

# GEOLOGY

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**“Geology is intimately related to ... all the physical sciences, as history is to the moral.”** Charles Lyell

## **Current Teaching Staff:**

Mr Gordon Neighbour FGS

**Examination board and syllabus:** Eduqas

## **Entrance requirement:**

Separate Science GCSE students: Grade 6 or above in at least two sciences. Double Award Science GCSE students: Grade 6 or above in GCSE Combined Science\*, You will also need to have at least a Grade 5 in Mathematics.

By studying Geology, you can study Earth's fascinating 4.5-billion-year history to predict and protect its future. In A-Level Geology we ask the important questions in society today, including how to find Earth's resources and use them sustainably, how life on Earth has responded to climate change and how to mitigate natural hazards such as earthquakes, volcanic eruptions, landslides and tsunamis. The course is designed to reflect the geologists in the world today. There is a strong focus on developing practical skills through field trips. The course is about applying your knowledge to practical problems rather than just completing the examination paper.

**A Level outline:** Eduqas A level in Geology provides comprehensive coverage of the knowledge and understanding required for the study of the Earth, its structures, evolution and dynamics. The core aspects of this specification introduce eight geological concepts:

- 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 three themes which develop and apply the knowledge and understanding of the core content. These are:

- geohazards
- geological map applications
- geological evolution of Britain

## Assessment

<b>Component 1:</b> Geological Investigations <b>35% of qualification</b> <b>Section A:</b> Two stimulus response questions requiring short and structured answers. <b>Section B:</b> An investigation of the geology of an area shown on an accompanying simplified geological map	<b>Written examination:</b> 2 hours 15 minutes
<b>Component 2:</b> Geological Principles and Processes <b>30% of qualification</b> - Six stimulus response questions requiring short, structured and extended answers.	<b>Written examination:</b> 1 hour 45 minutes
<b>Component 3:</b> Geological Applications <b>35% of qualification</b> <b>Section A: Geohazards.</b> Two stimulus response questions requiring short and structured answers <b>Section B: Geological map applications.</b> An investigation of the geology of an area shown on a Geological Survey map extract using stimulus response questions requiring short, structured and extended answers. <b>Section C:</b> Learners answer questions on the <b>Geological Evolution of Britain</b> . There will be three questions requiring short, structured and extended answers.	<b>Written examination:</b> 2 hours
<b>Practical Endorsement - Non-exam assessment</b> Assessment of practical competency. Reported separately and not contributing to final grade.	

The teaching of the A level course is undertaken by a specialist teacher who is an examiner and a practical endorsement monitor. As a hands-on subject, the use of practical work to develop understanding and skills will play a major role in the delivery of the work. Lessons also involve the opportunity to research and present work on different topics, group work, practice of knowledge and application, and the practice of examination question technique.

To ensure a good understanding of the work covered in lessons, students will be asked to complete tasks in their own time. These tasks take the form of topic worksheets, examination questions, writing conclusions and evaluations using experimental data and carrying out research. Students should also be motivated to broaden their knowledge beyond the curriculum by reading scientific publications and viewing science programmes.

The ability to work independently, seek help early on and complete lots of practice examination questions which help to build confidence in the subject, are vital to ensure success in Geology.

There is no requirement to have studied GCSE Geology.

## CAREERS

There is currently a world-wide shortage of well-qualified Geology graduates and employment opportunities in mining, engineering, geophysics, geotechnics, exploration, petroleum and environmental geology are widespread, offering considerable opportunity for world travel. Geology is a subject highly regarded by universities for entrance to any science-based degree course.

*"...Geologists at Imperial College London have emerged as the top-earners in a league table of graduate salaries published today alongside the Sunday Times Good Universities Guide. Their average wage of £73,267 six months after leaving university surpasses that of medics and engineers."*

**The Sunday Times 25 September 2016**