

# A LEVEL GEOLOGY

## Why choose A Level Geology?

Geology involves the study of the processes that have formed Planet Earth over millions of years. It is important to know how our planet works in order to manage its resources effectively and to cope with the hazards and changes that are happening to the Earth around us. There has never been a more interesting time to be involved in the science that studies the Earth. If you study Geology, you will never look at our world in quite the same way again.

## What will I study?

You will study a range of topics concerning Planet Earth, including the structure of the Earth, how the Earth's plates move and how these movements cause hazards for us. You will learn about the clues contained in igneous, sedimentary and metamorphic rocks that allow us to work out how they formed. In addition, you will study fossils which reveal the development of life on Earth, how the Earth has provided geological resources essential for us to live, and evidence for previous times of climate change on Earth.

The core aspects of A level Geology are:

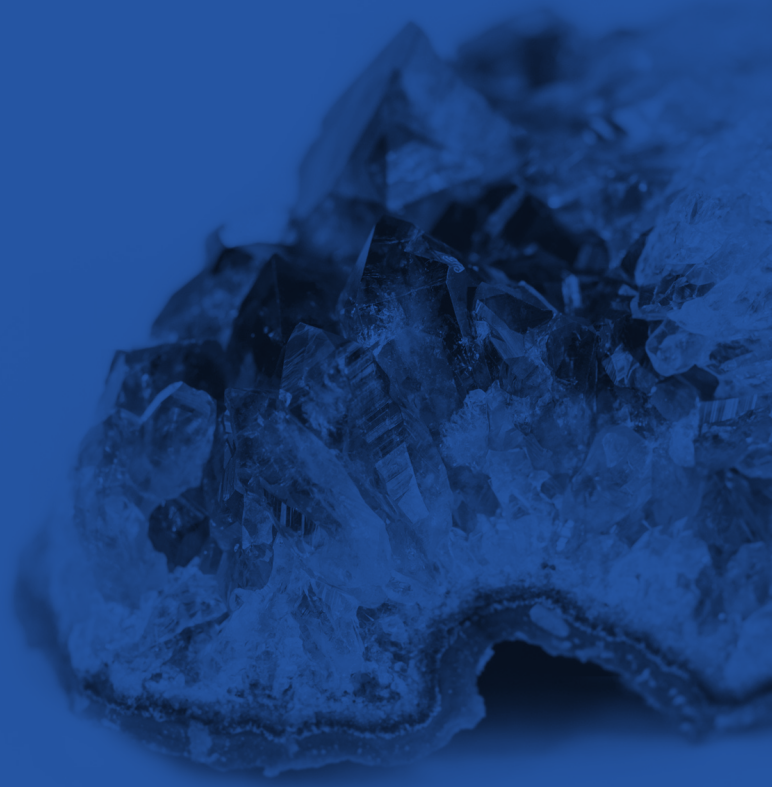
- elements, minerals and rocks
- surface and internal processes of the rock cycle
- time and change
- Earth structure and global tectonics
- rock forming processes
- rock deformation
- past life and past climates
- Earth materials and natural resources.

There are also themes which develop and apply the knowledge and understanding of the core content. These include:

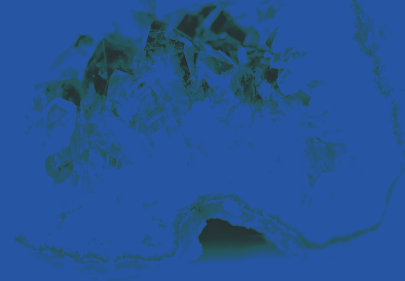
- geohazards
- geological map applications

## Fieldwork

Fieldwork is an essential part of Geology. You will go on a number of fieldtrips, visiting places where rocks can be easily seen at the Earth's surface. Once you have studied Geology for a while you will be able to collect information on your fieldtrips that will allow you to work out what the Earth was like millions of years ago.



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## What skills will I develop?

Geology is above all a problem-solving science subject. You will develop practical skills, in both the classroom and outdoors, that will help you to gather information about processes that have formed the Earth.

The ability to think in 3D is an important skill that you will acquire in the study of geological maps and the drawing of geological cross-sections.

You will develop investigative skills such as analysing and interpreting the evidence that is contained in the rocks and fossils.

You will become able to evaluate evidence, to decide which of several possible ideas or theories to explain something might be more likely.

You will also develop mathematical and writing skills, both important aspects that are used in the study of our Earth.

## How will I be assessed?

**There are three exams at the end of the two-year course.**

**These use questions requiring short, structured and extended answers. Most questions involve some form of response to geological information in the form of diagrams, maps and graphs. One of the exams is a practical exam involving the interpretation of rock, mineral and fossil specimens.**

**In addition to the exams you will take part in a number of practical activities that will go towards you achieving a 'practical endorsement'. This will demonstrate that you are competent in a range of practical skills. This does not, however, contribute to your A level grade.**

## Careers with Geology

There are a wide range of careers that geology students can progress on to including those involving:

- developing a sustainable future for ourselves and the Earth
- exploring for and extracting useful materials from the Earth
- protecting the environment from the effects of human activity,
- monitoring and reducing the impacts of geological hazards such as earthquakes and volcanoes
- research into the geological history of Earth and other planets
- how we and the Earth might respond to climate change.

In addition, students who have studied geology have developed many transferable skills and are actively sought out by a wide variety of employers.