| Please check the examination details b | elow before ente | ering your candidate information |
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| Candidate surname | | Other names |
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| Pearson Edexcel Leve | el 1/Lev | el 2 GCSE (9-1) |
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| Geography A | | • |
| PAPER 2: The Human En | vironmer | nt |
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| | | |
| You must have: | | Total Marks |
| Resource Booklet (enclosed), Ordnance Survey Map Extract (enclo | osed) Calcula | ator |
| Ordinance Survey Map Extract (effect | Jacu, Calcula | 101 |

Instructions

- Use **black** ink or ball-point pen.
- **Fill in the boxes** at the top of this page with your name, centre number and candidate number.
- In Section A answer all questions.
- Then, answer **either** Section B **or** Section C.
- If you choose Section C answer all of Question 3 and either Question 4 or Question 5.
- Answer the questions in the spaces provided
 - there may be more space than you need.

Information

- The total mark for this paper is 64.
- The marks for **each** question are shown in brackets
 - use this as a guide as to how much time to spend on each question.
- The marks available for spelling, punctuation and grammar are clearly indicated.

Advice

- Read each question carefully before you start to answer it.
- Check your answers if you have time at the end.

Turn over ▶





Some questions must be answered with a cross in a box \boxtimes . If you change your mind about an answer, put a line through the box \boxtimes and then mark your new answer with a cross \boxtimes .

SECTION A

Changing Cities

Answer ALL questions in this section.

Write your answers in the spaces provided.

Spelling, punctuation, grammar and use of specialist terminology will be assessed in Question 1(f).

The city of St Albans is influenced by its site, situation and connectivity.

| (a) | Stu | ıdy the | e Ord | dnance Survey (OS) map extract. | |
|-----|-------|----------------|-------|--|-----|
| | (i) | Which throu | | e of the following grid squares does the A1081 main road pass | |
| | | | 3 | | (1) |
| | | \times | A | 1707 | |
| | | X | В | 1506 | |
| | | X | C | 1808 | |
| | | \times | D | 1206 | |
| | (ii) | Name | e the | e two suburbs of St Albans located in the following grid squares. | (2) |
| | | 1508 | | | |
| | | 1405 | | | |
| | (iii) | Sugg of St | | one reason why the area in grid square 1407 became the original site | |
| | | | | | (3) |
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| | (3) |
|---|-----|
| | |
| (b) Study Figure 1a in the Resource Booklet. | |
| (i) Identify the age group with the largest population. | (1) |
| ■ A Age 0 to 14 | |
| ■ B Age 15 to 29 | |
| C Age 30 to 44 | |
| ■ D Age 75 to 89 | |
| (ii) Calculate the percentage (%) of Nottingham's population aged 45 to 59 years old. | |
| Give your answer to one decimal place. | |
| You must show your working in the space below. | (2) |
| | |
| | |
| | |
| (c) Define the term de-centralisation . | (1) |
| | |



| (d) | Stu | dv Fic | ure | 1b in the Resource Booklet. | |
|-----|-------|----------------|-------------|---|----------|
| , , | | , , | | he two correct statements about migration to Manchester. | (2) |
| | | × | Α | The same number of migrants came from the West Midlands and the East Midlands. | |
| | | × | В | More migrants came from the North West than from the North East and the East Midlands combined. | |
| | | X | C | A total of 3,000 migrants came from the West Midlands and the East combined. | |
| | | X | D | Fewer migrants came from the South East than the North East. | |
| | | \boxtimes | E | A total of 5,000 people migrated from Yorkshire and the Humber and the North East combined. | |
| | (ii) | | | the range of the number of migrants across all regions shown in | |
| | | Figur | e 1b |). | (1) |
| | | | | | |
| | | | | | |
| | | | | | migrants |
| | | | | | |
| | (iii) | Expla | in o | ne impact of migration on housing in a UK city that you have | |
| | (iii) | Expla studi | | ne impact of migration on housing in a UK city that you have | (2) |
| | (iii) | studi | ed. | | (2) |
| | (iii) | studi | ed. | ne impact of migration on housing in a UK city that you have | (2) |
| | (iii) | studi | ed. | | (2) |
| | (iii) | studi | ed. | | (2) |
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| n this question, up to four additional marks will be awarded for your spelling punctuation, grammar and use of specialist terminology. | , |
| (f) You have studied a major city in either a developing or an emerging country. | |
| Evaluate how successful bottom-up and top-down approaches have been in solving the problems caused by rapid growth. | |
| solving the problems caused by rapid growth. | (8) |
| | (0) |
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Answer EITHER Section B OR Section C

SECTION B

Global Development

If you answer Section B put a cross in the box

.

Answer ALL questions in this section. Write your answers in the spaces provided.

- 2 The level of development of a country can be measured in different ways, for example by using the Human Development Index (HDI).
 - (a) Study Figure 2a below.

Life expectancy at birth (years)

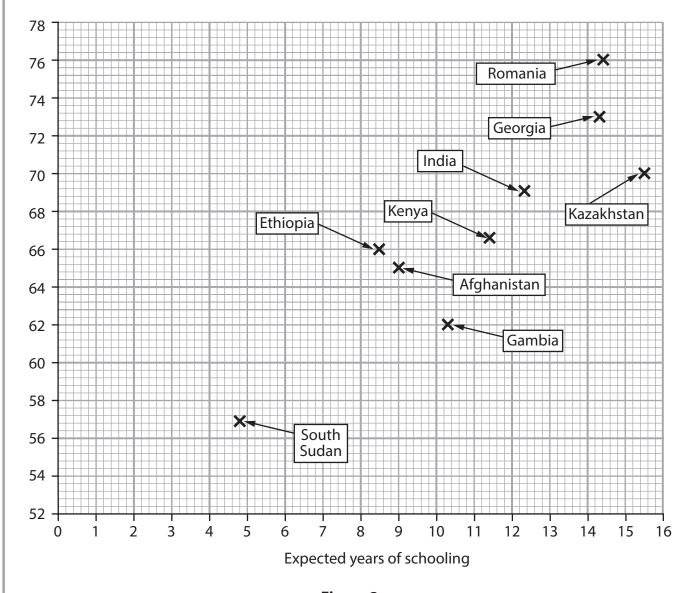


Figure 2a

Life expectancy and expected years of schooling for selected developing and emerging countries in 2018



(i) Complete Figure 2a by plotting the data in the table below.

(2)

| Country | Life expectancy at birth (years) | Expected years of schooling |
|--------------|----------------------------------|-----------------------------|
| Sierra Leone | 53 | 9.8 |
| Brazil | 76 | 15.0 |

| (ii) | Draw a | best | fit | line | on | Figure | 2a |
|------|--------|------|-----|------|----|---------------|----|
|------|--------|------|-----|------|----|---------------|----|

(1)

(iii) Describe the relationship shown in Figure 2a.

Use data in your answer.

(2)

| (iv) | uggest two reasons for the differences in life expectancy shown in Figure 2 |
|------|--|
| | Jse data in your answer. |

(4)

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| within the UK. (c) Changes have been taking place in the economic sectors of developing and emerging countries. Study Figure 2b in the Resource Booklet. (i) Identify the economic sector shown in Figure 2b. A Primary B Secondary C Tertiary | | ider | itiry | one other measure used to calculate the HDI. | (1) |
|--|-----|-------|-------|--|-----|
| C Literacy rate D Gross National Income per capita (b) Explain one historical factor that has led to variations in levels of development within the UK. (c) Changes have been taking place in the economic sectors of developing and emerging countries. Study Figure 2b in the Resource Booklet. (i) Identify the economic sector shown in Figure 2b. A Primary B Secondary C Tertiary | | × | A | Infant mortality rate | |
| D Gross National Income per capita b) Explain one historical factor that has led to variations in levels of development within the UK. (2) c) Changes have been taking place in the economic sectors of developing and emerging countries. Study Figure 2b in the Resource Booklet. (i) Identify the economic sector shown in Figure 2b. A Primary B Secondary C Tertiary | | X | В | Number of doctors per 1,000 people | |
| (2) Explain one historical factor that has led to variations in levels of development within the UK. (2) (3) (4) (5) Changes have been taking place in the economic sectors of developing and emerging countries. Study Figure 2b in the Resource Booklet. (i) Identify the economic sector shown in Figure 2b. (1) A Primary B Secondary C Tertiary | | × | C | Literacy rate | |
| (c) Changes have been taking place in the economic sectors of developing and emerging countries. Study Figure 2b in the Resource Booklet. (i) Identify the economic sector shown in Figure 2b. A Primary B Secondary C Tertiary | | X | D | Gross National Income per capita | |
| Study Figure 2b in the Resource Booklet. (i) Identify the economic sector shown in Figure 2b. (1) A Primary B Secondary C Tertiary | (b) | | | | (2) |
| emerging countries. Study Figure 2b in the Resource Booklet. (i) Identify the economic sector shown in Figure 2b. A Primary B Secondary C Tertiary | | | | | |
| (i) Identify the economic sector shown in Figure 2b. ✓ A Primary ✓ B Secondary ✓ C Tertiary | (c) | | | | |
| A Primary B Secondary C Tertiary | | Stuc | ly Fi | gure 2b in the Resource Booklet. | |
| ■ B Secondary■ C Tertiary | | (i) l | den | tify the economic sector shown in Figure 2b. | (1) |
| ☑ C Tertiary | | × | 1 | A Primary | |
| | | × | | B Secondary | |
| D Quatornary | | Σ | 3 | C Tertiary | |
| Quaternary | | × | | D Quaternary | |

| | (ii) The growth of this economic sector has increased the average earnings of the | |
|----|---|----------|
| | people in India. | |
| | State one other possible positive impact of the growth of this sector for | |
| | people in India. | |
| | | (1) |
| | | |
| | | |
| | | |
| | (iii) The starting salary for the workers in Figure 2b is 260,000 Indian Rupees per year. | |
| | | |
| | 1 Indian Rupee (₹) = 0.012 British Pounds (£) | |
| | | |
| | Calculate the starting salary for these workers in British Pounds (£). | |
| | | (1) |
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| | | per year |
| (d | l) Describe how one geopolitical relationship has affected the development of a | per year |
| (d | | |
| (d | l) Describe how one geopolitical relationship has affected the development of a named developing country or emerging country. | (3) |
| (d | l) Describe how one geopolitical relationship has affected the development of a | |
| (d | l) Describe how one geopolitical relationship has affected the development of a named developing country or emerging country. | |
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| (e) Explain two negative environmental impacts of rapid development. | (4) |
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| (f) You have studied development in either a developing country or an emer country. | ging |
| Assess the importance of different factors that have led to uneven develop within this country. | oment (8) |
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| (Total for Question 2 = 30 marks) |
| TOTAL FOR SECTION B = 30 MARKS |

Do not answer Section C if you have answered Section B.

SECTION C

Resource Management

If you answer Section C put a cross in the box $\ \square$.

Answer all parts of Question 3.

Write your answers in the spaces provided.

Some questions must be answered with a cross in a box \boxtimes . If you change your mind about an answer, put a line through the box \boxtimes and then mark your new answer with a cross \boxtimes .

| 3 | People | obta | ain natural resources, such as fossil fuels, from the environment. | |
|---|----------|-------------|--|-----|
| | (a) Ider | itify | two fossil fuels. | (2) |
| | | A | Coal | |
| | \times | В | Diamonds | |
| | \times | C | Uranium | |
| | \times | D | Oil | |
| | × | E | Gold | |
| | (b) Nam | ne o | ne biotic and one abiotic resource. | (2) |
| | Biot | ic r | esource | (2) |
| | Abi | otic | resource | |



| (c) Study Figure 3 in the Resource Booklet.(i) Name the region with the highest annual meat production in 1961. | (1) |
|--|-----|
| (ii) Describe the overall change in meat production in Asia. Use data in your answer. | (2) |
| (iii) Suggest one reason for the differences in meat production between Europe and Asia. | (3) |
| | |





Answer EITHER Question 4 OR Question 5.

Energy Resource Management

If you answer Question 4 put a cross in the box $\ oxdiv$.

- **4** Renewable and non-renewable resources are being developed to meet the growing demand for energy.
 - (a) Identify the correct definition of **non-renewable** energy.

(1)

- A Energy from sources that cannot be reused or replenished
- **B** Energy from artificially produced materials
- ☑ C Energy from supplies that will never run out
- **D** Energy from resources that do not contain carbon
- (b) Define the term **hydro-electric power**.

(1)



| (c) | | one advantage and one disadvantage for the environment of using to generate electricity. ge | (4) |
|-----|-------------|--|-----|
| | Disadvai | ntage | |
| | | | |
| (d) | (i) State | gure 4a and Figure 4b in the Resource Booklet. e one advantage of fracking. use evidence from Figure 4a in your answer. | (1) |
| | | tify the percentage (%) of UK residents in Figure 4b who are in favour of ing in their local area. | (1) |
| | × × × | A 20% B 40% C 60% D 80% | |



| (iii) Suggest one reason for the viewpoint held by the majority of the residents who took part in the survey. | |
|--|-----|
| Only use evidence from Figures 4a and 4b in your answer. | (4) |
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| Assess the following statement. | (8) |
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| The aim of reducing greenhouse gas emissions is the main reason why countries are developing renewable energy resources. | |
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| (Total for Question 4 = 20 marks) |
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Do not answer Question 5 if you have answered Question 4. **Water Resource Management** If you answer Question 5 put a cross in the box \square . Water resources are being managed to deal with changes in supply and demand. (a) Identify the correct definition of water deficit. (1) X **A** There is low rainfall in a region **B** The demand for water is rising **C** The water quality has been affected by pollution X X **D** The demand for water is greater than supply (b) Define the term **sustainable management**. (1) (c) Explain **two** reasons why the global demand for water has increased. (4)



| (d) Study Figure 5a and Figure 5b in the Resource Booklet. | |
|--|-----|
| (i) State one disadvantage of desalination. | |
| Only use evidence from Figure 5a in your answer. | (1) |
| | |
| (ii) Identify the percentage (%) of UK residents in Figure 5b who are against the development of desalination in the UK. | (1) |
| | |
| ■ B 40% | |
| □ C 60% | |
| ■ D 80% | |
| (iii) Suggest one reason for the viewpoint held by the majority of the residents | |
| who took part in the survey. Only use evidence from Figures 5a and 5b in your answer. | (4) |
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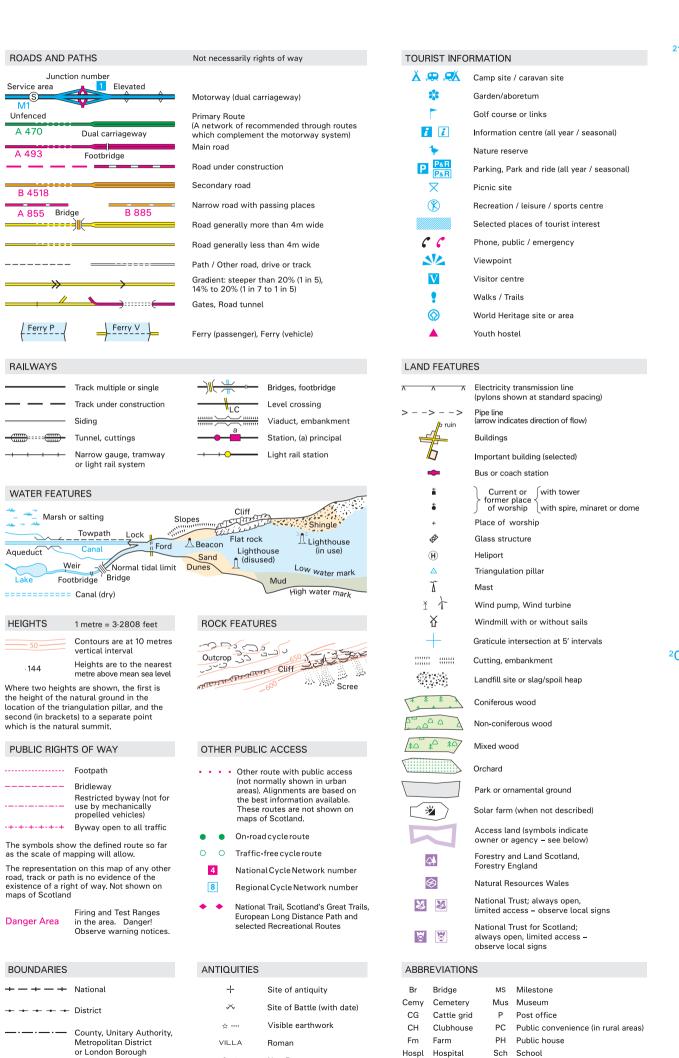
| ow annual rainfall is the main reason why some countries have water supply problems and are struggling to meet demand. | re struggling to meet demand. | re struggling to meet demand. | Assess the following statement. | (8) |
|--|-------------------------------|-------------------------------|---|-------|
| | | | Low annual rainfall is the main reason why some countries have water supply produced and are struggling to meet demand. | blems |
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TOTAL FOR SECTION C = 30 MARKS
TOTAL FOR PAPER = 64 MARKS





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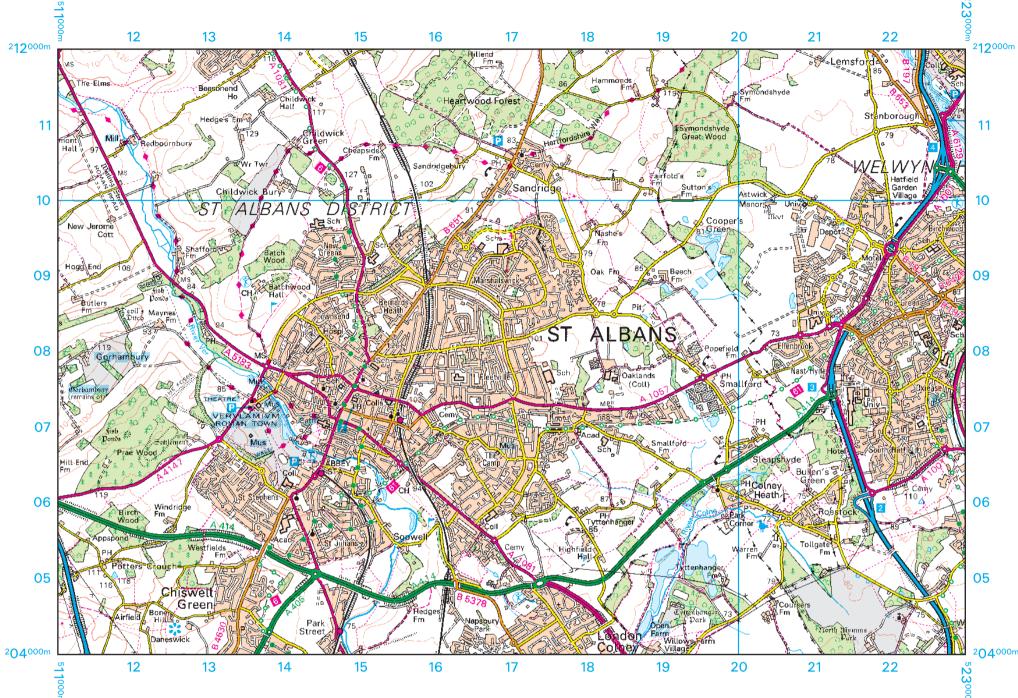
TH Town Hall, Guildhall or equivalent

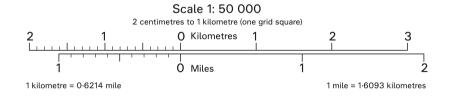
Univ University

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National Park

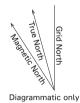






1:50 000 Scale

Landranger Series



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Pearson Edexcel Level 1/Level 2 GCSE (9-1)

Time 1 hour 30 minutes

Paper reference

1GA0/02

Geography A

PAPER 2: The Human Environment

Resource Booklet

Do not return this Booklet with the question paper.

Turn over ▶





| Age group (years) | Population |
|-------------------|------------|
| 0 to 14 | 123,984 |
| 15 to 29 | 172,978 |
| 30 to 44 | 149,430 |
| 45 to 59 | 134,838 |
| 60 to 74 | 96,379 |
| 75 to 89 | 47,442 |
| 90 and over | 4,926 |
| Total population | 729,977 |

Figure 1a
2011 Census data for Nottingham, a UK city



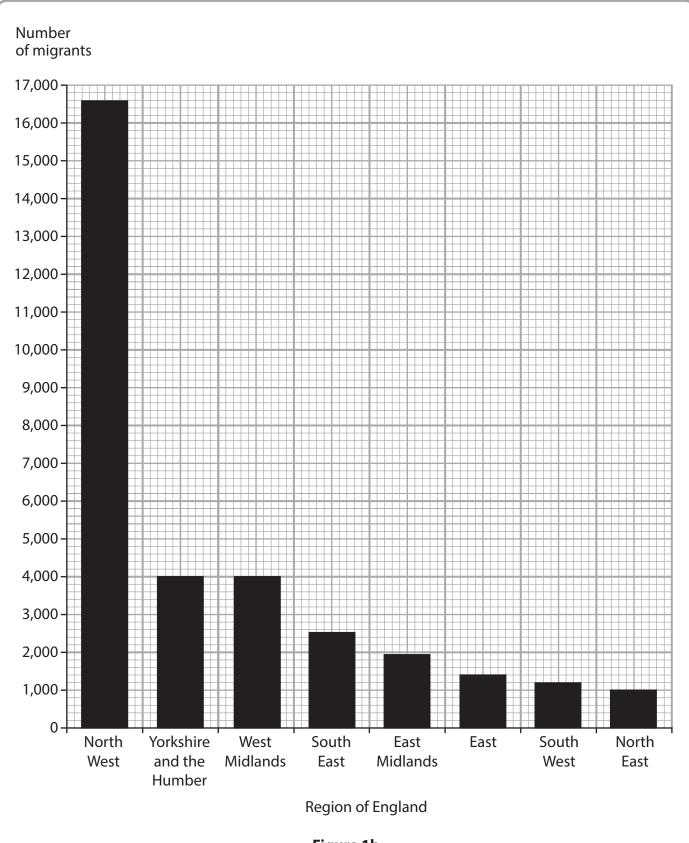


Figure 1b

Migration to Manchester from different regions of England, 2014–2015



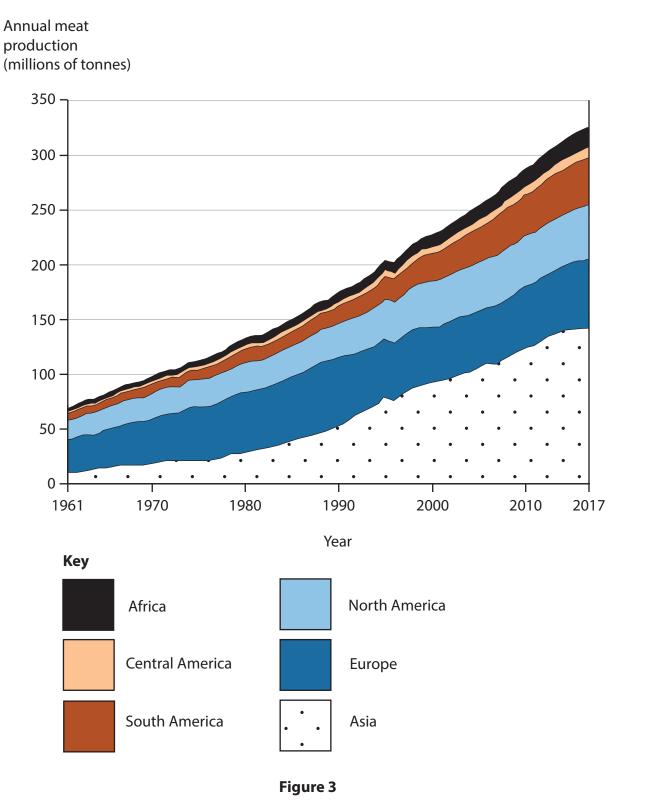
Workers at this call centre spend their day answering calls, emails and web chat enquiries from customers of the TNC.

Some of these workers also deal with customer orders, card payments, enquiries and complaints.

Figure 2b

Information about call centre workers for a transnational corporation (TNC) in India





Annual meat production in selected global regions (millions of tonnes),
1961–2017

Fracking is the process of drilling into layers of rock and then pumping down water and chemicals under pressure to release trapped shale gas. This gas can be collected at the surface and used as an energy resource.

One newspaper article suggests that fracking could generate £33 billion of investment in the UK and create 64,000 jobs. Also, supporters of fracking believe that it will give us cheaper energy for the future and increase our energy security.

However, an 18-year plan to drill 4,000 wells in the UK is still waiting to be allowed to go ahead. Opponents of fracking say the process causes earthquakes and will contaminate water sources. Another issue raised by opponents of fracking is the huge amount of water the process requires.

Figure 4a
Information about the development of fracking in the UK

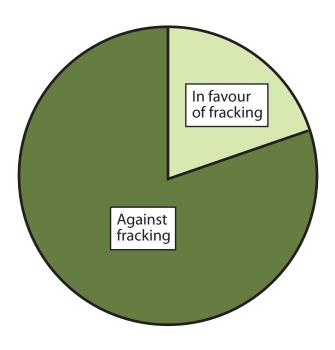


Figure 4b

The result from a survey of UK residents who were asked, 'Would you be in favour of fracking in your local area?'



Desalination is the process of removing salt from sea water to create fresh water. However, desalination has not yet been developed in the UK on a large scale due to the high set-up and running costs.

A recent article said that desalination could provide thousands of people in the UK with fresh drinking water and additional water for farming. Also, desalination can help preserve the UK's limited freshwater supplies because there are fears that there could be more water shortages as a result of climate change.

Opponents of desalination plants say that these plants use a lot of energy. Another problem of desalination is that the process often creates waste products such as brine and chlorine, which are toxic and could cause pollution.

Figure 5a
Information about the development of desalination in the UK



Figure 5b

The result from a survey of UK residents who were asked, 'Would you be in favour of developing desalination plants in the UK?'

