

THE WORLD AROUND US — SCIENCE &amp; GEOGRAPHY · P3–P7

# Clochán an Aifir — The Giant's Causeway

Science, Geography &amp; Mythology — P3–P7

## The geology

1

### What it is

Approximately 40,000 interlocking basalt columns rising from the sea at Bushmills, Co. Antrim. The columns are mostly hexagonal (six-sided), though some have 4, 5, 7, or 8 sides.

2

### How it formed

Formed about 60 million years ago when a massive volcanic eruption caused molten basalt to flow across the landscape. As it cooled and contracted, it cracked into polygonal columns — exactly the way mud cracks when it dries.

3

### Basalt

A fine-grained, dark-coloured igneous rock. Very hard. Forms from rapidly cooled lava.

4

### Why hexagonal?

When a material contracts uniformly as it cools or dries, it cracks at 120° angles — producing hexagons. This is the most mathematically efficient way to divide a plane, and is also seen in honeycomb.

5

### UNESCO World Heritage Site

Designated in 1986 — one of Ireland's first UNESCO designations. Attracts over 1 million visitors per year, making it NI's most visited tourist attraction.

## — Fionn agus Benandonner

Why the locals called it the Giant's



- THE LEGEND: the giant Fionn Mac Cumhaill (Finn McCool) built the causeway as a bridge to Scotland so he could fight the Scottish giant Benandonner.
- THE TRICK: when Benandonner came to Ireland and turned out to be much bigger than Fionn, Fionn's wife Oonagh dressed Fionn as a baby. When Benandonner saw the 'baby', he concluded that Fionn must be enormous — and fled back to Scotland, destroying the causeway behind him.
- THE SCIENCE AND THE STORY: The columns DO stretch to Scotland — Fingal's Cave on the island of Staffa is made of the same basalt and formed in the same eruption.
- CROSS-CURRICULAR: Compare scientific explanation with the legend. Both are attempts to explain the same thing. One is factual; one uses story. What does each one tell us that the other doesn't?
- ACTIVITY: draw the geological cross-section (lava → cooling → cracking → columns). Then illustrate the legend. Present both to the class.

