

- Geology/Physics/Mathematics means that you can find jobs in quarrying, mining, oil and mineral exploration industries.
- Geology/Geography/Biology/Chemistry combinations are ideal for environmental careers, geochemistry, and palaeontology (fossils).

These are the university courses some Geology students have progressed on to after leaving Greenhead:

Name	School	Grade	University	Course
Rachel Barratt	Holmfirth	A	Leicester	Geology
Hazel Beaumont	Colne Valley	D	Keele	Geography
Michael Dorrington	All Saints	B	Leeds	Environmental Science
Anne Hollingworth	Holmfirth	A	Leicester	Geology
Joseph Kelly	Colne Valley	A	Camborne School Mines	Geology
Divya Nagarajan	Heckmondwike	A	Manchester	Medicine
Lauran Parry	Shelley	A	Nottingham	Geography
Parissa Shahed Ghaznavi	King James's	B	Leeds	Environmental Geology
Elisabeth Steer	Calder	A	Leicester	Geology
Emma Whitwam	King James's	C	Derby	Geology



*Students at the fossils revision day at Manchester Museum palaeontology department, 2008*

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## GREENHEAD COLLEGE GEOLOGY DEPARTMENT

**A new and different subject! No previous knowledge required.**

Geology is a science and includes many topics you will have covered in sciences and/or geography, including:

- Plate tectonics
- Rocks cycle
- Weathering and erosion
- Hazards: earthquakes and volcanoes.

Geology is taught as a practical subject with lots of hands on exercises including rock identification, interpretation of earthquake data and finding out about past life from the fossils. In class we will use the latest textbooks, specially designed worksheets, as well as internet sites. There is compulsory residential fieldwork courses to put into practice what we have learned.



*Students making detailed logs of ancient ocean floors Skaw Gill Quarry, Lake District*

### **AS GEOLOGY**

Topics include:

Geophysics, plate tectonics, rock cycle (igneous, sedimentary and metamorphic rocks) and fossils (plants, ammonites, trilobites and corals). We also study applied geology topics including volcanic and earthquake hazards and geotechnical engineering including dams, roads, tunnels, groundwater and waste disposal.



*Lake District AS residential*

## **A-LEVEL GEOLOGY**

Topics include:

Advanced rock cycle, faults and folds (why rocks bend!), dinosaurs and mass extinction, geological time and global plate tectonics, which is detailed plate boundary geology. We then do advanced Global Plate Tectonics and Quaternary geology and find out about plate related volcanism, glaciation, climate change over 200 million years and the controversial Snowball Earth and cold mantle plume hypothesis.



*Folding in Pembrokeshire*

## **FIELD WORK**

The course includes two residential field courses, each of one week duration. The trip in the AS year is to **Tenby**, on the Pembrokeshire coast, and in A2 to the **Lake District**. In addition we go to the **Manchester Museum** for fossil study days and local quarry visits.



*Students on top of a basaltic intrusion, Iceland. 2008*

We run a non-compulsory study trip to **Iceland** in conjunction with the Geography department where we look at plate tectonics, volcanic and earthquake hazards, glaciation and geothermal energy. Students who come to Iceland learn a lot extra that they can use in the exams.

## **CAREERS**

Not all geologists wear walking boots and woolly hats – and there are now a wide range of opportunities in geochemical analysis (i.e. pollution migration), museum curator, hydrocarbon and minerals (gold!) exploration as well as hazard forecasting and mitigation. **GEOLOGY** does count as a **SCIENCE A-LEVEL** and fits very well with most other subjects. However, if you want to pursue geology at university you should consider taking at least two science A-levels.