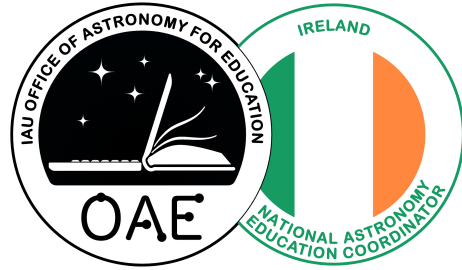


Astronomy Education in Ireland



This overview is part of the project "Astronomy Education Worldwide" of the International Astronomical Union's Office of Astronomy for Education.

More information: <https://astro4edu.org/worldwide>

Structure of education: Education in Ireland is divided into three stages, primary (ages ~4-12), secondary (~12-18) and third level (18+). Primary and secondary education are state funded and free to all; the right to education is enshrined in the Constitution of Ireland 1937. Education is delivered in either English or Irish - some schools deliver entirely through Irish (*Gaelscoileanna*), reaching 8.1% of primary and 3.6% of second level pupils.

Children attend primary school for 8 years. Children usually enter primary school in the year they turn 5, and must be in formal schooling by 6. There are 183 school days per year- late August to late June, weekdays only.

Second level school is either 5 or 6 years, and is compulsory to age 16, or 3 years of second level, whichever is later. At the end of the first 3 years students sit the Junior Certificate (JC) examination and then they may choose from 3 different two-year Leaving Certificate (LC) programmes. Between these programmes is an optional year known as Transition Year. There are 167 school days per year, late August to late May, weekdays only.

Education facilities: Average class size at primary is 25, while many classes have 30+. The curriculum is set by the central government, and standards are monitored by the Inspectorate of the Department of Education and Skills. The National Council for Curriculum Assessment (NCCA) is responsible for development and changes in the curriculum. In secondary schools, the JC science curriculum was last reformed in 2014-15 for implementation in 2016, and for LC curricular reform is currently ongoing.

The standard of school buildings and the availability of resources varies widely. In some rural parts of the country broadband of any reasonable speed is not necessarily available to the school door. A unique aspect of education facilities in Ireland is its many small primary schools: 15% of primary pupils attend a small school (fewer than 4 mainstream teachers), but these 1,370 schools make up 44% of all primary schools.

Governance and organisation: The state owns very few actual schools. Schools are managed by a patronage structure whereby they are owned by bodies such as churches or religious groups, or bodies created by citizens interested in education who are approved as patron bodies to manage schools. The majority of schools in Ireland are owned and managed through religious bodies such as the Roman Catholic church. Admission to schools is open to all children of faith and of no faith. Exceptional arrangements are in place to protect the ethos of schools managed by smaller faith groups.

Schools are funded on a per capita basis by the central government. Shortfalls in funding are made up by the sponsoring community and parents. A small number of schools are private and fee paying, but even these draw standard funding from the government.

Teacher Training: Initial teacher training can be a four year Bachelor's Degree in Education through national universities, or a Postgraduate Certificate in Education (Masters level). Following initial training, teachers complete Droichead ("bridge" in Irish) with induction workshops and peer mentoring, usually during the teacher's first year teaching.

Continuous Professional Development (CPD) is delivered to serving teachers on direction from NCCA as changes in curriculum are made. Teachers also engage in CPD during summer holiday times by paying for approved courses of their own choice.

Astronomy in the curriculum: Astronomy is not a discrete strand in the primary curriculum, it is integrated and threaded throughout the entire school experience. For example, light is a topic through the whole primary school Science programme. Geography and History introduce the impact of the Sun on early humans, including such concepts as Newgrange as a solar calendar, and from 3rd class onwards children explore our moon and solar system. However, the curriculum is indicative and engagement varies very much from school to school.

'Earth and Space' is a strand in the JC Science Specification at second level, and includes the study of celestial objects (moon, asteroids, galaxies, etc), the origin of the universe, seasons, lunar phases and eclipses, and the hazards and benefits of space exploration. LC Physics references astronomical topics as examples of science and technology in society, but it does not have explicit astronomy teaching. JC Science is not compulsory, though ~93% of pupils studied it in 2019. LC Physics is studied by <15% of students.

Astronomy education outside the classroom: There are several science centres (e.g., Science Gallery Dublin, Explorium) and historic observatories (e.g., Armagh, Birr, Blackrock Castle, and Dunsink) across the country that provide a variety of astronomy education and outreach activities. Astronomy researchers in third-level institutions also regularly host their own events locally, often associated with bigger events such as World Space Week or European Researchers Night. Ireland has a dedicated Space Week at the same time as World Space Week. Guiding/Scouting organisations have badges that include astronomy topics, and the Irish Girl Guides in particular have a new moon-themed mission. There is a broad range of amateur astronomy organisations that offer evening lectures and viewing events to people of all ages. There are also dark sky parks for open public viewing in the West and South-West of Ireland. A few private mobile planetarium operators also operate.

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