

An Roinn Oideachais agus Scileanna

Department of Education and Skills

**Subject Inspection of Science and Biology
REPORT**

**St Finian's Community College,
Swords, Co Dublin
Roll number: 70120F**

Date of inspection: 12 February 2014



**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	11 and 12 February 2014
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 five lessons over two double and three single periods• Examination of students' work• Feedback to principal, deputy principal and teachers

MAIN FINDINGS

- The quality of teaching and learning ranged from good to very good with instances of excellent practice.
- Teachers had planned meticulously for their lessons.
- A good range of assessment for learning strategies was utilised in all lessons.
- Excellent practices were observed where students were encouraged to apply and synthesise scientific knowledge, make predictions and ensure fair testing in experiments.
- A safe, well-organised learning environment was maintained in all classrooms
- Provision for the science subjects is good in the school, timetabling is appropriate and teachers are deployed in line with their qualifications.

MAIN RECOMMENDATIONS

- Teachers should encourage students to take responsibility for their own learning, particularly through the inclusion of tasks which are pitched to challenge students.
 - Programmes of study are a work in progress and would benefit from the inclusion of appropriate methodologies, resources to be used for lessons and modes of assessment.
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INTRODUCTION

St Finian's Community College operates under the auspices of Dublin and Dun Laoghaire Education and Training Board (ETB). The school participates in the Delivering Equality of Opportunity in Schools (DEIS) action plan and the current enrolment stands at 616 students.

TEACHING AND LEARNING

- The quality of teaching and learning ranged from good to very good with instances of excellent practice.
- The aims of lessons were shared with students at the outset of each lesson and best practice was observed where the aims were framed as learning outcomes and discussed with students. It is commendable that most teachers had built in time to provide feedback to students on their learning and this was most effective where the learning outcomes were revisited in a comprehensive summary at the conclusion of the lessons. All teachers should incorporate these strategies.
- There was good continuity with prior learning and the lesson content and pace was appropriate to the class group. Teaching was clear and concise and teachers demonstrated good competence and skill in the subject area.
- Resources including information and communication technology (ICT), worksheets, models, video clips and jig-saws were used very effectively to enhance learning.
- There was a good focus on the development of students' literacy skills in all lessons. Key vocabulary is displayed in all classrooms visited and key words were introduced to students at the beginning of lessons, in line with school policy. Students' numeracy skills were developed through a focus on correct units, accurate measurement and the use of coloured cards to indicate fractions.
- Effective questioning strategies were used, and these included both global and directed questioning, with appropriate differentiation to meet the needs of students in the majority of instances. However, teachers should devise strategies to include students who do not answer questions or do not engage with the discussions.
- Classroom management was very good and teachers had adopted a student-centred approach. Learning activities were well-structured and well-managed. A positive atmosphere permeated lessons and student effort was regularly affirmed.
- Lessons were purposeful and students evidently enjoyed the classroom activities. Teachers should be mindful of the need, particularly in some revision lessons, to place greater focus on higher-level tasks in order to provide a greater challenge for students.
- Excellent practice was observed where students at senior level were encouraged to apply and synthesise their scientific knowledge across topics in order to make informed decisions. Students demonstrated a good understanding of the topic under study and could apply their learning where relevant.
- Good assessment for learning practices included the use of 'think, pair, share' tasks, show-me boards, graphic organisers and reflection worksheets.
- Practical work was well organised and students displayed good routines for setting up and clearing away apparatus. Excellent practice was observed where students were encouraged to make predictions and discussed how to make an investigation a fair test.

- Students' written, oral and practical work indicates good progress. Notebooks were generally maintained to a good standard and an appropriate range of experimental work had been written up.
- Notebooks show evidence of checking and annotation by the teacher and these good practices included the use of formative and directional feedback to students. Teachers should encouraged students to follow up on these corrections on a regular basis. Students should also be encouraged to engage in self-reflection and evaluation to include reflection on their achievements in assessment and taking responsibility for their learning.

SUBJECT PROVISION AND WHOLE SCHOOL SUPPORT

- All students study Science in the Junior Cycle. At senior cycle, students have the option of following Biology, Chemistry and Physics. More recently, Agricultural Science has been added to the curriculum.
- There are three laboratories, one demonstration room, a preparation and storage area as well as a glass-house. All classrooms visited were equipped with interactive white boards and ICT was used to good effect in all lessons.
- Appropriate provision is made for the subject area, classes are timetabled appropriately and teachers are deployed in line with their qualifications.
- A safety statement has been compiled which informs all health and safety practices. Due care and attention is given to the active management of health and safety during class in line with the school's safety statement.
- Teachers are encouraged and facilitated to attend continuing professional development (CPD) activities and to share good practice within the subject department. A good range of CPD courses have been attended.

PLANNING AND PREPARATION

- The position of subject co-ordinator is shared between two teachers. These positions are rotated among the science team members in order to devolve responsibility and maintain expertise.
- The role of the co-ordinator includes convenor of meetings, liaison with senior management, co-ordination of collaborative planning and ordering equipment.
- A collaborative plan was made available for Junior Certificate Science and Leaving Certificate Biology. This contained a good overview of the provision for the subject in the school as well as long-term planning for each year group. Programmes of study are a work in progress and would benefit from further development in the areas of methodologies and modes of assessment. The science team should develop an action plan to determine how the programmes of study will be progressed as working documents.
- Individual teacher planning was of a high quality and lessons benefited from this attention to detail.
- An analysis of student attainment in the certificate examinations is included in the subject plan and provides comparisons with the national averages for the subjects. It is evident from the planning folder that student attainment has been discussed by the team and a number of strengths and weaknesses have been identified. This good practice will now be

progressed through the development of specific, measurable, attainable, relevant and time-bound (SMART) targets and used as part of the Science department's self-evaluation process.

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 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 of Management of St. Finian's C.C. is very pleased with the Science Inspection Report. It validates the excellent teaching and learning practices in our school.

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

The Board of Management, Senior Management and staff welcome the recommendation of this report. All are committed to continuing to improve the quality of teaching and learning as experienced by our students. The Science department are incorporating the recommendations regarding independent learning and programmes of study, in their subject planning and senior management have ensured that all subject departments are appraised of these recommendations to inform their subject planning.