

An Roinn Oideachais agus Scileanna
Department of Education and Skills

Subject Inspection in Science

REPORT

Ainm na scoile / School name	Ó Fiaich College
Seoladh na scoile / School address	Dublin Road Dundalk County Louth
Uimhir rolla / Roll number	71770D

Date of Inspection: 27-04-2017



WHAT IS A SUBJECT INSPECTION?

Subject Inspections report on the quality of work in individual curriculum areas within a school. They affirm good practice and make recommendations, where appropriate, to aid the further development of the subject in the school.

HOW TO READ THIS REPORT

During this inspection, the inspector evaluated learning and teaching in Science under the following headings:

1. Learning, teaching and assessment
2. Subject provision and whole-school support
3. Planning and preparation

Inspectors describe the quality of each of these areas using the Inspectorate's quality continuum which is shown on the final page of this report. The quality continuum provides examples of the language used by inspectors when evaluating and describing the quality of the school's provision in each area.

The board of management was given an opportunity to comment in writing on the findings and recommendations of the report; a response was not received from the board.

SUBJECT INSPECTION

INSPECTION ACTIVITIES DURING THIS INSPECTION

Date(s) of inspection	27-04-2017
Inspection activities undertaken <ul style="list-style-type: none">• Review of relevant documents• Discussion with principal and key staff• Interaction with students	<ul style="list-style-type: none">• Observation of teaching and learning during four class periods• Examination of students' work• Feedback to principal and relevant staff

SCHOOL CONTEXT

Ó Fiaich College operates under the management of the Louth Meath Education and Training Board and comprises of a post-primary college and an Institute of Further Education that provides Post Leaving Certificate courses. The second-level school has a current enrolment of 344 students. The school participates in the Delivering Equality of Opportunity in Schools (DEIS) action plan for educational inclusion and offers the full range of curricular programmes including an optional Transition Year.

SUMMARY OF MAIN FINDINGS AND RECOMMENDATIONS:

FINDINGS

- Very effective teaching and learning was observed in some lessons; however, students' engagement and learning were less than satisfactory in other lessons.
- In lessons where students' successfully achieved the intended learning outcomes, they were engaged purposefully in a variety of learning activities.
- In some lessons, good use of assessment-for-learning (AfL) strategies supported students' learning.
- Development of students' literacy skills was supported in a variety of ways.
- Good support is provided at whole-school level for the provision of science subjects; the school has good resources for the teaching of science and is very supportive of teachers' continuing professional development.
- Subject planning is of a high standard; teachers' professional collaboration has led to the development of a comprehensive subject plan.

RECOMMENDATIONS

- Where student engagement during lessons is poor, more effective classroom management strategies are required.
- In light of the development of an agreed scheme of work for the new specification for Junior Cycle Science, students in the same year group should receive common examinations at Christmas and summer.

DETAILED FINDINGS AND RECOMMENDATIONS

1. TEACHING, LEARNING AND ASSESSMENT

- Very effective teaching and learning was observed in some lessons. While all lessons had some elements of good practice, students' learning was less than satisfactory in a number of lessons due to ineffective classroom management and poor student behaviour.
- Good preparation for teaching was evident in the provision of a variety of worksheets and the setting up of practical activities for all lessons. These resources were used successfully in some lessons to develop and support students' understanding and knowledge.
- In lessons where students successfully achieved the intended learning outcomes, they were engaged purposefully in a variety of learning activities. Good classroom management ensured that students remained on task. In other cases, students' focus on the task in hand was not maintained. Where student engagement is poor, more effective classroom management strategies are required; management and staff should work together to devise and implement such strategies.
- Good use of AfL strategies supported students' learning in some lessons. For example, learning intentions were set out in terms of what students should be able to do and their progress in achieving those intentions was assessed in a variety of ways such the development of mind maps.
- Good assessment of students' progress included verbal questioning and written work. In some lessons, a system of randomly selecting students for questioning ensured that all students had to be attentive in case they were chosen. While a good balance of higher and lower-order questions was used, at times students could have been required to provide more extended answers.
- Development of literacy skills was supported in a variety of ways. Teachers explained the relevant scientific terms in all lessons. Very good practice was evident in one lesson, where a 'read and remember' activity required students to engage with some text by themselves. Subsequent questioning and discussion ensured that any difficulties in understanding were addressed.
- Information and communication technology (ICT) was well used to present information and to illustrate lesson content. Students use electronic devices to access their textbooks and teacher-prepared resources; in one lesson, good internet connectivity facilitated students to research a topic quickly. Very high levels of student engagement and enthusiasm were evident when an electronic quiz was organised to test their knowledge at the end of a lesson.
- Students' interest in learning about science was captured when links were created with other subjects and real-life situations. For example, students learned about friction by being able to test different surfaces. In a lesson on the structure of the human eye, students were particularly interested in learning about laser treatment for eyesight defects.
- Practical activities were very well organised in some lessons. The use of workstations allowed students to engage in a variety of activities designed to support their understanding of the relevant concepts. Student outcomes were good when these activities were completed in a cooperative and focused manner. Teacher demonstrations also assisted students' learning.

2. SUBJECT PROVISION AND WHOLE SCHOOL SUPPORT

- Good support is provided at whole-school level for the provision of science subjects.
- A wide range of science subjects is offered on the curriculum and timetabling arrangements are appropriate. Curricular provision is enhanced by active participation in extra-curricular science events such as SciFest and Science Week.
- The school has two good laboratories for use by the second-level students and most science lessons are held in a laboratory. Very good ICT facilities are available and a five-year plan for the integration of ICT throughout all aspects of school life, including in teaching and learning, has been launched.
- A small group of students follow the Junior Certificate School Programme and, though they do not study Junior Science, relevant elements of science education are covered in their course. Students taking Junior Science are placed in mixed-ability class groups.
- The school is very supportive of teachers' continuing professional development (CPD). Teachers have engaged in a wide range of relevant CPD courses including those held in connection with the new specification for Junior Science.

3. PLANNING AND PREPARATION

- Subject department planning is of a good standard. The science department is well organised, meets regularly and a good record of discussions and agreed actions is maintained.
- Teachers' professional collaboration has led to the development of a comprehensive subject plan, which outlines the department's policy on issues such as supporting students with special educational needs, literacy development, and health and safety. Such planning could be extended to include a greater focus on sharing of good classroom practice.
- It is commendable that teachers have worked together to devise agreed schemes of work for each year and programme.
- An incremental approach is being taken to planning for the implementation of the new specification for Junior Cycle Science. Development of a new scheme of work, which focuses more on classroom practice than previous ones, provides a useful opportunity for teachers to share professional expertise. It is recommended that common examinations be given to students at Christmas and summer.
- It is good practice that student attainment in certificate examinations is reviewed annually and actions taken to address any issues are discussed and agreed collectively.
- Good use is being made of ICT to support subject planning and teaching. Virtual learning platforms are used to share resources with students and a new platform is being introduced in the next school year. This will provide an opportunity to extend the use of ICT across all year groups.
- Considerable work has been done in organising the well-stocked science laboratories. Materials and equipment are arranged in a very accessible manner.

The draft findings and recommendations arising out of this evaluation were discussed with the principal, deputy principal and subject teachers at the conclusion of the evaluation.

THE INSPECTORATE'S QUALITY CONTINUUM

Inspectors describe the quality of provision in the school using the Inspectorate's quality continuum which is shown below. The quality continuum provides examples of the language used by inspectors when evaluating and describing the quality the school's provision of each area.

Level	Description	Example of descriptive terms
Very Good	Very good applies where the quality of the areas evaluated is of a very high standard. The very few areas for improvement that exist do not significantly impact on the overall quality of provision. For some schools in this category the quality of what is evaluated is outstanding and provides an example for other schools of exceptionally high standards of provision.	Very good; of a very high quality; very effective practice; highly commendable; very successful; few areas for improvement; notable; of a very high standard. Excellent; outstanding; exceptionally high standard, with very significant strengths; exemplary
Good	Good applies where the strengths in the areas evaluated clearly outweigh the areas in need of improvement. The areas requiring improvement impact on the quality of pupils' learning. The school needs to build on its strengths and take action to address the areas identified as requiring improvement in order to achieve a <i>very good</i> standard.	Good; good quality; valuable; effective practice; competent; useful; commendable; good standard; some areas for improvement
Satisfactory	Satisfactory applies where the quality of provision is adequate. The strengths in what is being evaluated just outweigh the shortcomings. While the shortcomings do not have a significant negative impact they constrain the quality of the learning experiences and should be addressed in order to achieve a better standard.	Satisfactory; adequate; appropriate provision although some possibilities for improvement exist; acceptable level of quality; improvement needed in some areas
Fair	Fair applies where, although there are some strengths in the areas evaluated, deficiencies or shortcomings that outweigh those strengths also exist. The school will have to address certain deficiencies without delay in order to ensure that provision is satisfactory or better.	Fair; evident weaknesses that are impacting on pupils' learning; less than satisfactory; experiencing difficulty; must improve in specified areas; action required to improve
Weak	Weak applies where there are serious deficiencies in the areas evaluated. Immediate and coordinated whole-school action is required to address the areas of concern. In some cases, the intervention of other agencies may be required to support improvements.	Weak; unsatisfactory; insufficient; ineffective; poor; requiring significant change, development or improvement; experiencing significant difficulties;