

An Roinn Oideachais agus Scileanna
Department of Education and Skills

Subject Inspection of Science and Biology
REPORT

O'Connell School
North Richmond Street, Dublin 1.
Roll number: 60440R

Date of inspection: 17 October 2012



A N R O I N N | D E P A R T M E N T O F
O I D E A C H A I S | E D U C A T I O N
A G U S S C I L E A N N A | A N D S K I L L S

**REPORT
ON
THE QUALITY OF LEARNING AND TEACHING IN SCIENCE AND BIOLOGY**

INFORMATION ON THE INSPECTION

Date of inspection	17 October 2012
Inspection activities undertaken <ul style="list-style-type: none">• Review of relevant documents• Discussion with principal and teachers• Interaction with students	<ul style="list-style-type: none">• Observation of teaching and learning during 4 class periods• Examination of students' work• Feedback to principal, deputy principal and teachers

MAIN FINDINGS

- The quality of teaching and learning ranged from good to very good with instances of excellent practice.
- Teaching was clear and concise and commendably included differentiated tasks.
- The development of students' literacy skills was a feature of all lessons.
- Teachers maintain good records of student progress and achievement.
- Laboratories are well maintained and well resourced.
- Teachers have availed of a range of opportunities for professional development.

MAIN RECOMMENDATIONS

- Teachers are encouraged to discuss and share best practices in relation to teaching methodologies.
 - Subject department plans should link activities and methodologies to the learning outcomes for students.
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INTRODUCTION

O'Connell School is a voluntary secondary school with a current enrolment of 359. A repeat Leaving Certificate one-year programme is also provided with 83 students currently enrolled. The total number of girls enrolled in the school is 32. The school is participating in the DEIS (Delivering Equality of Opportunity in Schools) programme. The range of programmes offered to students includes the Junior Certificate, the Junior Certificate School Programme (JCSP) and, at senior cycle, the established Leaving Certificate, Leaving Certificate Applied (LCA) and Leaving Certificate Vocational Programme (LCVP).

TEACHING AND LEARNING

- The quality of teaching and learning ranged from good to very good with instances of excellent practice. Short-term planning for lessons was very good. Lessons were purposeful, well paced and well structured.
- A good range of resources was utilised during lessons. The interactive whiteboard was used effectively in all lessons to display diagrams and clarify concepts. It was also used for Powerpoint presentations containing clear diagrams and an appropriate level of text. In some instances well-developed worksheets and handouts complemented the presentations. Excellent practices were observed where the presentations also included prompts for discussion, questions and recapitulation at intervals. Consideration of best practices in teaching methodologies is an important focus of subject department meetings. Teachers are strongly urged to explore and share best practices collaboratively
- Very good questioning strategies were observed which included a good mix of higher-order and direct-recall questions. Teachers allocated appropriate wait-time to students. However, a minority of students in some lessons were disengaged and teachers should discuss and explore practices to effectively address this.
- Teaching was clear and concise and opportunities were provided for students to allow independent and collaborative learning at different stages during the lesson. Teachers went to great lengths to ensure the good practice of setting tasks that were differentiated for content and outcome.
- Classroom management was excellent. Lessons proceeded in a positive and supportive learning environment. The atmosphere in all lessons was one of respect. Students mostly displayed interest and enthusiasm for the subject. When questioned, they showed good understanding of the concepts and facts taught. However, during the final summary of a lesson, teachers should be mindful of the need for more consolidation and reinforcement of key points for some students.
- There was a good emphasis on the development of students' literacy skills. In all lessons, key words were identified and explained clearly. Dictionaries were used for reference in some lessons.
- Students' work showed that good progress has been made and it was generally well organised. Teachers place appropriate emphasis on maintaining folders and notebooks to an appropriate standard. All notebooks are regularly checked and annotated by teachers. Homework is routinely set and corrected.
- The science department has developed a common policy on assessment. Regular assessment of student performance and attainment is carried out and teachers maintain good records of student achievement.

SUBJECT PROVISION AND WHOLE SCHOOL SUPPORT

- Science is a core subject at Junior Certificate level. Physics, Chemistry and Biology are available to students in the senior cycle. Timetabling with regard to the number of lessons allocated to the sciences is appropriate. The majority of single periods are of similar duration with the exception of the lesson before lunch which is shorter. In order to facilitate pacing and planning of lessons, it would be more beneficial if this lesson was of a similar duration.
- The school has three well-resourced laboratories and preparation areas. They are tidy and well organised with good displays of science-related materials, key words and student-generated posters and projects.
- The science team consists of four teachers who are appropriately qualified and have availed of a range of opportunities for professional development.

PLANNING AND PREPARATION

- Subject department meetings, which are facilitated by management, are held on a regular basis. Minutes of these meetings are recorded and were available at the time of the inspection. A co-ordinator has been appointed. Regular informal meetings also take place.
- Subject-department planning documents, including programmes of work for Junior Certificate Science and Leaving Certificate Biology were provided. It is noteworthy that the programmes of work are monitored and reviewed on an annual basis.
- A programme of work was provided for each year group. An appropriate timeframe was included and it is good to note that the programmes included syllabus-based learning outcomes for students.
- A list of methodologies was included in the planning documentation. This would be more useful to the science team if the methodologies were linked to the learning outcomes indicated in the programmes of work. Shared resources should also be included in the planning documentation.

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 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.