

# Plate Tectonics | A1 Sample answer

## The Leinster Batholith

A pluton is a landform formed when magma does not reach the surface and instead cools in the crust. It is an intrusive landform. The largest type of Pluton is called a Batholith. Its surface area is greater than 100 km<sup>2</sup>. The Rock has large crystals as the magma cooled slowly. They mainly consist of granite. The largest batholith in Great Britain and Ireland is the Leinster Batholith with a surface area of 1500 km<sup>2</sup>. It covers the Dublin Mountains, The Wicklow Mountains and the Blackstairs mountains. It was formed during the Caledonian Folds 400 million years ago when magma cool slowly in folds to form the great granite Batholith. The Surrounding magma changed the surrounding rock into metamorphic rocks. The area of rock which has been changed is called an aureole. These rocks include quartzite and schist.

Weathering and erosion has changed much of the rocks exposing dome shaped mountains such as Table Mountain and Kippure. Hydrolysis is a chemical weathering where water reacts with chemicals in the rock and breaks them down. In Rock such as Granite, Feldspar is a mineral that easily absorbs water it was good bonding minerals. The feldspar is turned into kaolin which is poor at bonding and crumbles easily. Lugnaquilla is the highest peak in the Wicklow Mountains it still has a capstone of schist which protects the Granite it from erosion.