



Bewdley Museum

A Museum Geology Trail

Within the confines of Bewdley Museum there are many rocks for you to see. They are of different geological ages. The Geological Time Scale text box will help you to understand ancient time as you look at the different rocks.

GEOLOGICAL TIME SCALE (start of periods in millions of years ago) Quaternary 1.6 Neogene 23 Paleogene 65 Cretaceous 142 Jurassic 205 Triassic 248 Permian 290 Carboniferous 354 Devonian 417 Silurian 443 Ordovician 495 Cambrian 545 Precambrian 4600

Walk in to the Herb Garden where you will see many sedimentary rocks.

SEDIMENTARY ROCKS

Sedimentary rocks are made up of particles deposited in layers. They usually form beneath the sea, in lakes and rivers or in deserts. The particles may become cemented together by specks of mud or new minerals such as iron or calcium carbonate. Over millions of years the sediments become rock.



As you enter look to your right to see the drystone wall made of red sandstone. This is a local rock and is part of a fossilised desert sand dune of Permian age. The town's railway viaduct is built from the same rock. Further into the garden and near the few steps you will see old millstones also made out of sandstone. These are Carboniferous in age.

SANDSTONE

As the land is eroded small particles of rock are carried away by wind and water to be deposited on river beds, in deserts or on the sea floor. Sand sized particles may accumulate to a thickness of many metres. Over time the sediment is buried, compressed and cemented into a hard rock called sandstone.



Around the edges of the pond you will see irregular blocks of grey limestone. This rock is a Silurian limestone from the Abberley Hills.

LIMESTONE was formed in a warm shallow sea such as today's great barrier reef off the east coast of Australia. The shell fragments of dead sea creatures fell to the bottom of the sea and these were eventually compacted and cemented into rock. The remains of sea creatures are preserved as fossils.



Also adjacent to the pond you will see the old cider mill. This has been carved from a Carboniferous sandstone quarried from areas to the north of Bewdley along the River Severn.

Around the base of the block there are lots of pebbles. These were originally deposited from the river at the end of the Ice Age some 10,000 years ago.

As you leave the Herb Garden look to your left and you will see a carved block of dark grey granite. Granite is an igneous rock. Look carefully and it is possible to see the crystals that form the rock.

IGNEOUS ROCKS are formed when molten material (magma) rises from deep within the Earth. As it cools it solidifies to form igneous rock. When magma is forced into spaces in existing rocks it is known as an intrusive igneous rock. Examples are granite and dolerite. When the magma reaches the surface and forms a volcano it is known as an extrusive igneous rock. The lava basalt is an example.



As you walk towards the cafe area look at the greenish sandstone that has been used to build the doorway to the left and the gaol to the right. This rock is Highley Stone – a well-used stone in buildings in Bewdley. It is Carboniferous in age. Just by the doorway to the park you will see the coats of arms of Shropshire and Bewdley. Both originally adorned the river bridge. Both are carved from Bath Stone of Jurassic age.





Turn around and face the Museum entrance. Stretched out before you is a course of cobbles running up the centre of the Shambles. These cobbles are all of pink microgranite in which the crystals are quite small.

Go in to the cafe yard and look at the tables under the main canopy. The table tops are composed of pieces of metamorphic rocks. The majority of these pieces on each table are slate with smaller squares of marble and schist.

Also look at the planters, which are made from slate.





METAMORPHIC ROCKS. These are rocks that have been metamorphosed – altered by heat and/or pressure. The original rocks can be either sedimentary or igneous in origin. Some have been squeezed deep below the surface due to the movement of the plates that form the Earth's crust (e.g. slate and schist). Others have been heated due to the presence of molten rock (magma) as it is forced into pre-existing rock (e.g. marble).

We hope you have enjoyed this trail. To find out more about geology in the Abberley and Malvern Hills Geopark go to the Museum entrance where there is more information or go to www.geopark.org.uk