

Geology A Level - Preparatory Work 2023

“Geology is the scientific study of planet Earth”

There are four key areas to focus on which will help you when you start college.

Part 1: Earth Formation

Research the “planetary nebula hypothesis” of solar system formation. Create a series of diagrams, with annotations to explain.

Research the characteristics of the 4 inner terrestrial planets and the 4 outer giant planets. One paragraph for the terrestrial and one for the giant planets will be sufficient.

Part 2: Earth Structure

Research the layered structure of the Earth. What are the key characteristics of the core, mantle and crust?

Create a labelled diagram with depths, states (e.g. liquid or solid) densities, and compositional information.

Use the resources below:

<https://www.bgs.ac.uk/discoveringGeology/hazards/earthquakes/structureOfEarth.html>

Part 3: Earth History and Geologic Time

<https://www.bgs.ac.uk/discoveringGeology/time/home.html>

<https://www.geolsoc.org.uk/geotime>

Use the websites above to find out how old the Earth is and how is geologic time is subdivided?

Create a short summary paragraph to describe what happened in the; Precambrian, Palaeozoic, Mesozoic, Cainozoic,

4, Plate Tectonics

<https://www.geolsoc.org.uk/Plate-Tectonics>

Plate tectonics is the most significant development in the last 100 years of geology. Use the resource above to research the origin of the theory of plate tectonics. You need to clearly explain the mechanisms of plate movement, what layers makes up the plates and what processes occur at each of the plate margins.

Finally research the plate tectonic events in the UK, eg the Caledonian Orogeny using the link above.

Create/Print out a tectonic map of the world showing all the major tectonic plates.

Optional Follow on Tasks

<http://opengeology.org/textbook/>

Download the free textbook. You may wish to print some of the chapters out. Over the summer you may wish to focus on reading the first two chapters “Understanding Science” and “Plate Tectonics”.

https://www.goodreads.com/list/show/11003.Best_Geology_Books

Try and read at least one of these popular science geology books or another of your choice and complete a book report.

<https://geology.com/>

This is an excellent site which will help in completing the course .

<https://www.bbc.co.uk/sounds>

Explore the bbc sounds app to listen to geology related content

<https://www.open.edu/openlearn/science-maths-technology/free-courses/?filter=date/grid/672/all/all/all/>

Explore the open university open learn and maybe take a free course in geology.

Search for, Like and Follow the HSFC Geology page on facebook for frequent updates on relevant content.

Good luck and I will see you in the Autumn term !