

How was the uk
formed? how the
geographical
formation of great
britain took shape...

[Science](#), [Geology](#)



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Introduction

Over millions of years, the earth has changed geologically in so many ways, over a period of eras and a number of periods in each era. During each era continents collided and moved due to tectonic plate movements. Seas levels fell and rose over millions of years depositing different types of sediments across the UK, which now form the different regions. Below is a brief description of each are and periods.

Proterozoic Era

It is suggested that Gneisses is the oldest rock in the UK around 2700Ma. Formed from a process called metamorphism, which is where original rocks are buried under the earth's crust and turned into crystalline gneiss. This rock is found in the far west of Scotland and the Hebrides.

Moving south of the Gneisses is the Scottish highlands and mountains of north Ireland. These mountains are believed to be formed from a mixture of

folded sedimentary rocks deposited across the floor of the Lapetus Ocean one thousand million years ago.

Five hundred and twenty million years ago the UK was separated by approximately 4500 miles of ocean. Evidence shows that the majority of the UK was positioned near the Antarctic Circle but Scotland was located south of the equator.

Paleozoic era

During this era is when the British Isles came together and was formed over a number of different periods such as the Cambrian, Ordovician, Devonian periods.

During the Ordovician period the southern and northern parts of the British Isles bonded together due to tectonic plate movement, this took place four hundred and twenty five million years ago. England and Wales was covered in layers of sediment due to the erosion of the volcanoes and mountains caused by floods.

Ben Nevis was formed during the Devonian period due to the constant collision of continents.

During the Carboniferous period, three hundred and sixty million years ago when the UK was positioned over the equator, covered by the Rheic Ocean. During this period is when numerous places in the UK were layered with limestone.

During this period South west England in particular, undertook some major deformation due to the constant collision of continental plates. This is now seen as Dartmoor and Bodmin moor.

The Permian period, seen shale, marl, gravel and limestone deposited across the UK, as it was under water due to the polar ice sheets melting. This is when the Tethys Ocean and Zechstien Sea formed.

Mesozoic era

During this era there was three main periods which took place. During the Triassic period it is believed that the UK moved away from the equator north. It is suggested that a asteroid impact which happened in Canada caused a layer of debris to shower over the UK, 214Ma.

During the Jurassic and Cretaceous periods more major changes took place such as the UK moving north again on the Eurasian plate, sea levels continued to rise, the Atlantic Ocean was formed resulting in the separation of northern Scotland from north America. The white cliffs of Dover and the Salisbury plain were all so formed during this period as the UK was flooded once again depositing chalk and flints across Britain.

Cenozoic era

The Tertiary period saw the formation of the north sea, all so during this period The UK was uplifted and once again eroded resulting in more sediments been deposited. During the Quaternary period several ice ages took place which caused major changes, the diversion of the river Thames is

believed to be the most sever change. During the ice ages there were many features left behind such as the U shaped valley of the Lake District.

Conclusion

This report has highlighted the key rock types within each region of the UK. It has also given a brief history into how the UK was formed geologically, over millions of years ago in each era. Its all so given me an insight into what the eras were called and the periods in each era.

References

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