Irish
Junior Certificate Science

Revised Syllabus

Current Syllabus 1

1989 two syllabii (A and E) combined to incorporate aspects of both and examine at Higher and Ordinary Levels

Major change – Applied Science Options e.g. electronics, horticulture in addition to biology, physics and chemistry

Some students could do a project - Local Studies

Current Syllabus 2

Problems apparent with current science syllabus:

(i) There was an obvious under representation of chemistry in the applied science section

(ii) Students taking the syllabus at Ordinary level were omitting the chemistry section in favour of the applied science section

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Current Syllabus 3

(iii) The number of students taking physics and chemistry at senior level was falling

(iv) The course was too long for all students to have hands-on experience of all the prescribed practical activities

(v) No assessment of practical work

Revised Syllabus 1

1998 National Council for Curriculum and Assessment (NCCA) reconvened course committee

A new syllabus was drawn up and introduced in 2003

First examination in 2006

Much of the content of the previous syllabus has been retained but there have been changes in both format and emphasis

Revised Syllabus 2

Chemistry

2A Classification of substances

2B Air, oxygen, carbon dioxide and water 2C Atomic structure, reactions and compounds

Physics

3A Mechanics, force and energy

3B Heat, light and sound

3C Magnetism, electricity and electronics

Revised Syllabus 3

Biology

1A Human biology – food, digestion and associated body systems

1B Human biology – the skeletal/muscular system, the senses and human reproduction

1C Animals, plants and micro-organisms

Revised Syllabus 4

Topic	Sub-topic	Learning Outcomes
Digestion	Major parts and functions of the digestive system Teeth types and functions	Identify and locate the major parts of the digestive system including the mouth, oesphagus, stomach, liver, pancreas, small and large intestines- know their functions Identify types, and describe their functions

Revised Syllabus 6

The most obvious change is the removal of the applied science section however, selected content from this section has been incorporated into the appropriate section - physics, chemistry or biology e.g electronics into physics

Some content had to be omitted to shorten the syllabus to allow for active student engagement in learning experiences that will enable the development of science process skills

All students will do a project

Revised Syllabus 7

The most important change is in the way the students will be assessed. Students will now be examined on the practical work they carried out during the three year cycle

Course work A 10 % - Practical Workbook
Course work B 25% - Project work
Course work C 65% - Terminal exam paper

Revised Syllabus 8

Aim:

Better understanding of the underlying science concepts, as well as the development of higher order skills associated with problem solving and the application of knowledge in new situations or contexts

The revised syllabus places increased emphasis on scientific investigation and on the application of science process skills through student activities

Revised Syllabus 9

The aims of the syllabus are in keeping with international developments in science education, reflecting a move towards greater emphasis on the development of ‘scientific literacy’.

Teacher Professional Development

Syllabus document contains prescriptive material –

only this can be examined

Teacher guidelines available on web

Teacher Inservice – Now entering year three

2 days per year plus support from regional development officer

Government grant for equipment and /or laboratories based on individual needs of the school

Teacher Response

- Change welcomed
- Attendance at inservice very high (approx 80%)
- Teachers are apprehensive re assessment
- Teachers are concerned about time factors
- Time for Coursework B
- Time taken for organisation of labs
- Time for new methodologies

Conclusion

The principle underlying any teaching and learning strategy is that it should enable the aims and objectives of the syllabus to be achieved

The entire thrust of curriculum reform, enhanced infrastructural investment, teacher professional development is to create an environment in which science science teaching and learning is an enjoyable experience.

The new syllabus is designed to extend students educational experience

develop the students confidence, prepare

the students for further study of the sciences, and prepare the young person for

the responsibilities of citizenship in the

national, European and global communities.

THE END