Cavan Burren Park

Information Sheet



Location: CAVAN BURREN PARK
Conservation designations: N/A
Grid reference: H 07129 34910
Address: Burren, Blacklion, Co. Cavan
Parking available: Yes
Personnel to be contacted prior to visit: None

Useful equipment:
- Camera
- Metre stick
- Hand lens

Relevance to national curriculum:
- Junior Cert Geography (The Earth's Surface)
- GCSE Geography (The Restless Earth)
- Leaving Cert Geography (Rock Cycle, Tectonic Cycle, Landform Development
- AS/A2 Geography (Plate Tectonics, Climate Change – Past and Present)

Rock types and geological processes observed: sandstone, limestone, chert
Geological structures: igneous dyke
Geomorphological features: collapse doline, solution doline, limestone pavement, spring / resurgence, uvala, clints and grykes

Site specific hazards and risks:
- Uneven ground
- Forestry working
- Slip hazard on trails

Mitigation measures:
- Consult weather forecast
- Outdoor learning qualification
- First aid kit
- Appropriate teacher / student ratio
- Clear instructions to be given to students
- Ensure students have appropriate clothing / footwear

Did you know: The Cuilcagh Dyke that occurs within Cavan Burren Park formed around 60 million years ago as the result of the opening of the North Atlantic Ocean. These Earth movements also led to the formation of the Giant's Causeway in Co. Antrim, the flood basalts on the Isle of Mull, the Ardnamurchan ring complex and the layered intrusion of the Isle of Rum, all of which are in Scotland.

Topics to cover before visit: igneous rocks and processes, plate tectonics, sedimentary rocks and processes, glacial processes and products

Keywords: limestone, sandstone, erratic, karst, dyke, doline, weathering, erosion

Format developed by the Western Education and Library Board's Magilligan Field Centre

Limestone

Chert

Sandstone

Description of limestone:
- Non-clastic rock
- Very fine-grained
- Medium grey
- Abundant fossils
- Reacts with HCl
- Layers (bedding)

Description of chert:
- Dark grey to black
- No grains visible
- No fossils
- No reaction with HCl
- Occurs as layers or lenses within limestone

Description of sandstone:
- Clastic rock
- Medium grained / fine grained
- Occasional small pebbles
- Pale grey
- No fossils
- No reaction with HCl
- Layers (bedding)

Geological history:
The oldest rocks are limestone, deposited as lime-rich mud and the remains of sea creatures from a sea floor during the early Carboniferous period (330Ma). This eventually lithified to form fossil-rich limestone, often containing bands of chert due to a high amount of silica within the limestone. On top of this was a sequence of mudstones, siltstones and sandstones, deposited by a huge river delta. Although no longer in situ in Cavan Burren Park these still make up the slopes of the adjacent Cuilcagh Mountain. The next recorded geological event was the intrusion of the Cuilcagh Dyke. Crustal stretching and thinning as a result of the opening of the North Atlantic Ocean created magma beneath the surface around 60Ma that was injected into a pre-existing weakness within the crust. During Quaternary times, ice sheets moved across the area, stripping surficial cover from on top of the limestone, and exposing many of the karst features that are prevalent in Cavan Burren Park, and depositing material such as the glacial erratics.