Please check the examination details below before entering your candidate information

Candidate surname	Other names

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

Centre Number | Candidate Number

Time 1 hour 30 minutes

Paper reference **1GA0/03**

Geography A

PAPER 3: Geographical Investigations: Fieldwork and UK Challenges

You must have:
Resource Booklet (enclosed)
Calculator

Total Marks

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 **either** Question 1 **or** Question 2.
  In Section B answer **either** Question 3 **or** Question 4.
  In Section C answer **all** questions.
- Answer the questions in the spaces provided
  – *there may be more space than you need.*
- Where asked you must **show all your working out** with **your answer clearly identified** at the **end of your solution**.

Information

- The total mark for this paper is 48.
- 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, grammar and use of specialist terminology are clearly indicated.

Advice

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

Turn over

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SECTION A

Geographical Investigations – Physical Environments

Answer EITHER Question 1 OR Question 2 in this section.
Write your answers in the spaces provided.

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

Question 1: Investigating Physical Environments (River Landscapes)

If you answer Question 1 put a cross in the box ☐ .

1 A group of students collected data to investigate changes along a river channel.

(a) Study Figure 1a below.

Figure 1a

One of the sites chosen by the students

State **one** fieldwork method the students may have used at this site.

(1)

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(b) The students produced a scatter graph to show the relationship between velocity and cross-sectional area.

Study Figure 1b below.

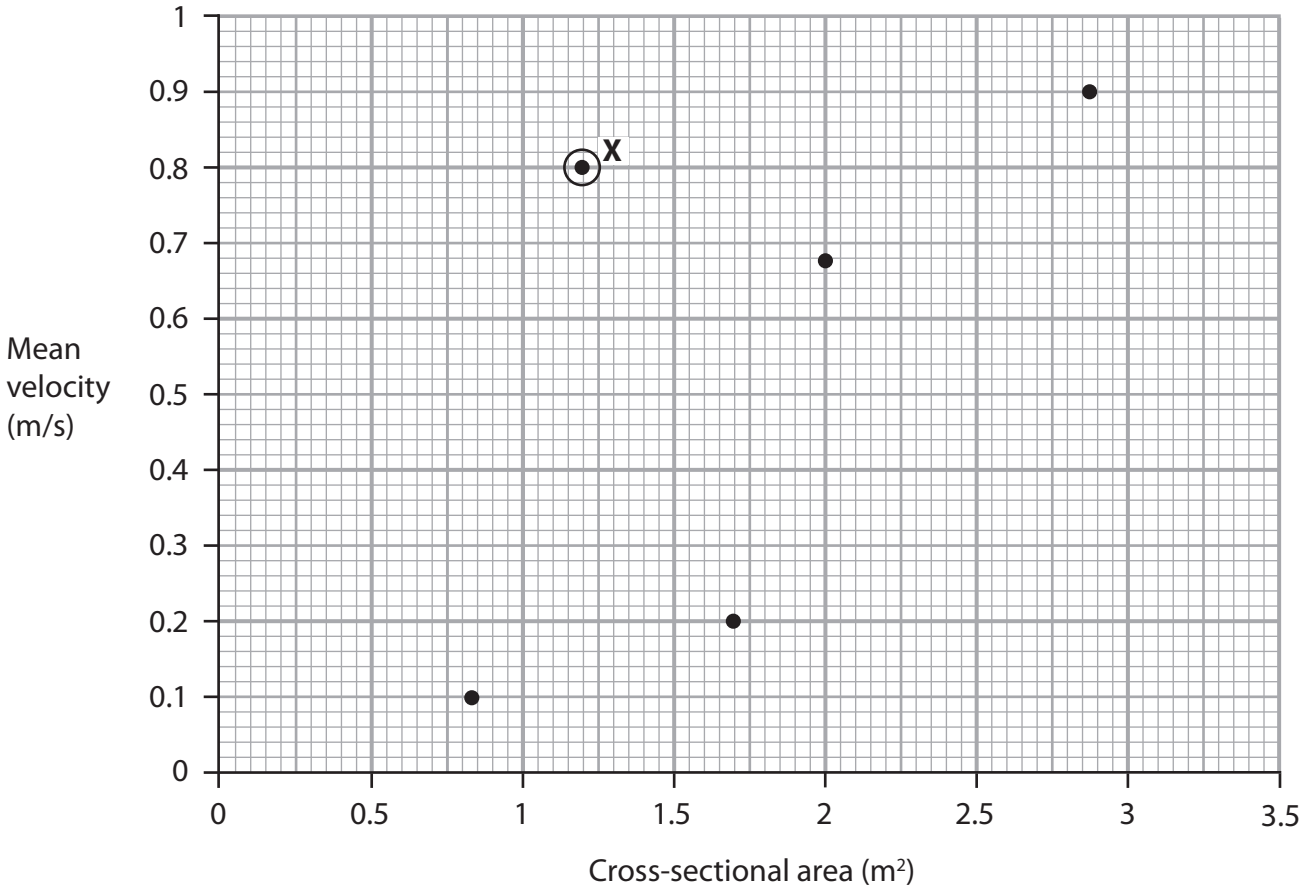

Figure 1b

(i) Complete Figure 1b by plotting the data below.

(2)

Mean velocity (m/s)	**Cross-sectional area (m^2)**
0.4	1.4
0.62	2.6

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An anomaly is something that is different to what is expected.

(ii) Explain **two** possible reasons for the anomaly shown at **X** in Figure 1b.

(4)

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(iii) Suggest **one** way students could have used a flood risk map to investigate this river.

(3)

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(Total for Question 1 = 10 marks)

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Do not answer Question 2 if you have answered Question 1.

Question 2: Investigating Physical Environments (Coastal Landscapes).

If you answer Question 2 put a cross in the box ☒ .

2 A group of students collected data to investigate changes along a coast.

(a) Study Figure 2a below.

Figure 2a

One of the sites chosen by the students

State **one** fieldwork method the students may have used at this site.

(1)

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(b) The students produced a scatter graph to show the relationship between distance along the beach and sediment size.

Study Figure 2b below.

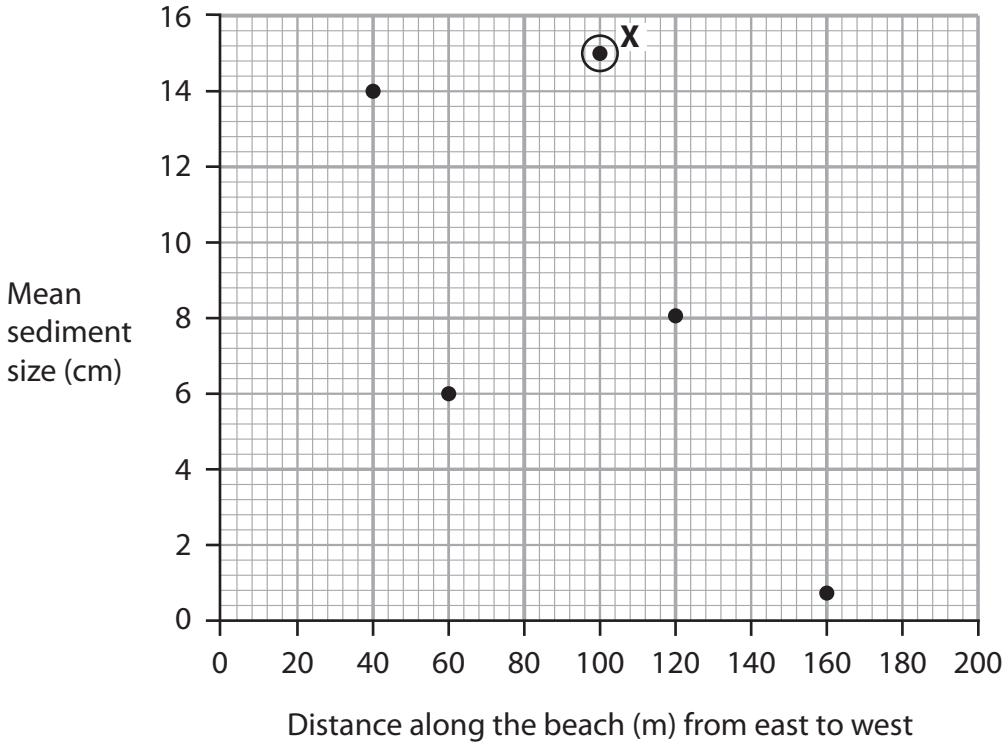

Figure 2b

(i) Complete Figure 2b by plotting the data below.

(2)

Distance along the beach (m)	**Mean sediment size (cm)**
80	10.4
140	5.6

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An anomaly is something that is different to what is expected.

(ii) Explain **two** possible reasons for the anomaly shown at **X** in Figure 2b.

(4)

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(iii) Suggest **one** way students could have used a geology map to investigate this beach.

(3)

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(Total for Question 2 = 10 marks)

TOTAL FOR SECTION A = 10 MARKS

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SECTION B

Geographical Investigations – Human Landscapes

Answer EITHER Question 3 OR Question 4 in this section.
Write your answers in the spaces provided.

Question 3: Investigating Human Landscapes (Central/Inner Urban Area)

If you answer Question 3 put a cross in the box ☒ .

3 (a) Study Figure 3 in the Resource Booklet.

Suggest **one** way the students could have presented the data from their urban study.

(2)

Chosen fieldwork method shown on Figure 3 .....

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(b) Study Figure 3 in the Resource Booklet.

Evaluate the accuracy and reliability of the fieldwork methods shown in Figure 3.

(8)

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(Total for Question 3 = 10 marks)

Do not answer Question 4 if you have answered Question 3.

Question 4: Investigating Human Landscapes (Rural Settlements)

If you answer Question 4 put a cross in the box ☒ .

4 (a) Study Figure 4 in the Resource Booklet.

Suggest **one** way the students could have presented the data from their rural study.

(2)

Chosen fieldwork method shown on Figure 4 .....

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(b) Study Figure 4 in the Resource Booklet.

Evaluate the accuracy and reliability of the fieldwork methods shown in Figure 4.

(8)

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(Total for Question 4 = 10 marks)

TOTAL FOR SECTION B = 10 MARKS

SECTION C

UK Challenges

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

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

Spelling, punctuation, grammar and specialist terminology will be assessed in Question 5(f).

5 (a) Flooding is causing increasing problems for people in England.

Study Figure 5a in the Resource Booklet.

Identify the total spend on management in 2012/13.

(1)

☐	**A** £560 million
☐	**B** £580 million
☐	**C** £500 million
☐	**D** £600 million

(b) State **two** impacts of flooding on the environment in England.

(2)

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(c) Study Figure 5b in the Resource Booklet.

Calculate the mean kilometres of road and railway lines at risk of flooding.

Give your answer to the nearest whole number.

You must show your working in the space below.

(2)

..... km

(d) Explain **two** impacts of flooding on peoples' lives in England.

(4)

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(e) Explain **one** approach to managing flooding in England.

(3)

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In this question, up to four additional marks will be awarded for your spelling, punctuation, grammar and your use of specialist terminology.

(f) Use the information from the Resource Booklet (Figures 5a to 5f) as well as knowledge and understanding from the rest of your geography course.

'The future protection of UK coastlines will bring more costs than benefits.'

Discuss this view.

(12)

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(Total for spelling, punctuation, grammar and use of specialist terminology = 4 marks)

(Total for Question 5 = 28 marks)

TOTAL FOR SECTION C = 28 MARKS

TOTAL FOR PAPER = 48 MARKS

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

Time 1 hour 30 minutes

Paper reference **1GA0/03**

Geography A

PAPER 3: Geographical Investigations: Fieldwork and UK Challenges

Resource Booklet

Do not return this Booklet with the question paper.

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SECTION B

Geographical Investigations – Human Landscapes

Fieldwork method	How was it measured?
Environmental quality survey	We scored the environment of each site based on four categories, awarding each site a number from 0–3. At each site, a different person made the decision on the scores. This was undertaken on a wet Wednesday morning at 10.30 am.
Land use survey	We walked along one street in the town, recording land use at ground floor level in one of three categories (residential, retail and office). Empty properties were not recorded as part of the survey.

Figure 3

An extract of a student's methodology for an urban study

Fieldwork method	How was it measured?
Questionnaire	At each site we tried to ask a minimum of five people, at random, three questions to record their views on the environment. Not everyone in the group wanted to ask questions to strangers. The sites were along the main road through a small village.
Pedestrian count	We recorded the number of people at each site for one minute, using a tally chart. This was undertaken on a wet Wednesday morning at 10.30 am.

Figure 4

An extract of a student's methodology for a rural study

SECTION C

UK Challenges

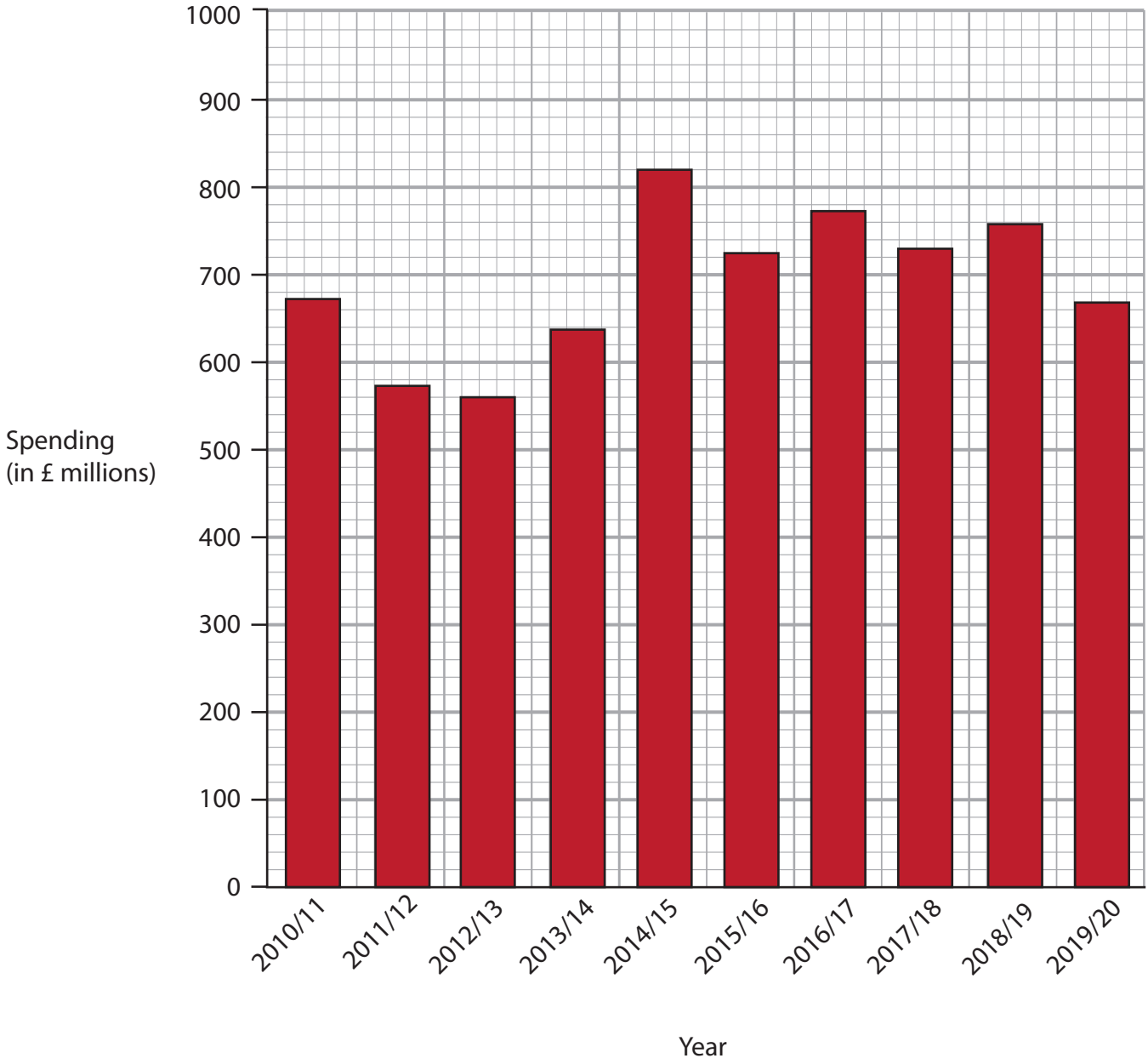


Figure 5a

Total spend on flood and coastal erosion risk management in England, 2010–2020

Land use	Amount at risk from flooding
Residential properties	445,000
Non-residential properties	173,000
Motorways and A-roads (kilometres)	930
All other public roads (kilometres)	6,550
Railways lines (kilometres)	522
Railway stations	77
Historic landfill (hectares)	3,370
Agricultural land (hectares)	205,000
Site of Special Scientific Interest (hectares)	108,000

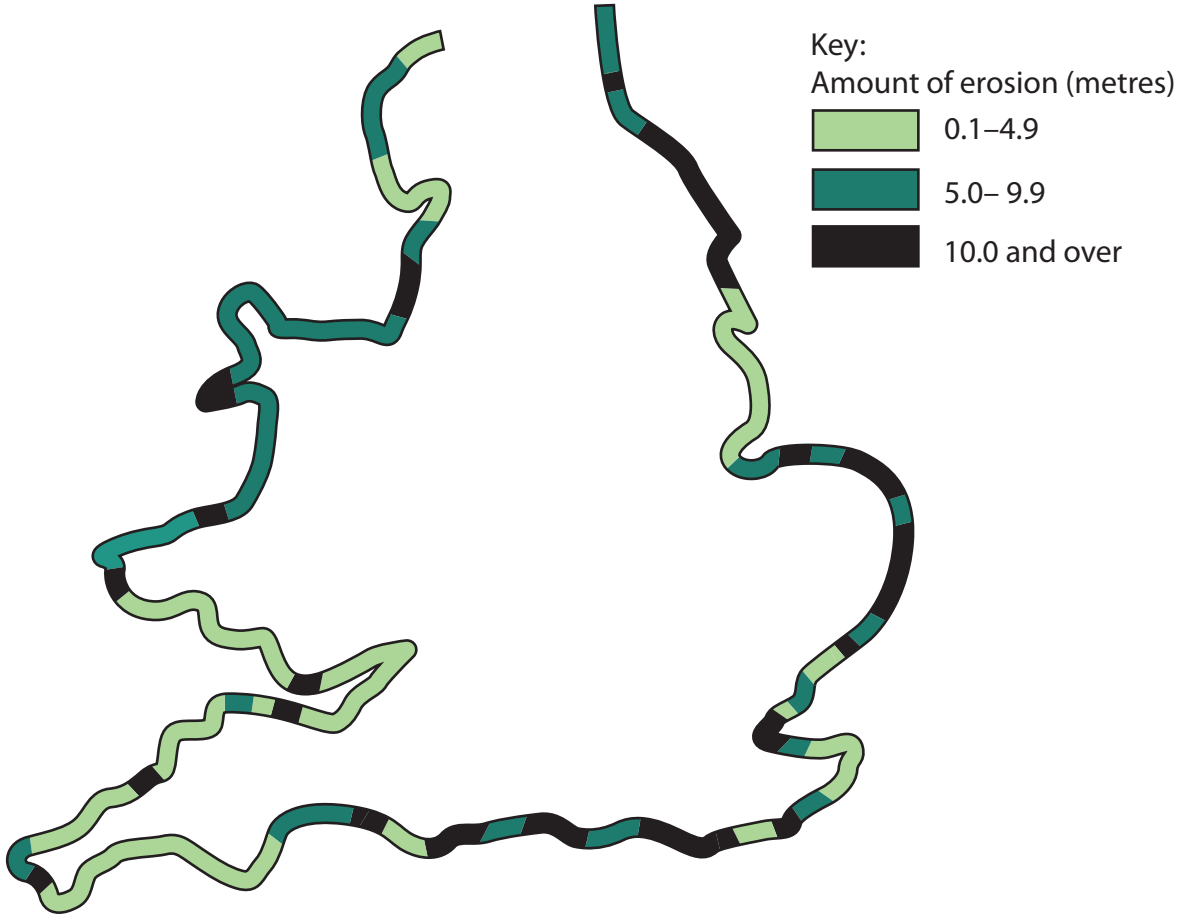
Figure 5b

Type of land use at risk from flooding in England, 2018

Region	Total (£ millions) (2005–2105)
North East	1,232
Anglian	1,178
Southern	2,723
South West	1,267
North West	877
Total (England)	**7,277**

Figure 5c

The cost associated with implementing shoreline management plans, 2005–2105



'No active intervention' is a coastal management strategy where no planned investment is used to protect against coastal flooding and erosion.

Figure 5d

Estimated coastal erosion (metres) around England and Wales with 'no active intervention' by 2050

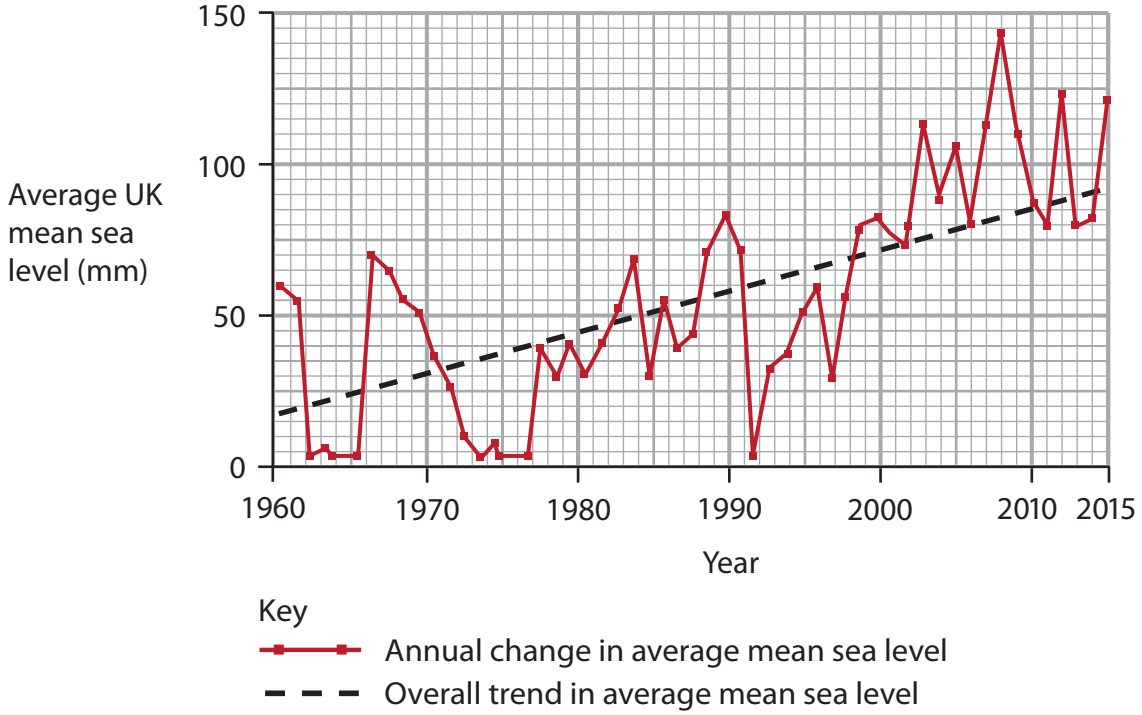


Figure 5e

Mean sea level rise, in the UK 1960–2015

Climate change is likely to cause further sea level rise within the lifetimes of children alive today, and we must account for this when considering changes to land use and coastal defence plans.

An environmentalist campaigning for action against climate change

I worry about the possibility of losing more land to the power of nature. My family have farmed this landscape for many years.

Jeff, local farmer

I'm not really that bothered about what is happening to our coastlines because it doesn't directly affect me.

Harry, an urban resident

The unpredictable changes to UK coastlines in recent decades are proving challenging. We are having to make tough decisions on which coastlines will need future investment.

A spokesperson for the Environment Agency

Figure 5f

Views about coastal flooding

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Acknowledgements

Pearson Education Ltd. gratefully acknowledges all the following sources used in the preparation of this paper:

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Figure 2a © Christopher Brown / Alamy Stock Photo

Figure 5a Sourced from: https://www.theccc.org.uk/publication/managing-the-coast-in-a-changing-climate/

Figure 5b Sourced from: https://www.theccc.org.uk/publication/managing-the-coast-in-a-changing-climate/

Figure 5c Sourced from: https://www.theccc.org.uk/publication/managing-the-coast-in-a-changing-climate/

Figure 5e Sourced from: https://www.theccc.org.uk/publication/managing-the-coast-in-a-changing-climate/