

Geology

What is Geology? Geology is a really exciting and interesting subject, and it isn't just about rocks!! It is the scientific study of the Earth and its history and it provides crucial information on the nature of Earth materials and processes, from the core to the surface. Earth Sciences are central to our understanding of the environment, to minimising the hazards posed by earthquakes and volcanoes, and our attempts to provide many of the raw materials needed for survival. It also helps us to understand climate change and our origins through the study of fossils and evolution.

Geology is a subject of enormous breadth. Geology at A2 and AS level will provide you with a host of transferable skills and involves an unrivalled range of scientific disciplines within a single course. It therefore suits students who enjoy science and want another science subject to complement the others they are taking, as well as those who don't want to take traditional science A levels, but still want a scientific subject that will complement their arts options.

What is Geology like at Beauchamp?

The Geology teachers at Beauchamp are very enthusiastic about their subject and are committed to promoting students understanding and enjoyment of Earth Sciences. You will experience a wide variety of teaching and learning styles including practical work both in the laboratory and on field trips. We take full advantage of the excellent computing facilities available at Beauchamp. We also have a tradition of "Geology Cake Day" for which some students have created some amazing geology related cakes!! (See the photo gallery).

What fieldwork will there be?

We value fieldwork very highly, it enables students to put geological theory, learnt during the course, into practise. Below is an idea of the range of fieldwork locations we visit:

Year 12:

Isle of Arran (5 day residential)
Natural History Museum
University of Leicester

Year 13:

Dorset (3 day residential)
Croft Quarry
University of Leicester

How will it help me?

The course provides an excellent foundation for higher education in any of the Earth or Environmental Sciences. As a fully accepted science subject it also aids admission onto other science, technology and engineering - based degree courses.

Geology also opens doors into the world of work, both in directly related careers such as exploration of natural resources, environmental work, civil engineering etc., and in other careers which require a scientific approach. Geologists now rank in the top 25 high earning careers! Travel opportunities for geologists are also outstanding; a career in geology could take you round the world.

In addition to subject knowledge, students studying Geology will have the opportunity to develop many basic skills. IT skills are often used, you will become an effective communicator and general scientific skills will also be developed. Students will also learn study skills which will be essential to their progress in Higher Education.

What do I need to do to take this option?

You will need to meet the college criteria for A level and AS level admission, i.e. 5 GCSEs at grade C or above. These must include science. Above all you will need to be keen and committed (and it may help if you like cake!).

Module Details

Geology A and AS level is taught following the OCR examination board.

AS level Geology:

F791: Global Tectonics

This unit includes the study of:

- Planetary Geology and structure of the Earth
- Earthquakes, their causes and effects
- Continental drift, sea floor spreading and plate tectonics
- Geological Structures (folds and faults)

F792: Rocks - Processes and Products

This unit includes the study of:

- The rock cycle
- Sedimentary processes and products
- Igneous processes and products, including the study of volcanoes
- Metamorphic processes and products

F793: Practical Skills in Geology

This unit uses fieldwork or centre-based tasks, along with evaluative tasks, to assess candidates practical skills learnt through the year.

A level Geology

F794: Environmental Geology

This unit includes the study of:

- Water supply
- Energy resources
- Metallic mineral deposits
- Engineering geology

F795: Evolution of Life, Earth and Climate

This unit includes the study of:

- Formation of fossils
- Morphology of fossils and adaptation of organisms to live in different environments
- Fossil evidence of the evolution of organisms and mass extinctions, including the study of some dinosaurs
- Dating methods, correlation methods and interpretation of geological maps
- Changing climate

F796: Practical Skills in Geology

This unit uses fieldwork or centre-based tasks, along with evaluative tasks, to assess candidates practical skills learnt through the year.

Exam Weighting**AS Geology****F791: Global Tectonics**

30% of AS grade (15% of A level)

1hr paper

60 marks

F792: Rocks - Processes and Products

50% of AS grade (25% of A Level)

1hr 45min paper

100 marks

F793: Practical Skills in Geology

20% of AS grade (10% of A level)

coursework

40 marks

A level Geology**F794: Environmental Geology**

15% of total A level

1hr paper

60 marks

F795: Evolution of Life, Earth and Climate

25% of total A level

1hr 45min paper

100 marks

F796: Practical Skills in Geology

10% of total A level

coursework

40 marks