

Welcome to A-Level Geology

What you can read:

- *Textbook: OCR Geology for A level and AS*, Stephen Davies, Frank Mugglestone, Ruth Richards, Tony Shelton, Illuminate Publishing - please do not worry about buying this yet unless you are certain you are doing the course
- *Geology: A Complete Introduction: Teach Yourself*, David Rothery
- *Geology For Dummies*, Alecia M. Spooner
- www.geology.com - website for Earth science articles, news, and geographic information. Read articles about rocks, minerals, gems, oil and gas, geologic hazards, and many other topics. The Earth Science News page that is updated daily.
- British Geological Survey website: www.bgs.ac.uk
- GeoScienceWorld magazine and website - lots of resources on the GeoRef section are free: www.geoscienceworld.org



What you can watch:

- BBC Men of Rock 1 of 3 Deep Time www.youtube.com/watch?v=FYful2uZLmg&t=6s
- BBC Men of Rock 2 of 3 Moving Mountains www.youtube.com/watch?v=w1wH3cGQLJE
- BBC Men of Rock 3 of 3 The Big Freeze www.youtube.com/watch?v=K7Ej2-mFsIQ
- Mike Sammartano Geology playlist <https://www.youtube.com/playlist?list=PLnAeuYnCyxWkDyWEADQw3WwntESx8UpR3>

What are some of the topics and skills that you will cover:

Below are some of the topics and skills that we will cover in the first year:

| Topics | Breakdown |
|----------------------------------|---|
| Minerals and rocks | <ul style="list-style-type: none"> - Minerals - Igneous rocks - Sedimentary rocks - Metamorphic rocks |
| Fossils and time | <ul style="list-style-type: none"> - Fossils - Geological time |
| Earth Structure | <ul style="list-style-type: none"> - The physical structure of the Earth - The origin of the Earth's structure |
| Plate tectonics | <ul style="list-style-type: none"> - The plate tectonics paradigm - Plate boundaries and igneous processes |
| Geological Structures | <ul style="list-style-type: none"> - Rock mechanics - Structural geology and plate boundaries |
| Sedimentary environments in time | <ul style="list-style-type: none"> - Uniformitarianism and the rock cycle - Surface processes and products |
| Geochronology | <ul style="list-style-type: none"> - Relative dating and biostratigraphy |

- **Tasks that you can do to prepare you:**

| <u>Task</u> | <u>Link to the course/specification</u> |
|--|--|
| <p><u>Task 1</u> Igneous rocks – research some common igneous rocks and find pictures, describe their features and describe how these rocks formed</p> | 2.1.2 Igneous rocks |
| <p><u>Task 2</u> Sedimentary rocks – research some common sedimentary rocks and find pictures, describe their features and describe how these rocks formed</p> | 2.1.3 Sedimentary rocks |
| <p><u>Task 3</u> Metamorphic rocks – research some common metamorphic rocks and find pictures, describe their features and describe how these rocks formed</p> | 2.1.4 Metamorphic rocks |
| <p><u>Task 4</u> Draw the geological column, label geological eras and periods (such as the “Jurassic”), what living things thrived in each period? Mark key extinction events – why did these events happen?</p> | 2.2.1 Fossils and 2.2.2 Geological time |
| <p><u>Task 5</u> Draw a cross section of the Earth or a wedge showing the surface to the centre, label different layers and boundaries and describe the the composition and characteristics of each layer</p> | 3.1.1 The physical structure of the Earth |
| <p><u>Task 6</u> How did our solar system form? – Research “nebular theory” and produce a storyboard showing how this theory explains the formation of the solar system</p> | 3.1.2 The origin of the Earth’s structure |
| <p><u>Task 7</u> Download and print off a world map, add and label tectonic plates that make up the solid surface of the Earth, add arrows to show which way the plates are moving, research what happens at the boundaries between plates and what features can be seen.</p> | 3.2 Plate tectonics |

- **Contact information**

If you have questions regarding this or any other A Level course at Burnley College, please contact alevels@burnley.ac.uk or call 01282 733373

We look forward to seeing you in September.