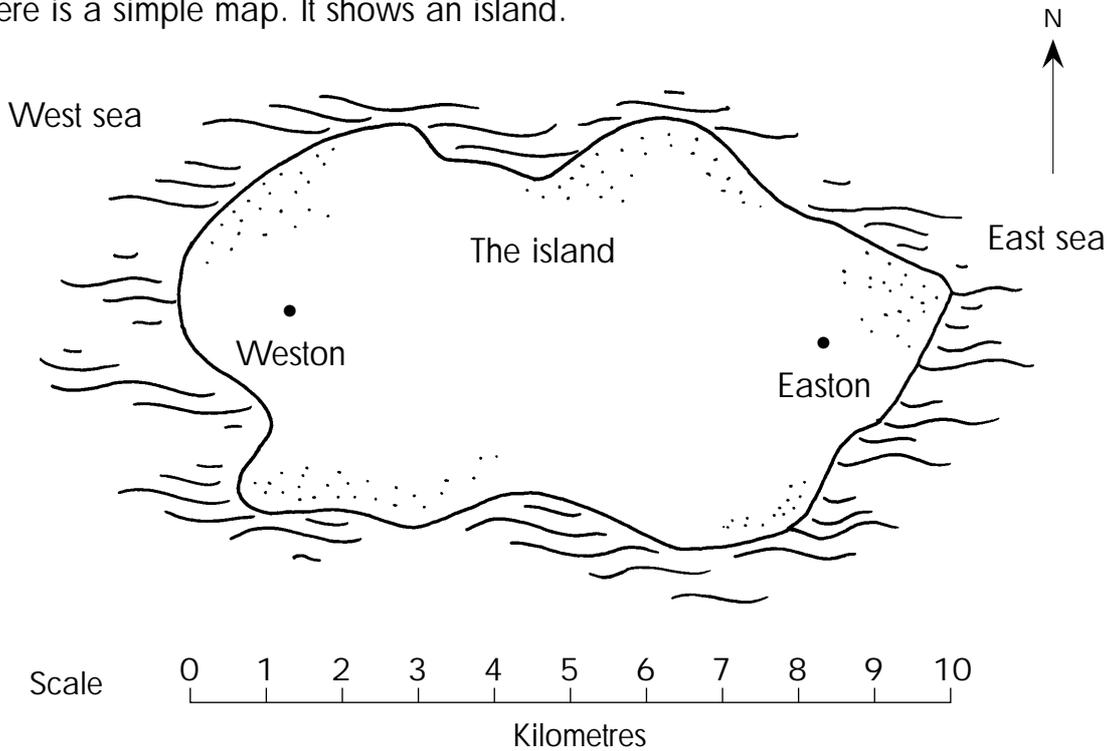


Using scale

Here is a simple map. It shows an island.



A simple scale has been printed underneath. This kind of scale is called a line scale. Sometimes it is called a linear scale.

The line is 10 cm long. Each centimetre represents 1 kilometre. The whole line represents 10 km.

See how the island is exactly the same width as the line scale. This shows us that the island is really 10 km across.

There are two dots on the map. These represent towns on the island. Measure between the two dots with a ruler. They are 7 cm apart.

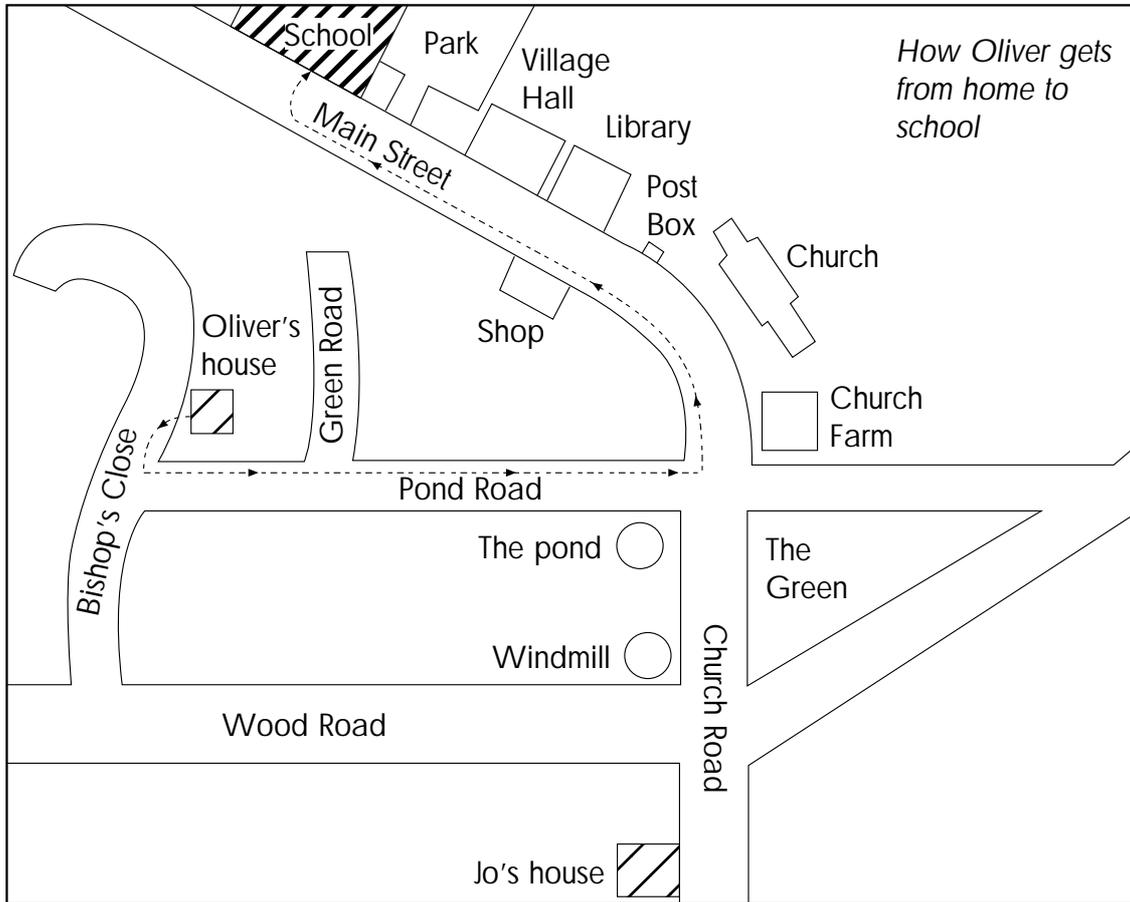
Now use your ruler to measure 7 cm along the line scale. Start measuring at '0' on the scale. This will show you that the towns really are 7 km apart on the map.

Question

How far is it across the island at its narrowest point? Write your answer in km.

Activities

Look at this sketch map carefully. Then answer the questions at the bottom of the page.



How Oliver gets from home to school

- 1 Which road does Oliver live in? _____
- 2 Which road is the school in? _____
- 3 Which other road does Oliver walk along?

- 4 Oliver passes the following landmarks on his way to school. Which order does he see them in?
The church The library The pond The park The postbox

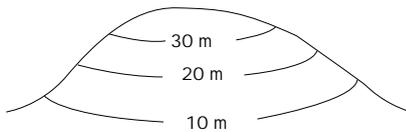
- 5 Find Jo's house. Which landmark will Jo walk past that Oliver will not walk past? _____

Showing height on maps

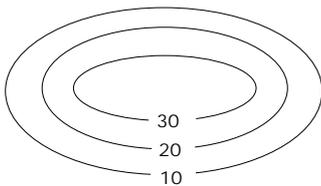
We measure the height of land above sea level. Some symbols have been designed to show the height of the land. Here are three of them:

Contours

These are lines drawn on a map which join places which are the same height. They are often drawn every 10 metres and have numbers to show how high the land is.



Imagine we drew lines around a hill showing the land that was 10 metres, 20 metres and 30 metres high.

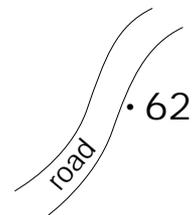


If we looked down on the hill we would see this pattern. This is the contour pattern for this hill.

Spot heights

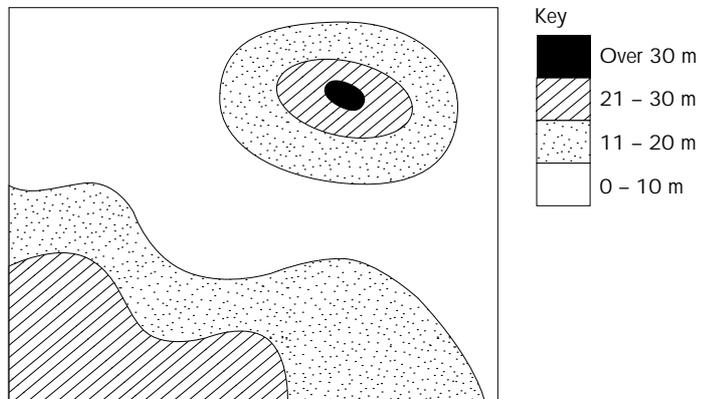
These are small dots. They are often found next to roads on some maps. Next to the dot is a number. This shows the height of the land at that place.

The road is 62 metres above sea level at this place.



Shading

Different colours or patterns can be used to show the height of land. Here is an example.

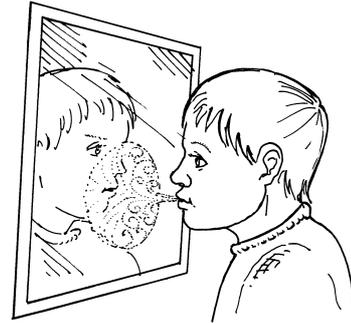


Why does it rain?

Condensation

We can see water all around us. We see it in puddles, in rivers and when we turn on a tap. We can also see water when it is solid. We call it ice. Did you know that water can be a gas? It is invisible. We call it water vapour.

Water vapour is found in the air. If air is cooled, some of the water vapour turns into tiny droplets of water. You can prove this by breathing on a window on a cold day. The window "steams up" as the water vapour condenses and the droplets are formed.



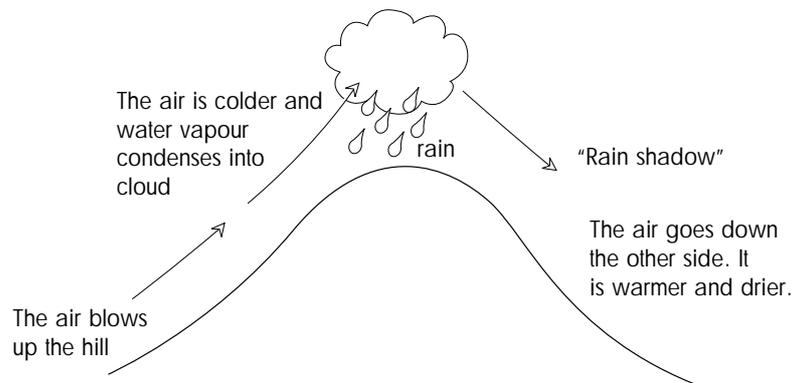
When water vapour in the air condenses, it forms clouds.

Rain

If a lot of water vapour condenses, then it may rain. It often rains in hilly areas.

The air is carried up and over the hill. The air gets colder as it rises and this causes condensation. Clouds are formed and it rains.

It doesn't rain as much on the other side of the hill. This area is called the rain shadow.



Activity

Draw a line of squares, one for each day of the month. Write the date in each box. Tick the box if it rains on that day. Make a cross if it rains for most of the day. At the end of the month, count how many days have no rain, how many have some rain and how many have a lot of rain.

September

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
					✓	✓	✓			✓							✓	✓	✗	✗	✓					✓	✗	✓	✓