



The Land of Fire and Ice

AS Geology Visit to Iceland – April 2009

AS Level Geology students recently returned from an unforgettable week in Iceland. Caving in a lava tube, walking on the Sólheimajökull glacier and taking a flight across the ice cap were among the many highlights of a packed schedule.

Iceland is volcanically and geologically active on a large scale; this defines the landscape. Lower Sixth students from HSFC were joined by students from Colchester Sixth Form College to explore the geology of such a unique place.

Students had the opportunity to walk across 'The Bridge between two continents' situated on the Reykjanes peninsula in south west Iceland. It spans the Alfgja rift valley, a yawning chasm that marks the boundary of the Eurasian and North American continental tectonic plates. The area is one of the most powerful geological regions in all of Iceland.

A walk beside the gorge at Gullfoss – a spectacular fault guided waterfall, and visit to the Skaffafell National Park featured in a busy week which started and ended with a luxurious swim in the Blue Lagoon.

The Blue Lagoon holds six million liters of water, all of which is renewed in 40 hours. The water's temperature is 37-39°C. The geothermal seawater's special ecosystem has a self-cleansing effect. Regular sampling shows that "common" bacteria do not thrive in this ecosystem. Thus additional cleansers such as chlorine are not needed. Its unique active ingredients: Minerals, silica and algae have been praised for their benefits on healthy skin and on skin problems such as eczema and psoriasis. The aquamarine blue color is the result of these active ingredients: minerals, silica and algae.

Our wonderful local guide, Gudrun, together with our in-house geologists Dr. Keith Oak and Sue Court-Oak took us through the geology of Iceland and Gudrun kept us entertained with tasters of Icelandic sagas as we travelled between places. We learnt so much about living in Iceland and how geology runs through everyday life.

Energy is cheap in Iceland – a constant supply of hot water is waiting below the ground to be distributed everywhere from homes to greenhouses and geothermal power is used to produce aluminum. Geologists use the knowledge acquired in Iceland to advise countries around the globe

At the Jökulsárlón Ice lagoon where James Bond raced his car ('Die Another Day') the seals studied our every move from the safety of the icebergs. Pink Footed Geese, Brent Geese and Arctic Skuas all arrived in the first few days of April on their annual migration. Oyster catches and Eider ducks were also seen. We passed herds of Icelandic horses and wild reindeer on our travels.

After travelling along the south coast and then turning northeast through the beautiful Iceandic fjords, the flight from Egilsstaðir back to Reykjavik provided the ultimate Geology lesson. Visibility was perfect and we looked down onto the Ice Cap picking out the outlines of volcanoes in the whiteness.

The opportunity to reinforce topics covered at AS Level, together with a taster of A2 topics was brilliant. Memories of learning how to walk with crampons on the glacier, sliding down on the snow into a lava tube, waiting with cameras at the ready for geysers to erupt, the smell of sulphur, the vibrant colours of the ice, rocks and minerals

Geology rocks!