

Geography Unit 1 : How does pollution and flooding impact rivers in Norfolk?

OS Maps - Grid References

Maps are divided into grid squares to make it easier to locate things.

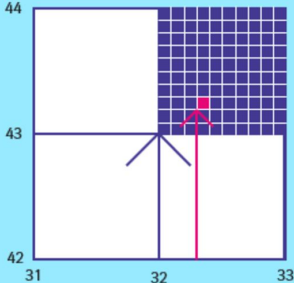
A grid reference allows someone to mark a place on the map by referring to vertical and horizontal lines called 'eastings' and 'northings'.

A 6 figure grid reference breaks this down even more by splitting each 1km square into 100 even smaller squares (these are not always drawn on a map so we have to estimate).

The reference given is always for the left hand corner of the square.

Example: 323432

323 refers to the eastings and 432 refers to the northings.



First, we need to find our larger 1km square - for this we use the first 2 digits of the eastings (32) to look along the corridor and the First 2 digits of the northings (43) to look up the stairs.

Then, we use the leftover digits to find our smaller square - in this example the eastings is 3 so we count along the stairs 3 and the northing is 2 so we count up the stairs 2. Remember, this may not be physically drawn on the map so you may need to estimate.

The Course of a River

The Upper Course

Rain falling on high ground collects in **channels** and flows downwards forming a stream. Streams run downhill and join other streams, increasing in size and speed, forming a river. The river here flows quickly and the channel has steep sides and runs through **valleys**. Features include - waterfalls and rapids.

The Middle Course

Fast flowing water causes **erosion** making the river deeper and wider. Features include - meanders.



The Lower Course

Rivers flow with less force due to being on flat land. The river **deposits** the eroded material that it has carried. Riverbanks have shallower sides. Features include - floodplains, deltas and estuaries.

How Do We Use Rivers?

Leisure e.g. fishing	+	Controlled population of fish
	-	May leave litter and pollute the water
Industry e.g. factories	+	Sections of rivers maintained
	-	Chemicals pollute the water and habitats
Tourism e.g. walking routes	+	Conservation and education about local wildlife
	-	Too many people near wildlife habitats

Topographic Features

Topography = the study of the land's surface.

Natural Formations - mountains, hills, rivers, lakes, oceans, seas, and valleys.

Manmade Features - roads, dams and cities.

Topography records the elevations (height) of an area using a topographic map.

Topographic study helps with agriculture (farming) to determine how fertile a piece of land might be, environmental to aid with conservation of land, with predicting the weather and for the military.



Rivers

River = a large, natural stream of flowing water.

The source of most rivers are found at high elevations such as mountains.

Some rivers join up with other rivers (tributaries). The point where they meet is called a confluence.

Rivers in England will flow into the North Sea, Irish Sea, English Channel or Atlantic Ocean.

Rivers are used for leisure (fishing, boating etc), industry (factories) and tourism.

Flooding

Causes of flooding:

Heavy rain, snow melting, steep land, impermeable rock, tributaries, urbanisation and deforestation.

Flood prevention

Short-term Portable flood barriers, sandbags, flood shutters.

Long-term Embankments (creates more space for water in the river), new river channels - creates more space for water, planning new housing carefully - don't build on a floodplain, allowing areas to flood - e.g. low value farmland