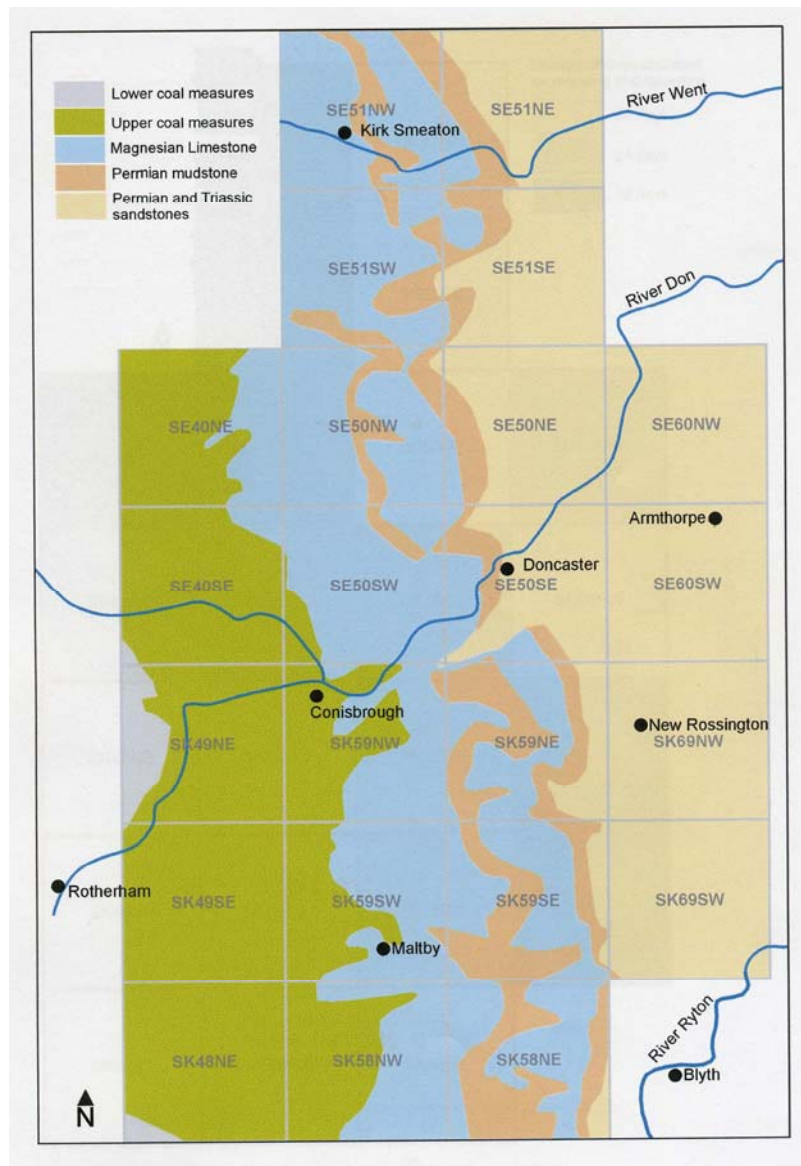


Aggregates Extraction

Romans on the Don Teachers Pack – Background Information

Aggregate extraction around Doncaster

This section gives a short background on the history of aggregate extraction in the area and can be used to give pupils the opportunity to suggest what is extracted, why it is extracted, what impact extraction has on archaeology, and to locate where they live in relation to extraction areas.



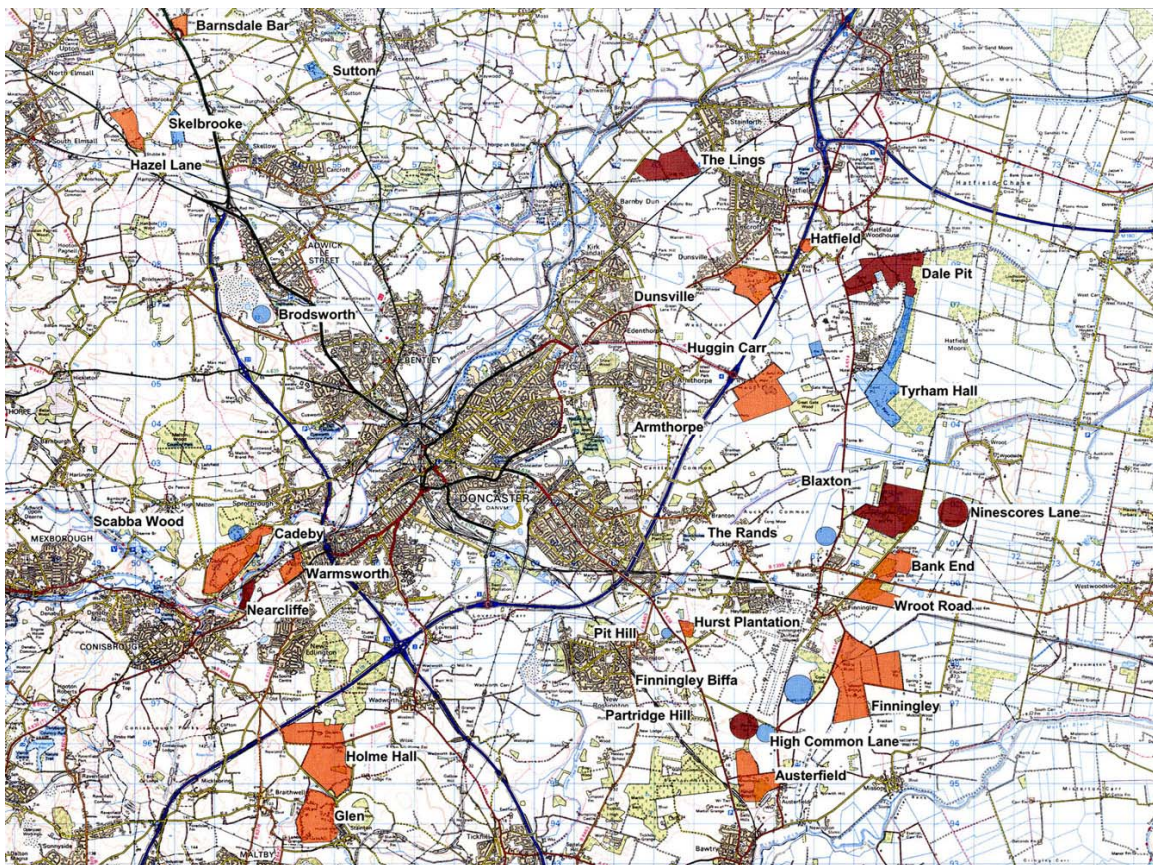
Geological map showing the Magnesian limestone outcrop

Doncaster lies to the east of a massive Magnesian limestone outcrop that was formed in shallow tropical sea at the end of the Permian period, around 250

Aggregates Extraction

million years ago. The outcrop has its northern limits around Tynemouth and continues south to the edge of Nottingham.

The Magnesian limestone area around Doncaster is quarried for extraction of limestone, gravel and sand. Historical records show limestone quarried from the Doncaster area, and specifically Hampole Quarry being used to produce stone for building work at York Minster in the fourteenth and fifteenth centuries. A quarry at Marre near Doncaster is also recorded as supplying limestone in the fourteenth century for roof supports at Westminster Hall. Roman roads and the mortar for *Danum* fort were also made from limestone aggregates.



Quarry sites around Doncaster

The quarries around Doncaster currently produce around 6 million tonnes of aggregates each year. Between 80% and 90% of this is limestone, the rest being sand and gravel. Limestone has many uses, dependent upon its size. As crushed rock it is used to make concrete, is a base material in road construction, and is spread on fields to reduce levels of acid in soil. Limestone that has been ground to a very fine consistency is the main element in cement and mortar. It can also be used in cosmetics, toothpaste, paints and polishes. In larger blocks it is used for building, being soft enough to cut and shape with hand or power tools.

Aggregates Extraction



Quarrying limestone for aggregates

Companies need to gain planning permission to begin a new quarry or extend an existing one. Archaeologists working in the South Yorkshire Archaeology Service assess whether there are likely to be archaeological remains destroyed by the quarry. They use a database comprising information on archaeological finds that have been collected over the years known as the Sites and Monuments Record. This helps in making decisions about whether companies have to fund archaeological excavations. If they do, archaeologists then investigate the site before the JCBs and dumper trucks arrive.