

GEOLOGY

Examination Board: Eduqas (part of WJEC)

Why Study Geology?: Geology is the scientific study of the Earth's origin, structure and composition. It enables us to understand the dynamic processes that determine the way the Earth works and the environment in which we live; how we manage and protect that environment; the forces responsible for shaping the mountains, oceans, rivers and deserts on the Earth's surface; the internal forces responsible for earthquakes and volcanoes; and where oil, gas and minerals occur.

The specification is structured into three sections:

Section One	Fundamentals of Geology
Studies include the characteristics and compositions of minerals and rocks, the internal structure of the Earth and plate tectonics, palaeontology and dating events in geology.	
Section Two	Interpreting the Geological Record
The origin of igneous, sedimentary and metamorphic rocks are investigated along with rock deformation (geological folding, faulting and unconformities). The evolution of animal and plant life is studied as well as the evidence for climate change in the geological past, present and future. Finally, the origin and exploration of the Earth's minerals, rocks and other natural resources are investigated.	
Section Three	Geological Themes
This Section comprises two compulsory topics, namely, geohazards (earthquakes, volcanoes, and mass movements), their monitoring, prediction and management, as well as the reading and interpretation of geological maps.	
This section also allows one choice of studies to be made from three options: 'Quaternary Geology', 'Geological Evolution of Britain' and 'Geology of the Lithosphere'.	

Assessment

The Sections above are taught in an integrated way and the table below shows the assessment arrangements, which are called '**Components**'.

Sections	Assessment	
Section One: Fundamentals of Geology	} Component One and } Component Two	} Component } Three
Section Two: Interpreting the Geological Record		
Section Three: Geological Themes		

Component One	Written exam: 2 hours 15 minutes. 35% of the qualification. 105 marks
Two compulsory stimulus response questions (Section A) and a practical exam with minerals, rocks, fossils and a map (Section B).	
Component Two	Written exam: 1 hour 45 minutes. 30% of the qualification. 90 marks
This Component involves questions in which students respond to aspects of geology shown in photographs, maps, diagrams and graphs and completing compulsory data and stimulus response questions using short, structured and extended answers.	
Component Three	Written exam: 2 hours. 35% of qualification. 105 marks
Section A involves two compulsory stimulus response questions on geohazards.	
Section B is an investigation of the geology of a map area produced by the BGS (British Geological Survey) using stimulus response questions requiring short, structured and extended answers.	
Section C comprises three compulsory questions requiring short, structured and extended answers on the relevant option chosen by the School.	

Additional Information

- The compulsory fieldwork comprises a week on the Isle of Arran, Scotland, at the end of Year 12.
- There is no coursework but a so-called '**Practical Endorsement**' has to be completed. This is completed during practical work throughout the two years and during the field week. Although, officially, this is a non-exam assessment, it is envisaged that universities will see this as an essential requirement for entry, particularly if one is applying to study a science.
- There is no essay writing in any of the three components of the assessment.

Entrance Requirements

Sciences are useful subjects to have studied at GCSE level. If students do not have a qualification in GCSE Geology, the Department offers extra classes at lunchtime which students will be expected to attend.