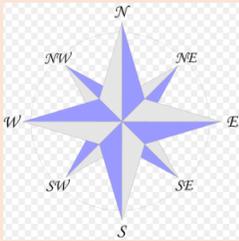


Direction

You need to know the 8 point compass for giving directions, saying which way long shore drift is going or if it says look at the headland in the northwest corner of the map.

The compass

On most maps the direction 'north' will be straight up the map but check the compass carefully.



Map Symbols

Generally if you are given an OS map it will have a key telling you what the symbols mean. However, it's a good idea to learn some of the most common ones which are shown below.

Motorway	County boundary	Footpaths
Main (A) road	National Park boundaries	Viewpoint
Secondary (B) road	Building	Tourist information centre
Bridge	Bus station	Parking
Railway	Places of worship	

Scale and Distance

Maps should always have a scale which can be shown with a ratio e.g 1:50,000 (which means 1 cm on the map equals 50,000cm (or 0.5km) in real life) or a scale line which you can put your ruler alongside to see what distance is represented by 1cm on the map.

On the paper's edge

One 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.



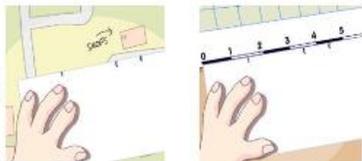
Step 2

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.

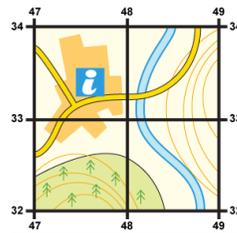
The last mark you made will tell you the real distance you need to travel.



4 Figure Grid References

Ordnance Survey maps have numbered gridlines drawn on them. The lines running up and down the page are called eastings (because their numbers get higher as you move eastwards) and the ones running across the map are known as northings (because their numbers get higher as you move northwards).

Four-figure grid references

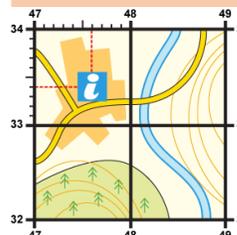


To give the 4 figure grid reference for the information centre give the number of the line that runs up the left hand side of the square (47).

Then give the number of the line that runs across the bottom of the square (33).

This gives a four figure grid reference of 4733.

Six-figure grid references



To give a 6 figure grid reference for the information centre start by finding the line that runs up the left hand side of the square (47) then imagine that the square is divided into tenths (this has been done for you on the diagram) and count across the tenths (6). Then give the line that runs across the bottom of the square (33) and count up the tenths (4).

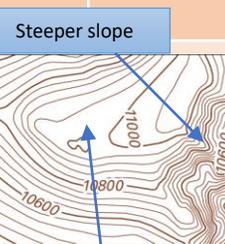
Put it altogether to give a grid reference of 476 334

Year 9 Map and Atlas skills

Relief

Contours

Contours are orange lines found on an OS map that places of equal height above sea level. They show height of the land in metres by the numbers mark them. They also show the steepness of the land by how close they are together (the closer the lines the steeper the slope).



Spot Heights

Spot heights are black dots with a number next to them that give the height of that particular spot.



Inferring things from maps

As a geographer you should be able to describe and interpret a map.

Describing locations

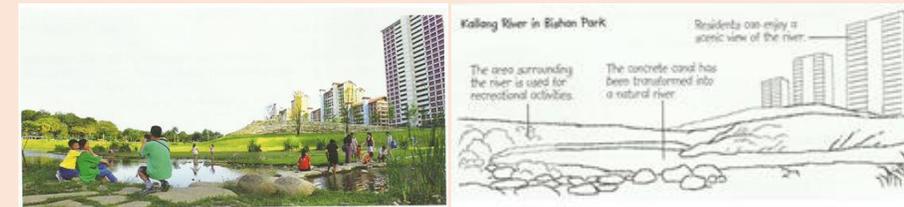
When you are asked to describe the location of something then write about what it is near. Use the scale calculate exactly how far away it is and also use compass points to describe the direction.

Inferring things from map evidence

You also need to be able to work something out using map evidence. For example you might be asked what evidence there is that tourism is important along a particular section of the coast, so you might look for a sandy beach, a cliff top path and blue symbols which show tourist facilities e.g. a tourist information centre or a campsite.

Drawing a field sketch

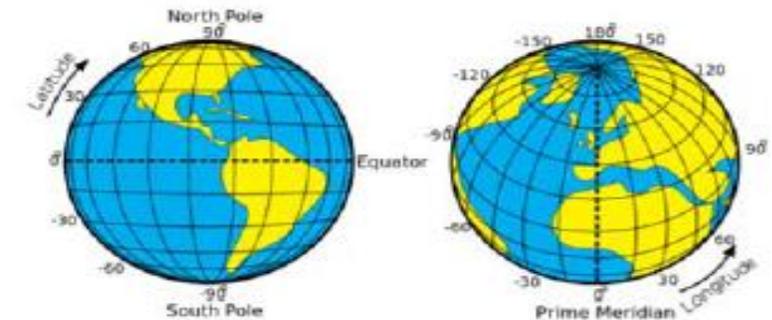
A field sketch is used to show the main geographical characteristics of a landscape. It should be an accurate outline sketch and include labels and annotations.



Latitude and Longitude

Latitude lines on an atlas map run horizontally around the earth and tell us how far north or south of the Equator (0°). So for example London is 51°N.

Longitude lines run vertically around the earth and they measure how far east or west of the Prime Meridian (a line of longitude that runs through Greenwich in London). So for example London would be 0° W.

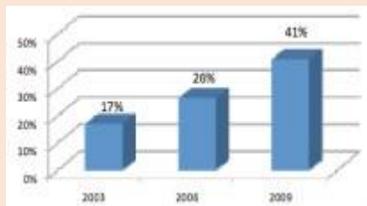


Bar Graphs

Bar charts are useful to compare data, or to notice trends over time. Year 7 geographers should be able to draw and interpret bar graphs using discrete or continuous data.

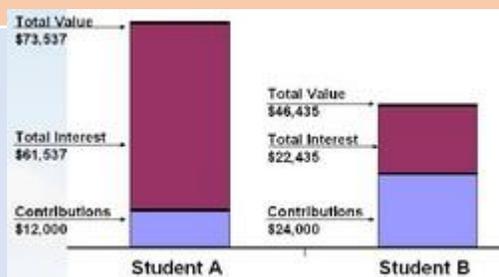
Top tips

For continuous data there should be no gaps between the bars. One axis will show frequency ie Number of or Percentage.



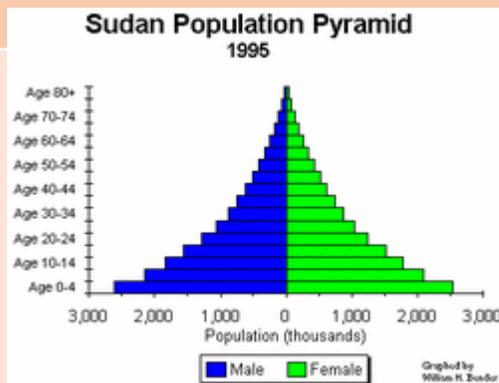
Compound graphs

Bar graphs where each bar is subdivided into several segments to display additional information (e.g. comparison of wealth in different countries) They must always be labelled or have a key



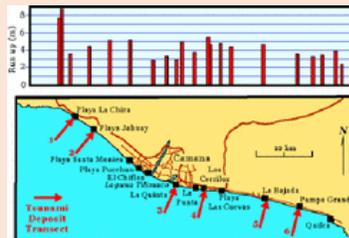
Bi Polar graphs

Bi-polar graphs are used to compare two variables side-by-side (e.g. population pyramids).



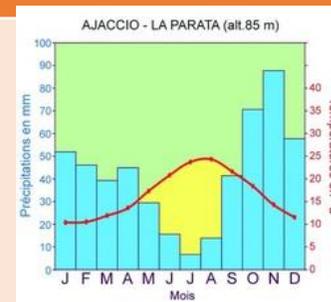
Transect graphs

Transects are commonly used to graph measurements sampled at regular intervals along a line (e.g. land use, building densities, plant species). The results can be mapped and/or represented using, for example, a histogram.



Climate graphs

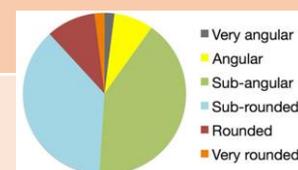
Diagrams representing precipitations (mm) as bars, and temperatures (celcius) as a line, using two vertical axis, and the 12 months of the year as the horizontal axis.



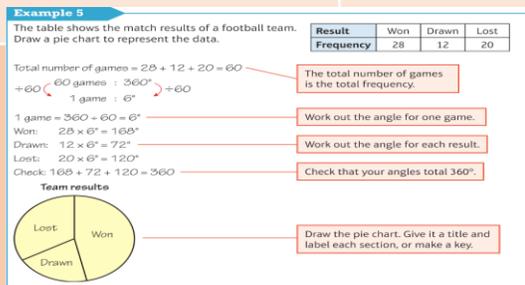
Year 9 Describing graphs

Pie charts

A pie chart is a circle divided into sectors.



The angle of each sector is proportional to the number of items in that category.



Inferring things from maps

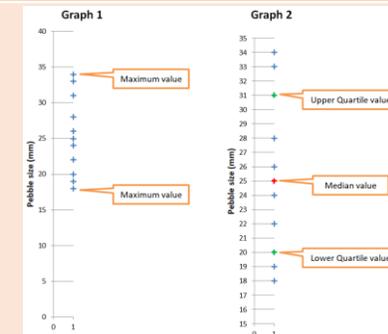
Radar diagrams

Radar charts are used to display multivariate data in the form of a 2-dimensional chart of three or more quantitative variables represented on axes starting from the same point

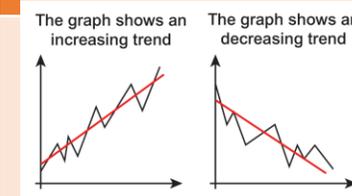


Dispersion graphs

Dispersion graphs are used to show the range of values for a single set of data. Graph 1 shows a typical dispersion graph. You can identify the maximum and minimum values and then calculate the range. Graph 2 illustrates that you can also 'see' the median and inter-quartile values. This means that you can use a dispersion graph to calculate the inter-quartile range.



Line graphs



Line graphs display the data using a series of points connected by straight line segments. Line graphs can show trends in data. The trend is the general direction of change, ignoring individual ups and downs.

Scatter graphs

Scatter graphs display the data using a collection of points using two axis which represent two variables (a "line of best fit" can then be drawn in case of a trend or correlation). They can show positive, negative or no correlation.

