Blanchland lies in the North Pennines Area of Outstanding Natural Beauty (AONB) and European Geopark. The North Pennines AONB is Britain’s first European Geopark, a designation supported by UNESCO, and is a founding member of the Global Geoparks Network. Geoparks are special places with outstanding geology and landscape, and where there are strong local efforts to make the most of geological heritage through interpretation, education, conservation and nature tourism. To find out more visit www.europeangeoparks.org

Stories in stone
The North Pennines has been shaped by many different geological processes, environments and climates. The rocks that form the hills and dales of the area tell of this journey down the ages. By reading the landscape and spotting clues in the rocks, we can discover a fascinating story - of a deep ocean and violent volcanoes, colliding continents and molten rock, tropical seas and lush rain forests, hot water and minerals, desert dunes and vast ice sheets.

Fabulous 3½-mile (5.6km) walk route from Blanchland, exploring rocks, fossils and mines.

The North Pennines is one of England’s most special places – a peaceful, unspoilt landscape with a rich history and vibrant natural beauty. In recognition of this it is designated as an Area of Outstanding Natural Beauty (AONB). The area is also a Global Geopark – an accolade endorsed by UNESCO.

If you enjoyed exploring Blanchland on foot, consider following the North Pennines Geotrail by car or cycle, or take a guided tour. For a taste of the mineral wealth of the area, visit the nearby Blanchland Mine Museum.

End of trail...back to the start...

Welcome to a special landscape...
Welcome to a special landscape…

…shaped by millions of years of natural processes and thousands of years of human activity.

The landscape around Blanchland has been over 300 million years in the making. From tropical seas and deltas to glaciers, minerals and miners – all have played their part in shaping this beautiful landscape. This circular walk will introduce you to some of the special features of the landscape around Blanchland. By spotting clues in the moors, fields and buildings you’ll find out how to ‘read’ the landscape and discover more about its fascinating past.

The sections opposite give some background information about the area’s mining heritage.

The history of lead mining around Blanchland goes back at least 360 years in the Carboniferous Period of Earth history.

Back in those distant times, the North Pennines lay near the equator and was periodically covered by shallow tropical seas. Skeletons of sea creatures accumulated as limy ooze on the sea floor. Rivers washed mud and sand into the sea, building up vast deltas on which swampy forests grew. In time, the limy ooze hardened to limestone, the mud and sand became shale and sandstone, and the forests turned to coal. Periodically, the sea rose, drowning the deltas and depositing limestone again.

This cycle happened many times, building up repeating layers of limestone, shale, sandstone and coal. The contrast in hardness of these different rocks has influenced the shape of the North Pennine hills. Layers of hard rock such as sandstone and limestone stand out as terraces, whereas the softer, easily eroded shales form the gentler slopes between the terraces.

On this walk you’ll see sandstone, shale, terraced hillsides, evidence of ancient river currents, and fossils of some of the plants that grew in the swampy forests.

Hot water and minerals

In the rocks beneath your feet there is a network of mineral veins. These formed about 270 million years ago, from warm, mineral-rich fluids which flowed through cracks in the rocks deep underground. These solutions were heated by a buried granite known as the Weardale Granite. As the fluids cooled, their dissolved minerals crystallized on the walls of the cracks, gradually building up the mineral veins and deposits for which the North Pennines is world-famous.

Centuries of mining

These mineral deposits were the foundation of the North Pennine economy for many centuries. Lead mining was the most important industry, but many other minerals were also mined at different times.

The history of lead mining around Blanchland goes back at least to medieval times. Some early mining appears to have been for silver as well as lead; silver is present in small amounts in galena (lead ore) and is a by-product of lead smelting. Lead mining had its heyday in the 18th and 19th centuries, but by the late 19th century the industry was in decline. In the 20th century, until the 1980s, the area was important for fluorspar (also known as fluorite), which has been owned and managed by Lord Crewe’s Charity since the 17th century. Evidence of the area’s mining past can be seen all over the landscape – as you’ll see on this walk. Look out for mine shafts, miners’ cottages, chimneys and spoil heaps.
Go through the gate on to the footpath along the north side of the river. Follow the road downhill to Baybridge. Follow the footpath along the north side of the river.

Shildon was once a bustling mining village. It is hard to imagine now but in the 1850s over 150 people lived here! The surviving cottages are built of local sandstone and roofed with thin sandstone slabs. The area of bare ground above the cottages is a mix of old lead workings and quarries. To your left is Shildon Engine House (see front cover). This housed a steam-driven engine built in 1806 to pump water from a 200 m-deep shaft that connects with the workings accessed by the adit at Stop 1. The venture was not wholly successful and steam power was eventually replaced by water power. The engine house was then used as accommodation for lead mining families and came to be known as ‘Shildon Castle’.

Old quarry
This small quarry to the right of the track was once worked to supply sandstone for dry stone walls. Look for sloping layers in the rock in the old quarry face (see picture). Known as ‘cross-bedding’, these were formed when sand was deposited in ancient river deltas.

Heather moor
When the local sandstones weather, they produce acid soils which, at these altitudes, support heather moorland. The best times to be here are in the late spring, when the moors are alive with the calls of lapwing and curlew, or around mid-August, when the heather is at its purple best.

Old shaft
A fenced-off area on the left of the track marks the site of one of many deep shafts that provided access and ventilation to the underground workings. These long-abandoned shafts, some over 200 m deep, are in a dangerous condition - please keep well clear!

Minerals from the mines
This shingle bank is a good place to spot minerals brought down from mine spoil heaps by the river. Look out for bits of galena (lead ore). When fresh, galena is a bright metallic grey, but when exposed to air it becomes a dull lead-grey. You can also find small rounded pebbles of purple fluorite.

Smelt mill chimney
As you walk along the track, look ahead to the hillside on the other side of the Derwent Valley. The chimney on the skyline was at the end of a long flue system which carried fumes away from a lead smelt mill in the valley.

Bedded sandstone
Sandstone forms small cliffs in the riverbank opposite the playground. These show roughly flat-lying layers, known as ‘bedding’, a feature which formed when the rocks were deposited as layers of sand in ancient river deltas.

Pennypie House
The name of Pennypie House is thought to have originated at a time when pies were sold here to passing drovers and lead miners – for a penny!

Go through the gate on to the moor and turn left. Follow the track along the moor edge.

Terraced hillside
The hillside to the right of the track rises to a flat-topped terrace. The track gradually climbs up to this and you reach its top at a wide field entrance on the right, about 500 m further along the track. Terrace features like these are characteristic of the North Pennines and are the result of the weathering of alternate layers of hard sandstone and soft shale.

Shale
Soft and flaky grey shale, much burrowed by rabbits, is exposed on the right side of the track.

Old shaft
A fenced-off area on the left of the track marks the site of one of many deep shafts that provided access and ventilation to the underground workings. These long-abandoned shafts, some over 200 m deep, are in a dangerous condition - please keep well clear!

Shildon Lead Mine
Just beyond a wooden shed, look through a gateway on the right. A few overgrown stone walls above the stream are the remains of the ore treatment areas of the once-important Shildon Lead Mine. A horizontal tunnel, or adit, from the side of the stream here gave access to a complex of underground workings. Lead ore was worked here until the late 19th century.

Sandstone forms small cliffs in the riverbank opposite the playground. These show roughly flat-lying layers, known as ‘bedding’, a feature which formed when the rocks were deposited as layers of sand in ancient river deltas.