

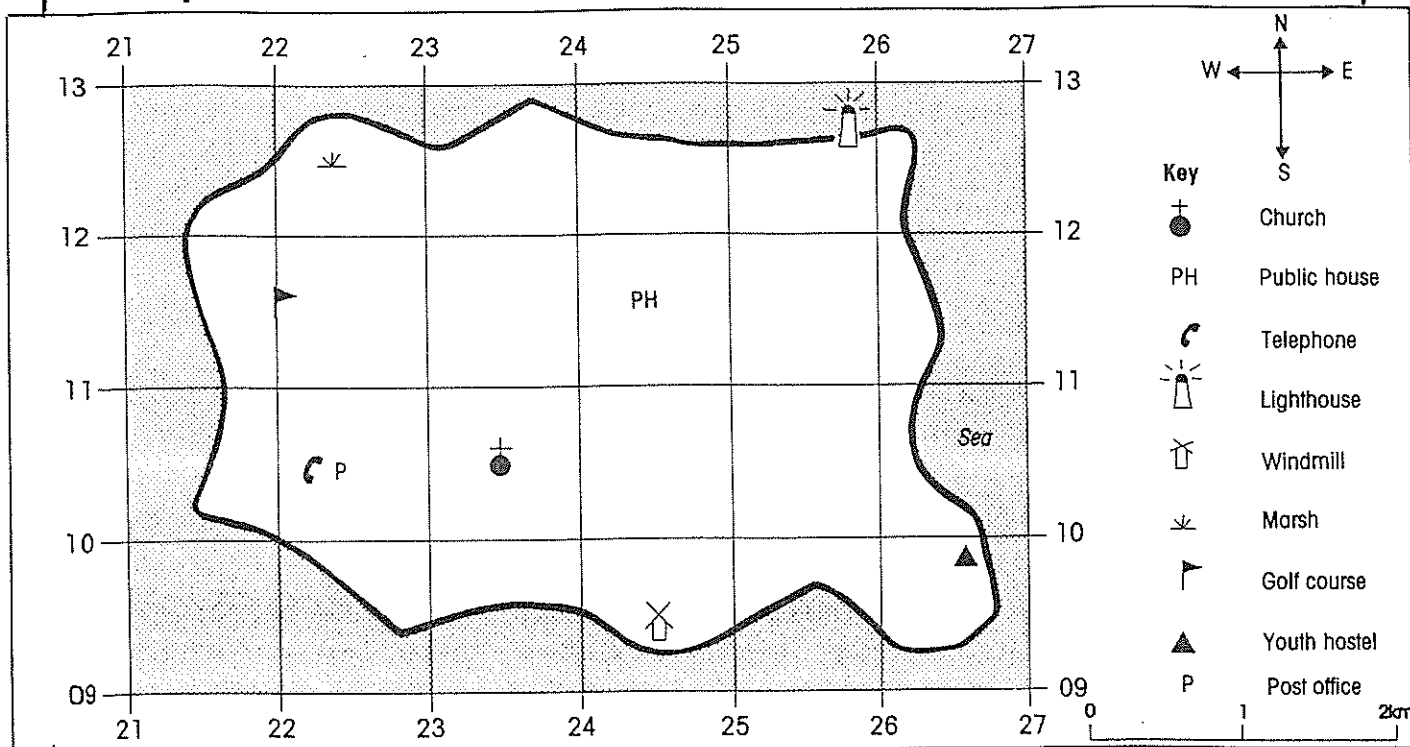
Geography Department

Year 7

Week 1 and 2

Map skills

Map skills



1 Tick **true** or **false** for the following.

- The windmill is further south than the church.
- The church is further west than the telephone.
- The windmill is south east of the public house.
- The windmill is south east of the church.
- The lighthouse is more than 2km from the church.

True	False

2 Answer **telephone**, **marsh**, **public house** or **windmill** to the following.

- The _____ is in square 2411.
- The _____ is in square 2409.
- The _____ is in square 2212.
- The _____ is in square 2210.

3 Use the map scale to give the lengths of each of these lines in kilometres.

- _____ km
- _____ km
- _____ km
- _____ km

4 Give the following distances in kilometres.

- The public house to the windmill is _____ km.
- The post office to the youth hostel is _____ km.
- The lighthouse to the windmill is _____ km.

5 Give the six figure grid reference for each of the following.

- The lighthouse _____
- The golf course _____
- The youth hostel _____
- The church _____

See pupils' book pages 92 and 93

Direction puzzle

The puzzle below has some geography words hidden in it.

Follow the directions in each table to spell out the words.

Join the letters in the puzzle with a line and write each letter in the table as you come to it.

The first one has been done for you.

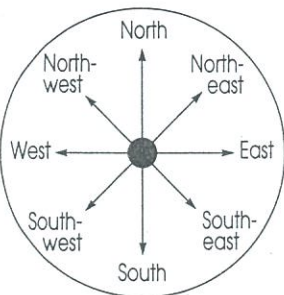
For the fourth one, the word has been given in the table and you have to give the directions.

① Starts here

② Starts here

④ Starts here

③ Starts here



① Direction	Letter
Go east	M
Go south	A
Go east	P
Go south	S

② Direction	Letter
Go south-west	D
Go north-west	
Go west	
Go south	
Go south-east	
Go east	
Go north-east	
Go south	
Go south	

④ Direction	Letter
	C
	O
	M
	P
	A
	S
	S

③ Direction	Letter
Go west	O
Go west	
Go north-east	
Go north-east	
Go west	
Go west	
Go south	
Go north-west	
Go north-west	
Go west	
Go west	
Go south	
Go south-east	
Go east	

Make up a **Direction puzzle** of your own and try it out on a friend.

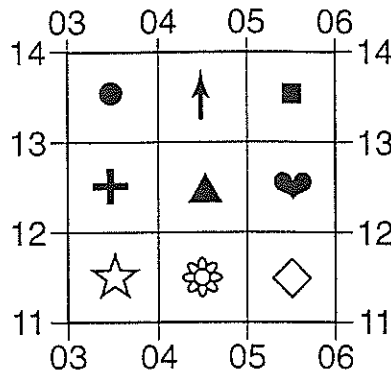
In this activity you will learn about four figure grid references

Many maps have a **grid** of squares drawn on the map to make it easy to find things.

Grid References are the numbers which name a grid square. Grid squares need **four** numbers or **figures** to name them.

Activities

- 1 Look at the diagram below and complete the grid references. The first one has been done for you.



The ● is in square 0313.

The ☼ is in square 04__.

The ♥ is in square 05__.

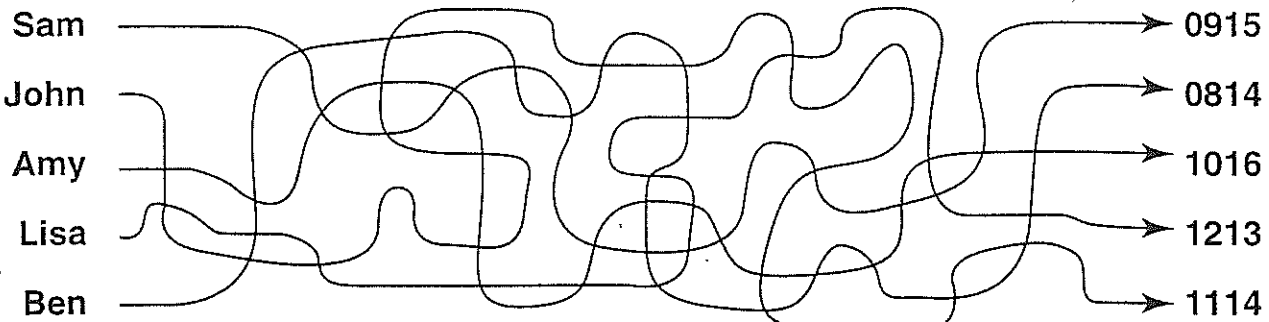
The ◇ is in square ____.

The ☆ is in square 0311.

The + is in square ____.

The ↑ is in square 0413.

- 2 Follow the lines below to find the **grid references** at the end. Look them up in the diagram underneath to see what prize each person has won at the fair.



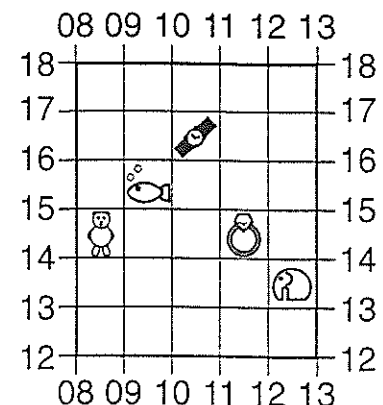
Sam has won _____

John has won _____

Amy has won _____

Lisa has won _____

Ben has won _____



Recap Four figure grid references are the numbers which help us to find g _____ s _____ on maps.

Symbols

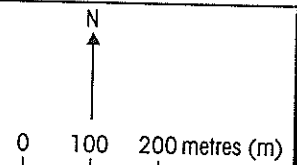
- Look at the map of All Saints Road. The main buildings are shown but some features are missing. These are listed below the map.
- Your task is to complete the map by drawing symbols in the correct places. The symbols are given in the key.
- First complete the key by writing in the meaning of each symbol. The key for the Ordnance Survey map on page 108 of the pupils' book will help you.

Key

+	_____	_____	_____
+	_____	_____	_____
C	_____	_____	_____
---	_____	_____	_____

Sch _____

- Between houses 22 and 23 there is a church with a tower.
- Between 17 and 18 there is a chapel.
- Building number 1 is a post office.
- Between houses 14 and 15 there is a telephone.
- To the north of the street there is a group of buildings which is a school.
The children reach this school by a footpath between 8 and 9.
- North-east of house 14 is a coniferous wood.
- A railway line runs south of All Saints Road. There is a station behind house 29.
- London Road crosses the railway by a bridge.
- Number 30 is a bus station.
- Behind houses 15, 16 and 17 there is a park.
- A river flows from east to west across the map. The 'A' class London Road crosses it north of the bus station. The footpath crosses it by a bridge between the houses and the school.



In this activity you will learn about six figure grid references

We can find **exact points** on a map by using **six numbers or figures**.

- The **first three** numbers tell us how far to go along the bottom or top of the map. The **third** number tells us the number of **tenths** of a grid square.
- The **last three figures** tell us how far to go up the side of the map. The **sixth** number tells us the number of **tenths** of a grid square.

On a map you will have to estimate the tenths of each grid square. Remember that five tenths is half a grid square.

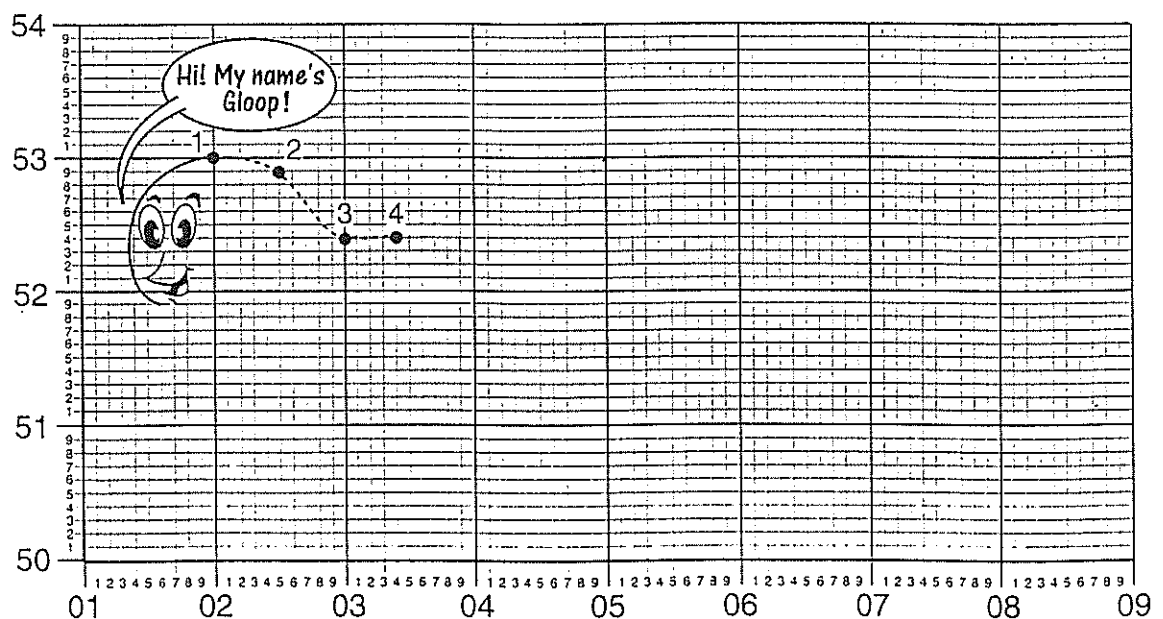
Activity

Use the following **six figure grid references** to plot points 1 to 25 on the grid below. The tenths have been marked on for you.

Then join them up in order to see who's hiding!

Numbers 1 to 4 have been done for you. Cross out the references as you go.

1 020 530	6 050 530	11 060 510	16 054 510	21 027 505
2 025 529	7 060 518	12 060 502	17 045 510	22 030 505
3 030 524	8 075 508	13 054 502	18 037 511	23 024 522
4 034 524	9 090 502	14 054 505	19 033 502	24 020 521
5 045 531	10 075 505	15 055 505	20 027 502	25 016 519

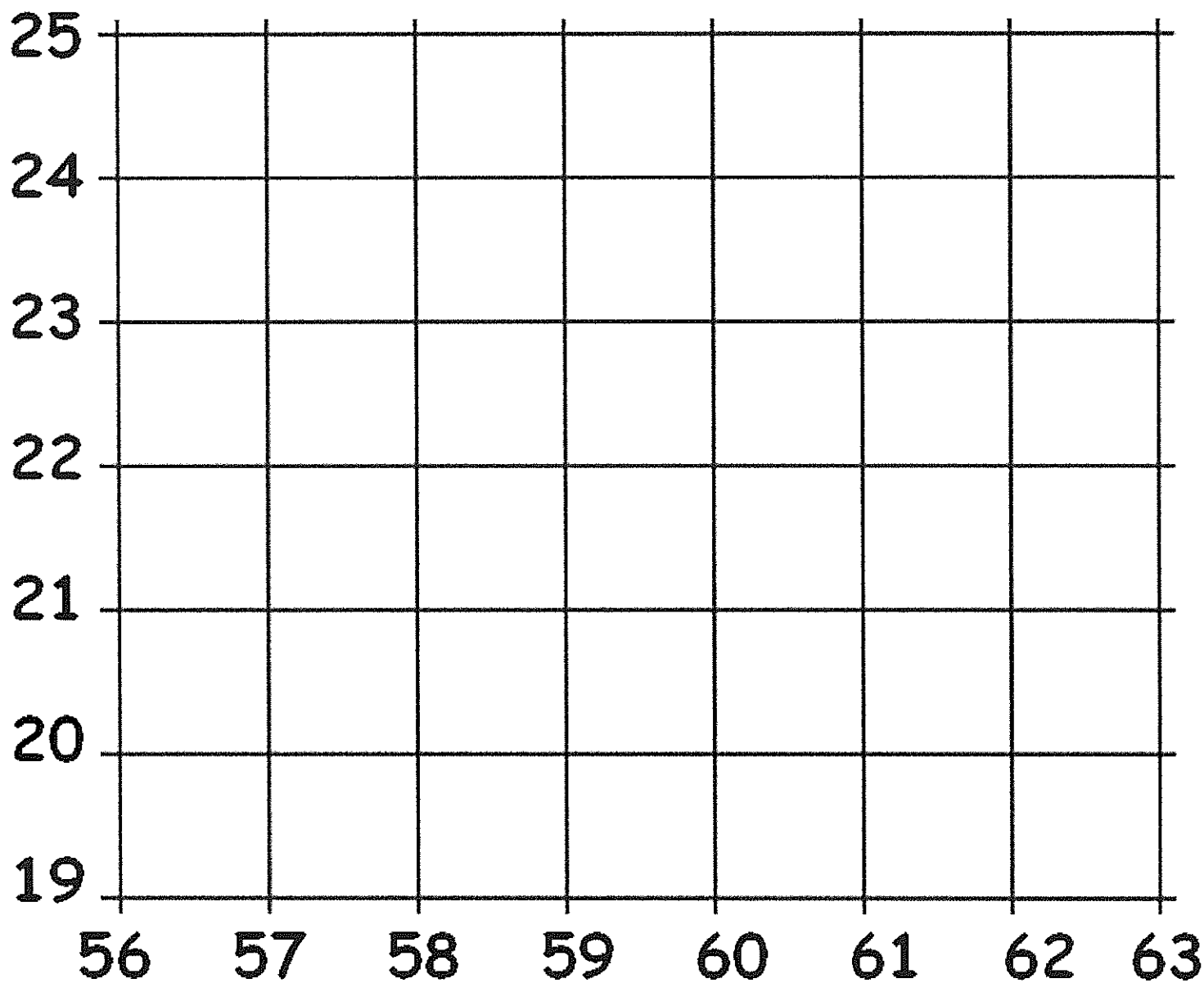


Recap

Six figure grid references help us find exact points on a map.

The first three numbers _____

The last three numbers _____



Place a dot or a cross to mark the six figure grid reference.

600200 615233 621245 588222 573237 596240

Now draw six dots on the grid and label 1 to 6 and provide the six figure grid reference below in the space provided for each mark.

1 _____ 2 _____ 3 _____

4 _____ 5 _____ 6 _____

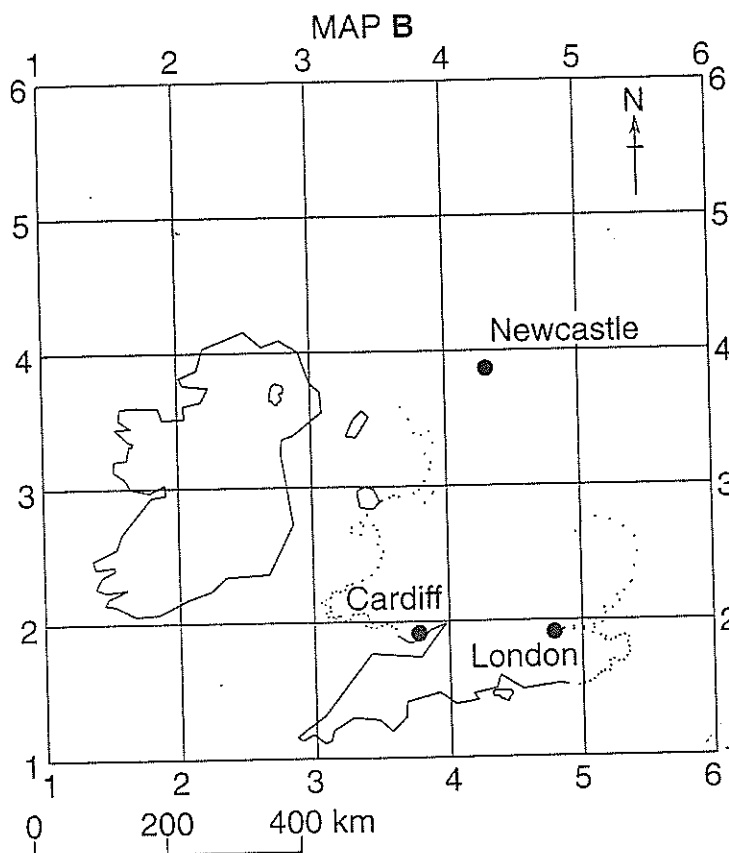
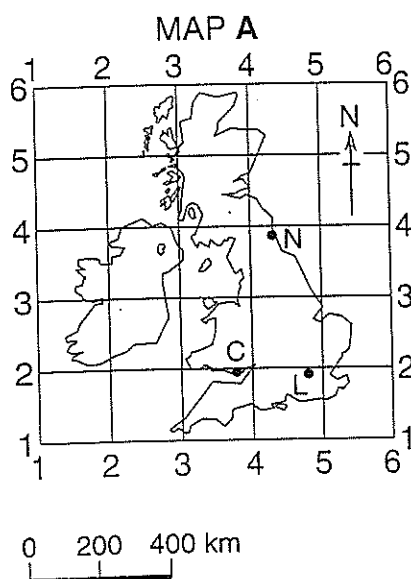
In this activity you will learn about scale

Maps show places **smaller** than they are in real life.

The **scale** on a map lets us measure real distances.

Activities

- 1 Map A shows a simple map of Britain. Copy it, square-by-square, on to Map B. It has been started for you.



Well done! You have drawn your copy to a larger **scale**.

- 2 Look at your map, and join up the following 'heads' and 'tails'.

On Map A each square equals

400 km

On Map B each square equals

200 km

The distance from London to Newcastle is

200 km across

The distance from Newcastle to Cardiff is

200 km across

The distance from Cardiff to London is

400 km

- 3 Colour the **sea** on Map B in **blue**, and the **land** in **green**.

Recap

We measure distances on a map using the **s**_____.

In this activity you will learn about scale

Maps show places **smaller** than they are in real life.

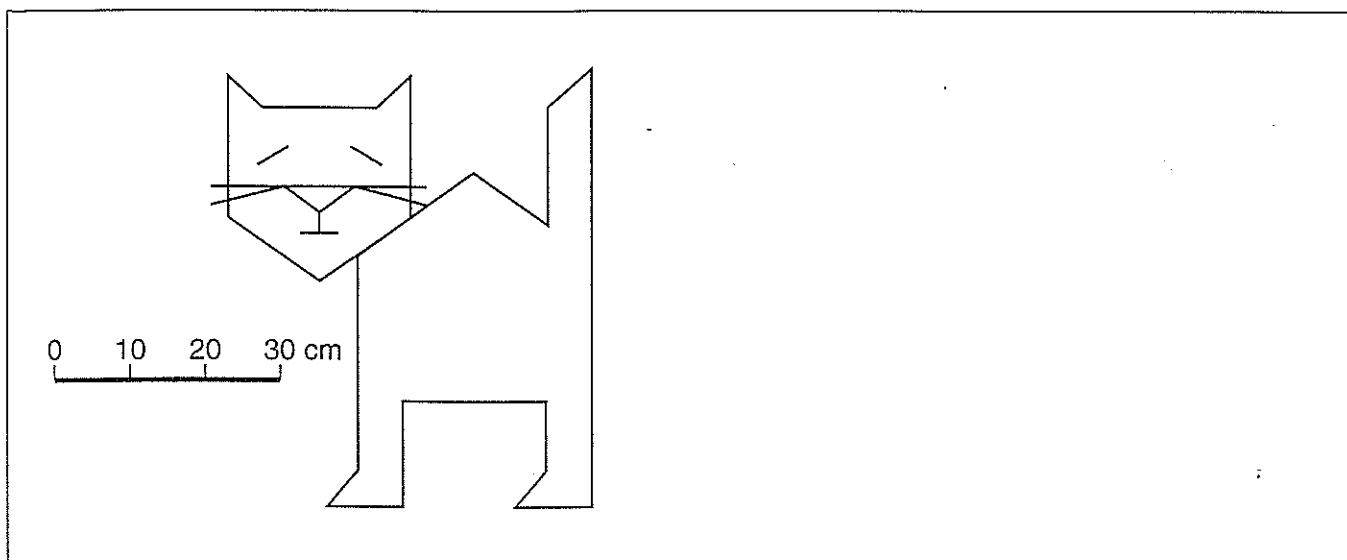
The **scale** lets us measure real distances on a map or diagram.

Activities

1 Fill in the gaps below.

A scale of 1 **cm** : 1 **km** means that every 2 **cm** represents 2 **km**. 5 **cm** represents _____.
_____ represents 10 **km**. _____ represents 15 **km**.

2 Here is a picture of Arabella the 'Angular Cat'.

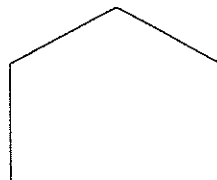


- On the scale-line every 1 **cm** represents _____ in real life. This is a scale of 1:10.
- Use the **scale-line** next to her to measure her.
- What is the length of her back paw? _____.
- How high is the tip of her tail above the ground? _____.
- How long is one of her whiskers? _____.
- How long is her eye? _____.
- If Fred Flea hops from the tip of one ear to the tip of the other how far does he go? _____.

3 Draw Arabella's 'cat-kennel' to scale in the space next to her.

The 'cat-kennel' is this shape.

The kennel is: 70 **cm** across,
60 **cm** high in the **middle**,
45 **cm** high on **each side**.



- 4 In your exercise book or folder draw a diagram of your book, or your pencil-case, using the same scale (1 : 10).
- 5 Now choose something else and try and draw it to scale (1:10).

Recap

Scale is used _____.

In this activity you will learn about scale

Maps show places **smaller** than they are in real life.

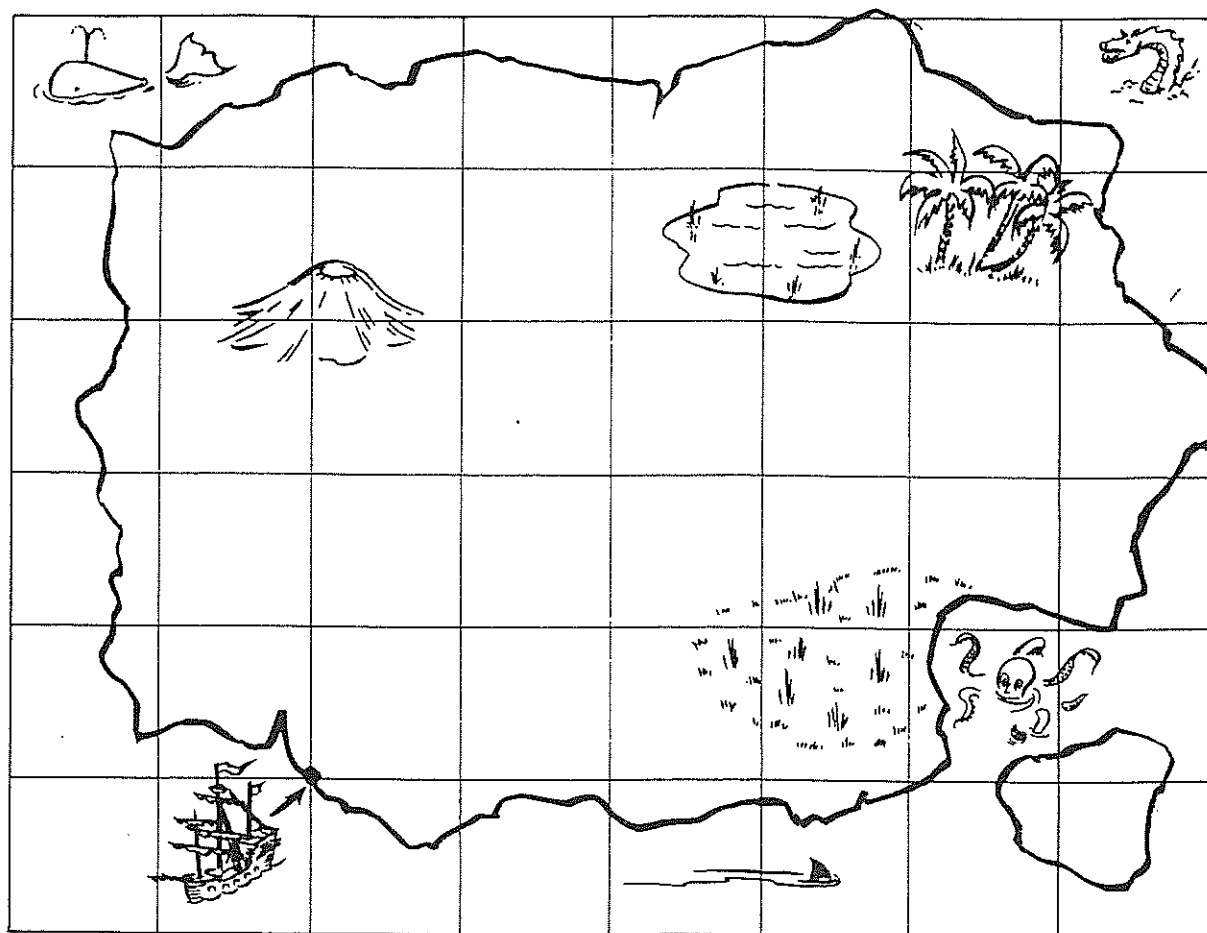
The **scale** on a map lets us measure real distances.

Activity

Here is a map of a desert island where you want to bury some treasure. Start at the **ship** and follow the instructions below, using the scale to help you.

Each square is one square kilometre.

Mark your path on the map as you go.



0 1 2 km

- | | |
|-----------------------------|--|
| 1 Go north for 2 km. | 7 Go south for 3 km. |
| 2 Go east for 4 km. | 8 Go east for 2 km. |
| 3 Go north for 3 km. | 9 Go north for 2 km. |
| 4 Go west for 1 km. | 10 Go east for 1 km. |
| 5 Go south for 1 km. | 11 Go south for 3 km. |
| 6 Go west for 4 km. | 12 Put X and bury the treasure. |

To get straight back to the ship you have to go _____ for _____ km.

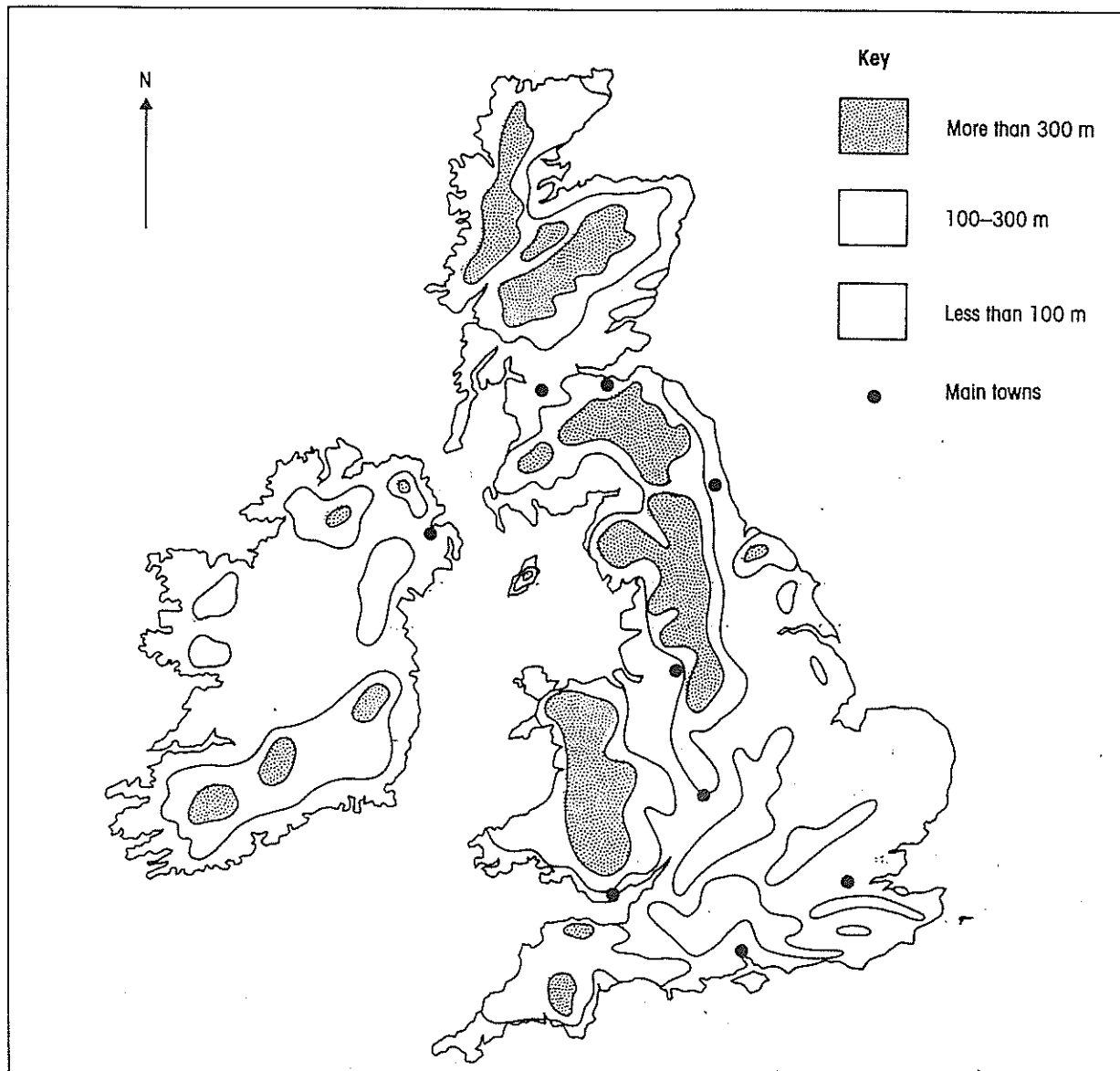
Recap

We measure distances on a map using the **s**_____.

See pupils' book pages 102 and 103

Layer colouring

This is a relief map of the British Isles, which also shows the main towns.



1 Show height on the map by layer colouring using coloured pencils.

- Colour areas more than 300m **dark brown**.
- Colour areas 100–300m **light brown**.
- Colour areas less than 100m **green**.
- Complete the key.

2 Name the following highland areas on the map:

Pennines Lake District Southern Uplands Grampians

3 Name the following towns on the map. Page 99 in the Pupils' book will help you.

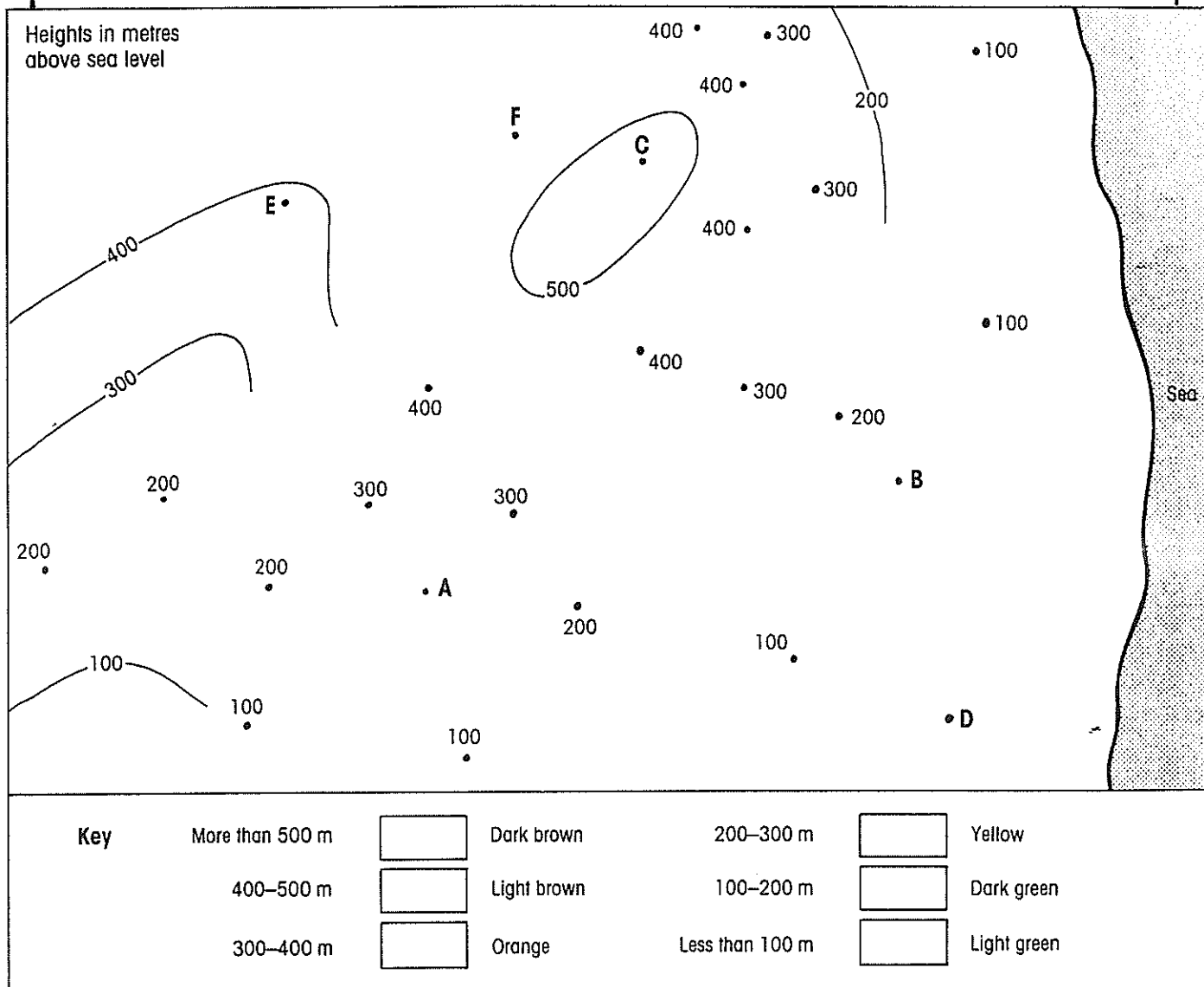
London Cardiff Birmingham Manchester Southampton
Newcastle upon Tyne Edinburgh Glasgow Belfast

4 Mark and name on the map the place where you live.

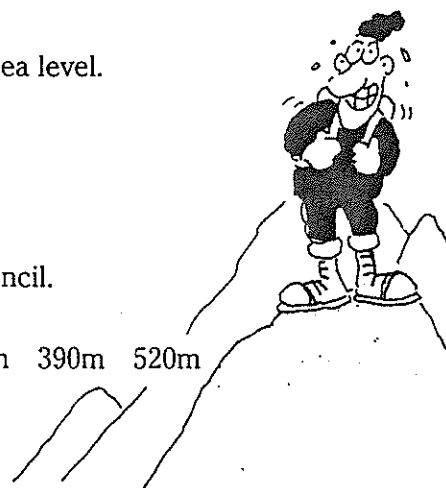


Height on maps

A **contour** is a line drawn on a map. It joins up places which have the same height. It is coloured brown. The map below is an incomplete contour map.



- In pencil join up all the places that are 100 metres above sea level.
 - Join up all the places that are 200 metres above sea level.
 - Join up all the places that are 300 metres above sea level.
 - Join up all the places that are 400 metres above sea level.
 - On each contour, mark its height.
- Colour the key in the colours suggested.
Layer shade the map using those colours. Colour lightly in pencil.
- Write in the heights of places A, B, C, D, E and F.
Choose your heights from this list: 50m 470m 220m 110m 390m 520m
- On your map write the following labels:
Hill top Valley Steep slope Gentle slope








In this activity you will learn how height is shown on a map

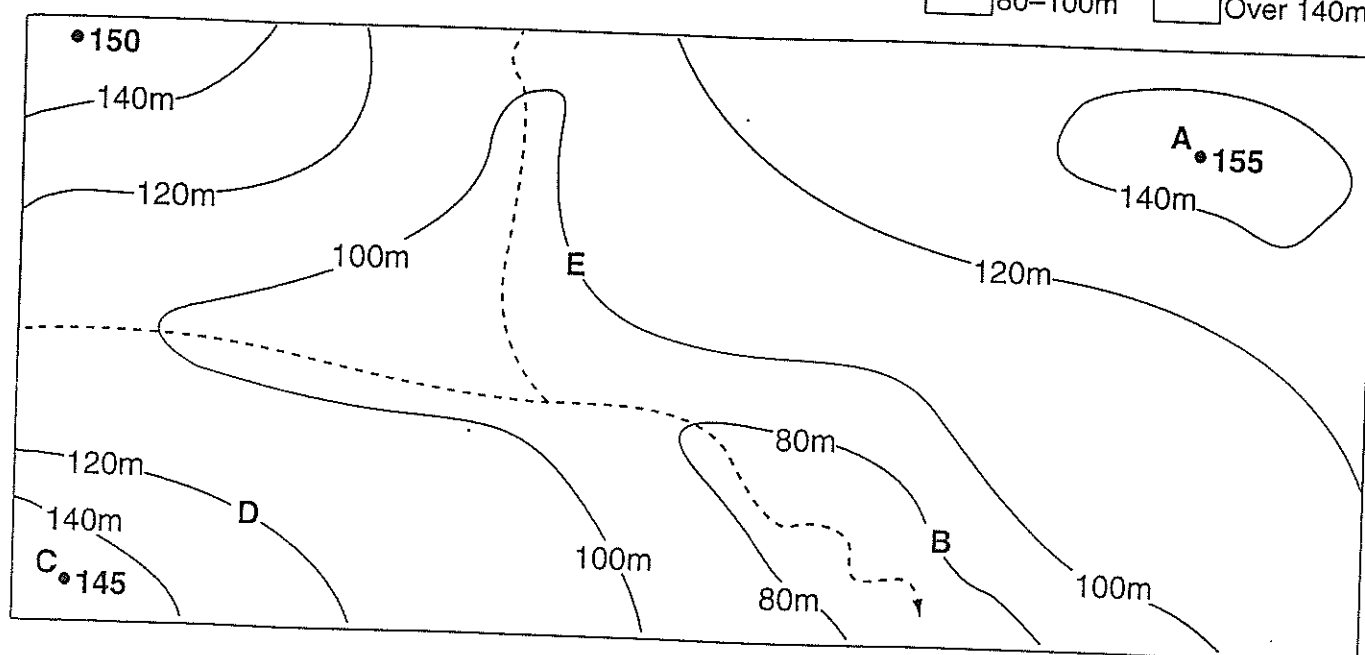
Height can be shown on a map by using:

- **spot heights.** These show the exact height of a place.
- **contours.** These are lines on a map which join up places which have the same height.
- **layer colouring.** Here areas of different heights are shown by bands of different colours.

Activities

1 Study the map below. The solid lines are **contours**.

Key	
	Below 80m
	80-100m
	100-120m
	120-140m
	Over 140m



- Go over the dotted lines in **blue** to show the rivers.
 - Colour the land **below 80 metres** in **dark green**.
 - Colour the land **between 80 metres and 100 metres** in **light green**.
 - Colour the land **between 100 metres and 120 metres** in **yellow**.
 - Colour the land **between 120 metres and 140 metres** in **orange**.
 - Colour the land **over 140 metres** in **brown**.
 - Colour in the boxes in the key in the same colours.
- 2 Write down the letters A to E in order of height, from **highest** to **lowest**.

highest → → → → → → → → → → → lowest

Recap Height can be shown on maps by _____,
_____ or _____.