

SUBJECT: Geography

UNIT: Year 7 Rocky World



What are the different types of rocks?

Sedimentary rocks are formed from sediments that have settled at the bottom of a lake, sea or ocean, and have been compressed over millions of years. Examples: Caves, Gorges, Dry valleys

Metamorphic rocks are formed when either igneous or sedimentary rocks are changed under extreme heat. Example: Metamorphic belts

Igneous rocks are formed by magma from the molten interior of the Earth cools and solidifies. Example: Giant's Causeway

What is weathering?

To wear away or change the appearance or texture of (something) by long exposure to the atmosphere. Mechanical weathering is caused by physical changes such as changes in temperature, freezing and thawing, and the effects of wind, rain and waves. Chemical weathering is the weathering of rocks by chemicals is called chemical weathering, such as Acid Rain. Biological weathering is weathering caused by plants and animals.

Acid rain has been shown to have adverse impacts on plants, buildings and aquatic environments.

What are the types of soil in the UK?

Soil starts with the weathering of rocks. Plants establish within the weathered rock and weathered debris. Once plants die they form organic matter for future plants to grow in. There are three types of soil - Sand, Silt and Clay. We need to understand soil for Agriculture, to understand the best type of soil to grow food and for engineering, to be able to build structures in the correct way.

What is the Earth's history and how has it changed?

The Earth started with the big bang 13.8 billion years ago. Geological timescales are the timescales through which the history of Earth has been divided up into. Hadeon 4.6 – 4 billion years ago, Archean 4 – 2.5 billion years ago, Proterozoic 2.5 billion – 540 million years ago, Phanerozoic 540 million years ago – present.

Alfred Wegener proposed the theory of continental drift. His idea was that the Earth's continents were once joined together, but gradually moved apart over millions of years. Thus identifying that the plates must move. Constructive plates move apart, conservative plates rub side by side, destructive collision is when continental plates move toward each other, destructive – subduction is when an oceanic plate subducts under a continental plate.

What is the Earth's structure?

Inner Core - Solid part of the core made up of iron and nickel. Reaches temperatures of 5,500 degrees. Outer Core - Liquid part of the core. Mantle - Semi-liquid layer of magma. Crust - Solid layer of rock on the surface of the planet. 3 – 30 miles thick.

Volcanoes and Earthquakes

Composite volcanoes - Steep sided volcano made up of alternative layers of lava and ash. Eruptions are infrequent and violent. Lava is viscous and slow flowing. Formed at destructive subduction plate margins. Examples: Krakatoa, Indonesia and Mount St. Helens, USA

Shield volcanoes - Gentle sided volcano. Eruptions are more frequent but less violent. Lava is fast flowing and can travel over large areas of land. Formed at constructive plate margins. Example: Mauna Loa, Hawaii

Earthquakes occur at Destructive and conservative plate margins but can be found at all plate margins. They are measured using a Richter scale.