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TEACHING OF NATURAL SCIENCES AT SCHOOLS IN IRELAND

The Irish school education system includes primary and secondary schools which are separate from each other and have its own leadership, headed by the principal. Children in Ireland go to first grade of primary school at age 6. Secondary school education begins at age 12. The Irish secondary school system provides 6 years of study, which are divided into 2 cycles – junior and senior cycles. The junior cycle includes 3 years of study. Upon completion of their junior year of high school, students take an external state exam and receive a Junior Certificate. Students study up to 9 subjects in total.

The fourth year of high school is a transition year between junior and senior cycles. This year's program may be different at each school, but it is less academic than the curriculum of other years. Usually, students during this period not only study certain subjects, but also gain first work experience.

Fifth and sixth years of high school education are a senior cycle. Upon completion of their studies, students take the exam and receive a Leaving Certificate Examination. It is a testament to the fact that the student has left school and can continue his studies at a higher education institution [1; 4].

The complex of natural science subjects increases and becomes more directed to practice by the end of school (Table 1) [1; 2; 4].

Besides, there are Eco-Schools in some Irish secondary schools, which are aimed to encourage young people to study how to protect their environment.

Table 1

**The Natural Sciences Subjects Curricula
in the Irish Education System**

Sector	Subject	Content
Primary	Science	Living Things, Energy and Forces, Materials, and Environmental Awareness and Care
	Geography	Human environments Natural environments Environmental awareness and care
	Mathematics	Number; Algebra; Shape and Space; Measures; and Data
Junior Cycle	Science	Physical world, Chemical world, Biological world and Earth and space
	Mathematics	Number, Geometry and trigonometry, Algebra and functions and Statistics and probability
	Geography	Human environments Natural environments Environmental awareness and care
Senior Cycle	Agricultural science	Plant and animal types associated with agriculture and soil, ecology, plant and animal physiology, farm crops, farming practices, genetics and microbiology
	Mathematics	It builds on the learning at Junior Cycle and develops mathematical knowledge, skills and understanding needed for continuing education, life and work
	Applied Mathematics	Mathematical physics
	Biology	Diversity of life and the inter-relationships between organisms and their environment. The use of living organisms and their products to enhance human health and the environment
	Chemistry	Organic and inorganic substances
	Physics and Chemistry	Experimental and practical subject and practical work

	Physics	Fundamental principles of physics and their application to everyday life, scientific method and their ability to observe
	Geography	Human environments Natural environments Environmental awareness and care

Science, Technology, Engineering and Mathematics (STEM) declared by Irish government as the critically important disciplines for modern society. Therefore, in modern Irish schools, special attention is paid to the study of subjects from these areas. The STEM Education Review Group was established in November 2013 for preparation of teachers (at 1st and 2nd Level) for STEM education [3].

REFERENCES

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