

An Roinn Oideachais agus Scileanna

Department of Education and Skills

**Subject Inspection of Science and Chemistry
REPORT**

**Maryfield College
Glandore Road, Drumcondra, Dublin 9
Roll number: 60840K**

Date of inspection: 6 December 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

INFORMATION ON THE INSPECTION

Dates of inspection	5 and 6 December 2013
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 seven class periods• Examination of students' work• Feedback to principal and teachers

MAIN FINDINGS

- The quality of teaching and learning in the lessons observed was very good.
- Lessons were well planned and prepared, had clear aims and objectives, and there was good assessment of students' progress.
- Well-organised, practical activities supported the development of students' knowledge, understanding and skills.
- A strong focus on developing students' literacy skills was integrated into teaching and learning.
- Whole-school support for the provision of science subjects is very good and there is a good uptake of Science and Chemistry.
- The quality of planning and preparation is very good, the science department has taken a reflective approach to planning and there is a high level of formal and informal collaboration.

MAIN RECOMMENDATIONS

- The science department should review and further develop their practice with respect to the use of assessment for learning strategies such as sharing the intended learning outcomes of lessons with students and the use of formative comments in the correction of written work.
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INTRODUCTION

Maryfield College is a voluntary secondary school for girls with a current enrolment of 664 students. The school offers the Junior Certificate programme, the Leaving Certificate programme, the Leaving Certificate Vocational Programme and an optional Transition Year (TY) programme.

TEACHING AND LEARNING

- The quality of teaching and learning in the lessons observed was very good.
- Lessons were well planned and prepared. Relevant resources had been prepared in advance and good thought had been given to how topics were to be taught and learned. The focus in the lessons observed was on the student's experience.
- All lessons had clear aims and objectives. Sometimes, the intended learning outcomes were explicitly shared with students at the start of lessons and used again at the end of lessons to review what had been learnt. It is recommended that the science department review and develop their experience of using this assessment for learning approach to enhancing students' involvement in monitoring their own learning.
- Lessons were very well managed. Classroom norms were well established and it was clear that teachers have high expectations of their students. The confidence and engagement of students was reflected in their attentiveness and in the ease with which they asked questions during lessons.
- There was a high level of assessment of students' progress through very good use of directed and open-ended, probing questions. Time was allowed for students to think about their answers and supplementary questions explored their understanding of the relevant material. Good practice was evident in the monitoring and correction of laboratory notebooks and other written work. However, there was some scope for a greater use of formative comments.
- Lessons were very well paced. Students were purposefully engaged in a variety of learning activities and it was evident that they enjoyed their lessons.
- Very good use was made of prior or general knowledge as a foundation for building new learning. For example, brainstorming at the start of lessons helped students to realise that they already knew a lot about a particular topic. Students' understanding of scientific concepts was developed through examination of practical applications of those concepts in everyday life.
- A strong focus on developing students' literacy skills was integrated into teaching and learning. This was evident in the attention given to developing scientific and non-scientific vocabulary; students were also shown how to handle information. An innovative approach to literacy is evident in the development of a virtual online word bank.
- Practical activities, including both student work and teacher demonstrations, were very efficiently and well organised. Active, hands-on engagement by students supported the development of their knowledge, understanding and skills.
- Lesson content was communicated clearly with good use of the whiteboard, information and communication technology and worksheets.

SUBJECT PROVISION AND WHOLE SCHOOL SUPPORT

- Whole-school support for the provision of science subjects is very good.
- Though not a core subject, there is a very good uptake of Science in junior cycle. Good support is given to students when choosing Leaving Certificate options and Chemistry is a popular subject.
- Timetabling for science subjects is in line with syllabus guidelines.
- The school has very good laboratory resources for the teaching of science subjects.
- Good attention has been given to ensuring a safe place of work. Appropriate health and safety equipment and systems are in place. Chemicals are stored in a systematic manner.
- The school is very supportive of teachers continuing professional development. Attendance at external in-service training is facilitated and whole-school training in areas such as literacy and mixed-ability teaching and learning has been provided.

PLANNING AND PREPARATION

- The quality of planning and preparation is very good. The science department has taken a reflective approach to planning and there is a high level of formal and informal collaboration. The department meets regularly and the role of co-ordinator is shared among staff.
- Good systems for the maintenance and upkeep of resources are in place.
- The subject plans are comprehensive and provide a good level of detail on the various issues considered. Examples are: general methodologies, a homework policy, and teaching science to students with special educational needs.
- Very good practice was noted in the establishment of an annual focus or priority for the subject department, and the thorough review of progress made at the end of the year.
- Good practice is also evident in the development of agreed schemes of work and the setting of common examinations with particular year groups. The assessment of students' practical work for school examinations is a useful means of encouraging and rewarding students for their efforts in this regard.
- The science department has been very proactive in the development of a virtual learning environment, and in using the school's website, to support student learning. The sharing of teaching resources among teachers is facilitated by the use of an electronic folder on the school's intranet.

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 of the school was given an opportunity to comment on the findings and recommendations of the report; the board chose to accept the report without response.

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