VIEW THE ROCKS BENEATH YOUR FEET

Elizabeth Devon
programme@bathgeolsoc.org.uk

This free material has been provided by the British Geological Survey (BGS) and is amazing! Go to http://www.bgs.ac.uk/opengeoscience/ Click on 'Maps and spatial data' and then click on 'Geology of Britain' You will now see the 'Geology of Britain' viewer'. Enter the area you want to view in 'Search maps' at the bottom right of the viewer and then click 'Go'.

For example, try putting in Bath and click 'Go'. Now use the Transparency slider at the top of the viewer. As you go to the right, the rocks only will be shown. As you go left, you will see the satellite image of the landscape. In many areas of the country it is possible to match the geology directly to landscape. You can see that the hills around Bath are made of the Chalfield Limestone. The Forest Marble, overlying the oolitic limestone at Brown's Folly can also be seen clearly.

You can click on individual rock types to find out about them; the details give you the choice of bedrock geology, i.e. the main mass of rocks beneath you, and superficial geology. The latter refers to recent material which lies on top of the rocks, like river alluvium, glacial material or wind blown sand.

Try the following examples:-

Volcanic vent and lava – type 'Castleton, Derbyshire' to see the vent or neck of a volcano in red, and a lava flow in pink. The snaking view of the lava flow appears like this because it is sandwiched between two sedimentary rock formations on a hillside.

Vertical sedimentary rocks – type 'Lulworth Camp, Dorset' into the viewer and 'travel' south to the coast. You will see vertical east-west trending rocks, including the Chalk, which have been breached by the sea to form the near circular Lulworth Cove, whilst other headlands and bays occur along the coast.

Unconformity - type 'Mells, Somerset' and you will see how the east-west formations of the Carboniferous 'Clifton Down' limestone are overlain by the much younger Jurassic 'Inferior oolite' limestone. Unconformities like this are visible on maps because the formation boundaries disappear beneath the unconformity, and faults do too – as seen at the north of the main Jurassic outcrop. The transparency slider shows how the Jurassic rocks have been quarried away to expose the Carboniferous rocks beneath – which are now being quarried as well.

Please let me know if you find any other good examples of matching geology and landscape. We shall be publishing quite a few on the Earth Learning Idea website next year.

...and a few more howlers

Benefit of volcanoes – if you didn't like anything, you could take it up to the volcano and it would disintegrate it for you.

Benefit of living in an active volcanic region – a quiet life.

Control of lava flow – put sandbags around the doors.