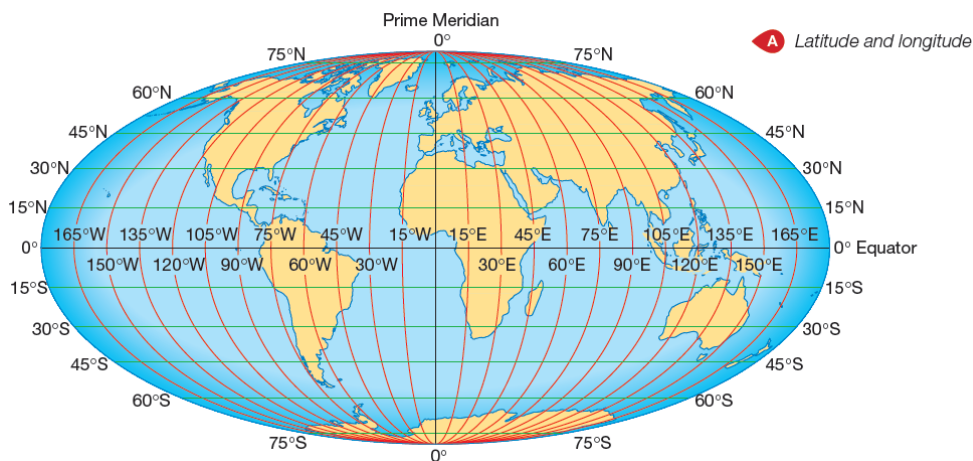


What to do... AQA GCSE (1-9) Cartographical Skills

Latitude and Longitude

- Any place on Earth can be located using latitude (lines that run parallel to the Equator) and longitude (lines that run between the North and South Poles)
- Latitude and longitude are measured in degrees



Remember!

Both latitude and longitude are measured in degrees (using the symbol °). Each degree is subdivided into 60 minutes (using the symbol '). So, '30 minutes' (30') equates to half a degree.

The location of a place is expressed as follows:

Manchester: 53° 30' N 2° 15' W

On map A, Mumbai is located at 18° 56' N 72° 51' E

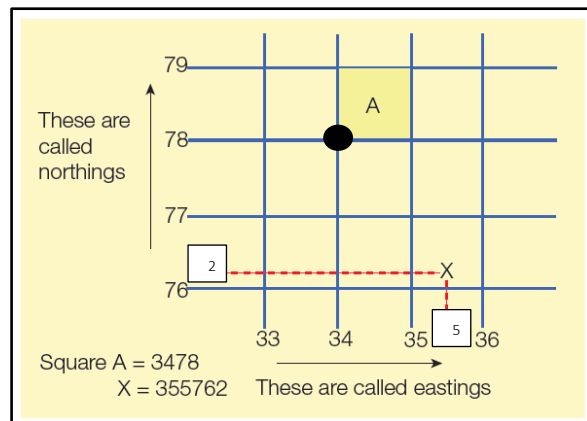
Scale

- OS maps are drawn to scale (they are an accurate representation of the real world)
- Scale can be shown using a ratio: 1:50,000 where 1 unit on the map represents 50,000 in real life
- Scale can be shown using a linear scale found at the bottom of a map



4 Figure Grid References

- Each grid square on any scale OS map represents 1 km
- The lines that run up and down increase in value from left to right are called the eastings
- The lines that run across the map and increase in value from the bottom to the top are called the northings
- For the square you want to provide a grid reference for go to the bottom left corner of the square, read the easting value, followed by the northings (along the corridor and up the stairs)

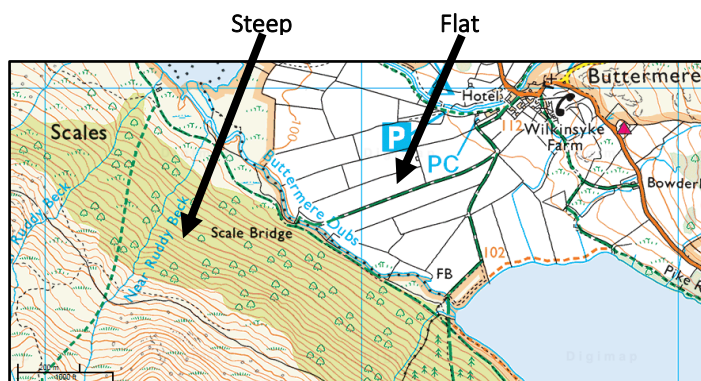


6 Figure Grid References

- Used to locate a point, rather than a 1 km² area
- Read the eastings value and then divide the square into 10 and determine what the value is
- Read the northings value and then divide the square into 10 and determine what the value is as per the diagram

Gradient, Contour and Spot Height

- Contours indicate the height of the land and are brown lines that join points of equal height above sea level (isoline)
- Spot heights indicate the height of the land at a specific area and are a black dot with the height written alongside it
- The closer the contours the steeper the gradient of the slope, if the contours are far apart then the slope is gentle



Measuring Distances: Straight Line

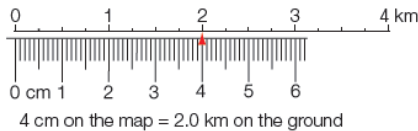
- To calculate the straight line distance measure the distance on the map between the two points using a blank piece of paper.
- Line up the ruler alongside the scale to find out the actual distance in kilometres.
- If there is no scale remember from 1 grid line to the next is 1 km.

Straight-line distance

- 1 Use a ruler to measure the distance between two places on the map, in centimetres.



- 2 Measure out the distance on the map's linear scale to discover the distance on the ground in kilometres.

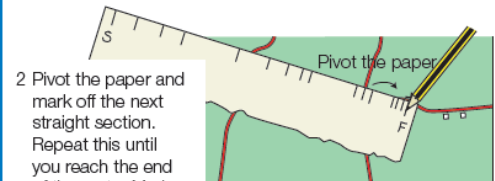
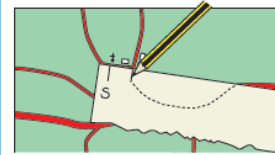


Measuring Distances: Curved Distance

- Use the straight edge of a piece of paper mark off sections of the curved line
- Pivot the piece of paper and keep marking off the distance
- Convert the distance into a straight-line distance

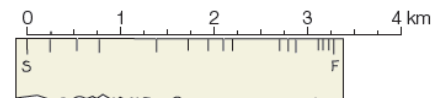
Curved-line distance

- 1 Place the straight edge of a piece of paper along the route to be measured. Mark the start with the letter S. Look along the paper and mark off the point where the route moves away from the straight edge.



- 2 Pivot the paper and mark off the next straight section. Repeat this until you reach the end of the route. Mark this finishing point with the letter F.

- 3 Place the edge of the marked paper alongside the linear scale on the map and convert the total length to kilometres. Remember to always give the units when writing your answer!



Sketch Maps

- A sketch map is used to produce a simplified version of an OS map. It should focus on a key elements such as the patterns of roads or rivers. It should be simplified and be labelled to state what the features are
- In an exam you are more likely to be given an example to finish → use the grid squares to help you for the scale

Sketches from Photographs

- The purpose of a sketch is to identify the main geographical characteristics of the landscape
- Follow the steps:
 - Draw a frame the same size and shape as the image (this may be provided for you)
 - Draw one or two major lines (e.g. the river and valley)
 - Focus on what you have been asked to represent (e.g. river or settlement patterns)
 - Add in appropriate labels using a pencil and a ruler to show those features



J A ground photo



K a A vertical aerial photo

Photographs (Ground)

- Photographs taken on the ground → usually focus on a particular feature or landscape

Photographs (Aerial)

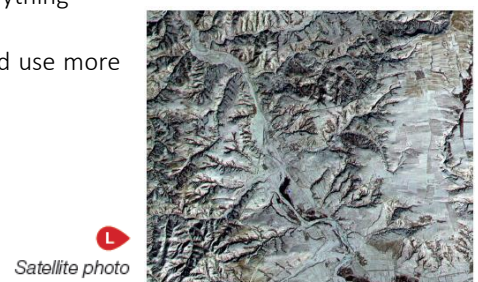
- Taken from aero planes, helicopters or drones looking down on a landscape → show larger areas
- Vertical → look directly down onto the ground (no indication of height as everything looks flat)
- Oblique → sideways view of the landscape → distort size as objects in the foreground appear bigger than the background



L An oblique aerial photo

Photographs (Satellite)

- Vertical → look directly down onto the ground (no indication of height as everything looks flat)
- Can be digitally processed → enhanced colours → shows certain areas or land use more clearly → environmental factors such as pollution and deforestation



L Satellite photo