

UNIT 1

UK Landscapes

Resources and answers
to activities

Figure 1

Dartmoor National Park



Activity 1

Natural landscape	Ecological landscape	Human landscape
<ul style="list-style-type: none"> • Hilly landscape with moorland on the hill tops and fields at lower altitudes. • Some isolated rocky outcrops on the hill summits (tors). • Mostly rolling landscape with few steep slopes. 	<ul style="list-style-type: none"> • Woodland, particularly on the lower ground in valley bottoms. • Hedges alongside the fields. • Fields, mostly grass (pasture). • Rough grassland (moorland) on the higher ground. 	<ul style="list-style-type: none"> • The area is sparsely populated with just a few isolated buildings and small villages. • Fields are used for farming, probably sheep grazing or cattle.

EXAM TIP In order to access the higher level marks, you need to refer to specific evidence from the photograph.

Figure 2

Salford Quays, Manchester



Activity 2

- a** The human features include large offices, residential flats and houses, transport systems, footbridges across the river, etc. The ecological features include the provision of green strips with grass and trees in between the new developments and alongside the water.
- b** The buildings look very modern and clean. There are new houses being built (bottom right). The architecture of the buildings and the building materials used (e.g. lots of glass frontages) is modern. The footbridges look modern and have been attractively designed.

EXAM TIP In order to access the higher level marks, you need to refer to specific evidence from the photograph.

UNIT 2

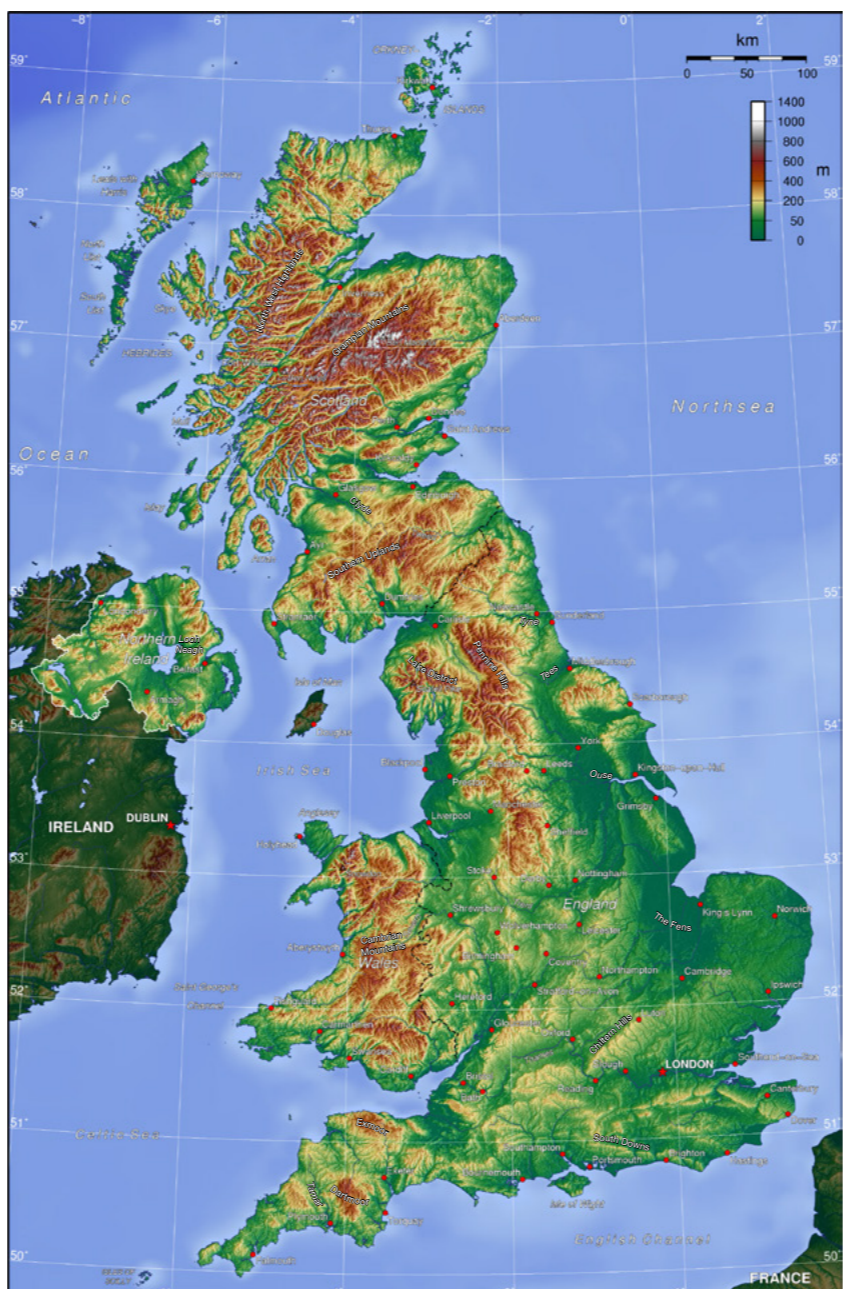
The relief of the UK

Resources and answers
to activities

Figure 1

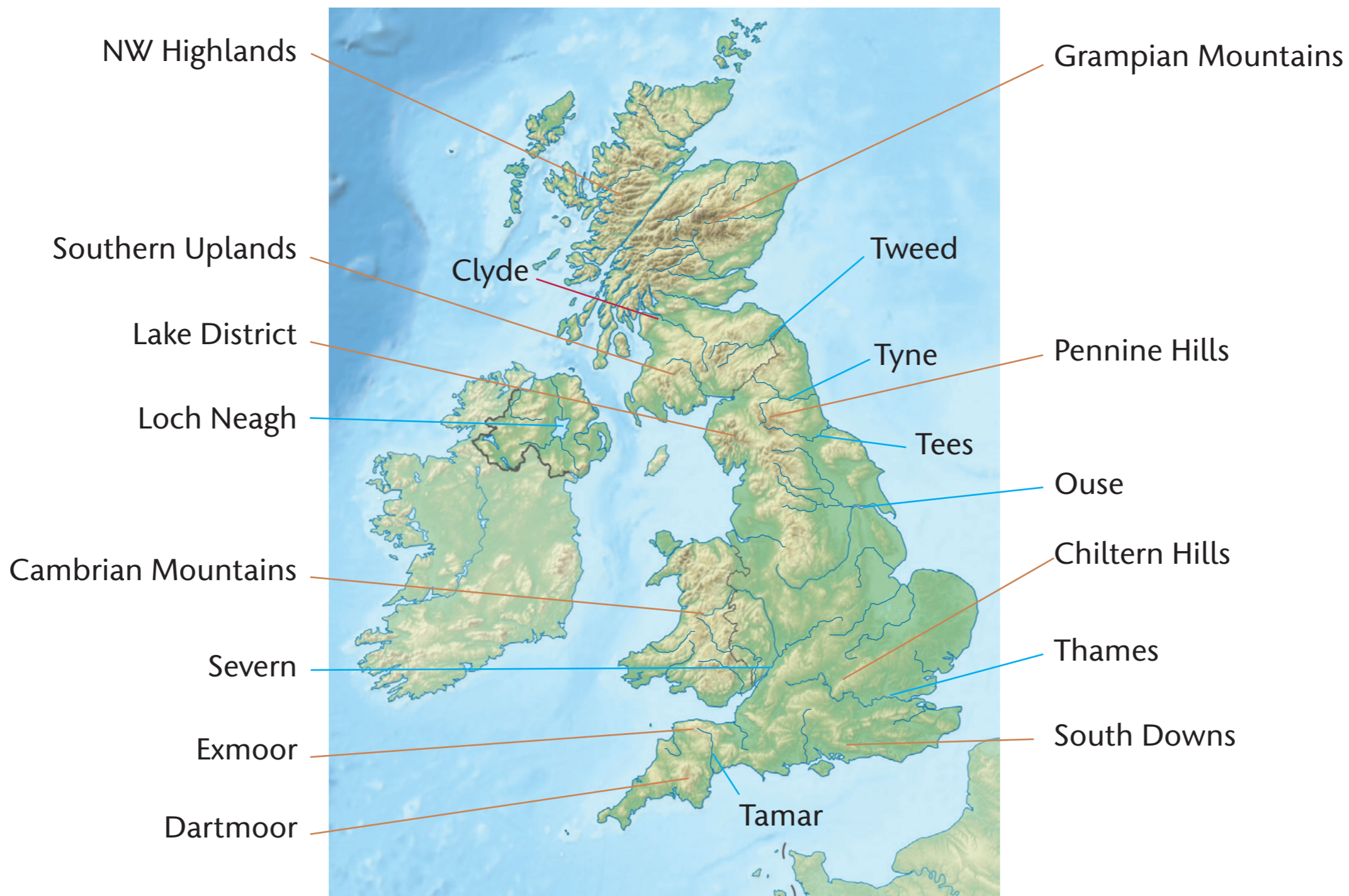
The relief of the UK

The relief of the UK



Activity 1

The relief of the UK



The UK has a varied relief. The highest ground (over 400 m) is located in the north and west of the UK. This includes mountain ranges such as the NW Highlands, Grampians, Lake District and Cambrian Mountains. The lowest and flattest land is in the south and east of the UK. Here there are extensive areas of flat land (e.g. eastern England) and gently undulating land with low hills (about 200 m), such as the Chiltern Hills.

EXAM TIP In order to access the higher level, you must use evidence from the map(s).

Activity 3

- a** 621 m
- b** Mendip Hills
- c** The Cotswold Hills are to the NE of Bristol and run roughly parallel to the M5.
- d** The River Exe has its source on Exmoor. It flows roughly north–south to its mouth at Exmouth, where it joins the English Channel.

The motorway (M5) follows low ground, running between Exmoor and the hills near Honiton (Blackdowns). Roads skirt around the edges of Exmoor and Dartmoor. They follow the lower ground to reduce construction costs and to retain gentle gradients which are easier for traffic to navigate and less likely to lead to accidents, congestion and weather-related problems.

EXAM TIP In order to access the higher level, you must use evidence from the map(s).

- 1** Scotland – Ben Nevis (1345 m); England – Scafell Pike (978 m); Wales – Snowdon (1085 m); Northern Ireland – Slieve Donard (850 m);
- 2** The River Severn (354 km) – the Thames is slightly shorter (346 km)
- 3** The Brecon Beacons
- 4** The Hebrides
- 5** Southeast England

UNIT 3

Geology of the UK


Resources and answers
to activities

Figure 1


The geology of the UK


SEDIMENTARY ROCKS


CENOZOIC

 (65mya–present day) – mostly weak sands and clays


MESOZOIC


 Cretaceous (145–65mya) – includes relatively resistant chalk, also sandstones and clays


 Jurassic (199–145mya) – mostly resistant limestones


 Triassic (251–199mya) – mostly resistant sandstones


PALEOZOIC


 Permian (299–251mya) – sandstones and limestones

 Carboniferous (359–299mya) – mostly resistant limestones

 Devonian (416–359mya) – mostly sandstones

 Silurian (443–416mya) – mostly limestones


 Ordovician (488–443mya) – limestones and shales


 Cambrian (542–488mya) – limestones and shales

UPPER PROTEROZOIC

 Late Precambrian

METAMORPHIC ROCKS

 Lower Palaeozoic and Proterozoic

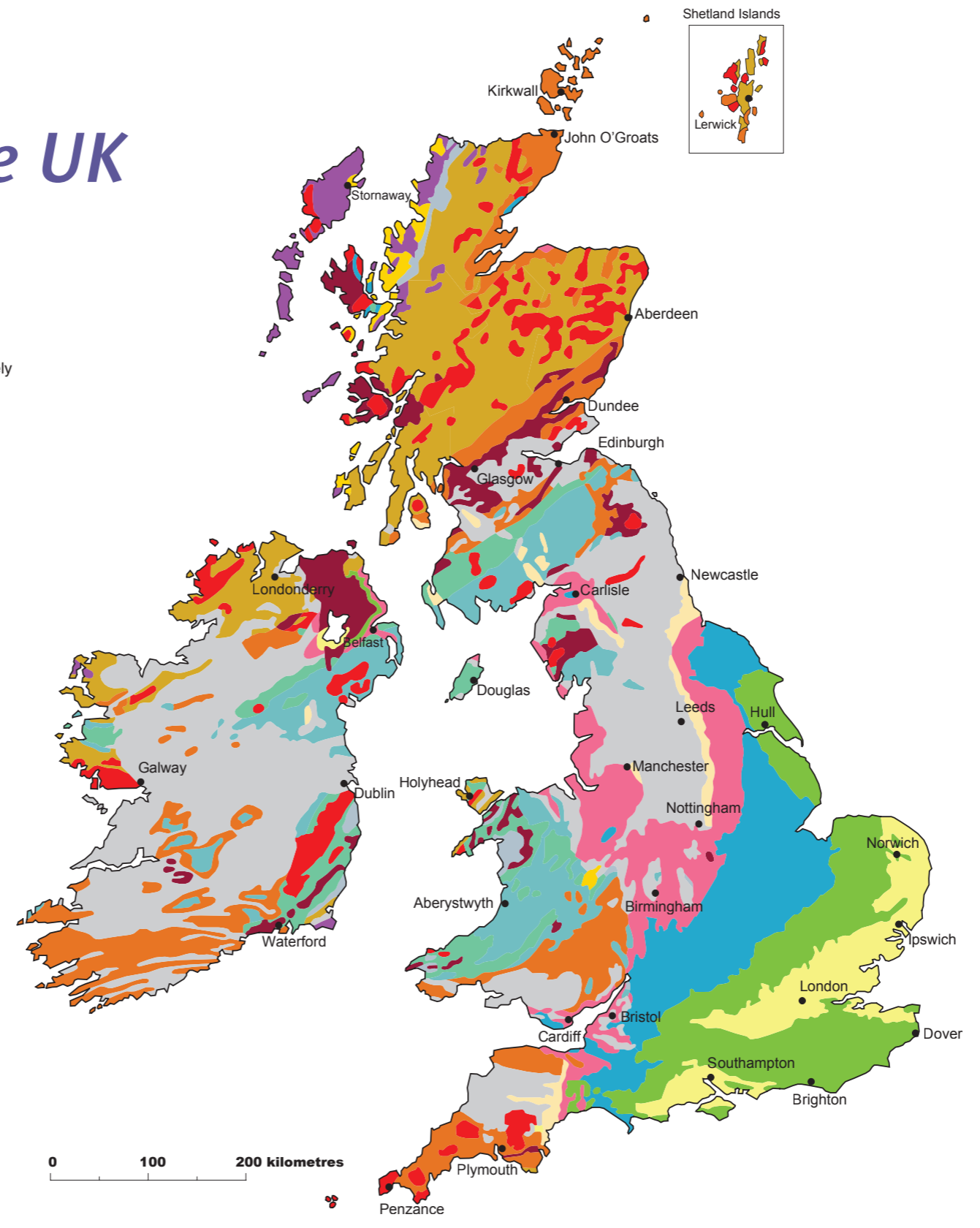
 Early Precambrian

IGNEOUS ROCKS

 Intrusive

 Volcanic

Note: Key has been adapted from BGS source. mya = million years ago



Igneous rock: granite

- Coarse grained crystalline rock – the large crystals result from slow cooling deep below the ground surface.
- Often a mosaic of colours (white, grey, pink, black).
- Tough and resistant to erosion.



Sedimentary rock: limestone

- Formed from a build-up of lime-rich sediment on the seabed.
- Often fossiliferous, with shells, coral and other organisms.
- Often quite tough and resistant to erosion.
- Rich in calcium carbonate, it is vulnerable to dissolving.

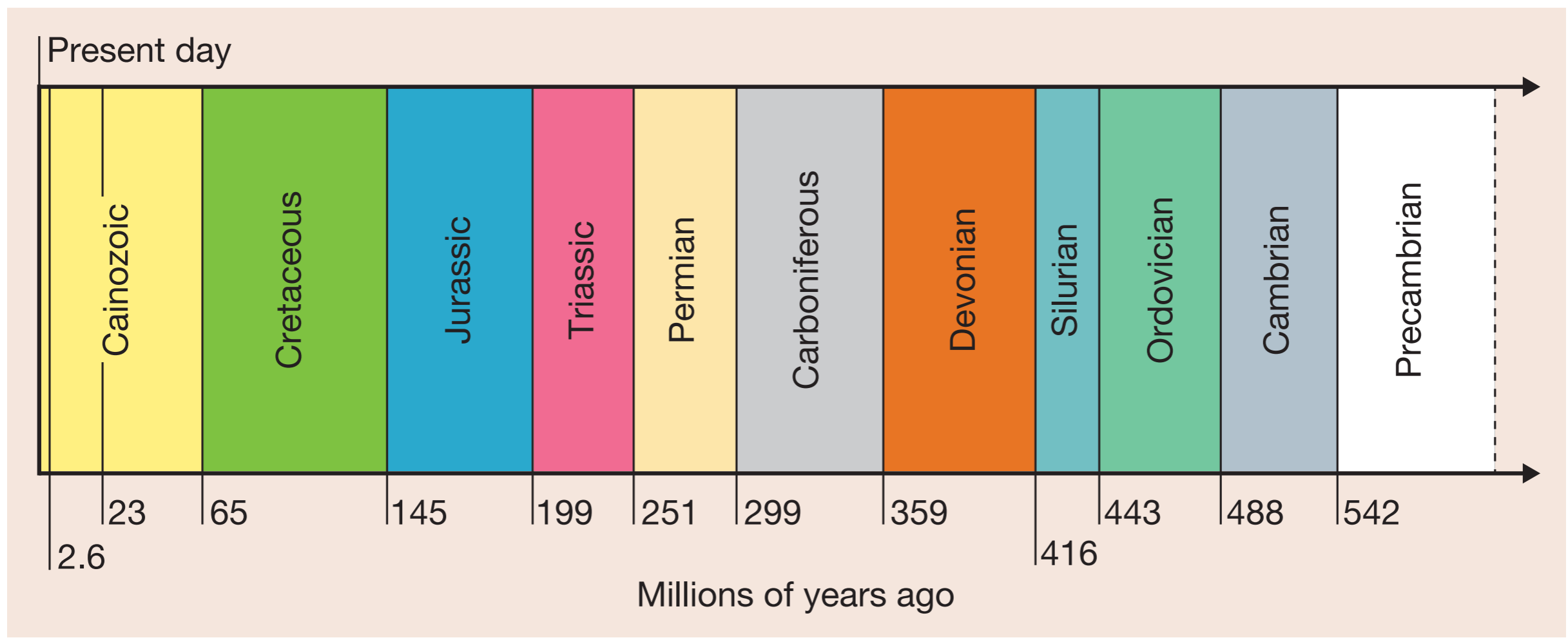


Metamorphic rock: slate

- Fine grained grey rock that splits (cleaves) along parallel planes to form thin sheets.
- Very tough and resistant to erosion.
- Widely used for roofing.



Activity 1



Activity 2

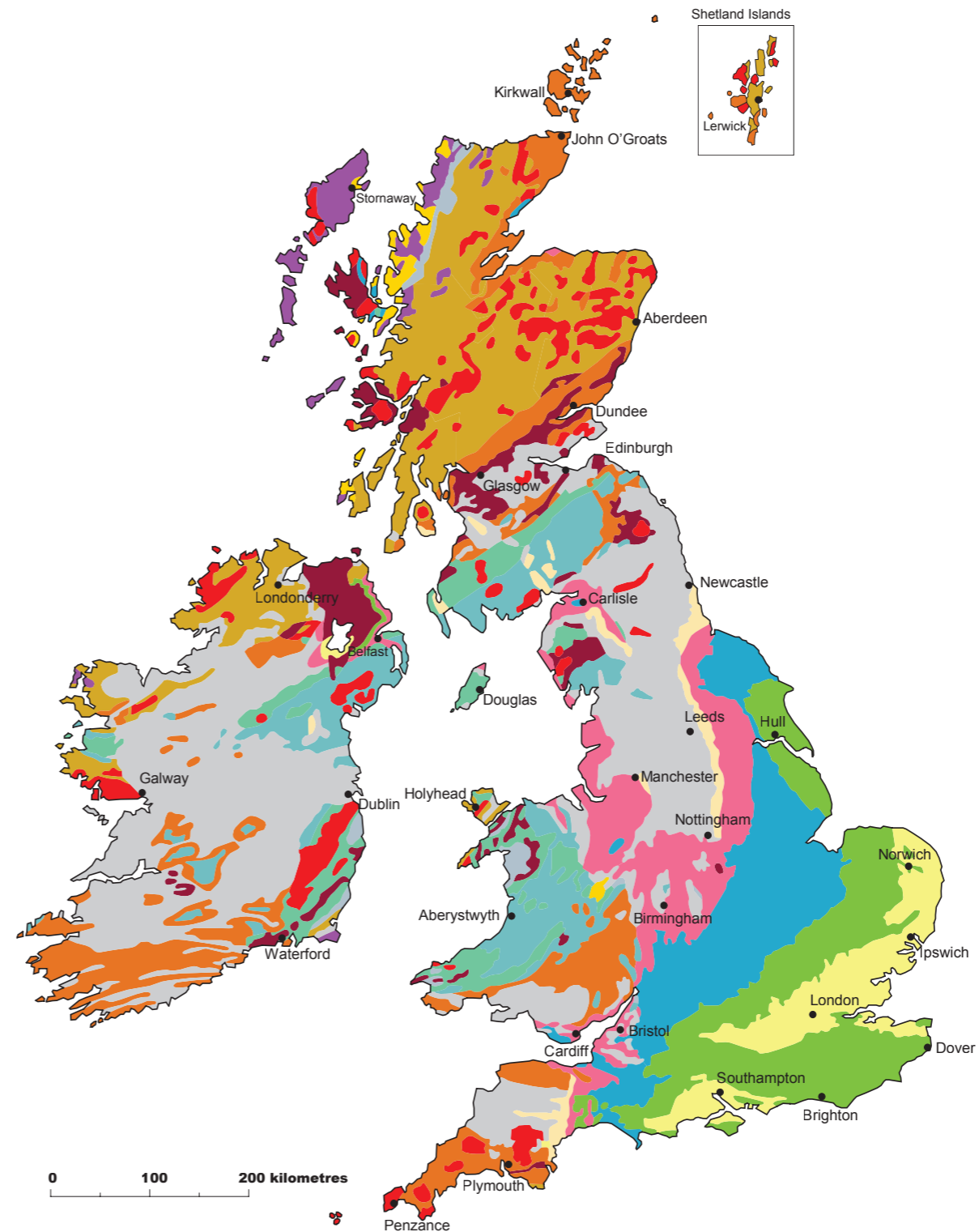
Geology of the UK

Location	Rock type (igneous, sedimentary, metamorphic)	Age of rock (mya = millions of years ago)
London	Cainozoic	65 mya–present day
Leeds	Cambrian	542–488 mya
Hull	Cretaceous	145–65 mya
Aberystwyth	Silurian	443–416 mya

Activity 3

The outcrops of granite in SW England are shown as isolated red outcrops on the map, identified as intrusive igneous rocks.

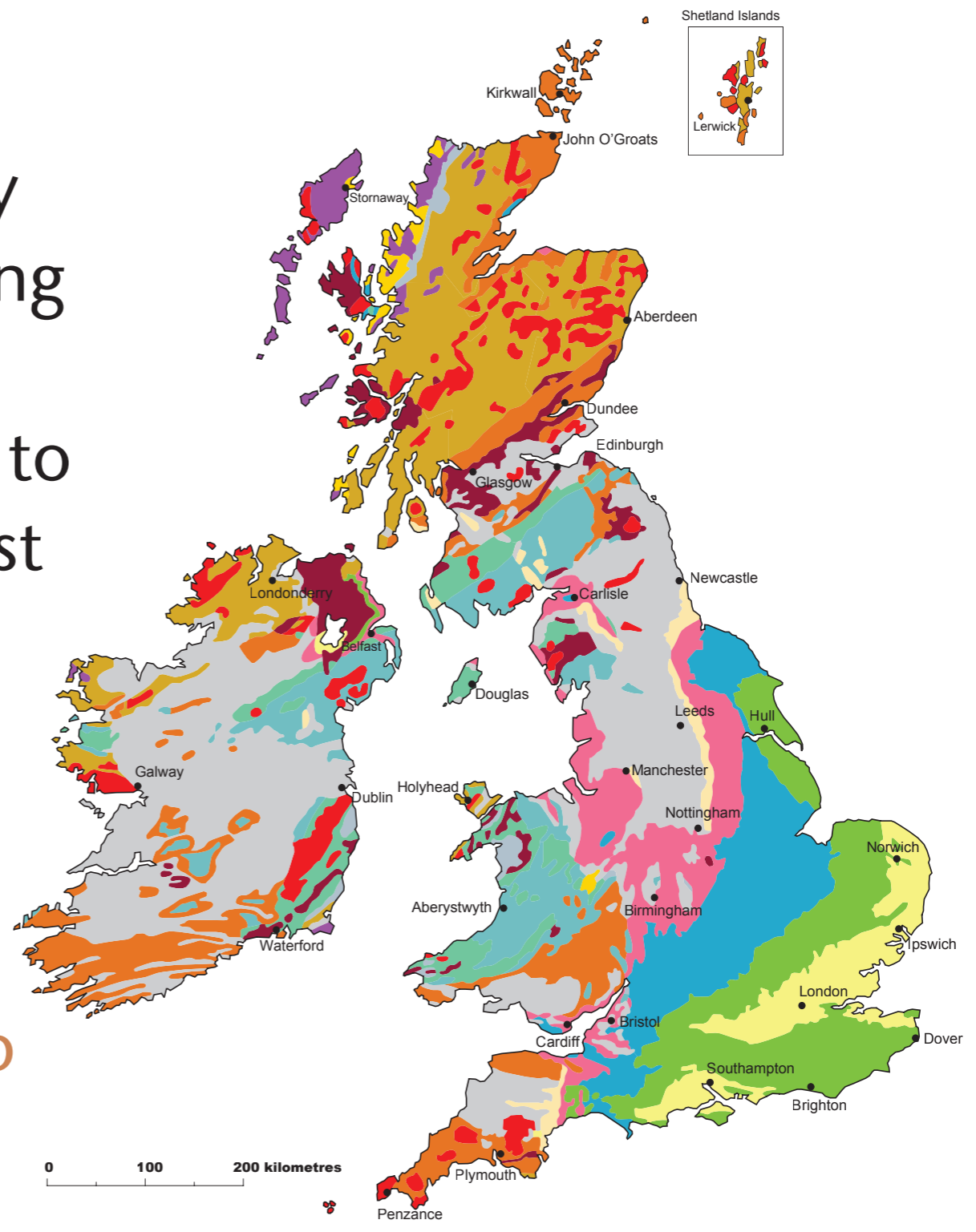
EXAM TIP Make sure that you refer to evidence from the map.



Activity 4

Jurassic rocks are shown as dark blue on the geological map. They outcrop as a broad band stretching roughly SW–NW from Dorset in the south, through the Midlands to the east of Birmingham to the east coast north of Hull. The outcrop is thickest in the Midlands; it is thinner to the north and south.

EXAM TIP Make sure that you refer to evidence from the map such as place names.

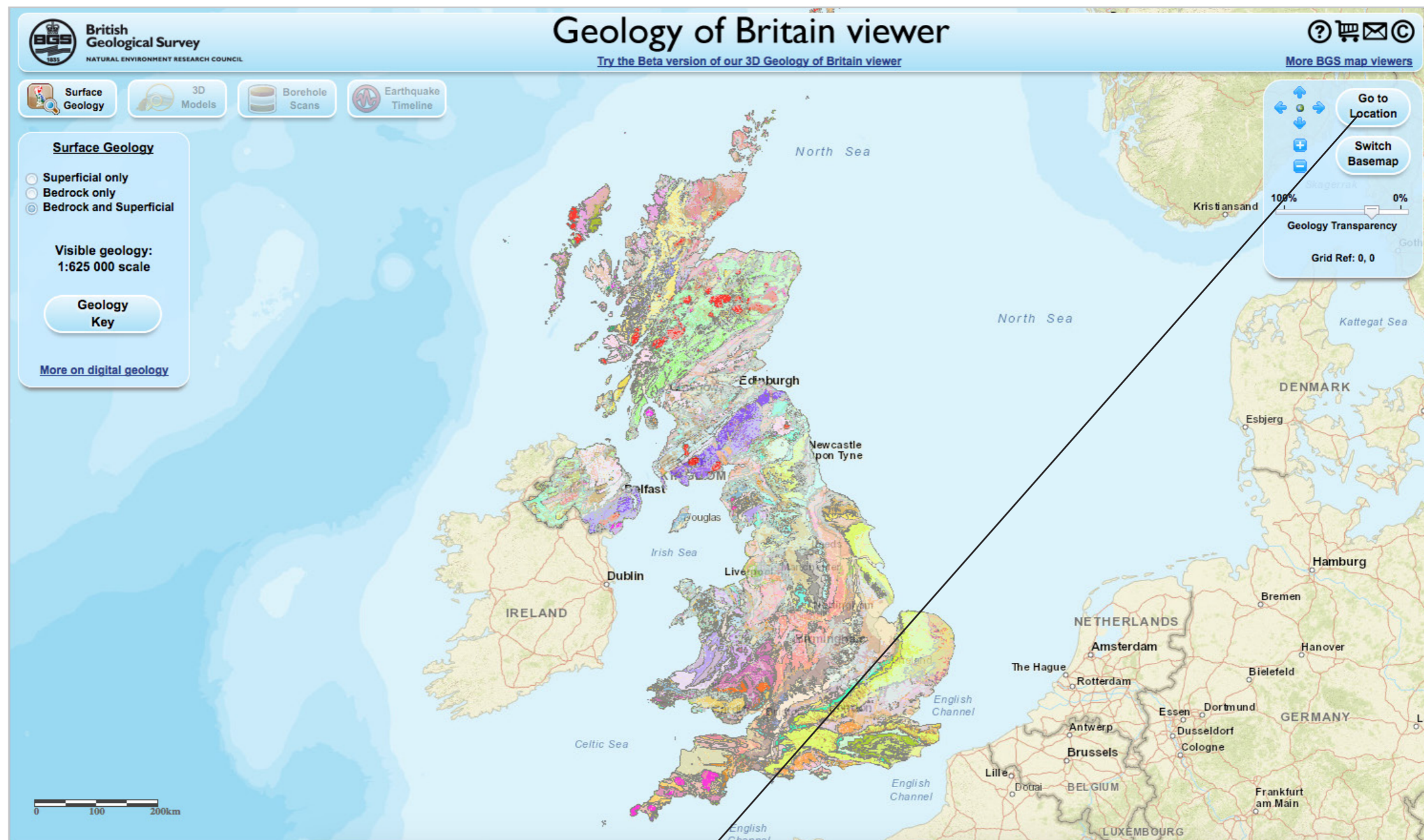


Intrusive rocks – formed when molten magma cools below the ground surface, e.g. granite.

Extrusive rocks – formed when molten magma cools on the ground surface after a volcanic eruption, e.g. basalt.

Online activity 1

Geology of the UK



Click to search for a location

British Geological Survey
NATURAL ENVIRONMENT RESEARCH COUNCIL

Geology of Britain viewer

Try the Beta version of our 3D Geology of Britain viewer

More BGS map viewers

Surface Geology | 3D Models | Borehole Scans | Earthquake Timeline

Surface Geology

- Superficial only
- Bedrock only
- Bedrock and Superficial

Visible geology:
1:50 000 scale

Geology Key

More on digital geology

Go to Location | Switch Basemap

100% | 0%
Geology Transparency

Grid Ref: 451155, 208414

Bedrock geology | Superficial deposits

1:50 000 scale bedrock geology description:
Oxford Clay Formation And West Walton Formation (undifferentiated) - Mudstone. Sedimentary Bedrock formed approximately 157 to 166 million years ago in the Jurassic Period. Local environment previously dominated by shallow seas.

Setting: shallow seas. These sedimentary rocks are shallow-marine in origin. They are detrital, ranging from coarse- to fine-grained (locally with some carbonate content) forming interbedded sequences.

[Further details](#) | [What is Bedrock Geology?](#)

[To purchase detailed geological reports for this area, try our GeoReports service](#)

Click on the map for further details on rock formation and economic use

- The term 'Anthropocene' refers to a new (the current) geological period.
- It was proposed by scientists in 2016 to reflect the increasing influence of human activities on the natural world.
- The start date has been given as 1950, coinciding with the rapid increase in global temperatures.
- Human activity has affected biodiversity, biogeography, climate and natural processes (weathering, erosion, etc.).