

**An Roinn Oideachais agus Scileanna**

**Department of Education and Skills**

**Subject Inspection of Mathematics  
REPORT**

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

**Date of inspection: 3 May 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 MATHEMATICS**

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**INFORMATION ON THE INSPECTION**

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| <b>Dates of inspection</b>  | 2 and 3 May 2013  |
| <b>Inspection activities undertaken</b> <ul style="list-style-type: none"><li>• Review of relevant documents</li><li>• Discussion with principal, deputy principal and teachers</li><li>• Interaction with students</li></ul> | <ul style="list-style-type: none"><li>• Observation of teaching and learning during nine 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 observed ranged from good to very good with some examples of exemplary practice noted.
- Tasks that required students to engage actively with the learning content featured strongly in lessons with a need to further differentiate activities in some instances.
- The amount of time allocated to the teaching of Mathematics is very good.
- Students who find Mathematics particularly challenging are well catered for in the school.
- The mathematics department has engaged in a significant amount of subject planning.
- The teachers have been proactive in implementing a range of initiatives to promote Mathematics in the school.

**MAIN RECOMMENDATIONS**

- Strategies for differentiation should be further developed and implemented in all lessons.
  - Schemes of work should be augmented to include intended learning outcomes, teaching methodologies, resources and assessment strategies.
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## INTRODUCTION

Coláiste Pobail Acla is a co-educational school under the auspices of County Mayo Vocational Educational Committee (VEC) with a current enrolment of 242 students. The school was established in 2011 as a result of the amalgamation of two schools in the area: McHale College and Scoil Damhnait. The programmes offered are the Junior Certificate, an optional Transition Year (TY), the Leaving Certificate Vocational Programme (LCVP) and the established Leaving Certificate.

## TEACHING AND LEARNING

- The quality of teaching and learning observed ranged from good to very good with some examples of exemplary practice noted. Teachers demonstrated a strong command of the subject matter in all lessons and provided very clear explanations of key concepts. Students demonstrated positive dispositions towards Mathematics and engaged well with lesson tasks.
- Most lessons featured a significant amount of student activity on assigned tasks. In some instances there was a need to further differentiate these activities to ensure that all students remained adequately challenged for the duration of the activity.
- In a small number of lessons, the learning could have been enhanced by creating more opportunities for students to engage actively with the content of the lesson and by decreasing the amount of time allocated to teacher presentation.
- A variety of questioning strategies was used in all of the lessons observed. Teachers used a combination of higher and lower order questions and there were some very good examples of probing questions that required students to think critically and to explain their thinking.
- Information and communication technology (ICT) was used in the majority of lessons to present a wide variety of pre-prepared content. Teachers demonstrated impressively high levels of expertise in using the available technology.
- Students' literacy development was well supported by an appropriate focus on subject specific terminology. This is in keeping with a whole-school approach to literacy that is currently being developed as part of the school self-evaluation process.
- In the majority of lessons observed, the learning objectives were clear and their attainment was well monitored throughout the lesson.
- An examination of students' journals indicates that homework is assigned regularly. Students' work was well presented and well monitored in the copybooks reviewed.
- All classrooms featured good displays of relevant resources including *Project Maths* posters, theorems, constructions and keywords.
- Classroom management was very good in all of the lessons observed. Teachers have developed a very good rapport with their students and were affirming, encouraging and supportive of students' efforts.

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

- The amount of time allocated to the teaching of Mathematics is very good, particularly in fifth and sixth year where students have six periods of mathematics instruction per week. At present, sixth-year students do not have mathematics class on a Monday. Future timetabling should aim to provide daily contact with Mathematics for all students in line with Circular 0058/2011 and Circular 0025/2012.
- Students are taught in mixed-ability classes from the beginning of first year until Christmas of second year. Students sit common examinations during this period. The results of these examinations in conjunction with teacher observations are used in the subsequent grouping of students into level-specific classes. Concurrent timetabling from second year through to sixth year facilitates student access to the subject at different levels. Such arrangements reflect best practice.
- Appropriate systems are in place to identify students who find Mathematics particularly challenging and the students concerned are provided with a wide range of supports. Of particular note is a paired learning initiative whereby TY students provide assistance on a weekly basis to a number of first-year students who are experiencing difficulties. Both TY and first-year students spoke very positively about this initiative. Support is also provided on a weekly basis through the School Completion Programme and a number of students are availing of this support.
- An Autistic Spectrum Disorder (ASD) unit was established in the school in 2011. This unit currently caters for a small number of students and Mathematics is a timetabled subject for the students in this unit.
- The recent amalgamation has brought together a group of mathematics teachers with a very good qualifications profile. Most of the mathematics teachers have specialist qualifications in Mathematics and all of the department's members have attended the workshops provided as part of the national roll-out of *Project Maths*.
- Teachers of Mathematics have a significant range of resources to support teaching and learning at their disposal. Each classroom is equipped with a data projector and all teachers have been provided with a laptop computer for use in the classroom. A range of resources has also been purchased to facilitate the use of the active learning methodologies espoused by *Project Maths*.

## **PLANNING AND PREPARATION**

- Teachers of Mathematics have engaged in a significant amount of subject planning. Topics, sub-topics and timeframes for all years and all levels are clearly laid out in tabular format. As a means of building on this, it is recommended that schemes of work be augmented to include intended learning outcomes, teaching methodologies and assessment strategies, both summative and formative, for each syllabus item. As *Project Maths* continues to become embedded in practice, links to teaching resources that have been trialled and have proven effective in lessons should be added to the planning folder on an ongoing basis.
- The TY plan contains an appropriate mix of syllabus and non-syllabus topics with a strong emphasis on the use of investigative approaches and the development of problem solving and analytical skills.

- Teachers of Mathematics have been very proactive in implementing a range of initiatives to enhance student engagement and interest in Mathematics throughout the school. These initiatives include the paired mathematics programme between first-year and TY students referred to earlier, *Drop Everything and Solve a Maths Problem*, *Who Wants to Be a Number Millionaire* as well as participation in a range of mathematics-related competitions.
- Teachers' individual preparation for lessons was very good. Additional resources, including ICT resources, were sourced and prepared in advance, providing a good focus for instruction and facilitating good levels of student engagement.

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The draft findings and recommendations arising out of this evaluation were discussed with the principal and the deputy principal 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.