

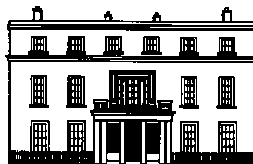
**An Roinn Oideachais agus Scileanna**

**Department of Education and Skills**

**Subject Inspection of Science and Chemistry  
REPORT**

**St Mary's Secondary School  
Glasnevin, Dublin 11  
Roll number: 60770P**

**Date of inspection: 27 February 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**

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| <b>Dates of inspection</b>  | 26 and 27 January 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></ul> | <ul style="list-style-type: none"><li>• Observation of teaching and learning during five lessons over ten class periods</li><li>• Examination of students' work</li><li>• Feedback to principal, deputy principal and teachers</li></ul> |

**MAIN FINDINGS**

- The quality of teaching and learning in the lessons observed was very good with some exemplary practice observed in all lessons.
- Very good use was made of assessment for learning (AfL) strategies to actively involve students in the learning process.
- Lessons were very well managed and conducted in a purposeful manner which ensured a high level of student engagement
- Very good use was made of information and communication technology (ICT) to structure lessons, to promote discussions, and to add a visual element to the teaching strategies.
- Very good whole-school support for the provision of science subjects is reflected in uptake of science subjects, the development of additional laboratory resources and the support for teachers' professional development.
- Very good quality planning is evident in the development of a comprehensive subject plan and the level of self-evaluation which the department engages in.

**MAIN RECOMMENDATIONS**

- In order to have a more complete overview of the relevant issues either at individual or class level, the science department should liaise with senior management when planning for improved student attainment.
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## **INTRODUCTION**

St Mary's Secondary School, operating under the auspices of the Le Chéile Trust, has a current enrolment of 724 girls. The school offers the Junior Certificate programme, an optional Transition Year programme, the established Leaving Certificate programme, and the Leaving Certificate Vocational Programme.

## **TEACHING AND LEARNING**

- The quality of teaching and learning in the lessons observed was very good with some exemplary practice observed in all lessons.
- Very good preparation for teaching was evident in the range of resources used such as worksheets, ICT materials and laboratory equipment. In addition, great thought had been given to how students learn. The variety and sequencing of learning activities challenged students to think for themselves.
- Very good use was made of AfL strategies to actively involve students in the learning process. For example, a brief discussion at the start of lessons set out what the intended learning outcomes were and progress in achieving these outcomes was clearly assessed later on. Other examples of effective AfL strategies were the use of peer and self-assessment, the sharing of success criteria, and the use of formative comments in the correction of written work.
- Lessons were very well managed and conducted in a purposeful manner which ensured a high level of student engagement. The active involvement of students supported their acquisition of knowledge and understanding of the relevant topics and concepts.
- Practical activities were very well organised and provided students with an opportunity for hands-on investigative work. Students showed great skill at working both independently and in groups.
- Lesson content was communicated very clearly. Very good use was made of ICT to structure lessons, to promote discussions, and to show videos and practical simulations. Repetition of the key points and repeated questioning throughout the lessons helped to reinforce learning.
- Students' progress was very well assessed by the use of a good balance of global and targeted questions, and by the use of probing higher-order questions. There was a strong emphasis on homework in all lessons. Peer and self-assessment opportunities involved students in making their own judgements on how well they were progressing.
- A strong focus on the development of students' literacy skill was evident in the emphasis on key words and scientific language, which was complemented by a print-rich environment in the laboratories. Students were given an opportunity to develop their presentation skills in one of the lessons.
- The teachers are to be commended for their openness to incorporating new strategies into their teaching. An example of this is the use of a virtual learning environment which allows students to access teaching resources at home.
- In order to build on the very good practice observed, it is suggested that the science department consider further enhancing and embedding good practice through the use of peer observation using the resources available in the school self-evaluation web site ([www.schoolself-evaluation.ie](http://www.schoolself-evaluation.ie)).

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

- Whole-school support for the provision of science subjects is very good.
- All first-year students study Science and the uptake of Science for Junior Certificate is very good. In senior cycle, science modules are compulsory in TY and there is a good uptake of the three Leaving Certificate science subjects with most students doing at least one.
- Timetabling arrangements for science subjects are in line with syllabus guidelines in most cases. However, a reduced allocation in first year is necessary to provide students with exposure to all curricular areas. This requires careful planning by the science department to ensure the course is completed in the time available.
- The school has two science laboratories and in order to meet the level of access necessary for the numbers studying science subjects, the school has adapted and equipped an additional room for practical work. All rooms are well equipped with the necessary laboratory resources and ICT facilities. Relevant health and safety equipment has been provided.
- The school is very supportive of teachers' engagement with continuing professional development and teachers have participated in a range of relevant in-service events.
- Extra-curricular activities such as the Science Week, SciFest and the Young Scientist Exhibition are supported and encouraged.

## **PLANNING AND PREPARATION**

- The quality of planning and preparation is very good.
  - The science department is very well organised. One teacher acts as coordinator. There are regular formal planning meetings and a high level of ongoing collaboration is evident, for example, in the co-ordination of laboratory access.
  - A very comprehensive subject plan reflects a high level of planning and as well as very detailed schemes of work provides guidance on issues such as differentiation and homework. The science department has developed a literacy and numeracy policy which identifies clear strategies for improvement in each area.
  - A particularly strong feature of subject planning is the level of self-evaluation evident in the identification of strengths and areas for development and in the action-research project currently underway in first year.
  - The development of an assessment policy which gives credit for practical activities completed, effort and participation, and practical skills is to be commended.
  - The science department has identified targets and strategies with respect to student attainment such as increasing the uptake of higher level. However, it would be useful to bring a whole-school dimension to this aspect of planning in order to have a more complete overview of the relevant issues either at individual or class level. Thus, it is recommended that the science department liaise with senior management when planning for improved student attainment.
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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.

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