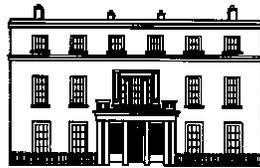


**An Roinn Oideachais agus Scileanna**  
**Department of Education and Skills**

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

**Gairmscoil Mhic Diarmada**  
**Arranmore Island, County Donegal**  
**Roll number: 71244F**

**Date of inspection: 20 April 2016**



**AN ROINN | DEPARTMENT OF**  
**OIDEACHAIS | EDUCATION**  
**AGUS SCILEANNA | AND SKILLS**

**REPORT  
ON  
THE QUALITY OF LEARNING AND TEACHING IN SCIENCE AND BIOLOGY**

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**INFORMATION ON THE INSPECTION**

<b>Date of inspection</b>	<b>20 April 2016</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 four class periods</li><li>• Examination of students' work</li><li>• Feedback to principal and teachers</li></ul>

**MAIN FINDINGS**

- Teaching and learning were of a high quality overall, and in some instances excellent practice was observed.
- All lessons proceeded at a good pace with a strong focus on teaching for understanding.
- Teacher instruction was very clear and accurate, key concepts were emphasised and lesson content was informed by up-to-date information.
- In lessons where excellent practice was observed, each student was involved in a variety of learning experiences with well-chosen and carefully planned opportunities for the development of higher-order thinking skills.
- In all lessons, there was a good focus on developing students' literacy skills; this is in line with the science department's planning documentation and the school's DEIS plan.
- The science team works in a dedicated and conscientious manner and is appropriately qualified and deployed in line with their qualifications.

**MAIN RECOMMENDATIONS**

- The use of peer-tutoring as a methodology should be more widespread in lessons.
  - Schemes of work should be updated following a reflection on practice and the identification of good practices which can be shared among the team.
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## **INTRODUCTION**

Gairmscoil Mhic Diarmada is a co-educational post-primary school which caters for ninety-three students from the island of Arranmore and nearby mainland area of Burtonport. The school operates under the auspices of County Donegal Education and Training Board (ETB). At junior-cycle level, there is an Irish and English-language stream and Science is provided in both. There is a compulsory Transition Year (TY) and Biology is provided at senior-cycle level. The school also participates in Delivering Equality of Opportunity in Schools (DEIS); an initiative of the Department of Education and Skills designed to improve learning outcomes in schools serving designated areas of disadvantage.

## **TEACHING AND LEARNING**

- Teaching and learning were of a high quality overall, and in some instances excellent practice was observed. All lessons proceeded at a good pace and, consequently, a realistic amount of work was completed during the class periods.
- There was a strong focus on teaching for understanding. Teacher instruction was very clear and accurate, key concepts were emphasised and lesson content was informed by up-to-date information.
- Students enjoyed the lessons and it was evident that they were keen to learn. The students contributed readily to discussions and had a positive attitude to their work in class. Students' knowledge was appropriate and they could apply it to the tasks set. Teachers used questioning to recapitulate on prior learning; some direct recall questions were used to introduce the topic followed by more detailed higher-order questions.
- Students contributed to discussions, asked and answered questions which reflected a high level of motivation and interest in the subject. The white board was used very effectively to collate responses and, in one instance, to build up a collaboratively devised food-web.
- Interactions between teachers and students were positive and respectful. All activities were well managed and student behaviour was exemplary. Students had opportunities to work independently, in pairs and as a whole class.
- In lessons where excellent practice was observed, each student was involved in a variety of learning experiences with well-chosen and carefully planned opportunities for the development of higher-order thinking skills. One example was the integration of an activity in a TY lesson to show how Neap and Spring tides are formed. This was followed by a peer-tutoring activity where the roles of tutor and student were rotated from group to group. This practice of peer tutoring was excellent; its more widespread use is recommended.
- There was a good focus on developing students' literacy skills with the identification of keywords and the introduction of memory aids to promote learning.

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

- Whole-school support for Science is very good in the school; all classes are of mixed ability and are timetabled appropriately.
- The school has one laboratory which is tidy and maintained to a high standard. It has an adjacent preparation and storage area. The laboratory is equipped with an interactive

white board and all students, with the exception of third years, use hand-held electronic devices in lessons.

- The science team is appropriately qualified and teachers are deployed in line with their qualifications. Most recent continuing professional development (CPD) has focused on methodologies appropriate to the revised Junior Certificate Science syllabus.

#### **PLANNING AND PREPARATION**

- The science team works in a dedicated and conscientious manner and it meets formally, in line with the school's planning practices, and also informally on a regular and ongoing basis.
- The science planning documentation gives a good overview of how Junior Certificate Science and Leaving Certificate Biology are provided in the school. Both plans include a long-term list of topics for each year group and their associated mandatory practical activities.
- Short-term schemes of work were also provided for each year group; these contained the topics to be taught, with their associated teaching methodologies and experiments, within appropriate timeframes. While there is a very good level of detail in the schemes of work, they would benefit from an update arising from a reflection on practice and the identification of good practices which can be shared within the team.
- Planning documentation for TY would benefit from the inclusion of learning outcomes linked to the planned activities for students. The planning folder contains useful information for teachers on strategies which promote an inclusive classroom.
- It is good practice that the planning documentation includes the literacy and numeracy strategies adopted by the science team and that these are linked to the whole-school DEIS plan and referenced in the school self-evaluation (SSE) report.

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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 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**

**Part A: Observations on the content of the inspection report**

The Board would like to acknowledge the very positive report from the Inspectorate. The Science Department has indicated to the Board that all recommendations are currently being implemented.

**Part B: Follow-up actions planned or undertaken since the completion of the inspection activity to implement the findings and recommendations of the inspection**

- (1) The use of peer tutoring as a methodology is now being used more widely in Science classes and across the curriculum.
- (2) The updating of schemes of work is currently in progression and will be included in all future schemes.