



# Cambridge O Level

CANDIDATE NAME



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## GEOGRAPHY

2230/02

Paper 2 Geographical Skills

October/November 2025

1 hour 45 minutes

You must answer on the question paper.

You will need:

Insert (enclosed)	Plain paper
1:50 000 survey map (enclosed)	Protractor
Calculator	Ruler

### INSTRUCTIONS

- Answer **all** questions.
- Use a black or dark blue pen. You may use an HB pencil for any diagrams or graphs.
- Write your name, centre number and candidate number in the boxes at the top of the page.
- Write your answer to each question in the space provided.
- Do **not** use an erasable pen or correction fluid.
- Do **not** write on any bar codes.
- Sketch maps and diagrams should be drawn whenever they serve to illustrate the answer.
- If additional space is needed, you should use the lined pages at the end of this booklet; the question number or numbers must be clearly shown.

### INFORMATION

- The total mark for this paper is 60.
- The number of marks for each question or part question is shown in brackets [ ].
- The insert contains additional resources referred to in the questions.

This document has **20** pages. Any blank pages are indicated.





Section A: Mapwork skills

1 Study the map extract of an area of Norway. The scale is 1:50 000. The heights are in metres. The contour interval is 20 metres.

(a) (i) Name an island located in grid square 7578.

..... [1]

(ii) Give a six-figure grid reference for the ancient monument located in the south of Jørstadmoen.

..... [1]

(b) Study Fig. 1.1, which shows an area of the map extract.

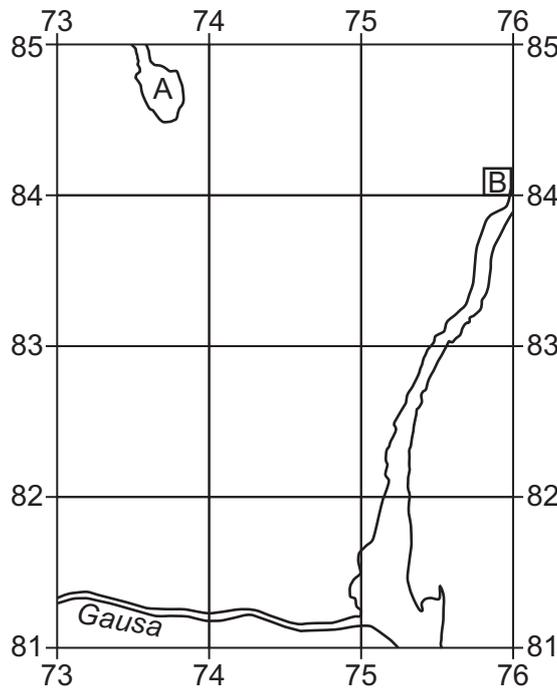


Fig. 1.1

(i) State the height of lake A.

..... metres [1]

(ii) Identify feature B.

..... [1]

(iii) On Fig. 1.1, draw the power line between 730844 and 744820. [1]

(iv) State the total area covered by the grid squares in Fig. 1.1. Give your answer in square kilometres (km<sup>2</sup>).

..... [1]



(c) Using the map extract:

(i) In which general compass direction is the river Gausa flowing?

..... [1]

(ii) How long is the river Gausa as shown on the map extract?

..... [1]

(iii) Name **one** other river that flows into Lake Mjøsa.

..... [1]

(iv) A large part of Lake Mjøsa is a nature conservation area. How is this shown on the map extract?

..... [1]

(d) **Complete Table 1.1** by giving a four-figure grid reference for each type of tourist accommodation. One has been completed for you.

**Table 1.1**

<b>tourist accommodation</b>	<b>map location</b>
camp site	.....
camp site cabins	.....
caravan site	.....
hotel/lodging	7775

[3]



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(e) Study the area of the map extract shown in Fig. 1.2.

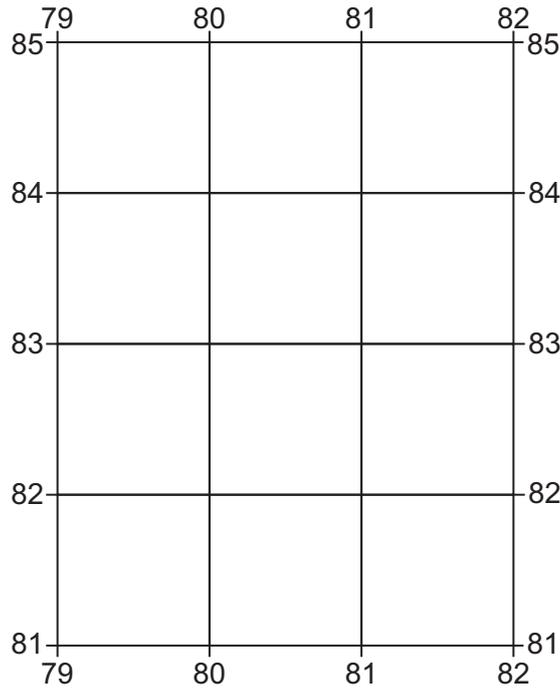


Fig. 1.2

Using the map extract, complete Table 1.2 to describe the following physical features:

Table 1.2

physical features	description
vegetation and land cover	<p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p>
relief	<p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p>
drainage	<p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p>

[6]





(f) Study Fig. 1.3 (Insert), which shows a satellite image of a settlement shown on the map extract.

Using the map extract, name the settlement shown in Fig. 1.3.

..... [1]

[Total: 20]

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Section B: Geographical skills

2 (a) Study Fig. 2.1, which shows the population of Brunei from 1900 to 2020.

Population of Brunei, 1900–2020

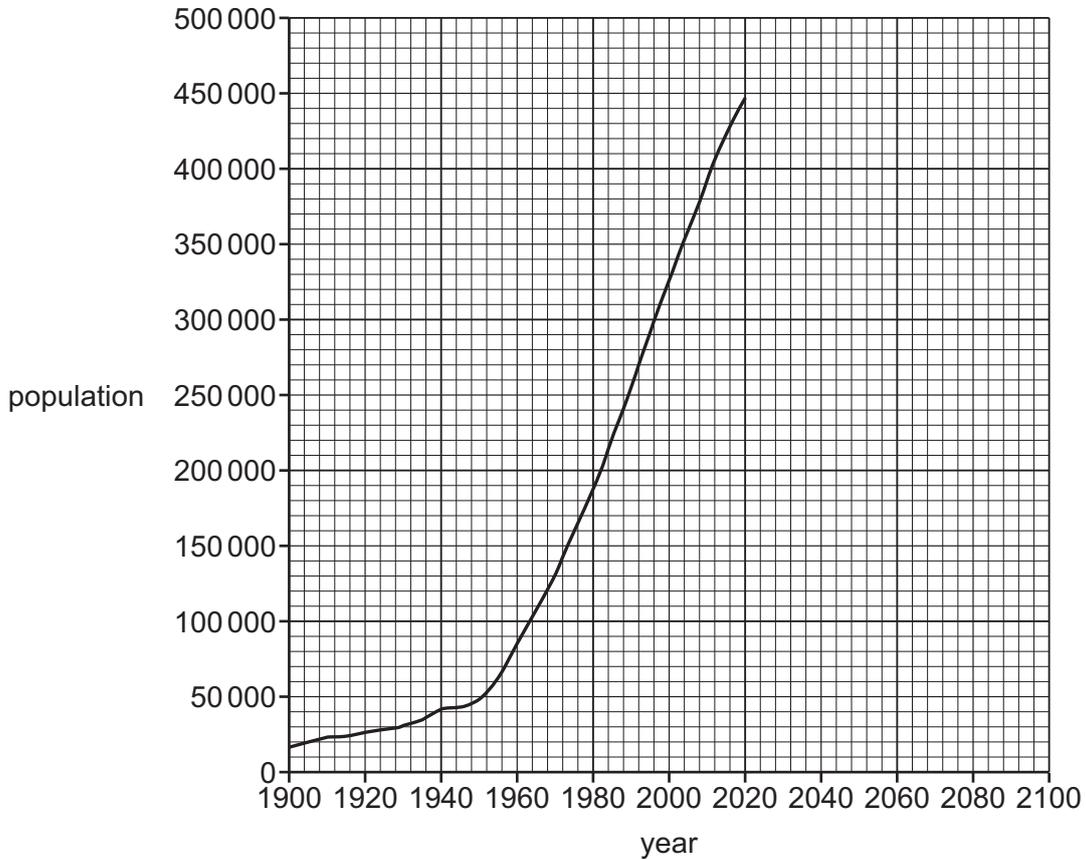


Fig. 2.1

(i) Describe how the population of Brunei has changed from 1900 to 2020.

.....

.....

.....

.....

.....

.....

.....

..... [3]

(ii) On Fig. 2.1, complete the line graph using the following data to show how the population of Brunei is projected to change from 2020 to 2100.

United Nations (UN) population projection for Brunei	
2050	490 000
2100	400 000

[2]



(b) Study Fig. 2.2, which shows the population of Brunei by age group in 1961 and 2021.

Population of Brunei by age group, 1961 and 2021

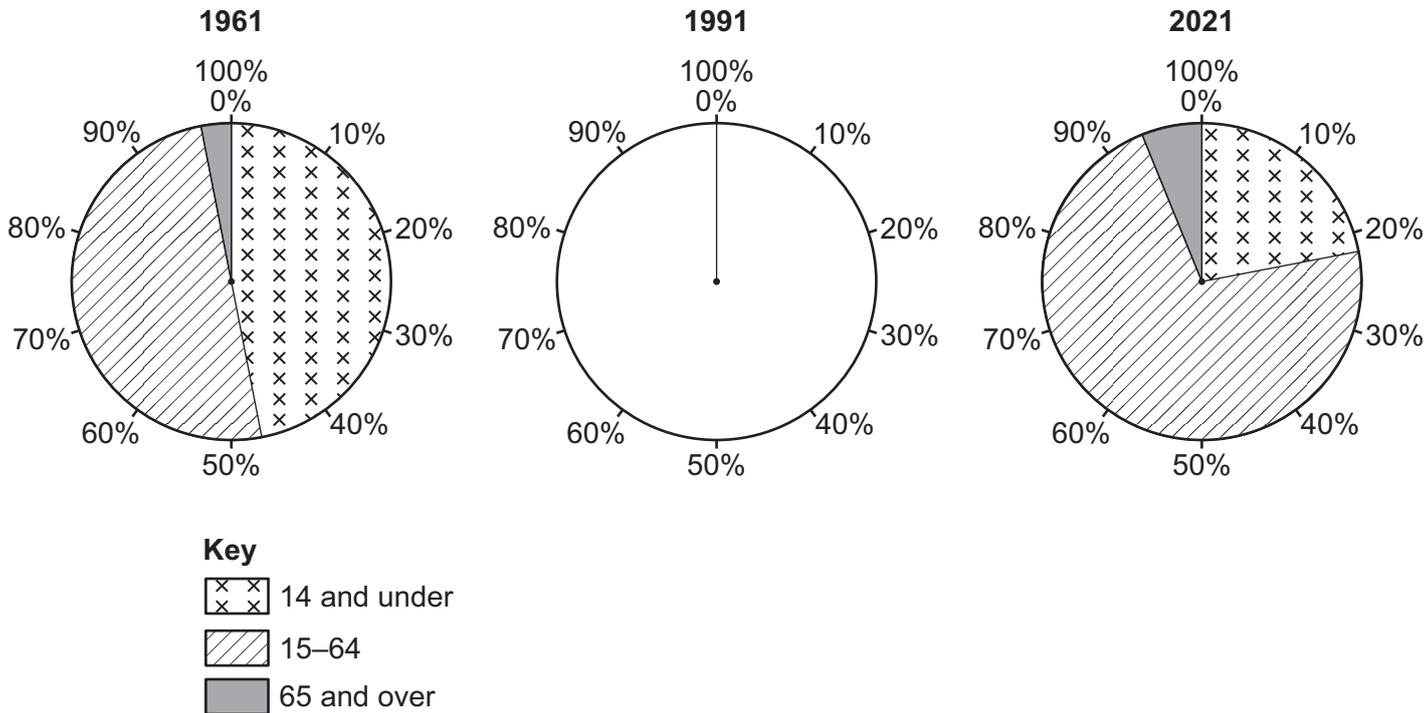


Fig. 2.2

(i) On Fig. 2.2, draw a pie graph for 1991 using the following data and the key provided.

14 and under	35%
15-64	60%
65 and over	5%

[2]

(ii) Compare the change in the percentage of the population aged 14 and under with the population aged 15-64 for the years 1961 and 2021.

.....

.....

..... [2]

(iii) State one reason for the change in the population aged 14 and under in Brunei between 1961 and 2021.

.....

..... [1]

[Total: 10]

[Turn over]



3 (a) Study Fig. 3.1 (Insert), which shows energy use per person in Africa in 2021.

Describe the pattern of energy use per person in Africa shown in Fig. 3.1.

.....

.....

.....

.....

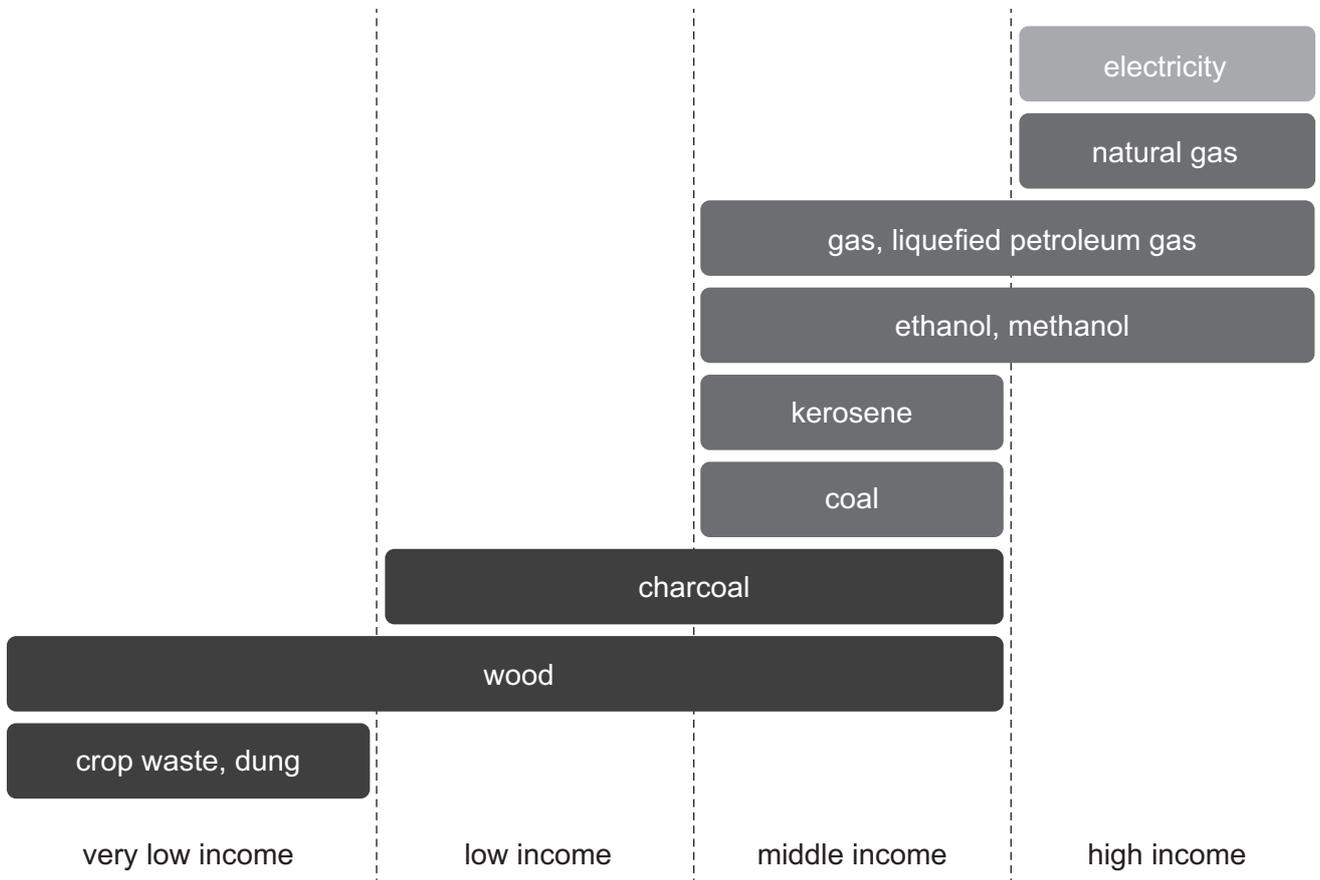
.....

.....

..... [3]

(b) Study Fig. 3.2, the 'Energy Ladder', which shows how the main source of energy used for cooking and heating changes as the level of income increases.

The 'Energy Ladder'



Key

- electricity
- fossil fuels
- traditional biomass fuels

Fig. 3.2





Use Fig. 3.2 to describe how the main source of energy used for cooking and heating changes as the level of income increases.

.....  
.....  
.....  
..... [2]

(c) Study Fig. 3.3 (Insert), which shows global energy use in 2019.

(i) Rank the renewable energy sources in order of importance. One has been completed for you.

rank	renewable energy source
1	.....
2	.....
3	.....
4	other renewables
5	.....

[1]

(ii) Use information from Fig. 3.3 to calculate the global decrease in the use of fossil fuels from 2000 to 2019.

..... [1]

(iii) Explain why it is important to reduce the global use of fossil fuels.

.....  
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..... [3]

[Total: 10]



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Section C: Geographical investigation

4 A class of students in South Africa studied the Bradshaw model. The model is shown in Fig. 4.1.

The Bradshaw model which shows how characteristics of a river change

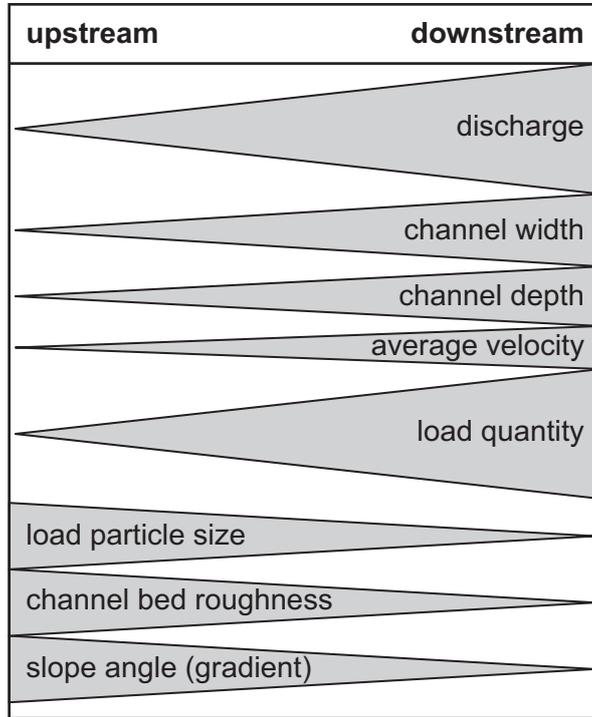


Fig. 4.1

Different groups of students in the class chose to investigate different river characteristics shown on the model. One group of students chose the following hypotheses:

**Hypothesis 1:** 'The river channel becomes wider and deeper downstream.'

**Hypothesis 2:** 'Load particle size decreases downstream.'

The students chose three sites along the Dawidskraal River to do their fieldwork, at different distances downstream from the river's source.

site	location
1	940 m downstream from the source
2	1920 m downstream from the source
3	2900 m downstream from the source

(a) Using the Bradshaw model shown in Fig. 4.1, suggest **one** other hypothesis you could test.

Hypothesis .....  
..... [1]



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(b) Before beginning their fieldwork, the class discussed safety in and around a river. They produced a risk assessment table to identify possible risks and ways to reduce them. Table 4.1 shows the possible risks.

Complete Table 4.1 by suggesting different ways to reduce the **three** possible risks.

Table 4.1

Risk assessment

risk	ways to reduce risk
dehydrating	carry a water bottle drink plenty of clean water
sunstroke	..... .....
mosquito bites	wear mosquito repellent keep your skin covered
waterborne diseases	..... .....
getting wet whilst making measurements	wear waterproof clothing
slipping, tripping, falling	..... .....

[3]

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(c) (i) To investigate **Hypothesis 1**: 'The river channel becomes wider and deeper downstream', the students used the following equipment:

tape measure      metre ruler      clipboard

recording sheet      ranging poles

Describe how the students used this equipment to measure and record the width **and** depth of the river channel at the three sites.

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..... [4]

(ii) The students used their depth measurements to calculate the average (mean) depth for each site. Their results are shown in Table 4.2 (Insert).

How did the students calculate the average (mean) depth for Site 2?

.....  
..... [1]

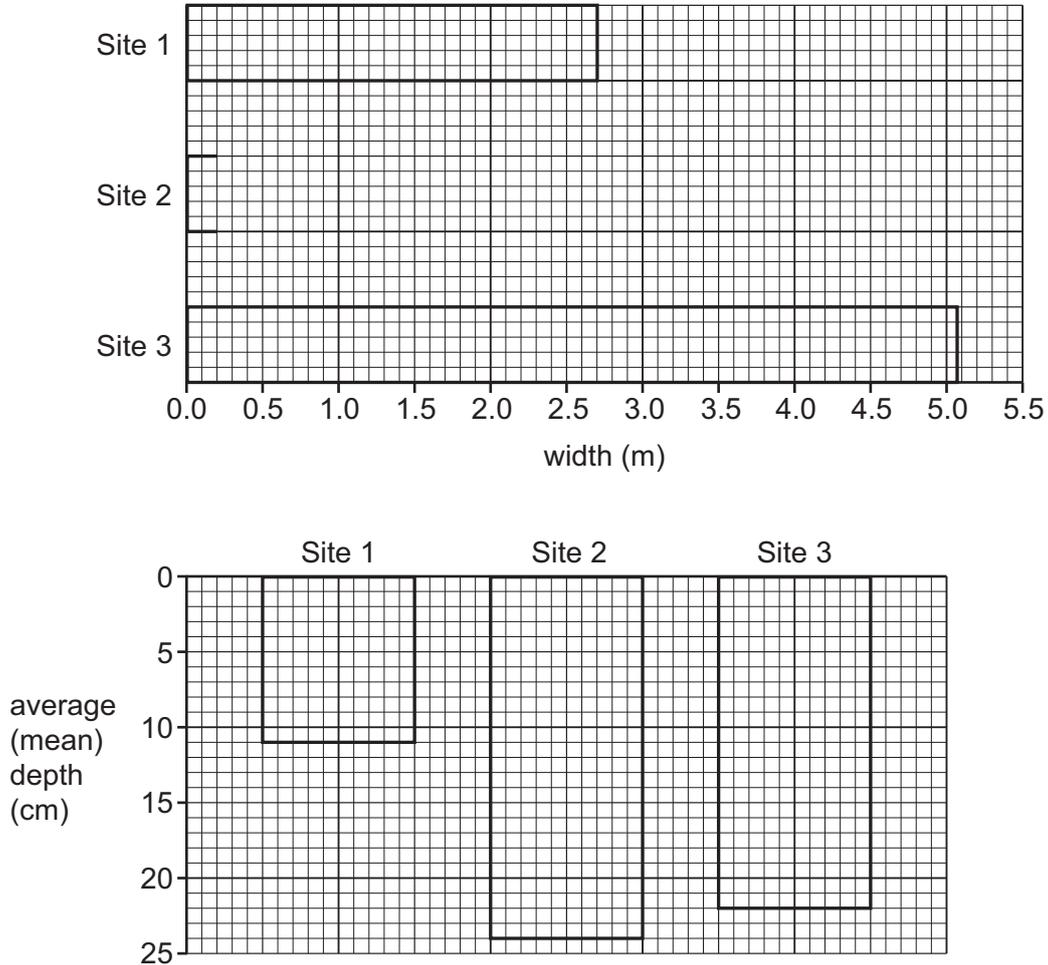
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(iii) The students presented their results in the graphs shown in Fig. 4.2.

Using the results in Table 4.2, **complete the bar graph on Fig. 4.2** to show the width of the river channel at Site 2.

**Width and average (mean) depth of the river channel**



**Fig. 4.2**

[1]

(iv) To what extent is **Hypothesis 1**: ‘The river channel becomes wider and deeper downstream’ supported by the evidence in Table 4.2 and Fig. 4.2? Put a tick (✓) in the box to show your decision and support it with evidence.

decision	tick (✓)
fully supported	
partly supported	
not supported	

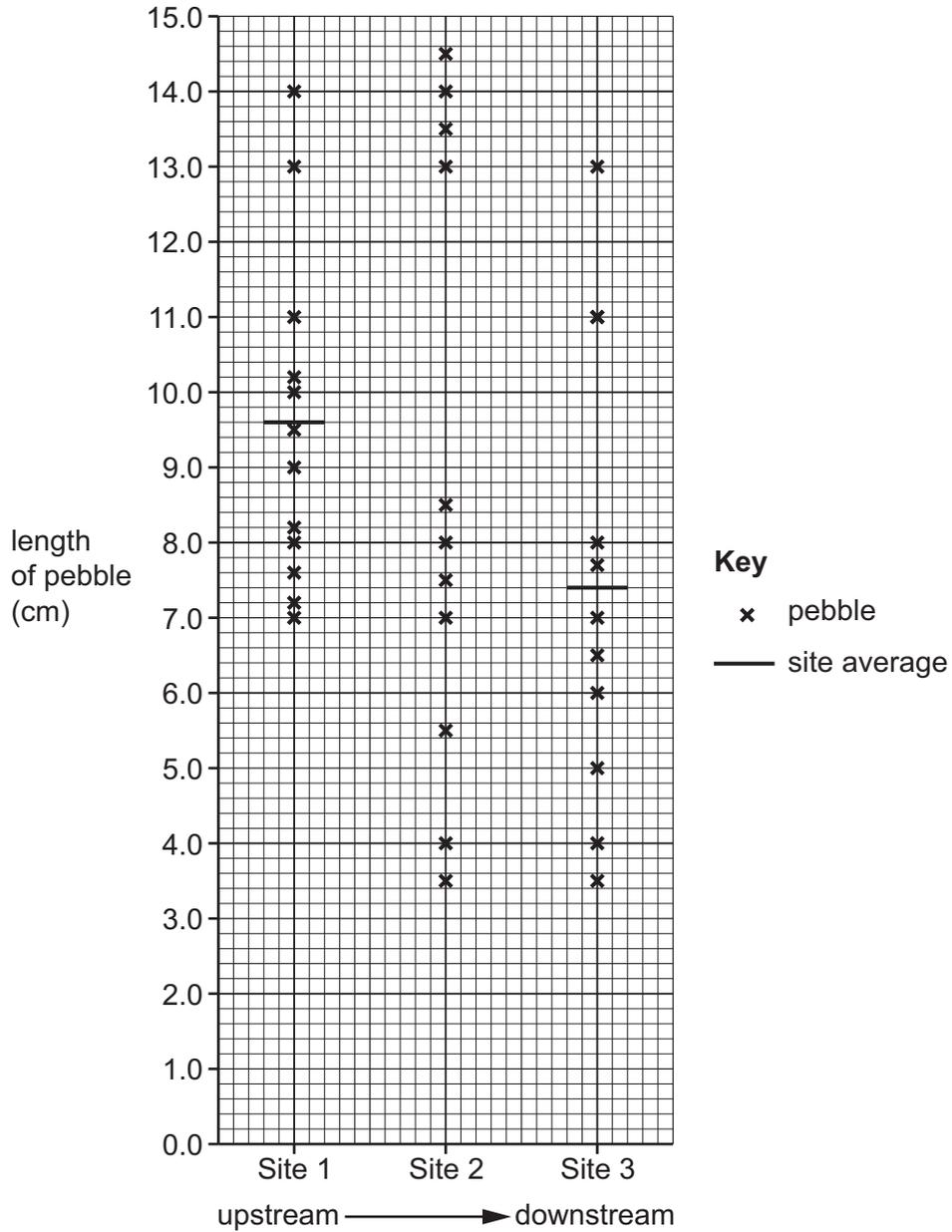




(iii) The measurements of the pebbles collected at Site 2 are shown in Table 4.3 (Insert). The students presented their data on the graph shown in Fig. 4.4.

Using data from Table 4.3, **complete Site 2 on Fig. 4.4** by plotting the length of pebble number 4 **and** the average length of the pebbles.

**Length of sampled pebbles at each site**



**Fig. 4.4**

[2]





(iv) What conclusion would you make about **Hypothesis 2**: 'Load particle size decreases downstream'? Use evidence from Table 4.3 and Fig. 4.4 to support your conclusion.

Conclusion .....

Evidence to support your conclusion

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[3]

[Total: 20]

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