

Plate Tectonics| A1 Sample answer

2010: Examine how the study of Plate Tectonics helped us to understand the Global Distribution of Fold Mountains

Fold Mountains are formed when two continental plates come together at a convergent plate boundary. As the plates come together immense pressure builds up and the plates buckle and fold to form 'fold mountains'. Sedimentary rocks are the most common rock type as they are the most flexible Rock. Anticlines are formed when the rock is pushed upwards and synclines are formed when the rock is pushed downwards. The rock is pushed into a series of folds, simple folds then asymmetric folds into overfolds and finally into over-thrust folds. There are three different periods of folding; Caledonian, American and Alpine folds.

The Caledonian folds were formed 400 million years ago when the American plate and the Eurasian plate collided. These rocks faulted and magma intruded into the crust to form igneous and metamorphic rocks. An example of this is the Leinster Batholith. The Caledonian mountains were once as high as the Alps but weathering and erosion has reduced their heights. Caledonian mountains in Ireland are the Maumturk Mountains and The 12 pins. The American folds occurred 250 million years ago when the Asian plate and the African plate collided. They are found in England France and Germany. Alpine folding began 30 million years ago and is still happening today. They were formed by the collision of the Indian and African plates with the Eurasian Plate. These mountains are very high as they are the most recent mountains. The Himalayas, The Rockies and The Andes are alpine ranges. There are no alpine mountain ranges in Ireland.