Cambridge Assessment International Education

Cambridge O Level

CANDIDATE NAME									
CENTRE NUMBER						CANDIDATE NUMBER			

0123456789

GEOGRAPHY **2230/02**

Paper 2 Geographical Skills **For examination from 2021**

SPECIMEN PAPER **1 hour 45 minutes**

You must answer on the question paper.

You will need: Insert (enclosed)
1:25 000 survey map (enclosed)
Calculator
Plain paper
Protractor
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 **14** pages. Blank pages are indicated.

Section A: Mapwork skills

1 Study the map extract of an area of Dominica. The scale is 1:25 000. The heights are in feet.

(a) (i) State the four figure grid reference of the square containing the settlement of St. Joseph.

..... [1]

(ii) What is the straight line distance, in kilometres, from the police station in St. Joseph to the police station in Mahaut?

..... [1]

(iii) In what compass direction is the police station in Mahaut from the police station in St. Joseph?

..... [1]

(iv) Name **two** more services, other than the police station, found in St. Joseph.

1 .....

2 ..... [2]

(v) Compare the size and shape of the settlement of St. Joseph with the settlement of Mahaut.

- size

.....

.....

- shape

.....

..... [2]

(vi) Give a six-figure grid reference for the bridge over the Belfast River, north-west of Mahaut.

..... [1]

(b) (i) Name **two physical** features found along the coast in grid square 6003.

1 .....

2 ..... [2]

(ii) State the height of the trigonometrical station on Desjardin located in grid square 6200.

..... feet [1]

(iii) Compare the relief and altitude of the summit of Desjardin with the land called Deux Jardins to the west of the summit.

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..... [2]

(c) Study Fig. 1.1, which shows part of the area in the north of the map extract.

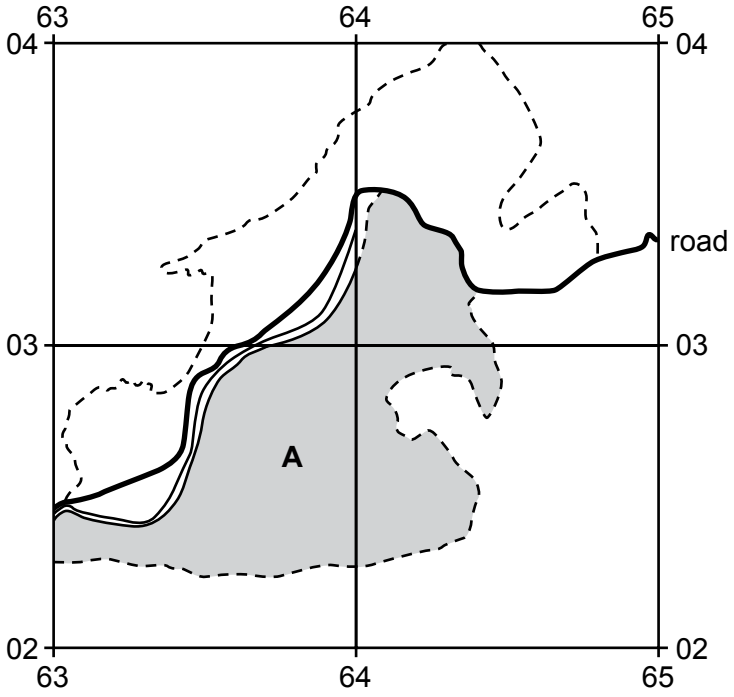


Fig. 1.1

(i) State the total area covered by the grid squares in Fig. 1.1. Give your answer in square kilometres.

..... [1]

(ii) Name the plantation crop grown in area **A** on Fig. 1.1.

..... [1]

(iii) Use the map extract to **complete Fig. 1.1** as follows:
- draw the river in grid square 6403
- write the name of the river
- add an arrow to show the direction the river is flowing [3]

(iv) **On Fig. 1.1**, mark with a dot and label with the correct letter the position of:
- a hotel (**H**)
- a bridge across the river (**B**) [2]

[Total: 20]

Section B: Geographical skills

2 **(a)** Study Fig. 2.1, which shows the number of international tourist arrivals in Brunei between 2004 and 2013.

International tourist arrivals in Brunei 2004–2013

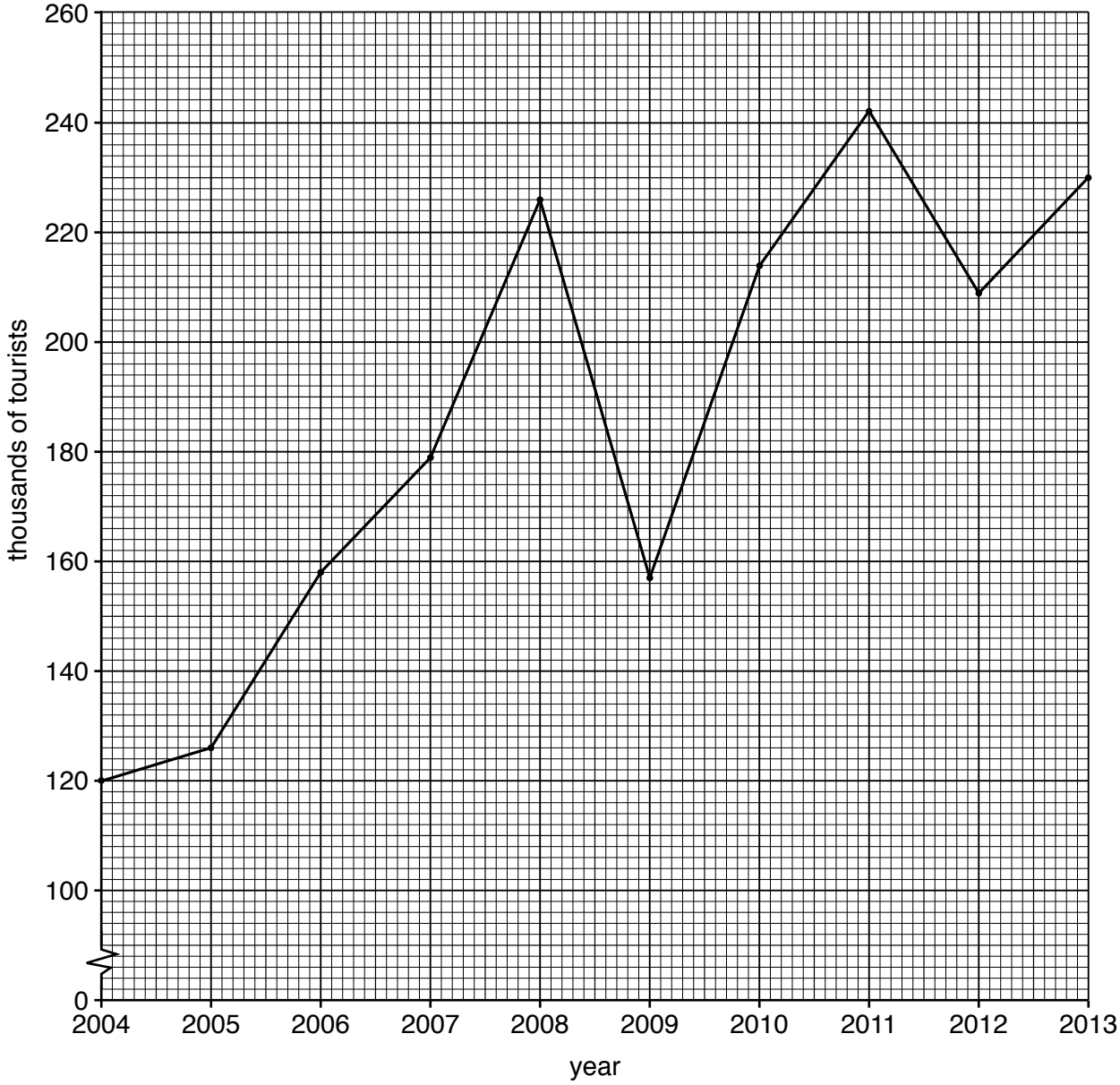


Fig. 2.1

(i) What is the overall trend shown on the line graph?

..... [1]

(ii) Calculate the difference in the number of tourist arrivals in 2013 compared to 2004.

..... [1]

(iii) In which years did tourist numbers go down?

..... [1]

(iv) Suggest **two** reasons why the number of tourist arrivals might decrease in some years.

.....

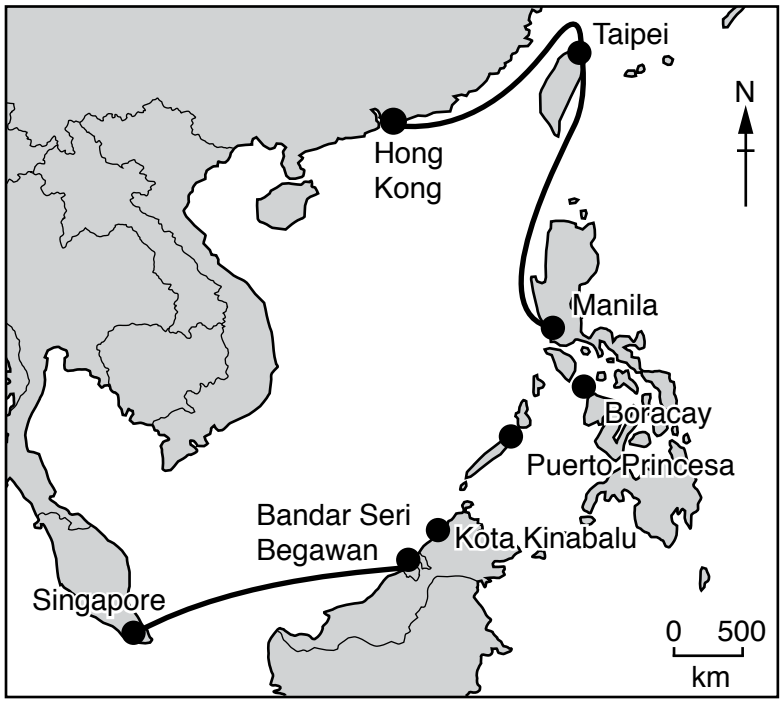
.....

.....

..... [2]

(b) Study Fig. 2.2, which shows the route of an 11-day cruise of Taiwan, the Philippines and Brunei.

11-day cruise of Taiwan, the Philippines and Brunei



day	destination
1	Hong Kong
2	at sea
3	Taipei
4	at sea
5	Manila
6	Boracay
7	Puerto Princesa
8	Kota Kinabalu
9	Bandar Seri Begawan
10	at sea
11	Singapore

Fig. 2.2

(i) Use the information in the table to complete **on Fig. 2.2** the route taken by the cruise ship. [1]

(ii) Add an arrow **on Fig. 2.2** to show the direction the cruise ship will travel. [1]

(c) Study Fig. 2.3 (Insert), which shows a poster to encourage tourists to go to Brunei.

How effective do you think the poster will be in attracting tourists to Brunei? Explain your answer.

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.....

.....

.....

.....

..... [3]

[Total: 10]

3 **(a)** Study Fig. 3.1, which shows details of the GDP (Gross Domestic Product) per person and the percentage of people employed in agriculture (farming) in several countries.

GDP per person and the percentage of people employed in agriculture (farming)

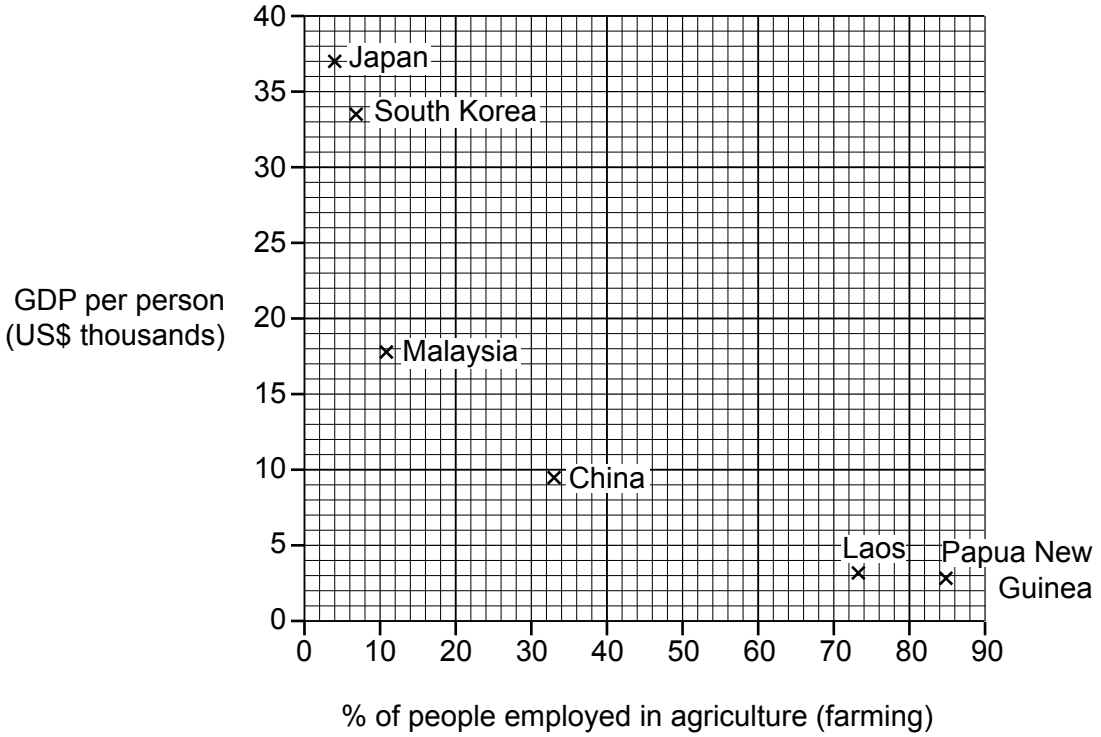

Fig. 3.1

(i) Name a job in the **primary sector** that is **not** in agriculture (farming).

..... [1]

(ii) Describe the relationship between GDP per person and the percentage of people employed in agriculture (farming) shown on Fig. 3.1.

.....

..... [1]

(iii) On **Fig. 3.1**, plot and label the data for Vietnam shown below.

	Vietnam
GDP per person (US$ thousands)	4
% of people employed in agriculture (farming)	48

[1]

(iv) Explain why countries with a low GDP have a high percentage of people employed in agriculture.

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..... [3]

(b) Study Table 3.1, which shows the employment structures of Laos, China and Japan in 2012.

Table 3.1

Employment structures of Laos, China and Japan in 2012

country	primary (%)	secondary (%)	tertiary(%)
Laos	73	6	21
China	34		36
Japan	4	26	70

(i) Calculate the percentage of secondary employment in China. **Write your answer in Table 3.1.** [1]

(ii) Use Table 3.1 to compare the employment structures of Laos and Japan.

.....

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.....

.....

..... [3]

[Total: 10]

Section C: Geographical investigation

4 Students at a school in south west England (UK) did fieldwork on a river which flows from Dartmoor National Park (an upland area). The river and the five fieldwork sites are shown on Fig. 4.1 (Insert).

The students agreed to investigate the following hypotheses:

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

Hypothesis 2: *The bedload becomes more rounded downstream.*

(a) Before they went to do their fieldwork the students did a pilot study at a site on a local stream. Suggest **two** advantages of doing a pilot study.

1 .....

.....

2 .....

..... [2]

(b) To investigate **Hypothesis 1**, the students measured the width of the river channel and the depth of the river at points across the channel. Study Fig. 4.2 and Fig. 4.3 (Insert), photographs which show the students doing their fieldwork.

Describe how the students made their measurements.

width of river channel .....

.....

.....

.....

depth of river .....

.....

.....

..... [4]

(c) The results of the students' fieldwork at site 3 are shown in Table 4.1 below.

Table 4.1

Students' measurements at site 3

Distance across channel width (metres)	Depth of channel (metres)
0.4	0.15
1.7	0.40
2.9	**0.50**
4.2	**0.35**
5.4	0.10

(i) Use these results to **complete the cross section** of the river channel at site 3 **on Fig. 4.4** opposite. [2]

(ii) How might the students interpret the data for **Hypothesis 1**: *The river becomes wider and deeper downstream*? Support your answer with data from Fig. 4.4.

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..... [4]

Cross sections of the river channel

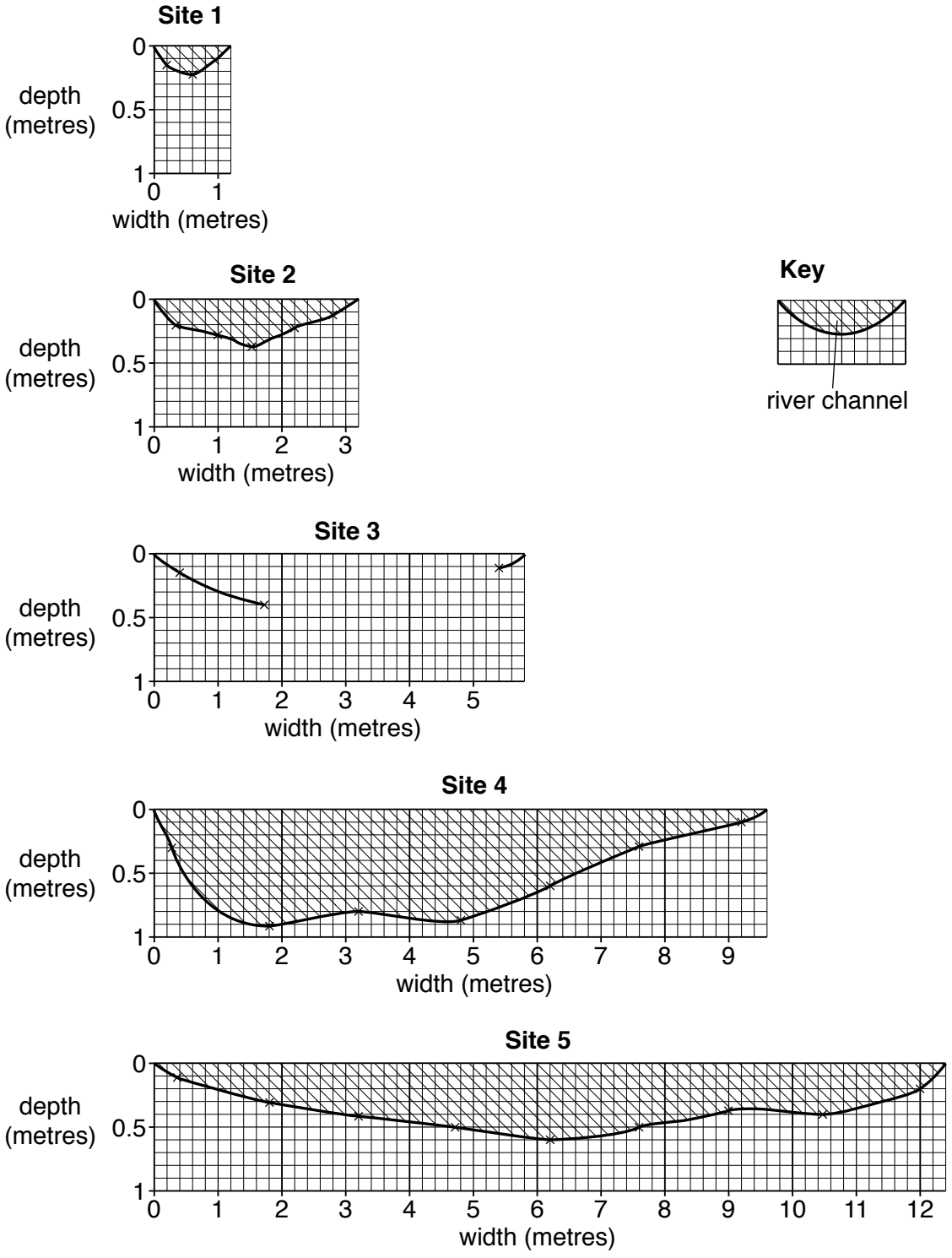

Fig. 4.4

Power's scale of roundness

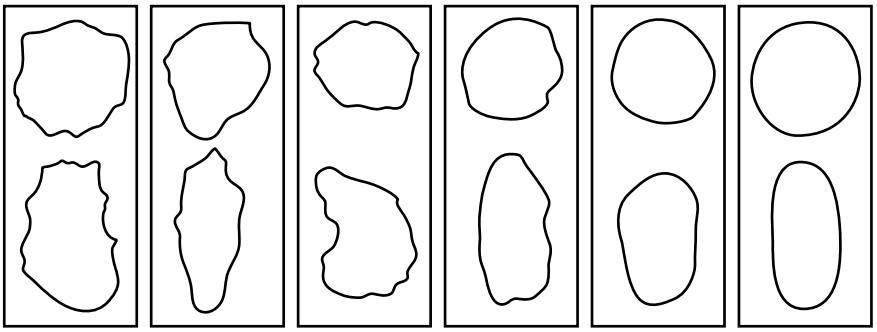

Fig. 4.5

(d) To investigate **Hypothesis 2**: *The bedload becomes more rounded downstream*, the students selected 20 pebbles at random from the bed of the river at each site. They then measured the roundness of the pebbles by comparing them with the Power's scale of roundness which is shown in Fig. 4.5.

(i) Suggest **two** weaknesses of selecting pebbles at random.

1 .....

.....

2 .....

..... [2]

Table 4.2

Students' results

Site	Number of pebbles					
	very angular	angular	slightly angular	slightly rounded	rounded	very rounded
1	6	6	4	4	0	0
2	9	4	6	1	0	0
3	0	2	3	12	2	1
4	0	0	3	8	7	2
5	0	2	4	9	5	0

(ii) Study Table 4.2, which shows the students' results of measuring pebble roundness. Use these results to **complete the divided bar graph** for site 2 in Fig. 4.6 below. [2]

Students' results of measuring pebble roundness

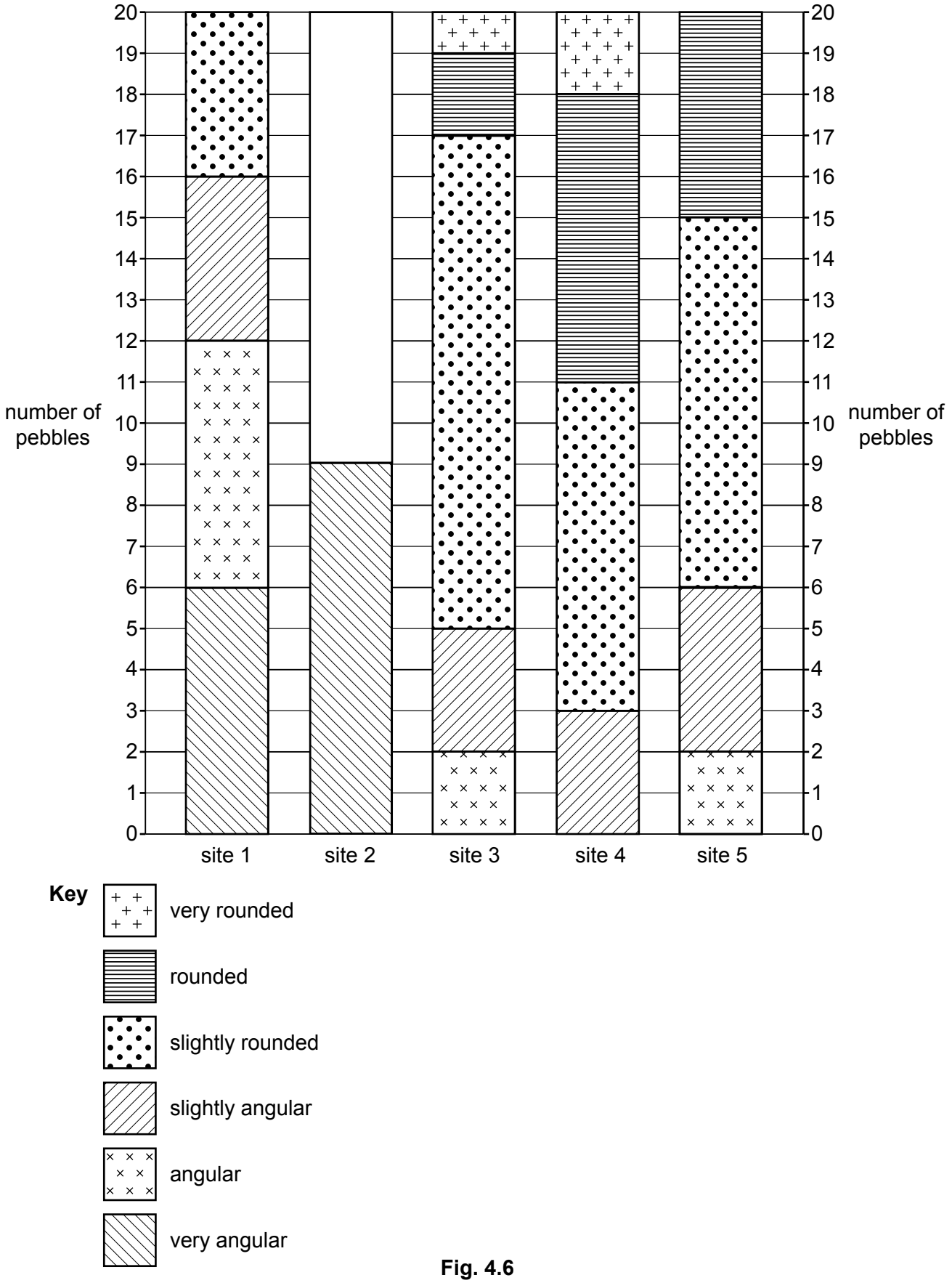

Fig. 4.6

(iii) The students decided that **Hypothesis 2**: *The bedload becomes more rounded downstream* was partly true. Use evidence from Fig. 4.6 and Table 4.2 to explain why they reached this conclusion.

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..... [2]

(iv) Explain why pebbles (bedload) generally become more rounded downstream.

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..... [2]

[Total: 20]