

**An Roinn Oideachais agus Scileanna**

**Department of Education and Skills**

**Subject Inspection of Science and Chemistry  
REPORT**

**Ardcoil Rís  
Griffith Avenue, Dublin 9  
Roll number: 60420L**

**Date of inspection: 11 October 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**

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**INFORMATION ON THE INSPECTION**

<b>Dates of inspection:</b>	<b>10 and 11 October 2013</b>
<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 eight class periods</li><li>• Examination of students' work</li><li>• Feedback to principal and teachers</li></ul>

**MAIN FINDINGS**

- The quality of teaching and learning ranged from good to very good.
- Very good preparation for lessons was evident in the range of resources and teaching materials used during lessons and in the structure and sequence of learning activities provided during the lessons.
- Students were purposefully engaged in a variety of tasks throughout the lessons and practical work was well organised with an investigative approach being taken where relevant.
- While some very good use was made of strategies to assess students' progress during lessons, there was scope for further development.
- Whole-school support for the provision of science subjects is very good.
- Subject planning is well established.

**MAIN RECOMMENDATIONS**

- It is recommended that the science department develop and share good assessment practices in relation to questioning techniques.
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## **INTRODUCTION**

Ardcoil Rís is a voluntary secondary school under the trusteeship of the Edmund Rice Schools Trust (ERST). The school provides the Junior Certificate programme, the Transition Year (TY) programme, the Leaving Certificate programme and the Leaving Certificate Vocational Programme. The current enrolment is 527 boys.

## **TEACHING AND LEARNING**

- The quality of teaching and learning ranged from good to very good. Some features of very good practice were observed in all lessons.
- Very good preparation for lessons was evident in the range of resources and teaching materials used during lessons. The manner and sequence in which new material was presented showed that good thought had been given to how to help students learn.
- The focus and objective of lessons were clear in all cases. Most lessons proceeded at a good pace and students were purposefully engaged in a variety of tasks throughout the lessons.
- Lessons were well managed in a supportive manner with clear implementation of daily routines such as noting of attendance and set seating arrangements.
- Lesson content was communicated clearly with good use being made of the whiteboard, textbook and other resources. Good use was made of repetition and summarising of the key points of the lesson to develop students' understanding.
- Students' varying abilities were well supported by the differentiated approach taken to assessment and the level of individual support provided during lessons.
- Very good use was made of information and communication technology (ICT) resources to help develop lesson content in most cases. In some cases, greater use could have been made of ICT to introduce more visual material to support the development of theoretical content.
- Practical work was well organised with an investigative approach being taken where relevant.
- Students' progress during lessons was monitored mainly by questioning and teacher observation. Some very good use was made of directed and open-ended, higher-order questions. However, in some cases, there was an overuse of questions addressed to the whole class and of questions which only required a very brief response. It is recommended that the science department develop and share good assessment practices in relation to questioning techniques.

## **SUBJECT PROVISION AND WHOLE SCHOOL SUPPORT**

- Whole-school support for the provision of science is very good.
- Science is studied by all junior cycle and TY students. Leaving Certificate students have an open choice of three science subjects.
- Class groups are of mixed ability and of an appropriate size for the conduct of practical activities. The vast majority of science lessons are held in a laboratory.

- The school's three laboratories are well equipped and organised. Each laboratory has good ICT resources such as a data-projector and internet access. During the current term, it is intended to improve internet access.
- Timetabling of science subjects and the deployment of teachers are appropriate.
- Subject planning and teachers' professional development are well supported. Teachers' attendance at external in-service events is facilitated and whole-staff training has been provided on issues such as differentiated teaching approaches.
- The school's health and safety statement refers to relevant issues in the science area and appropriate health and safety equipment was available in the laboratories.

#### **PLANNING AND PREPARATION**

- Subject planning is well established. A science plan provides a good overview and guide to provision and a subject coordinator takes responsibility for organising the work of the science department. Student outcomes are well monitored.
- Good planning for the provision of science is facilitated by regular formal meetings and by a high level of ongoing informal liaison between the science teachers.
- Teachers follow agreed schemes of work and it is good practice that these schemes are regularly reviewed and amended as necessary. It is also good practice that common tests are used with each year group, and that some credit is given in school examinations for students' practical work.
- Good use is being made of ICT to support subject planning through the creation of a virtual learning environment which allows teachers to develop and share teaching resources.
- In line with whole-school initiatives, the science department has focused on developing practice with respect to addressing the literacy needs of students. Very good progress has been made in the development of resources in conjunction with the learning-support department. To advance its worthwhile support for literacy, it is suggested that the science department expand its focus on key words to include non-technical language as well as scientific terms.

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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 was given an opportunity to comment in writing on the findings and recommendations of the report; a response was not received from the board.