

**An Roinn Oideachais agus Scileanna**

**Department of Education and Skills**

**Subject Inspection of Science and Chemistry  
REPORT**

**Our Lady's College  
Greenhills, Drogheda, Co Louth  
Roll number: 63850F**

**Date of inspection: 13 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**

<b>Dates of inspection</b>	12 and 13 December 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 ten class periods</li><li>• Examination of students' work</li><li>• Feedback to principal and teachers</li></ul>

**MAIN FINDINGS**

- The quality of teaching and learning observed was very good and it was clear that teachers have high expectations of their students.
- An assessment for learning approach was evident in the sharing of the intended learning outcomes at the start of all lessons and this approach was most effective when the outcomes were reviewed at the end of the lesson.
- An appropriate balance between teacher and student activity was achieved in all lessons and hands-on participation in investigative laboratory work enhanced the learning experience for students.
- The development of students' literacy skills was well supported in all lessons.
- Very good whole-school support for the provision of science subjects is reflected in the quality of the resources, for example, laboratories and information and communication technology (ICT).
- The science department is well established and works in a collegial and collaborative manner.

**MAIN RECOMMENDATIONS**

- The science department should develop and share good practice with respect to the use of learning outcomes, the correction of written work, and the use of ICT to enhance student learning.
- Some aspects of the subject plans should be further developed so that they better reflect the good practice in the classroom or at school level.

## **INTRODUCTION**

Our Lady's College, Greenhills, Drogheda is a voluntary secondary school for girls with a current enrolment of 975 students. The school offers the Junior Certificate, Leaving Certificate and Leaving Certificate Applied programmes and an optional Transition Year (TY) programme.

## **TEACHING AND LEARNING**

- The quality of teaching and learning in the lessons observed was very good. Student outcomes are good in terms of uptake of higher level and attainment.
- Lessons were well planned and it was clear that careful consideration had been given to how students would learn. Lessons followed a logical sequence and contained a good variety of learning activities such as discussions, writing, answering questions and group work.
- All of the lessons had a clear focus which was shared with students at the start of lessons through discussion of the intended learning outcomes. The most effective use of this approach was evident when sufficient time was given at the end of lessons to assess the progress achieved with respect to the intended learning outcomes. It is recommended that the science department develop and share good practice with respect to this aspect of an assessment for learning approach to teaching and learning.
- An appropriate balance between teacher and student activity was achieved in all lessons. Practical activities, including teacher demonstrations, were very well organised. Hands-on participation in investigative laboratory work enhanced the learning experience for students.
- Lessons were very well managed and conducted at an appropriate pace. Classroom procedures have been well established and it was clear that teachers have high expectations of their students. Students were attentive, engaged, and cooperative throughout.
- Good questioning strategies were used during the lessons. Over and above simple recall of knowledge, students were required to think more deeply about the lesson content in order to answer higher-order probing questions. Good use was made of peer and self-assessment, mini-whiteboards and flashcards to ensure involvement of all students.
- Written work, such as students' laboratory reports, is well monitored and tracked, and is corrected in some cases. However, in order to support the development of students' reporting skills, there is scope for a greater level of correction of written work. It is recommended that the subject department develop some strategies such as peer and self-assessment of reports to further support students' learning in this regard.
- The development of students' literacy skills was well supported in all lessons. This was evident in the attention given to developing both scientific and non-technical vocabulary. Particular good practice was seen when strategies for coping with new terminology and text were explicitly shared and discussed with students.
- ICT was well used to support the development of lessons by providing information and instructions. Some good use was made of visual elements such as videos, diagrams and animations; however, most of the material was presented as text. It is recommended that the subject department investigate ways of getting added value from their very good ICT resources by exploring what can be achieved with ICT over and above what can be achieved with more traditional teaching aids.

- Links with science in the everyday world were well used to support learning. In the TY science module, links with other subject areas such as business and geography brought a cross-curricular focus to the study of science.

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

- Whole-school support for the provision of science subjects is very good.
- Science is an optional subject after first year, but there is a good uptake of the subject for the Junior Certificate.
- 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. Five fully equipped laboratories are very well organised and maintained. Relevant health and safety systems are in place.
- Timetabling arrangements for science subjects are appropriate. Some first-year classes are shared between two teachers and this requires good co-ordination between the relevant teachers.
- The school is very supportive of teachers' professional development. Teachers' participation in external in-service events is facilitated and the school has also organised in-school training on issues such as literacy and numeracy.

#### **PLANNING AND PREPARATION**

- The quality of planning and preparation is very good.
- The science department is well established and works in a collegial and collaborative manner. Formal planning meetings are complemented by a significant amount of informal, on-going planning among the team of science teachers.
- The subject plans for Science and Chemistry provide a good overview of provision for these subjects. However, there is scope to further develop the description of provision in some areas, such as teaching science to students with special education needs, so that it better reflects the actual practice in the classroom or at school level.
- Good systems for the maintenance and upkeep of resources are in place.
- Good practice is evident in the development of agreed schemes of work, in the setting of common examinations with particular year groups, and in the use of ICT to facilitate the sharing of teaching resources among teachers.
- Teachers work together to provide a good range of extra-curricular science activities such as participation in the SciFest competition and visits to the W5 Centre. The science teachers have also been active in promoting healthy eating among students through the 'lunch box' initiative.

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, and the response of the board will be found in the appendix of this report.

# **Appendix**

**SCHOOL RESPONSE TO THE REPORT**

**Submitted by the Board of Management**

**Area 1: Observations on the content of the inspection report**

The Board believes the report is very comprehensive and it reflects the good practices in place in the school. The recommendations are constructive and will hopefully help to improve the teaching and learning in the school.

The inspection was a very positive experience carried out in a collegial, supportive and encouraging manner. It was a very valuable learning experience that has been shared with the whole staff to enable all teachers to learn from the affirmation of good practices and the recommendations for improvement.

**Area 2: Follow-up actions planned or undertaken since the completion of the inspection activity to implement the findings and recommendations of the inspection**

Follow up actions will include developing subject department plans to fully reflect good practices employed in the school and sharing this practice with other colleagues. The use of IT in improving teaching and learning is constantly developing.