

SESE — SCIENCE & HISTORY · 4TH–6TH CLASS

Eolaithe agus Aireagóirí na hÉireann

Irish Scientists & Inventors — 4th–6th Class

Six Irish scientists to know

1

Robert Boyle (1627–1691)

Born in Lismore, Co. Waterford. Often called the 'Father of Modern Chemistry'. Boyle's Law: at constant temperature, pressure and volume of a gas are inversely proportional. Helped establish the scientific method.

Example: Boyle's Law: $P \propto \frac{1}{V}$ or $PV = k$

2

John Tyndall (1820–1893)

Born in Co. Carlow. Discovered why the sky is blue (Tyndall Effect — scattering of light by particles). His work on greenhouse gases (1859) laid foundations for understanding climate change.

3

William Rowan Hamilton (1805–1865)

Born in Dublin. One of the greatest mathematicians of the 19th century. Invented quaternions (a number system extending complex numbers). Carved the formula into Brougham Bridge, Dublin, in a moment of inspiration.

Example: $i^2 = j^2 = k^2 = ijk = -1$

4

Ernest Walton (1903–1995)

Born in Dungarvan, Co. Waterford. Won the Nobel Prize in Physics (1951) for splitting the atom — the first artificial nuclear reaction (1932, Cambridge, with John Cockcroft).

Example: Ireland's only Nobel Prize in Physics



5

Jocelyn Bell Burnell (b.1943)

Born in Belfast (Northern Ireland). Discovered pulsars in 1967 as a graduate student — rotating neutron stars that emit regular pulses of radio waves. She was controversially not included in the Nobel Prize awarded for the discovery.

6

Percy French (1854–1920)

Born in Co. Roscommon. Designed the Coothill to Belturbet steam tram, but better known as a songwriter and painter. 'Are Ye Right There, Michael?' lampooned the West Clare Railway.

