

An Roinn Oideachais agus Scileanna
Department of Education and Skills

Subject Inspection of Science and Biology
REPORT

St Aidan's Community College
Dublin Hill, County Cork
Roll number: 71101G

Date of inspection: 29 January 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

Date of inspection	28 and 29 January 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 ten class periods• Examination of students' work• Feedback to principal and teachers

MAIN FINDINGS

- The overall quality of teaching and learning observed was good, with some examples of very good practice.
- Subject-specific language was used consistently by teachers within lessons.
- Lessons were well managed by teachers with good affirmation of student effort.
- A range of visual supports including information and communication technology (ICT) was used which successfully aided student learning.
- The science facilities are well organised and maintained by the science team.
- Preparation and planning for the lessons observed were comprehensive.

MAIN RECOMMENDATIONS

- Teachers should maximise the potential of student tasks and activities, in order to challenge the learner and promote targeted discussion and questioning.
- The science team should review the current planning documents and move to a more integrated approach with clear linkages between topic lists, timeframes, learning outcomes, methodologies, resources and assessment.
- The science team should develop a specific section on practical work which would make reference to student skill development in a given timeframe and to how the continued promotion of an enquiry-based approach for the learner can be achieved.

INTRODUCTION

St Aidans' Community College is a co-educational school on the north side of Cork city, with a current enrolment of 683 students. It offers a broad curriculum which includes the Junior Certificate, the Junior Certificate School Programme (JCSP) and a compulsory Transition year (TY) programme. At senior cycle, students can choose between the Leaving Certificate and the Leaving Certificate Applied Programme (LCA).

TEACHING AND LEARNING

- Overall, the quality of teaching and learning observed was good, with some examples of very good practice. Best practice was when the learning outcomes were shared with the students and when these were followed up during the lesson and especially at a defined lesson summation. The learner should take a more prominent role during lesson consolidation, in order to fully ascertain learning.
- There was very clear delivery of new material in the lessons. The pace of lesson delivery, the content and time management were good. Linkages were made with prior learning. Subject-specific language was used consistently in the lessons. In some instances, the board or ICT was used to visualise these key words. This aided student understanding and learning. The science team is currently developing the use of the keyword concept. This should be progressed, and in support of this, the team should consider utilising an area of each laboratory to display current terms for each year-group.
- Students experienced a range of methodologies in most lessons. The engagement and learning experience of the student was best when the methodologies used required the learners to be active in their learning and where there was a good balance between teacher input and student participation. This was achieved through the use of well-prepared activities, group work and practical investigation in which students worked independently or in small groups. Teachers should maximise the potential of activities, in order to challenge the learner, and to promote targeted discussion and questioning in order to aid course integration.
- Teachers made good use of ICT in their lessons. This supported lesson delivery and also stimulated student interest in the topics. A range of other types of visual supports was also used to aid learner understanding, which is positive.
- Questioning was a feature of all lessons observed, with good probing techniques used on occasion to ascertain learning. In the main, questions were directed to named students. It would be important that both lower and higher order questioning be used regularly in lessons.
- Classroom management was very good in all lessons observed. Teachers circulated around the laboratory. A positive rapport was evident between teacher and student with affirmation of student effort a key feature of the lessons observed.
- Homework was corrected and assigned in all lessons. The material assigned for homework was designed to link with what the learners had experienced in the lesson, which is good practice. Students recorded information in relation to homework in their journals.
- Students made records of their practical activities based on their own experiences, which is very positive. It is the current procedure of the science team to monitor and award

credit for student practical work which is good practice. Students should make the required corrections and additions to their work, to ensure learning is correct.

SUBJECT PROVISION AND WHOLE SCHOOL SUPPORT

- Science and Biology are allocated the recommended teaching time as outlined in their respective syllabuses. However, there is not consistency at junior cycle, with some classes having one double lesson and two single lessons and other junior classes have two double lessons. The science team, in consultation with management, should discuss this and decide which approach to adopt.
- Junior Science is a core subject with a large percentage of senior students choosing to study Biology at senior cycle. Student choice dictates the way the option bands at senior cycle are created yearly, which is good practice.
- The school has three well organised and maintained laboratories. They share a large preparation area, which is also well organised. A demonstration room, located beside the laboratories, is also available to the science team. All facilities are ICT-enabled with a good range of materials and equipment available for the delivery of the specific science syllabuses. The area outside the laboratories has science notice boards which are used to display student work and disseminate information to the students, which is good practice.
- Assessment practices in the school consist of class tests on completion of a unit of work, with a number of main assessment points yearly for each year group. Common tests are used for many year groups. Teachers retain records of the outcomes of all assessment points, which is good practice.
- Co-curricular and cross-curricular linkages have been established using visiting speakers, field trips, and student participation in health week. These experiences are very beneficial to the learner and are to be encouraged.
- The science team has participated in a range of professional development activities. Currently the team is involved in the Discover Sensors project. Continued involvement in this and other areas of professional development is encouraged.

PLANNING AND PREPARATION

- A subject convenor has been appointed to co-ordinate the science department. It would be important that this role be rotated among the team members over time.
- Science department meetings are held each term, and minutes are recorded. It is acknowledged that many informal meetings take place on a regular basis, which is positive.
- Significant work and collaboration has occurred in the development of the current plans. It is recommended that the science team should review the current planning documents and move to a more integrated approach with clear linkages between topic lists, timeframes, learning outcomes, methodologies, resources and assessment. In addition, a specific section on practical work should be included in the department plans. This should make reference to student skill development in a given timeframe and to how the continued promotion of an enquiry-based approach for the learner can be achieved.

- Individual teacher planning and preparation were of a very high standard in the lessons observed. Resources including worksheets, practical and ICT equipment were sourced and available for use.

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.