

Making a grid reference

In the UK locations are recorded using the national grid reference system devised by the Ordnance Survey.

The UK national grid is a square grid with the lines numbered sequentially from the bottom left of the map. The UK grid has an origin just off the southwest coast. This means there are no negative numbers.

The grid is first divided into 100km squares each with a two letter label. Tayside includes the squares NN and NO

On a map the top points north and the left hand side is west

On the UK 1:50,000 and 1:25,000 scale maps the light blue lines represent 1km intervals. So the lines define 1k squares

The vertical lines are called eastings, since they increase in value as you travel east on the map. The horizontal lines are called northings, since they increase in value as you travel north on the map.

When reading or writing a grid reference the eastings are given before the northings.

To locate a place first find the southwest corner of the 1K square (bottom left hand corner)

For example Ben Lawers the highest point in Tayside lies in square NN6341, this is also known as a six figure grid reference

NN is the 100k square
63 is the easting
41 is the northing

To get greater accuracy each of the 1k lines can also be divided by 10 to give an accuracy of 1m, also called a six figure grid reference.

Again the easting is written first followed by the northing
The six figure reference for Ben Lawers is NN635414
i.e. easting 1k line 63 and five units
Northing 1k line 54 and 4 units

To help subdivide the squares Biological Recording in Scotland have produced a 10m grid, available from the Tayside Biodiversity Partnership Office

The more numbers in the grid reference the more accurate it is
NN is the 100K square (2 figure reference)
NN64 is the 10K square (four figure reference)
NN6341 is the 1k square (six figure reference)
NN635414 is the 10m square (eight figure reference)

If you are using a GPS to measure your location it commonly gives a ten-digit (1m square) grid reference, based on two groups of five number for the Eastings and Northing values. In order to give a standard 6-figure grid reference from a 10-figure GPS readout, the 4th, 5th, (eastings) and 9th and 10th digits (northings) must be taken off it is important not to read just the first 6 digits in order.

In biological recording maps of national species distribution are often shown at the 10k square scale

The ordnance survey has produced a number of guides to help with grid references.

See easypeasy.pdf
National grid.pdf
Map reading booklet.pdf