

Information Sheet No



# How rocks are formed

The Earth is a dynamic planet. Its surface, and its interior, are constantly changing. One of the effects of this is the formation of new rock.

Rocks are formed in three ways:

1. Through the laying down of sediment particles and the remains of plants and animals (PRODUCES SEDIMENTARY ROCKS, e.g. limestone, mudstone, sandstone)
2. Through the melting of existing rocks deep underground and from volcanic activity (PRODUCES IGNEOUS ROCKS, e.g. granite, basalt)
3. Through the distortion of existing rocks deep underground (PRODUCES METAMORPHIC ROCKS, e.g. slate)

## How the rocks of North Clare were formed

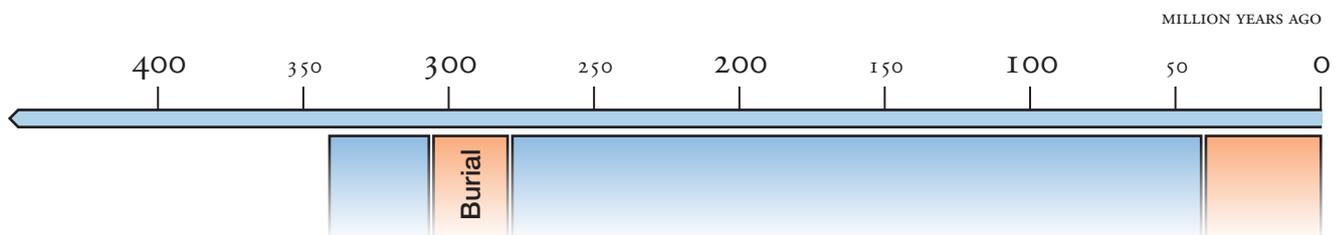
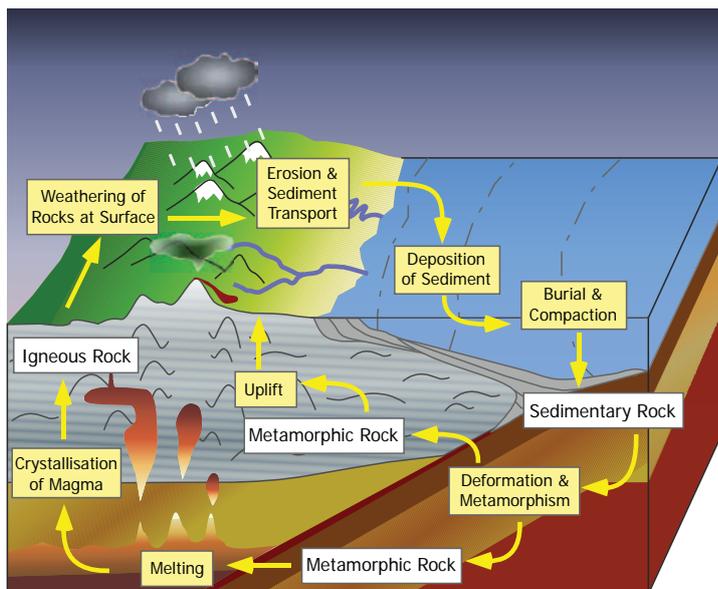
All of the rocks in North Clare are SEDIMENTARY ROCKS. They underwent four major stages to produce the rock formations we see on the surface today.

Step 1. Sediment particles such as silt, clay and parts of plants and animals were deposited on the sea floor. These sediments would have been quite soft and pliable.

Step 2. The sediments were buried as more sediment was laid down on top. The sediments were compacted, the particles were pushed closer together and water was squeezed out. The particles became cemented together as salts formed in between them. At this point, the sediments had been turned into rock.

Step 3. The rocks of North Clare were gradually uplifted (pushed upwards) by tectonic forces.

Step 4. The rocks of North Clare were exposed at the Earth's surface and were eroded and weathered by wind, rain and temperature changes. This is why there are no siltstones, sandstones or shales in the north part of the Burren. They have been eroded away exposing the older, underlying limestones.



Laid down on the sea floor

Uplifted by tectonic forces

Exposed at the Earth's surface

