

**5** Why is Barnard Castle significant?

**6** What part of the river system does Darlington mark the beginning of?

**10** Why was/is navigation of the Tees important?

**1** Where is the River Tees located?

**2** How high above sea level is the source of the Tees?

**3** What was the purpose of Cow Green Reservoir?

**4** How are waterfalls, such as Cauldron Snout and High Force formed?

# RIVER TEES

Draining an area of 1,800 km², the Tees flows 85 miles from Cross Fell in the North Pennines to the North Sea between Hartlepool and Redcar at Teesmouth.

Teeshead, the source of the river, 732m above sea level, flowing through the moorlands of Teesdale, across a Carboniferous Limestone landscape, 7 miles (11.3 km) to Cow Green Reservoir.

Constructed in the 1960s, the reservoir was intended to supply the heavy industries of Teesside, whilst regulating the flow of the river during drought, and suppling water for industrial and domestic use. Sitting within the first European Geopark.

250m below Cow Green is Cauldron Snout, one of the longest cascading waterfalls in England, with an overall drop of 60m, over a distance of 200m over the dolerite steps of Whin Sill. 6 miles from Cauldron Snout lies High Force, the most famous waterfall on the Tees, It is a vertical drop of around 20m, where Whinstone, a hard, igneous rock, sits on top of Carboniferous Limestone, a softer, sedimentary rock. Under the erosional power of the river, the limestone has erode, destabilising the Whinstone, which eventually collapsed. This collapse, lead to the formation High Force's 700m long gorge.

From here the upper course changes to the broader, more gently sloping landscape of the middle course, with the formation of floodplain areas, reserved for the best pasturelands for sheep and cattle, traditionally have been taken to market in Middleton-in-Teesdale.

The Tees meanders through it's middle course, passing through agricultural land to Barnard Castle, the principal town of this area. Most likely chosen as a site due to it's strategic position at the botto of Teesdale, and vantage points looking south east towards Darlington. Continuing along a meandering easterly course, the Tees passes under the A1(M) to the south-west of Darlington. Over the course of this 17 mile stretch the river drops from around 140m to around 30m above sea level. The landscape is typical of the lower course, with large sinuous meanders to the south of Darlington.

Just west of the A1(M) there is evidence of a river levee that now sits in farmland as the meander has eroded NE towards Merrybent. These levees were probably constructed to protect valuable farmlands belonging to Piercebridge Roman Fort where remains of Piercebridge Roman Bridge can be found on the south bank of the Tees, further emphasising the northern migration of the river. From here, the Tees continues its sinuous journey for around 20 miles to Yarm.

Until 1771 Yarm's bridge was the last bridge before the sea, and the highest port on the Tees, it marks the historical start of the tidal Tees. Flood management in the town includes floodplain zoning along the river bank, flood barriers and gaes have been installed on river bank properties too.

From here the river meanders through Eaglescliffe, Thornaby-on-Tees, Stockton-on-Tees and Middlesbrough, ending at Teesmouth. The turn of the 19th century saw marked alterations of the lower Tees to improve navigation. Stockton and Middlesbrough were important towns during the Industrial Revolution due to their engineering and iron industries, including being the location of the world's first passenger railway. 3 miles of meanders were cut from the Tees between Stockton and Middlesbrough,

Opened in 1995, the Tees Barrage was designed to regulate the flow of the river at the head of the estuary, preventing flooding and effects of tidal change. As part of the development an artificial white water course was included, offering users opportunities for boating, white water rafting and surfing, and was used as a location for Hollywood's '1917'.

Below this point the river flood plain is zoned, and given over to industrial use, especially in the chemical industries, and nature reserves, including the Teesmouth National Nature Reserve, who look after the shifting dune systems found on the coast here. Located a mile off shore is Teesside Offshore Windfarm. Completed in 2013, the windfarm generates power for 54,000 homes, which is nearly all of Middlesbrough.

**11** Identify the costs and benefits river management utilized on the Tees

**12** What are the advantages of using the Tees as a film location?

**9** What efforts are being made to care for environment of the Tees valley?

**7** What feature has been created by the retreat of High Force?

**8** What human activities occur along the River Tees? Why are these activities important in shaping the Tees?