

An Roinn Oideachais agus Scileanna
Department of Education and Skills

Subject Inspection of Science & Chemistry
REPORT

St Kevin's College
Ballygall Road East, Dublin 11
Roll number: 60581M

Date of inspection: 17 April 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:	16 & 17 April 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 9 class periods• Examination of students' work• Feedback to principal and teachers

MAIN FINDINGS

- The quality of teaching and learning was very good.
- A variety of learning activities, including well-organised practical work, facilitated a high level of student engagement.
- Students' progress is well monitored; however, there is scope for further use of *assessment for learning* (AfL) strategies.
- Good whole-school support for science is evident in the range of subjects provided, the appropriate timetabling arrangements, and the well maintained laboratories.
- Very good planning and preparation for the provision of science is based on a collaborative and reflective approach by the science teachers.
- Though laboratory resources are well organised there are some shortages of equipment.

MAIN RECOMMENDATIONS

- It is recommended that the science teachers further develop AfL strategies such as the use of learning outcomes during lessons and the inclusion of formative comments in correcting written work.
 - It is recommended that the science department develop an action plan for dealing with shortages of laboratory resources.
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INTRODUCTION

St Kevin's College is an all-boys school under the trusteeship of the Edmond Rice Schools Trust. Enrolment has risen over recent years and there are currently 504 students attending the school. The school is included in DEIS (Delivering Equality of Opportunity in Schools), the action plan of the Department of Education and Skills for educational improvement.

TEACHING AND LEARNING

- The quality of teaching and learning was very good.
- Lessons were well planned: relevant resources were ready in advance and thought had been given to the sequence and variety of learning activities.
- Lessons had a clear focus and students were engaged in a purposeful manner from the outset. However, though learning outcomes are identified in the schemes of work they were not explicitly incorporated in the lessons observed.
- Practical work was very well organised and students were competent and skilled in the completion of such work. The independent manner in which senior students undertook practical work was noteworthy. Other interactive activities, such as quizzes and learning games, ensured a high level of student engagement.
- Teacher-led discussions were well used to introduce and explain new content. A good balance of global and directed questions facilitated student participation. Students' progress during lessons was closely monitored. However, in some cases a clearer review at the end of lessons would have helped to further consolidate learning.
- Good use was made of information and communication technology (ICT), video and the whiteboard to clearly communicate lesson content. Good support for students' literacy development was evident in all lessons.
- Students were confident in answering questions put to them during the inspection and their answers showed a good knowledge of the subject matter.
- Lessons were very well managed. Classroom rules and procedures were clear and implemented in a consistent manner.
- Students' progress is assessed on an ongoing basis by regular topic tests, worksheets and homework. Good practice is also evident in the award given for practical work in Christmas and end-of-year examinations. However, varying practice with respect to the correction of written work, particularly students' laboratory reports, was observed. In some cases written work was simply checked for completion: in others it had been corrected and formative comments guided the student on how to improve.
- In light of the comments above, it is recommended that the science teachers further develop AfL strategies such as the use of learning outcomes during lessons and the inclusion of formative comments in correcting written work.

SUBJECT PROVISION AND WHOLE SCHOOL SUPPORT

- The provision of science subjects is well supported. Junior Science is a core subject and three leaving certificate science subjects are provided. The uptake of Chemistry is very good. Transition Year students study a variety of science topics. Extra-curricular science activities are encouraged.
- Timetabling arrangements are good and the provision of practical activities is supported through the creation of smaller mixed ability classes from base groups
- The school has two well maintained laboratories which have good ICT facilities and appropriate health and safety equipment. The laboratories are bright attractive spaces. However, the preparation room would benefit from some refurbishment.
- Most science classes are timetabled for a double period in the laboratory. However, some classes are not in a laboratory for their double period every week and many single periods are held in an adjacent demonstration room. The school is hoping to develop extra laboratory facilities in time. However, it is suggested that in the interim the potential use of the demonstration room be explored.
- The school is supportive of teachers' professional development and has organised inputs for the whole staff on areas such as literacy and numeracy, and the use of ICT.
- Teachers are assigned to classes on a rotation basis. However, some class groups have had a number of teachers during junior cycle. It is recommended that continuity of teachers with class groups be facilitated as much as possible.

PLANNING AND PREPARATION

- The quality of planning and preparation for the provision of science is very good.
- Subject planning is well established. A comprehensive subject plan outlines schemes of work and gives information on areas such as homework and effective teaching methodologies. Good practice is evident in the identification of expected learning outcomes and key words in the schemes of work and in the ongoing review of the overall plan. The use of common Christmas and end-of-year tests with year groups is further evidence of good planning.
- Planning is facilitated by regular formal and informal meetings of the science department. Though one teacher acts as coordinator, it was evident that the science teachers work in a very collaborative and professional manner to ensure the efficient administration of the science department, and to share the development of teaching resources on an ongoing basis.
- A reflective approach to planning is evident in the identification and consideration given to issues such as literacy and numeracy in science teaching, the uptake of science subjects in senior cycle and the outcomes for students taking Science at higher-level. With respect to student outcomes, it is suggested that students, and parents, could be consulted in order to get a more complete view of the strengths and challenges which students experience in achieving well in exams.
- Laboratory resources are well organised and an annual inventory of stock is maintained. However, there are shortages of equipment in some areas. It is recommended that the

science department develop an action plan for dealing with this by quantifying what resources are needed, determining costs, prioritising needs and working with management in improving the situation over a number of years.

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.