

**An Roinn Oideachais agus Scileanna**

**Department of Education and Skills**

**Subject Inspection of Science and Chemistry  
REPORT**

**Hartstown Community School  
Clonsilla, Dublin 15  
Roll number: 91339F**

**Date of inspection: 8 February 2013**



**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>Date(s) of inspection</b>	7 & 8 February 2013
<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></ul>	<ul style="list-style-type: none"><li>• Observation of teaching and learning during eight class periods</li><li>• Examination of students' work</li><li>• Feedback to principal and teachers</li></ul>

**MAIN FINDINGS**

- The overall quality of teaching and learning was good with features of very good practice in all lessons.
- Students' active engagement, collaborative learning, and skills development were facilitated through a variety of methodologies.
- Good use was made of the whiteboard, written materials and information and communication technology to clearly communicate lesson content.
- Students' inputs to lessons tended to be brief and written work was not corrected in a consistent manner.
- The whole-school provision and support for Science and Chemistry is very good.
- Overall planning and preparation for the provision of science is very good.

**MAIN RECOMMENDATIONS**

- In order to reinforce and deepen students' knowledge and understanding, it is recommended that the science department identifies and implements strategies that would encourage and allow students to make a more significant input to lessons.
- It is recommended that the science department reviews the current manner in which written work is corrected with a view to agreeing a common *assessment for learning* approach with all classes.
- It is recommended that the science department and management review the practice of designating classes as higher or ordinary level in first year.
- In order to further facilitate collaboration, it is recommended that a more formal systematic approach be taken to the development of teaching resources.

## INTRODUCTION

Established in 1992, Hartstown Community School is a co-educational, multi-denominational school catering for over 1000 students. Programmes currently on offer in the school are the Junior Certificate, Transition Year (TY), the Leaving Certificate Applied (LCA) and the established Leaving Certificate.

## TEACHING AND LEARNING

- The overall quality of teaching and learning was good with features of very good practice in all lessons.
- The structured nature of the lessons and the resources used during the lessons showed that good advance thought had been given to supporting students' learning.
- Students were actively engaged through a variety of methodologies and they worked well with their teachers during the lessons. A good rapport between students and teachers was evident.
- Cooperative learning was facilitated through group work and practical activities. Practical work was very well organised.
- The lessons were very well managed with clear systems regarding attendance, homework and seating arrangements in place.
- Lesson content was clearly communicated with the help of data projectors, the whiteboard, and written materials. Good attention was given to the literacy needs of students, for example, through the highlighting and explanation of key scientific terms.
- Extensive use was made of questioning by teachers to assess and develop students' knowledge of the topic in question and to link new material to prior learning or general knowledge.
- However, in many instances, the questions only required a very brief response from students and teachers tended to expand on the explanation rather than allowing or expecting the student to give a more in-depth or lengthy input. Extensive questioning or discussion by students was only observed in one lesson. Hence, in order to reinforce and deepen students' knowledge and understanding, it is recommended that the science department identifies and implements strategies that would encourage and allow students to make a more significant input to lessons. For example, students could be asked to work at the board or students could be asked to summarise the content at the end of lessons.
- Examination of students' written work, particularly their reports of practical activities, showed that in some cases work had been corrected and advice given on how to improve. However, in other cases, there was no evidence in the notebooks that the work had been corrected. Hence, it is recommended that the science department reviews the current manner in which written work is corrected with a view to agreeing a common *assessment for learning* approach with all classes.

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

- The provision and support for Science and Chemistry is very good.
- All junior cycle students study Science and senior cycle students have a choice of three science subjects. Transition Year students study an interesting module of Chemistry based on forensic science.
- Timetabling arrangements for science subjects are good in terms of the number of lessons per week, the allocation of double periods for practical work, and the concurrent timetabling of base groups in junior cycle in order to allow the creation of smaller class groups for Science.
- Though some movement between classes is facilitated, Science class groups are designated as higher or ordinary level from the middle of first year. It is recommended that the science department and management review this practice of setting levels so early in junior cycle. In this context, it would be useful to compare practice and outcomes across other subject areas in the school.
- Five well-stocked and well-maintained laboratories and a demonstration room are available for the teaching of science. These rooms are well equipped with information and communication technology such as data projectors and interactive whiteboards.
- The professional development of teachers is well supported both through attendance at external events and through the provision of in-school training in issues such as inquiry-based learning, and study and revision skills.

## **PLANNING AND PREPARATION**

- Overall planning and preparation for the provision of science is very good.
  - Collaborative responsibility for various aspects of subject planning is shared among members of the science department.
  - Comprehensive subject plans have been developed for Science and Chemistry. Common schemes of work and end-of-year assessments ensure that all classes follow the same programme.
  - Regular formal meetings of the subject department allow for the coordination of administrative issues such as stocktaking, laboratory access and preparation of common assessments. Good practice is also evident in the time allowed at department meetings for discussion of broader issues such as students' outcomes in state examinations.
  - Initiatives such as the development of a website, end-of-topic tests based on learning outcomes, and workbooks designed to combine notes and reports show great commitment to supporting student learning. However, though shared informally, these projects are for the most part initiated and developed by individual teachers. In order to further facilitate collaboration, it is recommended that a more formal systematic approach be taken to the development of teaching resources.
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The draft findings and recommendations arising out of this evaluation were discussed with the 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.