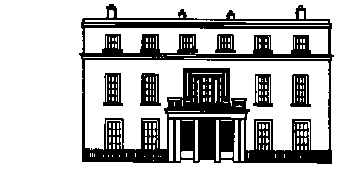
An Roinn Oideachais agus Scileanna

Department of Education and Skills

Subject Inspection of Science and Chemistry
REPORT

Manor House School
Raheny, Dublin 5
Roll number: 60300B

Date of inspection: 23 October 2013



AN ROINN OIDEACHAIS AGUS SCILEANNA | DEPARTMENT OF EDUCATION AND SKILLS

REPORT
ON
THE QUALITY OF LEARNING AND TEACHING IN SCIENCE AND CHEMISTRY

INFORMATION ON THE INSPECTION

Dates of inspection:	**22 and 23 October 2013**
Inspection activities undertaken • Review of relevant documents • Discussion with principal and teachers • Interaction with students	• Observation of teaching and learning during nine class periods • Examination of students' work • Feedback to principal and teachers

MAIN FINDINGS

- The quality of teaching and learning was good or very good in the lessons observed.
- Lessons were well managed and students were purposefully engaged in a variety of learning activities.
- Practical work was well organised and good use was made of information and communication technology (ICT) to support learning.
- During lessons, some good use was made of assessment strategies which allowed students to demonstrate and reinforce their learning.
- Whole-school support for the provision of Science is very good in terms of the range of science subjects on the curriculum, timetabling and the quality of laboratory resources available.
- Subject planning is well established with a good level of formal and informal collaboration between teachers but there is scope for further development of the subject plan.

MAIN RECOMMENDATIONS

- During lessons, teachers should give students more opportunities to demonstrate their understanding and knowledge.
- The subject plan for science subjects should include reflection on students' examination outcomes, more information on the rationale and targets for the department's literacy initiative, and schemes of work should be based on learning outcomes, methodologies, resources and assessment strategies.

INTRODUCTION

Manor House School is a voluntary secondary school for girls with a current enrolment of 811. The school offers the Junior Certificate programme, the Leaving Certificate programme, the Leaving Certificate Vocational Programme and a compulsory Transition Year (TY) programme.

TEACHING AND LEARNING

- The quality of teaching and learning was good or very good in the lessons observed.
- Good planning and preparation was evident in the variety of teaching resources used and in the structure and sequence of the lessons.
- Lessons were well managed and conducted at an appropriate pace.
- The aims and objectives of lessons were clear and students were purposefully engaged in a variety of learning activities. In some cases, the intended learning outcomes were shared and discussed with students at the start of lessons. This helped to make it clear to students what they were being asked to do and why.
- Good attention was given to developing students' literacy skills, particularly with respect to the use of scientific terminology.
- Good use was made of ICT to support learning. Simple clear presentations enabled teachers to focus on interacting with students.
- A good level of differentiation was evident in the one-to-one interactions between teachers and students.
- Lesson content was communicated clearly. For example, complex topics were broken down into simpler portions and good use was made of visual aids to supplement verbal explanations.
- Practical work was well organised. Good practice was evident in some cases in the use of an investigative approach which promoted students' understanding of the scientific process.
- Homework was assigned in most lessons and good practice was evident in the use of formative feedback in the correction of written work such as laboratory reports.
- During lessons, some good use was made of assessment strategies which allowed students to demonstrate and reinforce their learning. For example, good use was made of directed questions to assess individual student's progress. Open-ended, higher-order questions allowed students to show their understanding of the material in question.
- There was scope for a more consistent use of appropriately challenging assessment strategies across most lessons. It is recommended that teachers give students more opportunities during lessons to demonstrate their understanding and knowledge.

SUBJECT PROVISION AND WHOLE SCHOOL SUPPORT

- Whole-school support for the provision of Science is very good.
- Though not a core subject, there is a very good uptake of Junior Certificate Science. A wide range of science subjects is available in senior cycle and students in TY can sample these before choosing their Leaving Certificate subjects.

- Timetabling for science subjects is in line with syllabus guidelines.
- The school has very good laboratory resources for the teaching of Science. The five laboratories are well stocked with the necessary equipment and materials, and they have good ICT facilities.
- Good attention has been given to providing a safe environment in the laboratories. Appropriate health and safety equipment has been provided and unwanted chemicals have been disposed of.
- Teachers' professional development is well supported. Teachers have participated in a variety of external in-service events and the school has organised relevant, whole-school training on issues such as the use of ICT in teaching, and strategies to improve literacy.

PLANNING AND PREPARATION

- Subject planning is well established. The role of subject co-ordinator is shared among staff, there are regular formal meetings of the subject department, good systems are in place regarding laboratory organisation and equipping, and schemes of work based on topics and textbook chapters have been developed.
- Minutes of formal meetings show good consideration has been given to maintaining and enhancing the quality of provision. For example, the science department has initiated a 'word of the week' project in order to promote students' literacy skills.
- Senior management's role in setting some agenda items for subject department meetings is a useful means of promoting a whole-school approach to subject planning.
- A high level of informal ongoing collaboration is evident in the work of the science department. Teachers work together to provide a range of extra-curricular and co-curricular science activities. Good practice is evident in the sharing of teaching resources which has been facilitated by the development of a shared electronic folder on the school's intranet.
- The subject plan provides an overview of how science subjects are provided for. However, there is scope for further development of the plan to include reflection on students' examination outcomes, more information on the rationale and targets for the literacy initiative, and development of schemes of work based on learning outcomes, methodologies, and assessment strategies.

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.

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