

Geology

OCR Specification



General information:

The Geology course aims to provide students an ability to observe and interpret the ever-changing geological world around them, as well as understand its development, both future and past. We seek to equip students with the skills required to understand the depths of geological time and the tremendous physical scales of its reach. Geologists must be global citizens, ready and willing to converse about environmental priorities such as the impact of resource extraction, engineering challenges such as dams and tunnels as well as the causes and threats of climate change. We offer a knowledge-rich spiral curriculum which explores the major themes of geology through gradual introduction and regular review. Students will also benefit from an extensive programme of fieldwork developed in collaboration with UK universities and industry.

Course content:

In Year 12 the course lays the foundational work for the A-Level. Students will develop an understanding of the rock cycle, the origins and classification of sedimentary, igneous & metamorphic rocks, receive an introduction to the major fossil groups, as well as an overview of plate tectonics and the processes which drive the Earth's active geology through deep time.

In Year 13, the course looks deeper into active geological issues such as earthquakes and landslides, geotechnics, applied engineering geology and the economics and feasibility of mineral and fossil fuel exploration. In addition to this there is a larger unit covering the evolution of life on Earth, the palaeontological record from trilobites to dinosaurs, changes in climate, as well as case-study examples of UK geology and its development through time.

How is the course taught and assessed?

Geology is taught by specialist teachers in a very well stocked classroom with a fantastic array of rock, mineral and fossils specimens. Students will have two teachers for the subject and will be expected to undertake homework and independent study work outside of the classroom. Assessment is by three exam papers and a separately reported practical endorsement. The first paper covers fundamentals and contributes 41% of the grade, the second covers in-depth application and contributes 37%, leaving the practical geology exam to comprise 22%. Mathematical skills will make up a minimum of 20% of the questions through the three papers. To pass the practical endorsement element, students are required to carry out practical activities, recorded in lab folders.

Entry requirements:

In addition to the general entry requirements for BWS, a Grade 7 in a GCSE Science or Grade 7,7 in Combined Science

Results information:

Geology is a very successful department at BWS. In 2022 all candidates achieved an A* grade.

Top destinations for students:

Oxford, Imperial, Birmingham, Exeter, Cardiff, Royal Holloway, Southampton, Geology, Geophysics, oceanography and Earth Sciences are all common courses for our geology students, with many continuing to work as geologists after completing their degree.

Beyond the curriculum:

The Geology department offers extensive extracurricular opportunities through visiting speakers, BAYS (British Association of Young Scientists), National Geology Competition – in which we have been finalists and winners in previous years. We are very proud of our opportunities for fieldwork and run numerous day trips to Whatley Quarry, Isle of Wight, Lulworth, and Lyme Regis. We are always keen to explore international trips too having offered trips to the dramatic, and occasionally explosive, landscape of Iceland in previous years.