

An Roinn Oideachais agus Scileanna
Department of Education and Skills

Subject Inspection of Mathematics
REPORT

Coláiste Cholmáin
Claremorris, County Mayo
Roll number: 64610N

Date of inspection: 23 February 2016



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**

INFORMATION ON THE INSPECTION

Dates of inspection	22 and 23 February 2016
Inspection activities undertaken <ul style="list-style-type: none">• Review of relevant documents• Discussion with principal, deputy principal and teachers• Interaction with students	<ul style="list-style-type: none">• Observation of teaching and learning during eight class periods• Examination of students' work• Feedback to principal, deputy principal and teachers

MAIN FINDINGS

- Good or very good learning and teaching was observed in all lessons.
- Consistency in lesson structure combined with an atmosphere of mutual respect and co-operation provide a solid foundation for effective learning and teaching.
- Subject provision and whole-school support for Mathematics are very good.
- There are effective structures in place to support students who require additional numeracy support.
- The teachers of Mathematics are very well qualified and have engaged very well with continuing professional development and further study.
- Subject department planning is well established in the school with scope for some further development of short-term schemes of work.

MAIN RECOMMENDATIONS

- The further incorporation of collaborative learning strategies is recommended.
 - More detail should be added to schemes of work in relation to specific methodologies, resources and assessment modes to be used.
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INTRODUCTION

Coláiste Cholmáin is an all-boys voluntary secondary school located on the outskirts of Claremorris. The programmes offered are the Junior Certificate, an optional Transition Year (TY), the Leaving Certificate Vocational Programme, the Leaving Certificate Applied programme and the established Leaving Certificate. Enrolment currently stands at 391 students.

TEACHING AND LEARNING

- Good or very good learning and teaching was observed in all lessons. Teachers have developed positive working relationships with students and all lessons were conducted in an atmosphere of mutual respect and co-operation.
- There was a high level of consistency observed in relation to lesson structure. Typically, lessons commenced with the activation of prior learning through some form of exercise or whole-class discussion. Learning intentions were shared with students in most lessons and time was left at the end of lessons to revisit these learning intentions and to recapitulate the content of the lesson. This is very good practice.
- Student activity was a feature of most lessons and students worked purposefully on assigned tasks. In some cases, collaborative exercises, in the form of pair or group work, were used to very good effect. Teachers should continue to discuss collaborative learning strategies with a view to incorporating this type of activity to a greater extent in lessons. This will have the added benefit of further differentiating the lesson content.
- Information and communications technology (ICT) was used in almost all of the lessons observed to frame the lesson content and to provide a focus for teacher presentations. Graphing software and visualisers were among the ICT tools used and teachers demonstrated a high level of confidence and competence in using the available technology. Given that a significant proportion of students use tablet computers in lessons, further discussion should take place in relation to how these devices can be exploited to a greater extent as a learning resource.
- Homework was issued in most lessons and students' work was well presented in the sample of copybooks reviewed. Correction of homework was achieved typically through whole-class discussion of the exercise and students demonstrated a high level of diligence in making corrections to their work where necessary.
- Assessment techniques observed included the use of both higher-order and lower-order questioning strategies and the observation of students while they worked. A team from the school has been involved in a Forbairt Action Learning Project in *Assessment for Learning* (AfL) and much of the learning that has arisen from this project has been shared with the wider body of staff. This is a very worthwhile initiative and teachers should continue to develop their practice in this area.
- Teachers have created stimulating learning environments for students and all classrooms are well maintained. Relevant posters and key terminology are on display in most classrooms and a numeracy board is on prominent display in the school corridor. Students' own work is celebrated in classrooms through displays of mathematics-related projects.

SUBJECT PROVISION AND WHOLE SCHOOL SUPPORT

- Subject provision and whole-school support for Mathematics are very good. The number of lesson periods allocated to Mathematics at junior cycle is in line with syllabus requirements. However, due to timetabling constraints, first-year students do not currently have daily contact with Mathematics. This should be addressed in future iterations of the timetable in order to comply fully with Circular 0058/2011 and Circular 0025/2012. There is a generous allocation of six periods per week in fifth and sixth year.
- First-year and TY students are taught in a mixed-ability setting in line with best practice. In other year groups, students are taught in level-specific classes where concurrent timetabling facilitates the movement of students between levels where necessary.
- Students in need of additional numeracy support are identified through a combination of standardised and in-house testing as well as through teacher observation. The main form of provision is through the creation of smaller class groups. The progress of all students is closely monitored by year heads in consultation with the special educational needs team, with a view to providing additional support and encouragement to students where necessary.
- More able students are facilitated in participating in a range of co-curricular activities related to Mathematics including the *Team Maths* quiz and the Mathematics Olympiad.
- The teachers of Mathematics have a very good qualifications profile. All of the teachers satisfy the requirements of the Teaching Council for the teaching of Mathematics and all have attended the workshops provided as part of the national roll out of *Project Maths*. A number of teachers have engaged in additional post-graduate study and one teacher is currently involved in a *Reflections on Practice* action-research project in collaboration with other teachers in the region.
- The mathematics department is very well resourced. All classrooms are equipped with a data projector and a desktop computer. A range of additional resources is available to support learning and teaching including visualisers, geometry sets and other practical equipment. High-speed broadband is available throughout the school through both hard-wired and wi-fi connections.

PLANNING AND PREPARATION

- The standard of planning and preparation is good. A comprehensive planning document has been compiled and this document sets out in good detail how the mathematics department operates.
- The mathematics department is co-ordinated on a rotating basis in line with good practice. Department meetings are held regularly throughout the year and the minutes of these meetings are retained in the subject department folder. It is recommended that an aspect of learning and teaching be placed as an agenda item for all meetings to further facilitate the sharing of best practice.
- Schemes of work for all year groups and for all levels of study are laid out in tabular format in line with good practice. Future development should include the further tailoring of methodologies, resources and assessment modes to individual learning outcomes.

- The TY mathematics plan is based around a combination of ICT-based and self-directed learning, including project work. Schemes of work are well developed and some good ideas in relation to potential areas of research that students could engage in are included.

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 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

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

In relation to the main recommendations we will take the following actions:

1. Collaborative Learning: The Principal will arrange for CPD for Teachers on best practice in Collaborative learning.
2. Schemes of Work: Staff will be encouraged to add more detail to schemes of work in relation to specific methodologies, resources and assessment modes to be used. Where CPD is required this will be arranged by the Principal.