Have you ever wondered . . .

*How the planet Earth formed?*
*Why dinosaurs grew so large?*
*Could a mega-tsunami strike Britain?*
*Will a super volcano erupt?*
*Just what is fracking and should we allow it in the UK?*

Study A-Level Geology to find out the answers to these questions and more . . .

What is A-Level GEOLOGY?

Geology is the science that studies the whole Earth! A-Level Geology covers a range of real-life geological contexts (e.g. geohazards – volcanoes and earthquakes) and the challenges that face contemporary geoscience. Around half of all UK Earth Science undergraduates studied Geology A-Level and it is also an accepted science qualification for progression to other Science courses (including Marine Biology), Archaeology and Civil Engineering.

You will learn about Geology in a range of different contexts. The course assumes no prior experience of Geology, but builds on GCSE Science and Geography concepts that are applied to the study of the Earth. This helps to develop an understanding of concepts with both an academic and practical application.
The Course Includes:

- Development of practical skills in Geology through practical investigations and fieldwork in Years 12 and 13
- Minerals and rocks
- Fossils and time
- The structure of the Earth
- Plate tectonics – why does the Earth move?
- Geological structures – mountain ranges, folds and faults
- Sedimentary environments and time – why do we find desert sandstones in Scotland?!
- Geochronology – how do we work out the age of rocks and fossils?
- Amazing creatures from the past – dinosaurs, trilobites, ammonites and many more!
- Igneous petrology – volcanoes and more!
- Metamorphic petrology
- Mining geology – Poldark in reality! How do valuable minerals form and how do we find and mine them?
- Geohazards – earthquakes, tsunamis, volcanoes, sinkholes, landslips…..
- Engineering Geology – how can we reduce the effects of geohazards?

What are the Benefits of Studying Geology?

- Understand how what is now Britain has formed and changed through geological time
- Get hands-on practical experience of how Geology works in a number of real world applications.
- Be introduced to the transferable skills for which Geology graduates are highly regarded within corporate and financial management, such as their ability to work effectively in multidisciplinary teams and their skills in evaluating and making decisions based on partial data sets.
- Discover links with other subjects: Biology, Chemistry, Economics; Geography, Physics and Maths. Combining Geology with these subjects makes a powerful combination to optimise your A level grades and makes you stand-out from the crowd.

Are You…?

- Wanting to be a civil or geotechnical engineer?
- Passionate about helping others through practical overseas development projects?
- Thinking of a career in conservation or land management?
- Fascinated by fossils and want to discover how they can help solve crime and find new oil reserves?
- Interested in resources and minerals?
- Planning to study Oceanography or Marine Science?
- Keen on travel and working outdoors?
- Keen on laboratory-based investigation?
- Up for the challenge of prospecting and developing energy resources?
- Studying other Sciences or Maths, or looking to study an accessible science?

...Then Geology is for you!
Geology Asks Thought-Provoking Questions

- Does fracking cause earthquakes and make tap water burn?
- Was there life on Mars?
- Are birds just tiny dinosaurs?
- Can we learn from geological history to avoid major environmental disasters?
- Are humans triggering another mass extinction?
- Can Geology help us to bridge the energy gap?

How Will I Be Assessed?

- The examinations in Geology are all synoptic, meaning that they cover all of the content of the course.
- The full A-Level is assessed by 6 hours of exams (2x 2 hours 15 min and 1x 1 hour 30 min) at the end of the course.
- A wide range of question types include multiple choice, short answer and extended response - even the exam is...

Practical Endorsement

Fieldwork is the arena in which geologists at all levels develop their skills and learn to apply their knowledge and understanding. Geology students will achieve a Practical Endorsement through a range of fieldwork and laboratory investigations. You will:

- Participate in at least 2 days of fieldwork in Year 12 and 5 days in Year 13
- Apply an investigative approach using instruments and equipment
- Dynamically assess safe working
- Make and record observations
- Integrate research, referencing and reporting

Where Can A-Level Geology Take Me?

Degrees and Careers

**Engineering:** Chemical Engineering with Oil & Gas Technology, Civil Engineering, Environmental Engineering, Civil & Coastal Engineering, Engineering with Environmental Management, Engineering Geology & Geotechnics, Environmental Engineering, Geotechnics, Material Science, Mining Engineering, Petroleum Engineering, Petroleum and Gas Engineering.


**General:** Most general degrees and careers welcome geologists given their skills and practical academic background.

To find out more about Geology at SWCHS follow us on Twitter @SwchsGeology

For further information contact: Mr Oxborrow (Humanities Dept).

**Teaching team:**
Mr Oxborrow
Miss Makepeace
Mr Wheeler
The Lighter Side of A-Level Geology

We really try to make Geology an exciting and fun subject that students enjoy…

Twitter

Geology Cakes!

Geology Field Trips

Help with Running Y7/8 Geology Club

Neville – Our Mascot!