

An Roinn Oideachais agus Scileanna

Department of Education and Skills

**Subject Inspection of Science
REPORT**

**Coláiste Pobail Acla
Achill Sound, County Mayo
Roll number: 76150V**

Date of inspection: 14 October 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**

INFORMATION ON THE INSPECTION

Date of inspection	14 October 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 four class periods• Examination of students' work• Feedback to principal and teachers

MAIN FINDINGS

- The quality of learning and teaching was very good in the majority of lessons observed.
- Teachers were well prepared, students were informed of the learning outcomes in the majority of lessons and some use of an investigative approach to teaching was observed.
- Homework was assigned and monitored in all lessons and some formative feedback was observed in samples of students' work.
- Science is a core subject at junior cycle and students can choose to study Agricultural Science and Biology at senior cycle.
- The school has one well-resourced science laboratory and the science teachers work collaboratively to ensure that as many lessons as possible take place there.
- The department's planning is good and common schemes of work are developed for the three years of junior cycle Science.

MAIN RECOMMENDATIONS

- The science teachers should implement strategies to aid students in self-reflecting on learning outcomes in order to improve their learning skills.
 - The science department should agree and adopt a policy of providing written formative feedback to students on their practical work.
 - Management should explore the possibility of providing an open choice of subjects in senior cycle in order to allow a greater range of science subjects for students into the future.
 - The schemes of work should now be extended to include specific teaching and learning methodologies linked to the existing learning outcomes and to include a teacher review section in order to inform future planning.
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INTRODUCTION

Coláiste Pobail Acla was established in 2011 as a result of an amalgamation between McHale College and Scoil Damhnait. It currently operates as a co-educational school under the auspices of Mayo, Sligo, and Leitrim Education Training Board (ETB). At the time of the inspection it had an enrolment of 221 students. The programmes offered are the Junior Certificate, the Junior Certificate Schools Programme (JCSP), an optional Transition Year (TY) programme, the Leaving Certificate Vocational Programme (LCVP) and the established Leaving Certificate.

TEACHING AND LEARNING

- The quality of learning and teaching in the majority of lessons was very good. There was also evidence of the good practices of note-making and an investigative approach to teaching and learning. These methods should be encouraged across as many lessons as possible.
- Teachers were well prepared and most lessons followed a good pace and structure suitable for students. Learning outcomes were shared with students in the majority of lessons which enabled them to focus on the topic of the class. The science teachers should now extend this good practice by implementing strategies to aid students in self-reflecting on these outcomes in order to improve their learning skills.
- A variety of very effective teaching and learning methodologies was employed during the evaluation to ensure students were active and engaged. These included recapitulation of prior learning, linking new topics to students' interests, promoting an investigative approach to learning, pair work, group work, and allowing for a good balance between teacher instruction and student activity.
- Classroom management was very good and students were being affirmed for their efforts in class leading to a very positive student-teacher rapport. The laboratory and some rooms used mostly for Science were print rich in scientific material and all rooms had good information and communication technology (ICT) resources. There was good use of ICT within some lessons however there was scope for greater use across lessons to reinforce and augment student learning.
- Practical work observed was well organised and students were encouraged to follow good health and safety procedures. Classes are of mixed ability and teachers used hand-outs, group work and student activities to differentiate learning.
- Questioning was of a high standard and the good practices of allowing students time to answer directed questions was observed. Higher-order questions were regularly used to further enhance discovery learning. Teachers also made good use of activity-based periods to check on students understanding of topics through differentiated questioning.
- Homework was assigned and monitored in all lessons. Students corrected their mistakes and teachers made students aware of common errors that were frequently made. Written formative feedback was observed on samples of students' work in some lessons, however the science department should adopt a consistent approach to providing this written feedback to students in important areas of study such as practical copybooks.
- Keywords were pre-taught or explained when they occurred within lessons. Strong links to numeracy with emphasis on rounding, measurement readings and units were also made in most lessons.

SUBJECT PROVISION AND WHOLE SCHOOL SUPPORT

- Science is a core subject at junior cycle and students can choose Agricultural Science and Biology as pre-set options in senior cycle. Management should explore the possibility of providing an open choice of subjects and consideration should also be given to providing Physics, Chemistry or the combined course as options to students entering senior cycle.
- Time provision for Junior Certificate Science is good and is in line with syllabus guidelines. The provision for TY science is also good and the schools offers students a good balance of all of the science subjects as a taster programme.
- The school has one well-resourced science laboratory and the science teachers work collaboratively to ensure that as many lessons as possible take place there. Management and teachers ensure that the science department is well-resourced.
- The science department undertakes risk assessment at the start of the school year. Appropriate health and safety and first-aid equipment are in place and chemicals are stored correctly. Health and safety rules are also displayed in the laboratory.
- Teachers attend continuing professional development (CPD) courses where possible and are supported by management. Students are encouraged to participate in extra-curricular activities such as Science Week and the BT Young Scientist and Technology Exhibition.
- Common assessments take place for science students at Christmas and summer and ten percent of the overall marks are provided for practical work completed throughout the year. This is commendable practice. The science department should explore the possibility of also providing students with a further percentage for managing their files and notes.

PLANNING AND PREPARATION

- A subject co-ordinator is appointed to oversee the running of the science department. Meetings are held each term and records of these meetings are recorded. An analysis of certificate examinations in comparison to national averages is undertaken annually and this has led to discussions among the science teachers about how to improve student learning. The outcomes of these discussions should lead to the setting of measurable targets and the design and implementation of time-bound action plans.
 - The department's planning is good and common schemes of work are developed for the three years of junior cycle Science. These schemes should now be extended to include specific teaching and learning methodologies linked to the existing learning outcomes and to include a teacher review section in order to inform future planning.
 - There is a good balance of the three science subjects being taught in each year group and teachers have good access to teaching and learning resources that are shared on a school server.
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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.

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