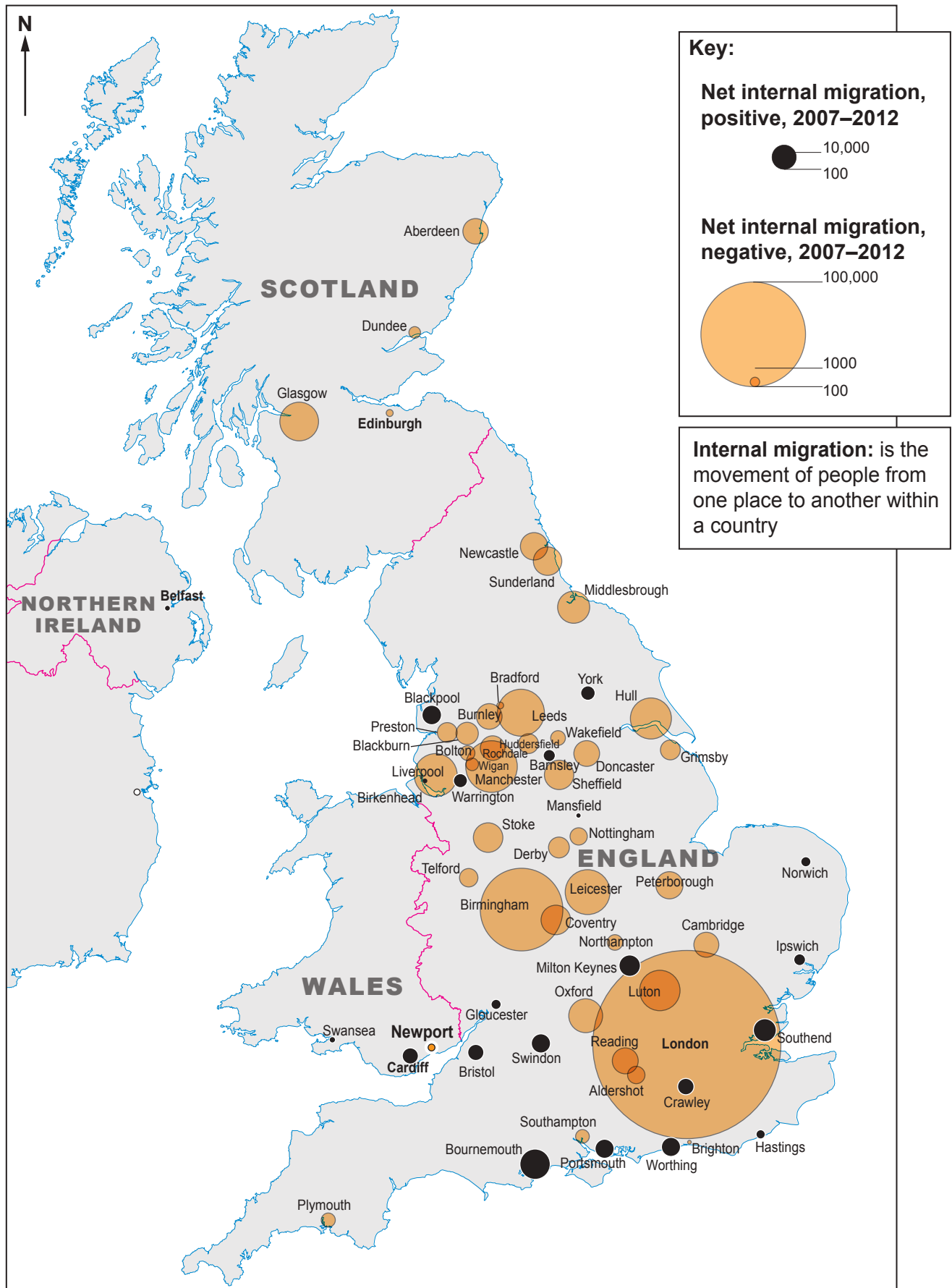
WEDNESDAY, 1 DECEMBER 2021 – MORNING

GEOGRAPHY B – Component 3

RESOURCE FOLDER

This folder is for use with questions in **Component 3**.
This folder need not be handed in with your answer booklet.

Map showing net migration to selected towns and cities in the UK



Source: <https://www.centreforcities.org/blog/eight-things-worth-noting-on-migration-patterns-in-uk-cities/>

Site for proposed new housing in Dunholme, near Lincoln**Local newspaper extract****Proposal for new housing development**

A plan for 33 new homes has been put forward in the much sought after village of Dunholme, just 3 km away from the city of Lincoln. Dunholme currently has a population of about 2000 people.

The proposed site is located near the main A-road into the city, which has excellent rail links to neighbouring cities and is only a 50-minute commute to London. The site is currently farmland on the outskirts of the village.

As part of the proposal, 8 out of the 33 homes will be built as affordable homes. The development will be made up of 2, 3 and 4 bedroom properties.

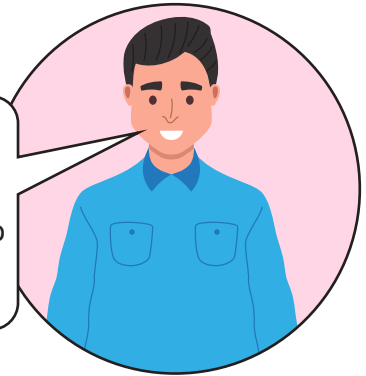
Local views of the development



Local developer

This development will bring much needed jobs to the area. Rural areas like this don't have many industries left.

Whilst it is good that the village is popular and thriving, we will need to have extra funding for more staff and facilities or children will need to travel into the city for school as we won't have enough space.



Local primary school headteacher

I am thrilled. My son had to leave the village as he couldn't afford to live here, but with the affordable housing being built local people will be able to stay.

There's definitely a demand for housing here. People want to live here, it's quiet and peaceful, much nicer than the city. I love living here and the main road makes commuting for work easy.



Local residents

I am not happy. I moved here to live in a village community, not a small town. I want it to remain quiet and peaceful.



Environmentalist

I'm really unsure how this development will affect my business. I'll have to wait and see.

This is going to have a negative impact on the biodiversity of the area and potentially increase flood risk. The fields have always protected the existing village by absorbing heavy rainfall.



Local shop owner