



GEOLOGY

Qualification: A-Level

Overview of subject:

- Do volcanoes and earthquakes fascinate you?
- Have you ever looked at the landscape and wondered why it looks that way?
- When you were young did you collect pebbles or shells on the beach?

If you answered 'yes' to any of these questions geology could be for you!

Topics studied in the syllabus include:

Year 12 students will develop essential knowledge and understanding of different areas of geology and how they relate to each other. This will include the Earth's structure and the link with plate tectonics; the surface and internal processes that form volcanoes, fossils and rocks; the evolution of the Earth over time and Earth materials and resources.

Year 13 students will study two of the optional units, which use their knowledge from year 12 synoptically, these could include:

- Geohazards - including earthquakes, dealing with contaminated land and groundwater.
- Critical Resources - includes water resources and Rare Earth Elements (critical for consumer electronics and catalysts).
- Basin Analysis - explores the economic potential of large areas as sources of oil/gas/coal.
- Planetary Geology - study of the solar system and use of remote sensing.
- Palaeontology - study and use of fossil material, at all scales, to date rocks and to reconstruct past environments.
- Fieldwork - put theory into practice potentially in remote field locations or even urban areas.
- Quaternary Geology - investigate frequent, rapid climate change and its influence on the evolution of early hominids (humans).



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The course might be of interest to:

People who are curious about the world you see around you and want to be able to explain how and why the natural world we know developed the way it did, giving us the environment and the access to resources on which our modern world relies.

Potential future pathways:

The course provides an excellent foundation for higher education in any of the Earth or Environmental Sciences. UCAS and some universities accept geology as a full science subject and it can also aid admission onto other science, technology and engineering based degree courses.

Geology related careers include exploration for natural resources (oil/gas/metals), geophysics, unconventional energy, environmental geology, engineering geology, geochemistry, hydrogeology and water supply, geohazards, oceanography, volcanology and palaeontology