

An Roinn Oideachais agus Scileanna

Department of Education and Skills

**Subject Inspection of Science and Biology
REPORT**

**Fingal Community College
Swords, County Dublin
Roll number: 70121H**

Date of inspection: 6 November 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 BIOLOGY

INFORMATION ON THE INSPECTION

Dates of inspection	5 and 6 November 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 (two doubles and three single periods)• Examination of students' work• Feedback to principal and teachers

MAIN FINDINGS

- The quality of teaching and learning ranged from good to very good with instances of exemplary practice.
- Excellent practices observed included the use of the investigative approach in practical work and the promotion of scientific terminology in lessons.
- All lesson activities were well managed and student enjoyment of the subject was evident.
- Science is a core subject in first year and all students have access it.
- The science department meets regularly and forms a dynamic and collaborative team.

MAIN RECOMMENDATIONS

- Teachers should discuss and share working examples of good practice in differentiated teaching methodologies.
 - The science team should continue to progress the subject plans as working documents.
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INTRODUCTION

Fingal Community College is a co-educational second-level school in the Dublin and Dun Laoghaire Education and Training Board (ETB). The school caters for 537 students and offers the Junior Certificate programme, the Leaving Certificate programme, the Leaving Certificate Vocational Programme (LCVP) and an optional Transition Year (TY) programme.

TEACHING AND LEARNING

- The quality of teaching and learning ranged from good to very good with instances of exemplary practice. In all lessons observed, the learning outcomes were clearly communicated to students at the outset. There was good continuity with prior learning and lessons were consistent with the planned programme of study.
- Lessons were well structured and teachers displayed a high level of competence and skill in the subject area. Resources were used effectively to enhance learning. This included the use of interactive whiteboards in all lessons visited.
- An attractive and stimulating learning environment has been established in all classrooms visited and this includes the displays on the science notice board on the corridor.
- All lesson activities were well managed and discipline was very good. Teachers generated enthusiasm for the topic under study, and student enjoyment of the subject was evident. Student engagement was generally very good. However, teachers should be mindful of a minority of students in some lessons that are inattentive.
- Where practical work was observed, due care and attention was given to the active management of health and safety in line with the school's safety statement. Excellent practice was observed where students were encouraged to use an investigative approach to practical work and predict potential outcomes of their experiments.
- Teachers devoted appropriate attention to numeracy in some lessons and in all lessons there was very good emphasis on the development of students' literacy skills. Students were encouraged to use and become familiar with new scientific terminology and some excellent practices were observed in this area.
- A number of differentiated teaching strategies were observed, particularly for students at both ends of the learning spectrum. The science department is encouraged to make this practice more widespread. Useful and valuable differentiated strategies should be discussed by the science team at the next available opportunity in an attempt to share these good practices.

SUBJECT PROVISION AND WHOLE SCHOOL SUPPORT

- Science is a core subject in the junior cycle in the school. In the recent past, school management has facilitated access to the subject for all students. Science is also available on the optional TY programme. Biology, Chemistry and Physics and Agricultural Science are available in the senior cycle with Agricultural Science being the most recent addition to the curriculum in 2010. Subject option bands are generated around students' choices in the junior and senior cycles.
- Timetabling is appropriate and teachers are deployed in line with their qualifications, skills, knowledge and interests. There is a good range of resources available including information and communication technology (ICT) resources. All four laboratories are

resourced with interactive whiteboards and the school garden is used by students in TY science classes and by those studying Agricultural Science at Leaving Certificate level. Appropriate storage and preparation facilities are adjacent to the laboratories.

- The science safety statement has been reviewed recently with appropriate input from the science team.
- Science enjoys a high status in the school and is well promoted by the teachers in the science department. Students are encouraged to become involved in many science initiatives and competitions in school and at national level.

PLANNING AND PREPARATION

- The science department forms a dynamic and collaborative team. A subject co-ordinator has been appointed through agreed means. Meetings are held regularly and minutes are recorded. This is supplemented by on-going informal collaboration which facilitates the efficient co-ordination of all science activities.
- Subject planning is well established and a comprehensive subject plan has been developed. The science team has recently revised the format of their programmes of study and commendably, has included more detail, particularly on learning outcomes and methodologies. This is good practice. This revised format is being used for Junior Certificate Science and is in the process of being implemented across the senior cycle science subjects.
- A comprehensive plan for TY Science was provided and contained elements of all four sciences available in senior cycle. It also included a wide range of appropriate modes of assessment which is good practice.
- Good practice was observed in the manner in which the science planning documentation is being updated and reviewed. It is good to note that this is an on-going practice in the science department and teachers should use the plans as working documents.
- Subject department planning is facilitated by senior management and a culture of self-evaluation and reflection is promoted. A detailed analysis of student achievement in the certificate examinations was provided at the time of the evaluation and the science team has identified on-going issues and outlined proposed actions to address them. This is exemplary practice.

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 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.

Published March 2014