

Geology - Student Guide for Advanced Subsidiary/Advanced GCE Specifications

Geology covers the study of a range of geological processes that operate at and below the Earth's surface. The AS covers three main areas of geology and is ideal for a one-year course. It is a science subject, so practical work is an important element. It is suitable for candidates looking for a broad base in science at A Level and also supports subjects such as geography - the ideas extend GCSE Science and are complementary to A level Geography. No previous knowledge of geology is required, so anyone can try it.

Before you start this course

You should have studied Science to Intermediate level (either GCSE or GNVQ Intermediate).

Other subjects that would go well with Geology at AS or GCE Advanced level are Biology, Chemistry, Geography and Physics. You may be concentrating on arts, humanities or modern language subjects and wish to take Geology to AS level to broaden your studies by continuing to take a science subject.

With a qualification in Geology you could go on to Further or Higher Education, studying Geology or one of the other sciences or related subjects, or work in science-based industry, or in jobs related to the environment or geography.

This subject has 6 Units of Assessment:

- To get a certificate for Advanced Subsidiary (AS), you will need to have been assessed on your performance in the three AS units.
- To get a certificate for Advanced GCE, you will need to have been assessed on your performance in the three AS Units, together with three further units, known as A2 units.

Before taking the AS units of assessment you will study the following modules of work:

Module 2831 Global Tectonics and Geological Structures

In this module you will learn about the structure of the Earth and magnetism, Earthquakes and their distribution, and continental drift. Also included is a section on structural geology that includes folds, faults and joints. A 90 minute written examination (unit of assessment) will test your understanding of this module.

Module 2832 The Rock Cycle - Processes and Products

In this module you will learn about the rock cycle, the differences between rock groups, and igneous, volcanic, sedimentary and metamorphic processes. A 90 minute written examination (unit of assessment) will test your understanding of this module.

Module 2833/1 Environmental Geology

In this module, which is shorter in length than 2831 and 2832, you will learn about the concentration of metal deposits, the supply of surface and underground water, and the formation of deposits of coal, oil and gas and their extraction. Also included are sections on engineering geology (dams, geothermal power etc.) and exploration techniques using geophysics and geochemistry. A 60 minute written examination (unit of assessment) will test your understanding of this module.

Laboratory / Fieldwork in AS is assessed by means of coursework.

Before taking the A2 units of assessment you will study the following modules of work:

Module 2834 Palaeontology

In this module you will learn about the way in which organisms are preserved as fossils and the morphology of the main invertebrate groups, including the mode of life and adaptation of fossil groups to their environments. Dating of rocks using fossils and radiometric methods is also included. A 90 minute written examination (unit of assessment) will test your understanding of this module.

Module 2835 Petrology

In this module you will study the origins, classification and characteristics of the main rocks and minerals, including igneous, sedimentary and metamorphic rocks. The module will extend the work covered in Module 2832. A 90 minute written examination (unit of assessment) will test your understanding of this module.

Practical and investigative work in A2 is assessed by means of coursework or a practical examination.

At the end of the course you will take a synoptic examination of 75 minutes. This will test the knowledge, understanding and skills you have learnt throughout the course. This module concentrates on description, observational and interpretive geological skills. It uses photographs, photomicrographs, drawings, descriptions, annotated sketches, graphic logs and the interpretation of geological maps, geological cross sections and geological histories.

The assessment structure for Geology is:

