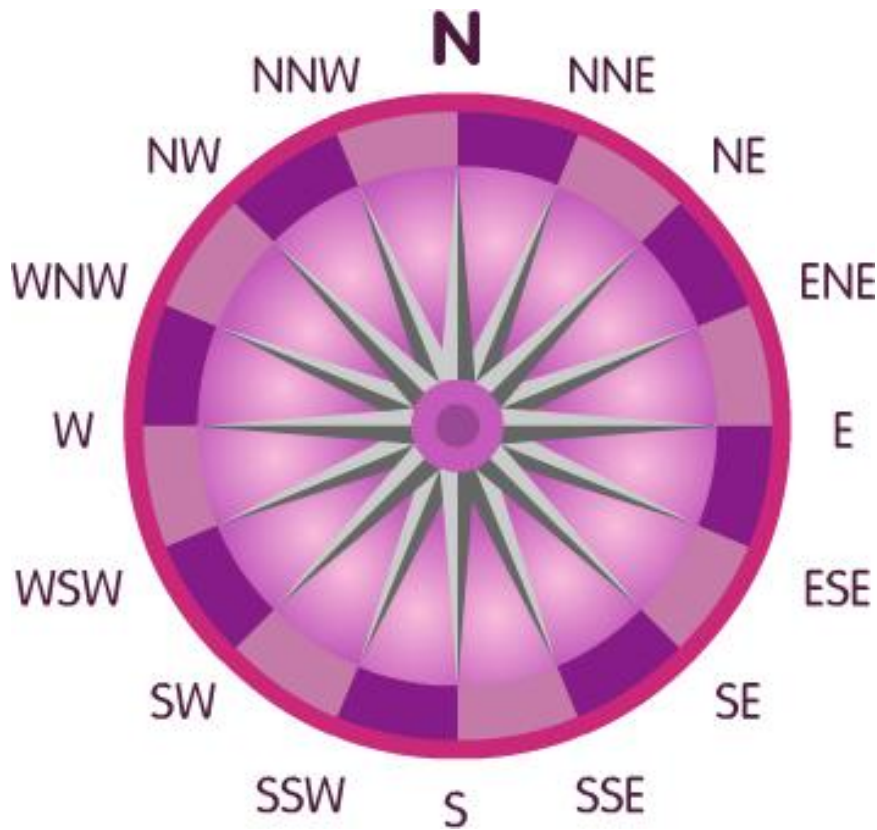


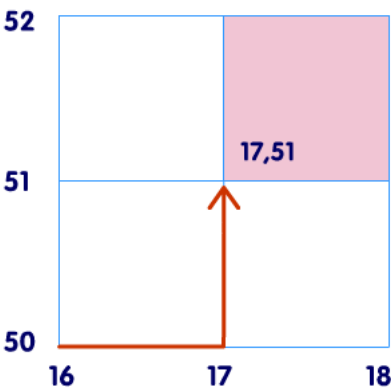
Use this compass as a 'print out and keep' version to help you with your directions when you're map reading. When you've printed out your copy, use scissors and glue to stick it onto some card and keep it in a safe place with your maps.



Quick reference guide

This sheet is a quick guide to grid references. It should help you when you are asked to find something on a map, such as a town, or even an individual building.

The grid lines on an Ordnance Survey map are called eastings (along the corridor) and northings (up the stairs).

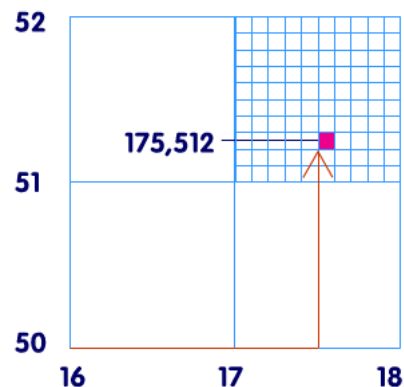


Four-figure grid references

Each square has a grid reference which you get by putting together the numbers of the easting and northing that cross in its bottom left hand corner.

Six-figure grid references

In your head, you should be able to divide all sides of the square into ten equal sections. By doing this, you can pinpoint locations within the square – these are called figure grid references.

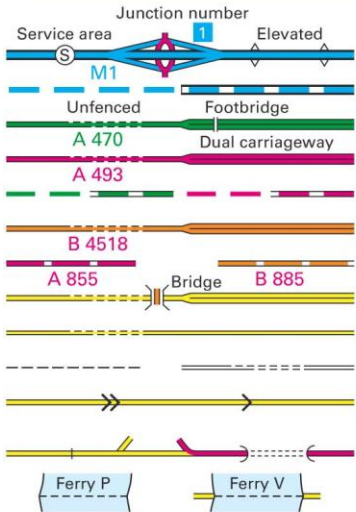


six-

OS Landranger® (1:50 000 scale)

Map symbols

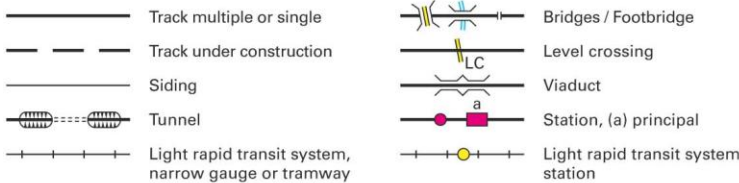
ROADS AND PATHS



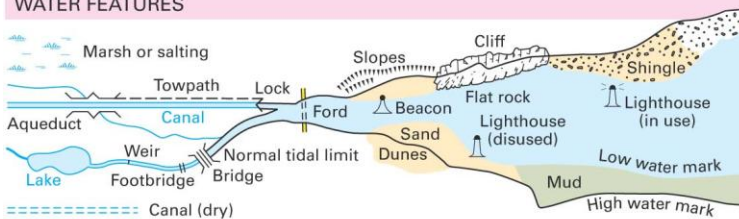
Not necessarily rights of way

- Motorway (dual carriageway)
- Motorway under construction
- Primary Route
- Main road
- Primary Route / Main road under construction
- Secondary road
- Narrow road with passing places
- Road generally more than 4m wide
- Road generally less than 4m wide
- Path / Other road, drive or track
- Gradient: 20% (1 in 5) and steeper, 14% (1 in 7) to 20% (1 in 5)
- Gates / Road Tunnel
- Ferry (passenger) / Ferry (vehicle)

RAILWAYS



WATER FEATURES



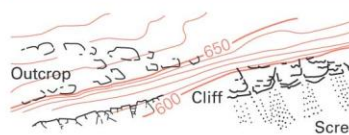
HEIGHTS

1 metre = 3.2808 feet

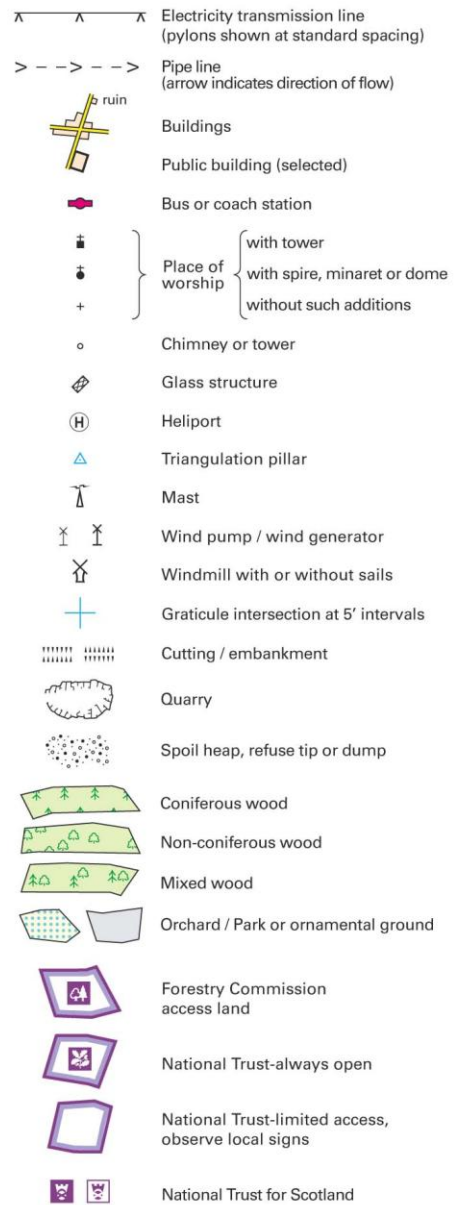


Heights shown close to a triangulation pillar refer to the ground at the base of the pillar and not necessarily to the summit.

ROCK FEATURES



LAND FEATURES



OS Landranger® (1:50 000 scale)

Map symbols

PUBLIC RIGHTS OF WAY

- Footpath
- Bridleway
- Road used as a public path
- Byway open to all traffic

The symbols show the defined route so far as the scale of mapping will allow. Rights of way are not shown on maps of Scotland.

The representation on this map of any other road, track or path is no evidence of the existence of a right of way

Danger Area Firing and Test Ranges in the area. Danger! Observe warning notices.

BOUNDARIES

- National
- District
- County, Unitary Authority, Metropolitan District or London Borough
- National Park

OTHER PUBLIC ACCESS

- Other route with public access (not normally shown in urban areas). Alignments are based on the best information available. These routes are not shown on maps of Scotland.
- National Trail, European Long Distance Route, Long Distance Route, selected Recreational Routes
- National/Regional Cycle Network
- Surfaced cycle route
- National/Regional Cycle Network number

ANTIQUITIES

- Site of monument
- Stone monument
- Battlefield (with date)
- Visible earthwork
- VILLA Roman
- Non-Roman

TOURIST INFORMATION

- Camp site
- Caravan site
- Garden
- Golf course or links
- Information centre, all year / seasonal
- Nature reserve
- Parking, Park and ride, all year / seasonal
- Picnic site
- Selected places of tourist interest
- Telephone, public / motoring organisation
- Viewpoint
- Visitor centre
- Walks / Trails
- Youth hostel

ABBREVIATIONS

- | | | | |
|----|------------|----|-------------------------------------|
| CG | Coastguard | P | Post office |
| CH | Clubhouse | PC | Public convenience (in rural areas) |
| MP | Milepost | PH | Public house |
| MS | Milestone | TH | Town Hall, Guildhall or equivalent |

NB. Due to changes in specification there are differences on some sheets

Explorer™ series (1:25 000 scale) — Page 1 of 2

ROADS AND PATHS Not necessarily rights of way

	Motorway		Service Area		Junction Number
	Dual carriageway				
	Trunk or Main road				
	Secondary road				
	Narrow road with passing places				
	Road under construction				
	Road generally more than 4 m wide				
	Road generally less than 4 m wide				
	Other road, drive or track, fenced and unfenced				
	Gradient: steeper than 20% (1 in 5) 14% (1 in 7) to 20% (1 in 5)				
	(V) Vehicle; (P) Passenger				
	Path				

RAILWAYS

	} Standard gauge
	} Light Rapid Transit System
	Cutting; tunnel; embankment
	Station, open to passengers; siding

PUBLIC RIGHTS OF WAY Not shown on maps of Scotland

	Footpath
	Bridleway
	Byway open to all traffic
	Road used as a public path

The representation on this map of any other road, track or path is no evidence of the existence of a right of way

OTHER PUBLIC ACCESS

Other routes with public access
The exact nature of the rights on these routes and the existence of any restrictions may be checked with the local highway authority. Alignments are based on the best information available.

	National Trail / Long Distance Route; Recreational route
	} See note below

Footpaths and bridleways along which landowners have permitted public use but which are not rights of way. The agreement may be withdrawn.

	Off road cycle routes
--	-----------------------

BOUNDARIES

	National
	County
	Constituency (Const), Electoral Region (ER) or Burgh Const
	Civil Parish (CP) or Community (C)
	Unitary Authority (UA), Metropolitan District (Met Dist), London Borough (LB) or District
	National Park or Forest Park boundary

GENERAL FEATURES

	Gravel pit		Triangulation pillar
	Sand pit		Mast
	Other pit or quarry		Windmill; with or without sails
	Landfill site or slag heap		Wind pump; wind generator
	} Place of worship { with tower with spire, minaret or dome without such additions		Electricity transmission line
		Building; important building	
	Glasshouse		BP Boundary post
	Youth hostel		BS Boundary stone
	Bunkhouse/camping barn/other hostel (selected areas only)		CH Clubhouse
	Bus or coach station		FB Footbridge
	} Lighthouse; disused lighthouse; Beacon		MP; MS Milepost; milestone
		Beacon	
			PO Post office
			Pol Sta Police station } selected areas only
			Sch School
			TH Town Hall
			NTL Normal tidal limit
			* W; Spr Well; spring

HEIGHTS AND NATURAL FEATURES

52	Ground survey height
284	Air survey height

Surface heights are to the nearest metre above mean sea level. Heights shown close to a triangulation pillar refer to the ground level height at the pillar and not necessarily at the summit

	Water		Mud
	Sand; sand and shingle		

VEGETATION

Vegetation limits are defined by positioning of symbols

	Coniferous trees
	Non-coniferous trees
	Coppice
	Orchard
	Scrub
	Bracken, heath or rough grassland
	Marsh, reeds or saltings.

ACCESS LAND

	Land open to the public by permission of the owners. The agreement may be withdrawn.		Other Access Land
	National Trust, always open; limited access - observe local signs		Access Information Point
	National Trust for Scotland, always open; limited access - observe local signs		DANGER AREA
	Woodland Trust		Firing and test ranges in the area. Danger! Observe warning notices
	Forestry Commission		

ARCHAEOLOGICAL AND HISTORICAL INFORMATION

	Site of antiquity
	Site of battle (with date)
	VILLA Roman
	Castle Non-Roman
	* Visible earthwork

Explorer™ series (1:25 000 scale) — Page 2 of 2

TOURIST AND LEISURE INFORMATION

	Building of historic interest		Other tourist feature
	Cadw: Welsh Historic Monuments		Parking
	Camp site / Caravan site		Park and ride (all year / seasonal)
	Camping and caravan site		Picnic site
	Castle, Fort		Preserved railway
	Cathedral, Abbey		Public Convenience
	Country park		Public house/s
	Cycle trail		Recreation / Leisure / Sports centre
	English Heritage		Slipway
	Fishing		Telephone (public / motoring organisation)
	Garden/Arboretum		Theme/Pleasure park
	Golf course or links		Viewpoint
	Historic Scotland		Visitor centre
	Information centre (all year / seasonal)		Walks/Trails
	Horse riding		Water activities
	Museum		
	Nature reserve		

How long is a piece of string?

It's usually not possible to travel in a straight line between two points on a map. If you're following a road or footpath, it can change direction many times to avoid things like woods and rivers.

However, there are still simple ways of measuring the actual distance you will need to travel between two points. One of them is to use a piece of string.

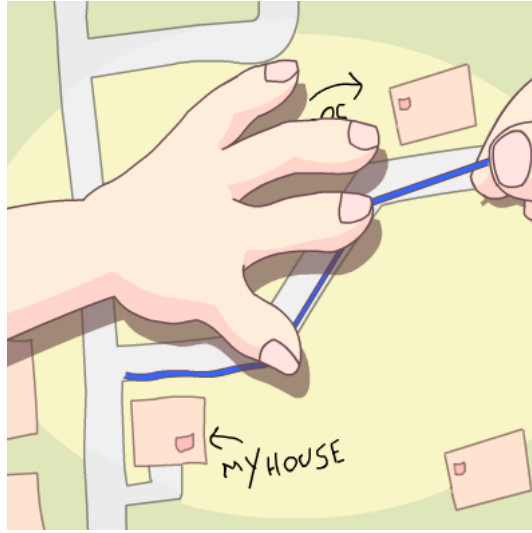


Step 1

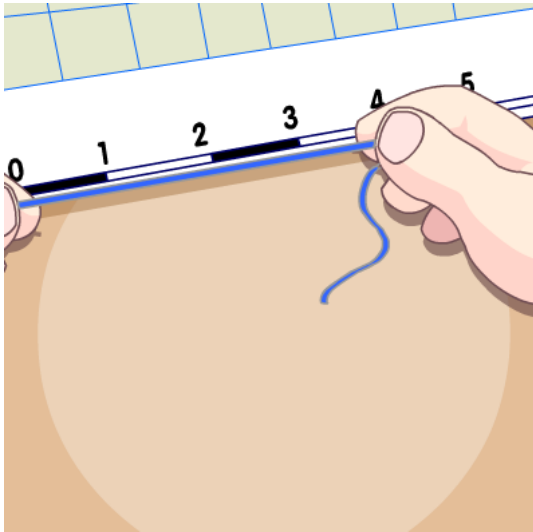
Take a length of string – it's best to take one longer than you think you'll need – and place one end on your starting point.

Step 2

the string along the road or path you to use, following the curves as closely you reach your finishing point, mark it a pen.



Now carefully lay know you're going as you can. When on your string with



Step 3

Now that you have your distance from the map, you can straighten out your string and place it against the scale bar to find out how far you will actually be travelling.

On the paper's edge

Another method of measuring distance is to take a sheet of paper and place the corner of a straight edge on your starting point. Now pivot the paper until the edge follows the route that you want to take.

Step 1

Every time the route disappears or moves away from the straight edge of your paper, make a small mark on the edge and pivot the paper so the edge is back on course.





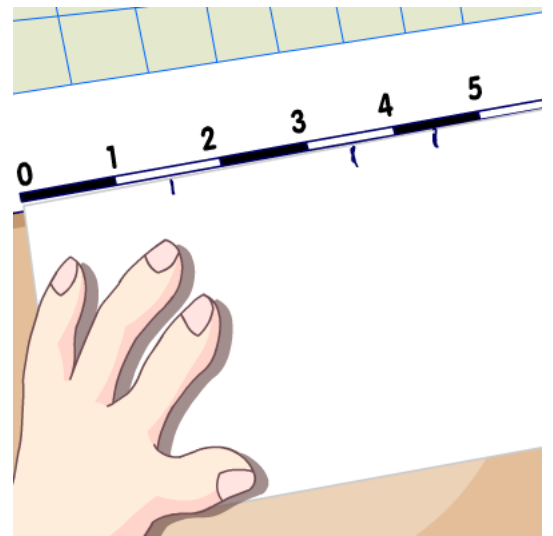
Step 2

Repeat this process until you reach your destination.

Step 3

You should be left with a series of marks along the edge of your paper. You can now place the sheet against the scale bar on your map.

The last mark you made will tell you the real distance you need to travel.

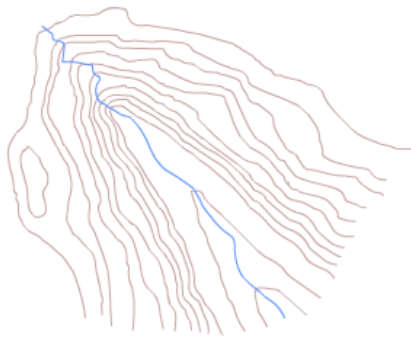
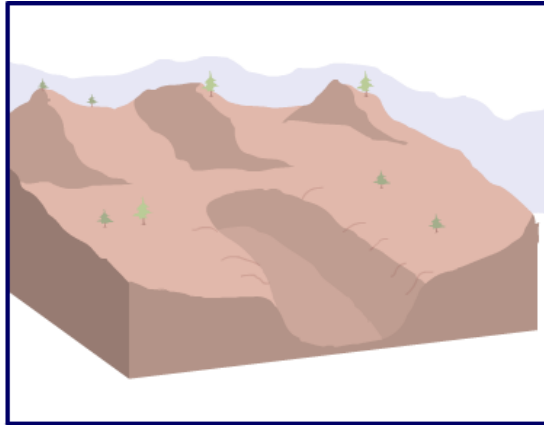


How do we show height on maps?

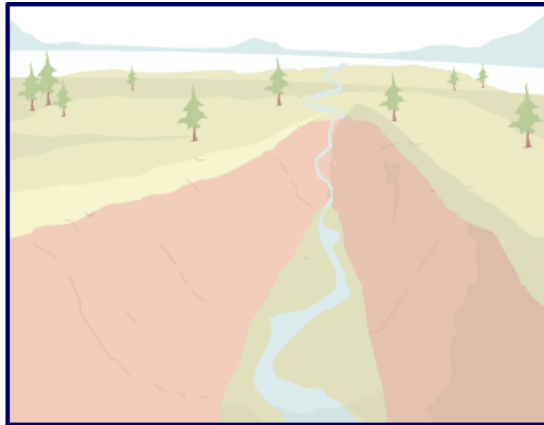
Contour lines are a map's way of showing you how high the land is. They join together places of the same height and form patterns that help us to imagine what the land actually looks like.



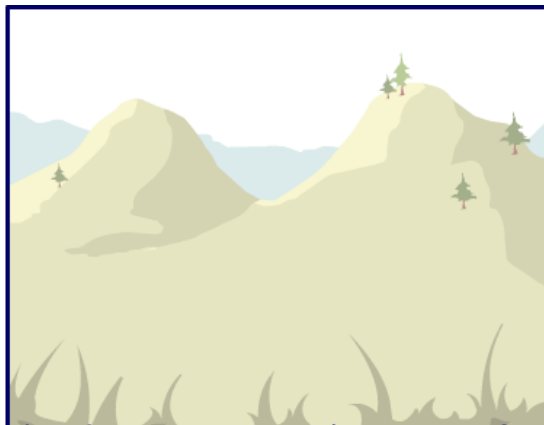
U-shaped valley



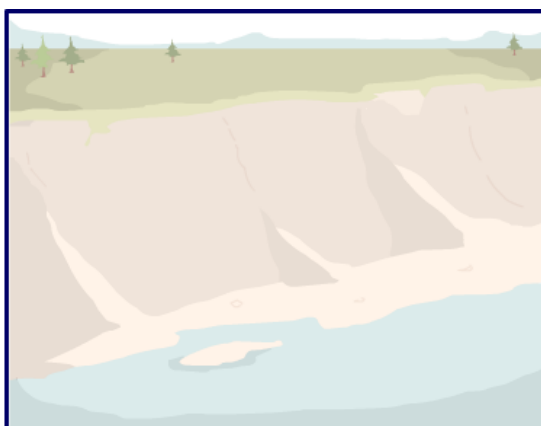
V-shaped valley



Saddleback hills



Cliffs



'Naismith's rule'

Remember that the closer together the contour lines are, the steeper the land. Contour lines that are wide apart show us that the land is flatter.

When you're travelling across steep landscapes (where contour lines are very close together) it will add time on to your journey.

Naismith said that you should allow an extra minute of walking time for every 10 metres of height that you climb.

Contour lines are usually drawn at 10 metre intervals on a 1:50 000 scale map and at 5 metre intervals on a 1:25 000 scale map.

What is scale?

Scale is what makes map drawing possible. It takes real life things and reduces them in size many times so they can be shown on a map.

Every map has a scale printed on the front and you should always check this figure before you start reading it. It will tell you how much smaller the area shown on the map is compared to the same area in real life.

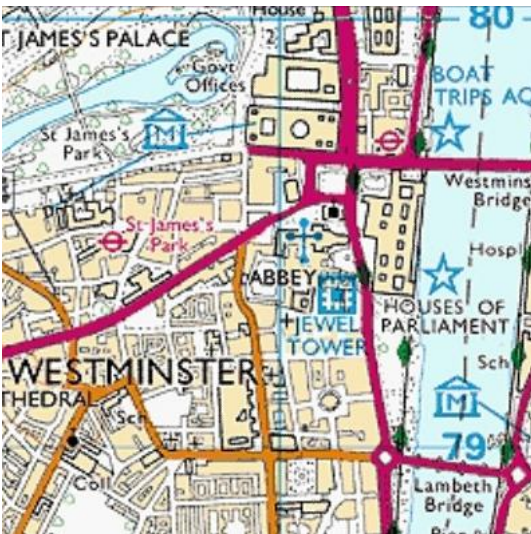
1:25 000

This means that every one unit of measurement on the map (like a centimetre) is the same as 25 000 of those units (in this case 25 000 cm or 250 metres) in real life.

Ordnance Survey produces maps drawn to many different scales, depending on what people want to use them for.

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Large scale maps



Large scale maps are better for showing individual buildings in detail because they only cover a small area of land.

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Small scale maps

Small scale maps are ideal for travelling either by car or walking because they cover large areas of land.



Other maps are drawn to a smaller scale and show smaller amounts of detail, but cover a wider area. These maps are often used for planning long walks and drives.

It might help you to remember that the **larger** the number in the scale, the **smaller** the scale of the map will be.

