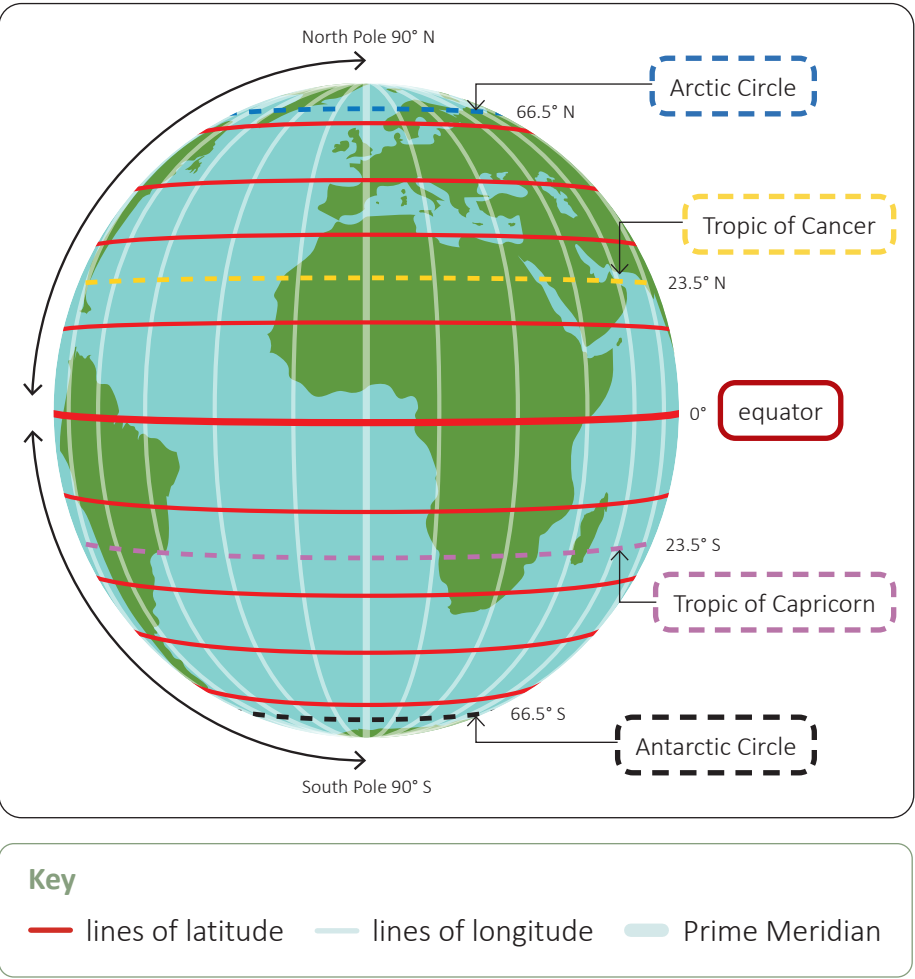


Mapping the Earth

Features of Earth



The **equator** is the line of latitude around the middle of Earth. It is equidistant from the North Pole and the South Pole.

The **Southern Hemisphere** is the half of Earth south of the equator and the **Northern Hemisphere** is the half of Earth north of the equator.

The **Prime Meridian**, or Greenwich Meridian, is a line of longitude that runs through Greenwich, London. All lines of longitude are measured from the Prime Meridian.

The **Tropic of Cancer** is 23.5°N and the **Tropic of Capricorn** is 23.5°S of the equator. The area in between these lines of latitude is called the tropics.

The **Arctic Circle** is a line of latitude that is 66.5°N of the equator. The land inside the Arctic Circle is some of the coldest and least populated in the world.

The **Antarctic Circle** is a line of latitude that is 66.5°S of the equator. There is no permanent human population within the Antarctic Circle.

Rural and urban settlements

A settlement is a place where people live permanently. Settlements can be rural or urban. Rural settlements include hamlets and villages. They are small in area and population and have few facilities. Urban settlements include towns and cities. They are large in area and population and have more facilities.



rural settlement



urban settlement

Settlement patterns

There are three main settlement patterns: linear, compact and dispersed.

A **linear** settlement is built in a line, usually along a road, river or valley. A **compact** settlement has buildings close together, and people share resources and facilities. A **dispersed** settlement has houses spread out over a wide area, often across fields or hillsides.



linear settlement



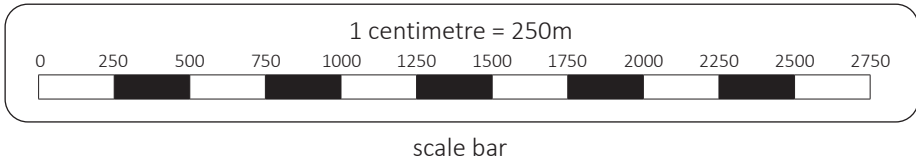
compact settlement



dispersed settlement

Map scales

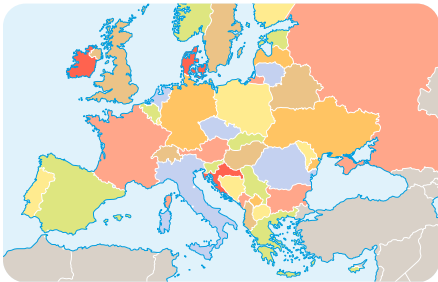
Maps are much smaller than the places they represent so they are drawn to scale. The scale is written as a ratio, for example, 1cm:250m, which means 1cm on a map is equal to 250m in real life. Maps also include a scale bar. The ratio and scale bar help a map reader measure the distance between features on a map or the length of a feature, such as a footpath.



scale bar

Maps of different scales

Maps can be drawn to different scales. We describe maps as small scale or large scale. Small scale maps have large numbers in their ratio, such as 1cm:250km. They show continents or large areas of land or sea and contain little detail. Large scale maps have smaller numbers in their ratio, such as 1cm:250m. They show smaller areas of land in more detail and include the location and names of cities, towns and villages, as well as human and physical features.



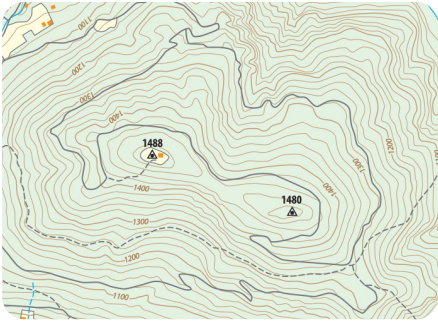
small scale map



large scale map

Grid references, contour lines and map symbols

On a map, a grid reference is a set of numbers that describes a position. Contour lines join points of equal height above sea level and show the topography of an area. Map symbols are pictures or icons that represent physical and human features.



contour lines

