

**An Roinn Oideachais agus Scileanna**  
**Department of Education and Skills**

**Subject Inspection of Science and Biology**  
**REPORT**

**Donabate Community College**  
**Donabate, County Dublin**  
**Roll number: 761040**

**Date of inspection: 19 October 2012**



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**

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**INFORMATION ON THE INSPECTION**

<b>Dates of inspection</b>	18 and 19 October 2012
<b>Inspection activities undertaken</b> <ul style="list-style-type: none"><li>• Review of relevant documents</li><li>• Discussion with principal and teachers</li><li>• Interaction with students</li></ul>	<ul style="list-style-type: none"><li>• Observation of teaching and learning during eleven class periods</li><li>• Examination of students' work</li><li>• Feedback to principal, deputy principal and teachers</li></ul>

**MAIN FINDINGS**

- The quality of teaching and learning ranged from very good to excellent practice.
- In all of the lessons, students worked purposefully and were actively engaged in the learning process.
- Excellent practices included an investigative approach to practical work, inspirational teaching and the development of higher-order skills such as the application, analysis and evaluation of information.
- A good range of well-chosen resources was utilised.
- Classroom management was excellent and lessons proceeded in a caring and respectful atmosphere.
- The five laboratories are maintained to a very high standard and teachers had created a stimulating learning environment in the rooms visited.

**MAIN RECOMMENDATIONS**

- Action planning should be progressed to include more specific tasks based on the targets selected.
  - Programmes of study should be further developed.
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## **INTRODUCTION**

Donabate Community College operates under the auspices of County Dublin Vocational Education Committee. It is a co-educational school with an enrolment of 591. The school was established in 2008 and this is its second year in the new school building. In addition to the Junior Certificate and Leaving Certificate programmes, the school offers an optional Transition Year programme (TY) and the Leaving Certificate Vocational Programme (LCVP). The first cohort of students to sit the Leaving Certificate examination will do so in 2014.

## **TEACHING AND LEARNING**

- The quality of teaching and learning ranged from very good to excellent practice. There was a strong focus on teaching for understanding and learning in all lessons observed.
- The science teachers had planned meticulously for the lessons. This attention to detail resulted in lessons that were focused, well structured and appropriately pitched. Learning outcomes were discussed with students at the beginning of lessons, revisited during the lesson and used to summarise at the end.
- Teacher instruction was very clear and accurate, key concepts were emphasised and, where relevant, lesson content was informed by up-to-date information and everyday examples. In all of the lessons, students worked purposefully and were actively engaged in the learning process.
- The enthusiastic approach of the teachers was very effective in maintaining students' interest in the lesson activities. The teachers set high expectations for the students and they were challenged to achieve their potential. This is good practice.
- Students were given opportunities to work independently, in pairs and as a whole class. The lessons included well-chosen resources, some researched from the internet and others were teacher developed. There were carefully planned opportunities for the development of higher-order skills such as the application, analysis, synthesis and evaluation of information. This is excellent practice.
- There was a good emphasis on the development of students' literacy skills. Key words were highlighted during lessons and the use of subject-specific terminology was encouraged. There is scope to emphasise similar strategies to assist in developing students' numeracy skills.
- In all lessons observed classroom management was excellent. Teachers created a pleasant and supportive learning environment. Teaching and learning proceeded in a caring and respectful atmosphere. Interaction with students and observation of classroom activities indicated their enthusiasm and enjoyment for the subject.
- Questioning was used in all classes to check on previous knowledge, learning and understanding. Students' responses to questions indicated a very good level of knowledge and understanding. Some excellent questioning strategies involving higher-order thinking skills were noted, questions were well spread amongst the class members and there was evidence of differentiation within question types.

- Practical lessons were well organised and well monitored, students displayed good routines for setting up and clearing away apparatus. Excellent practices were noted where practical work was investigative and students were encouraged to predict results and develop a hypothesis.
- Assessment featured as an integral part of the teaching and learning process with good use both of assessment of learning and assessment for learning. Teachers regularly and systematically record assessment results which builds a profile of students' progress and achievement in the subject over time.
- A review of a wide range of students' copybooks, folders, tests and coursework notebooks provided evidence of very good progress in their work. Many folders were well organised and well maintained and teachers encouraged this practice in every lesson.
- Homework is assigned regularly and there was evidence that homework is regularly monitored. There were some excellent examples of the provision of constructive feedback to students on both their written work and practical coursework.

#### **SUBJECT PROVISION AND WHOLE SCHOOLSUPPORT**

- Science is a core subject at junior cycle. Biology, Chemistry and Physics are available at senior cycle. In the optional TY programme, all three sciences are provided.
- There is very good provision and whole-school support for Science and Biology. Timetabling of the subjects is very satisfactory.
- Senior management is very supportive of and facilitates the continuing professional development (CPD) of teachers at whole-staff level and at subject-department level.
- There are five well-resourced laboratories in the school. Teachers have created a stimulating learning environment in the classrooms. There is very good information and communications technology (ICT) equipment for Science.

#### **PLANNING AND PREPARATION**

- There is a dedicated and highly committed science department in this school. There is evidence of good collaboration and co-ordination. The role of subject co-ordinator is rotated among members of the science team and this is good practice.
- Minutes of subject department meetings indicate that there is a proactive and organised approach to subject planning for Science.
- Planning for the science modules offered in TY is in line with the key principles of the transition year programme and a broad and varied programme is provided.
- Planning was also made available for both junior cycle science and senior cycle biology classes. All programmes of work provided details of learning outcomes within appropriate timeframes. These would be further enhanced by the inclusion of collaborative resources and methodologies for each topic.

- Teachers individual planning is of a high quality.
- It is positive that the science department has adopted a reflective approach to subject planning and this is evident in their action planning. Specific targets have been developed in areas of ICT, the use of keywords and targeted learning. In order to progress this good practice in action planning, tasks arising from the targets identified should be more specific to learners' needs.

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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.

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