

**An Roinn Oideachais agus Scileanna**

**Department of Education and Skills**

**Subject Inspection of Science and Chemistry  
REPORT**

**St Dominic's College  
Cabra, Dublin 7  
Roll number: 60731F**

**Date of inspection: 4 March 2014**



**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 CHEMISTRY**

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**INFORMATION ON THE INSPECTION**

<b>Dates of inspection</b>	3 and 4 March 2014
<b>Inspection activities undertaken</b> <ul style="list-style-type: none"><li>• Review of relevant documents</li><li>• Discussion with principal and teachers</li><li>• Interaction with students</li><li>• Examination of students' work</li></ul>	<ul style="list-style-type: none"><li>• Observation of teaching and learning during eleven class periods, including five double periods</li><li>• Feedback to principal, deputy principals and teachers</li></ul>

**MAIN FINDINGS**

- The quality of teaching and learning in the lessons observed ranged from fair to very good.
- Very good use was made of information and communication technology (ICT) to present information and to add a visual element to learning.
- Practical work was well organised in most cases and facilitated the development of students' laboratory skills, as well as reinforcing understanding.
- There was varied practice with respect to the correction of written work such as students' laboratory reports: where best practice was observed, constructive comments were used to guide students on how to improve their work.
- Whole-school support for the provision of science subjects is very good.
- The subject plan provides guidance on many relevant aspects of provision, but there is scope for development of planning with respect to student attainment, literacy and numeracy, and sharing of good teaching practices.

**MAIN RECOMMENDATIONS**

- The science department should develop and implement a common approach to the assessment of written work, including laboratory reports.
- The science department should review the subject plan in order to ensure that it sets out clearly the current practice and plans for improvement with respect to issues such as student attainment, literacy and numeracy, and sharing of good teaching practice.

## **INTRODUCTION**

St Dominic's College is a voluntary secondary school for girls with a current enrolment of 872 students. The school offers the Junior Certificate, an optional Transition Year (TY) programme, the Leaving Certificate, the Leaving Certificate Vocational Programme and the Leaving Certificate Applied programme.

## **TEACHING AND LEARNING**

- The quality of teaching and learning in the lessons observed ranged from fair to very good.
- All lessons were well managed and a good rapport between teachers and students was evident. Students worked in a cooperative manner with their teachers and were attentive and interested in the lesson content. However, in some cases more progress could have been made in terms of the amount of content covered.
- Very good preparation was reflected in the advance organisation of laboratory and other teaching resources in most cases. Student learning was best supported where lessons were well structured and provided a variety of learning activities.
- Lesson content was communicated clearly and repetition of the key points throughout the lessons supported students' learning. Very good use was made of ICT to present information and to add a visual element to learning through the use of videos and simulations.
- There was a good balance between teacher-led and student-centered activity. There was a high level of student engagement in all lessons, particularly when students were encouraged to ask questions and to present their own views or research.
- Practical work was well organised in most cases and facilitated the development of students' laboratory skills, as well as reinforcing understanding. However, there was scope for a more investigative approach to practical activities in some cases.
- There was varied practice with respect to the correction of written work, such as students' laboratory reports. Best practice was observed where constructive comments were used to guide students on how to improve their work, although students did not always follow through on the comments provided. It is recommended that the science department develop and implement a common approach to the assessment of written work.
- Good attention was given to developing students' literacy skills through the highlighting and explanation of key words and the modelling of good practice with respect to presenting scientific information. There was a focus on developing students' numeracy skills in some lessons.
- Good use was made of peer and self-assessment and of targeted questions to assess the individual student's progress. Some good use was made of higher-order questioning to probe students' understanding. However, there was scope to require students to produce more lengthy contributions rather than just brief answers as were accepted in many cases.
- Discussion of the intended learning outcomes was effectively used to provide a clear focus for students and to facilitate assessment of progress in some lessons. Use of this approach would have added greater clarity to some other lessons.

## **SUBJECT PROVISION AND WHOLE SCHOOL SUPPORT**

- Whole-school support for the provision of science subjects is very good.
- Science is an optional subject in junior cycle but there is a good uptake of the subject for the Junior Certificate. Students who have not taken Science for the Junior Certificate are facilitated to take up a Leaving Certificate science subject ab-initio if they wish.
- In TY, all students participate in four science modules. Good systems are in place to support students with respect to choosing options for the Leaving Certificate and there is a good uptake of Biology, Chemistry and Physics.
- The school has very good resources for the teaching of science subjects. Four laboratories and a demonstration room are well organised and maintained. Relevant health and safety systems are in place.
- Timetabling arrangements for science subjects are in line with syllabus guidelines and class groups are of an appropriate size for the conduct of practical activities.
- The school is supportive of teachers' professional development and participation in external in-service events is facilitated.

## **PLANNING AND PREPARATION**

- The science department and subject planning are well established.
  - Planning occurs both formally at department meetings and informally, through ongoing collaboration regarding issues such as laboratory access and resources. There is a good system for maintaining laboratory resources and there are systems in place for the sharing of teaching resources.
  - A subject coordinator chairs formal meetings of the subject department and liaises with management on relevant issues. Good practice is evident in the rotation of the role of coordinator among the science teachers.
  - Many issues such as timetabling, resources, health and safety and extra-curricular activities are discussed at department meetings but the record of meetings shows limited discussion on teaching and learning practices or methodologies.
  - The subject plan provides guidance on many aspects of provision. However, there is scope for development of the plan to include a clearer record of the science department's policy or practice with respect to many relevant issues. For example, the subject plan contains extensive data on student attainment in state examinations but there is no record of the department's reflection on issues arising. The plan contains good resource material relating to literacy and numeracy but does not record what specific actions or plans for improvement the science department has in this regard at present.
  - In order to build on the good work already completed, it is recommended that the science department review the subject plan to ensure that it sets out clearly the current practice and plans for improvement with respect to issues such as student attainment, literacy and numeracy, and sharing of good teaching practice.
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The draft findings and recommendations arising out of this evaluation were discussed with the principal, deputy principals, 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.

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