



Introduction to maps



What is a map?

A map is simply a drawing or picture of a landscape or location. Maps usually show the landscape as it would be seen from above, looking directly down.

As well as showing the landscape of an area, maps will often show other features such as roads, rivers, buildings, trees and lakes.

A map can allow you to accurately plan a journey, giving a good idea of landmarks and features you will pass along the route, as well as how far you will be travelling.

Understanding your map needs

There are many different types of maps. The type of map you would choose depends on why you need it. If you were trying to find a certain street or building in your home town you would need a map that showed you all the smaller streets, maybe even footpaths in and around town.

If you were trekking across a mountain range you might need a map that shows a bigger area of land and tells you the heights and steepness of the mountains.

If you were a pilot flying from London to Edinburgh you might need a map that has the whole of the country on a single page, with only the locations of towns and cities on it. Whichever type you choose, there are a few basic features usually found on any map, which will be explained in this leaflet.



Map symbols explained

Rather than containing descriptions, maps have symbols to show where certain things are. Symbols are used so maps don't have to be covered in writing, as this would make them very confusing.

Ordnance Survey uses different shapes, colours and symbols to show all the roads, buildings, rivers and other features of a landscape. Symbols are designed to be simple, often looking like the features they represent. This means things can be quickly and easily recognised as you look at a map.

The symbols here are actually used on Ordnance Survey maps. Write down what you think they represent:



1 2 3

Use the blank boxes below to draw pictures of how you think the symbols for the following things appear on a map:

a. Horse riding

b. Garden

c. Place of worship

d. Lighthouse

e. Nature trail

Here's where you find out how you did...

The answers to the first three questions are a telephone call box, a campsite and a caravan site.

To find out how close your drawings are to actual Ordnance Survey symbols you can turn to the back page of this leaflet or look at an Ordnance Survey map.

Maps will usually have a key or a legend. This is a section that will explain what each and every symbol on the map represents. If you find something on the map you don't understand or recognise, the key or legend will help you to identify what it is.

Map scale: What it means

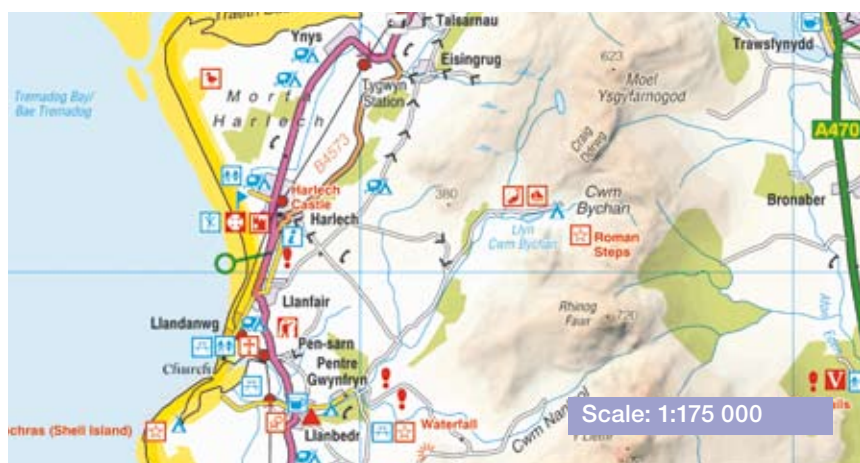
To create an accurate picture of a landscape on paper everything has to be made much, much smaller. This is done by 'scaling down' the actual size of the land.

The map below shows Great Britain. The size of the island has been 'scaled down' so it will fit on this sheet of paper. The map is too small to contain a lot of detail and doesn't have many names on it, as there isn't much room.



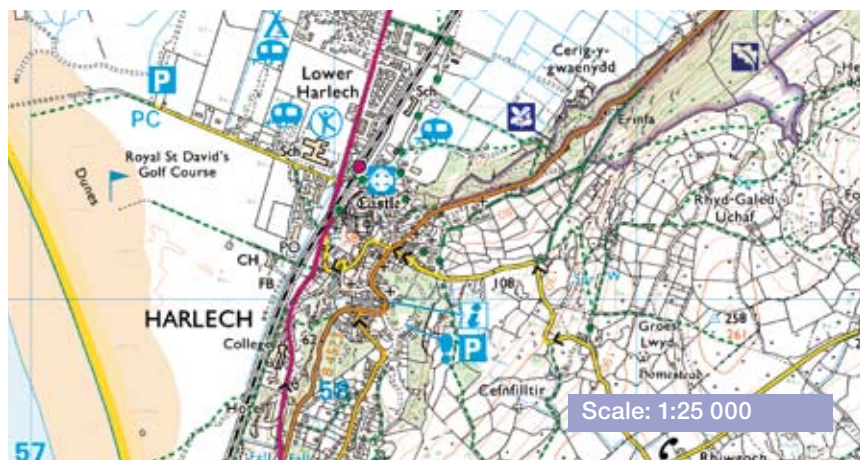
On the map below a town has been scaled down. The scale of the map is 1:175 000. This means that something on the map will be 175 000 times smaller than it is in real life. If your house was scaled down to fit on the map it would be smaller than a single grain of sand.

This map shows much more detail than the previous one; we can still see a large area of land but now we can see some of the more important features.



The map below shows the same town again, but this time it has been scaled down to 1:25 000. Everything on the map now appears 25 000 times smaller than in real life. Now if your house was scaled down to fit on this map it would be larger than a grain of sand, but would still easily fit on the tip of your little finger.

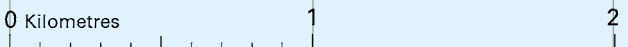
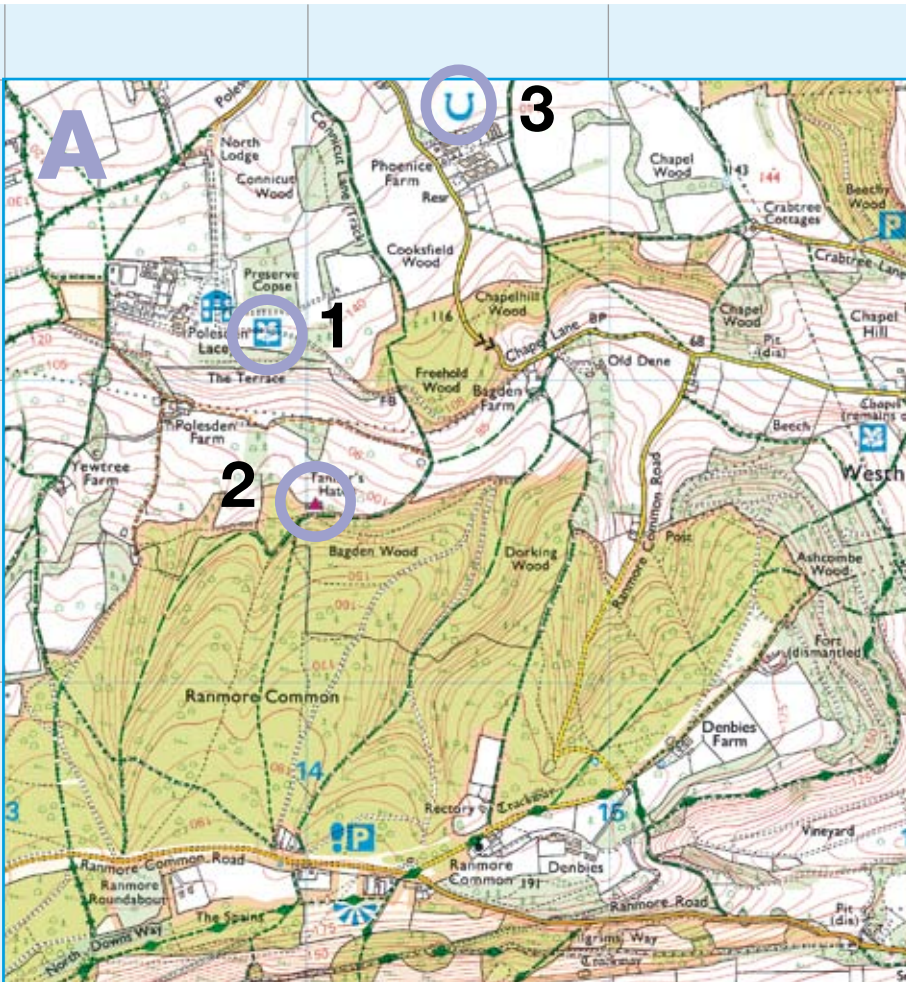
This map is quite detailed, showing roads, buildings and other interesting features. If this map was of your home town you should be able to work out where your house is easily.



Scale bars

Most maps have a scale bar. This scale bar allows you to work out distances on a map and then convert them to work out how far the distance is in reality. The scale bar will normally have a scale written beside it, for example, 1:25 000 or 1:175 000 and so on.

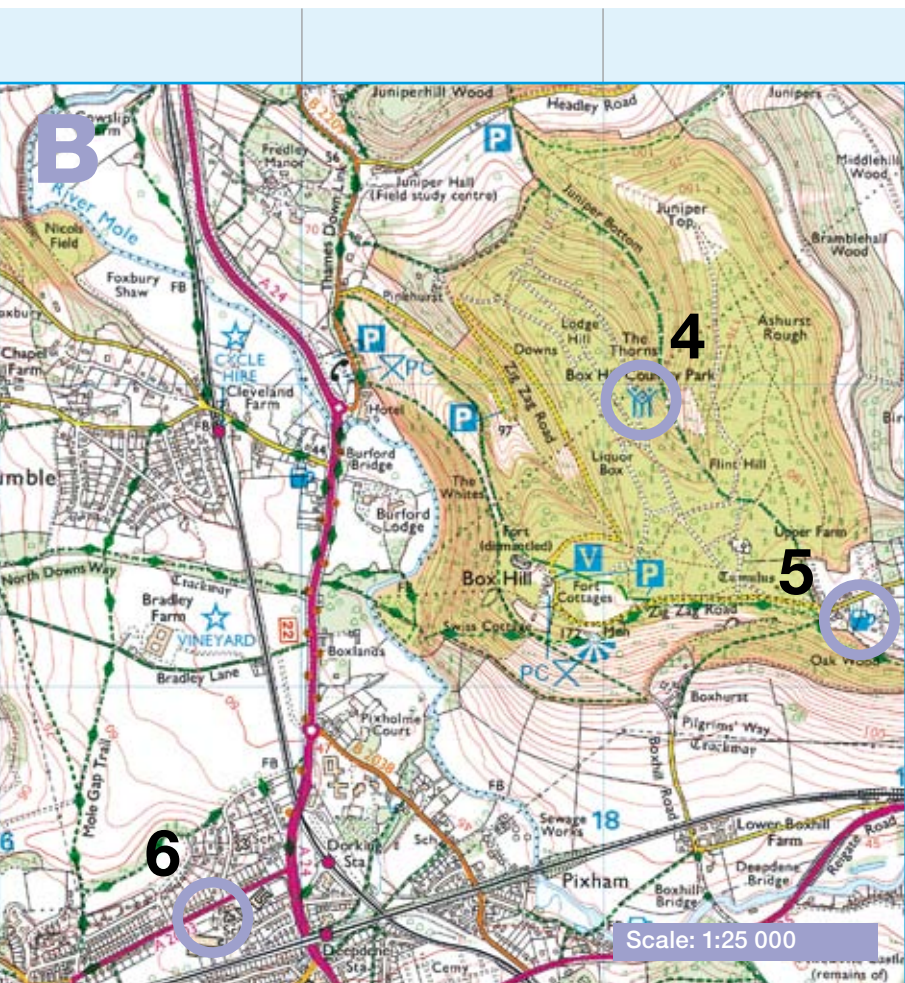
You can use a ruler to measure the distance on the map between two points and then convert that measurement to tell you the actual distance across the land. If the distance between two points on a map of scale 1:25 000 measured 1 cm, the distance in reality would be 1 cm by 25 000 (25 000 cm or 250 metres).



Revision exercise

Now you've read about the basics of a map, try to answer the following questions:

- 1 What are the meanings of the symbols inside the circles marked 1–6?
- 2 Which farm could you go horse riding from?
- 3 What activities could you do in area A?
- 4 What is the direct distance between the features in circles 1 and 2, in centimetres?
- 5 What is the actual distance between these points in real life, in kilometres?










1. Your passport to town and country
2. The essential map for outdoor activities
3. For people who love extremes
4. For touring and local route planning
5. For regional route planning
6. For national route planning

Answers to questions

Map symbols explained

- a.  A horseshoe (horse riding)
- b.  A flower with six petals (garden)
- c.  A cross on its own or on the top of a circle/square (place of worship)
- d.  A lighthouse with beams glowing (a lighthouse)
- e.  A footprint (hiking/nature trails)

Revision exercise

1. 1. National Trust. 2. Youth hostel.
3. Horse riding. 4. Country park.
5. Public house. 6. Place of worship.
2. Phoenix Farm.
3. Visit a building of historic interest, stay in a youth hostel, go horse riding, park your car and walk footpaths, bridleways or a National Trail.
4. 2 cm.
5. The map scale is 1:25 000 so the distance 2 cm = 0.5 km (for example, 50 000 cm on the ground = 500 m = 0.5 km).



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