

An Roinn Oideachais agus Scileanna

Department of Education and Skills

**Subject Inspection of Mathematics
REPORT**

**Sancta Maria College
Louisburgh, County Mayo
Roll number: 64660F**

Date of inspection: 2 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	1 and 2 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

- The standard of learning and teaching was good or very good in the majority of lessons observed with scope for development in the teaching approaches used in a minority of lessons.
- A range of relevant expertise was evident among the teachers of Mathematics with scope for greater consistency of practice in some areas.
- Subject provision and whole-school support for Mathematics are very good.
- The proportion of students studying Mathematics at higher level is increasing consistently.
- A range of resources is available to support learning and teaching in Mathematics and these resources, including information and communications technology (ICT), were used to good effect in lessons.
- Planning for learning and teaching in Mathematics is well established with scope for some further tailoring of short-term schemes of work.

MAIN RECOMMENDATIONS

- The use of effective active-learning strategies should become more widespread in lessons.
- Strategies to further capitalise on students' prior learning should be discussed and implemented by teachers of Mathematics, to be accompanied by an expansion of the repertoire of *assessment for learning* (AfL) strategies used in lessons.
- The continued development of schemes of work should include the further tailoring of resources, methodologies and assessment modes to individual learning outcomes.

INTRODUCTION

Sancta Maria College is a co-educational post-primary school operating under the trusteeship of Catholic Education an Irish Schools' Trust (CEIST). The programmes offered are the Junior Certificate, an optional Transition Year (TY), the Leaving Certificate Vocational Programme and the established Leaving Certificate. Enrolment currently stands at 371 students.

TEACHING AND LEARNING

- The standard of learning and teaching was good or very good in the majority of lessons observed. There was scope for development in the teaching approaches used in a minority of lessons.
- Where learning and teaching were of a high standard, lessons proceeded at a purposeful pace, there was a good balance between teacher exposition and students' active participation and the lesson content was contextualised appropriately.
- Where practice was less effective, students were passive for large sections of the lesson and teacher presentation dominated. In such cases, it is recommended that teachers plan activities that will further engage students in their learning and that such activities be interspersed throughout the lesson.
- Clear lesson routines were evident in the majority of lessons. Typically, prior learning was activated through the correction of homework or through some initial questioning of students. In some cases, it would be worthwhile to further consider ways in which students' prior learning can be used as a basis for the lesson. Activities such as brainstorming and concept mapping can be useful tools in this regard.
- ICT was used in all of the lessons observed to support teachers' presentations and to facilitate efficient progress through the lesson content. Teachers demonstrated high levels of confidence and competence in using the available technology.
- Learning intentions were shared with students at the start of most lessons and, in some cases, were revisited at the end of the lesson. This is good practice. It is advised that in all lessons, some time is set aside to consolidate students' learning and to signpost future learning.
- A particularly effective approach to assessment was noted in some lessons. In these lessons, students were required to compare their expected test scores with their actual results and to identify areas for improvement. This was accompanied by in-depth formative feedback from the teacher to further guide improvement. This is very good practice.
- Higher-order questioning was used to good effect in most lessons and was the primary AfL strategy adopted by teachers. Mini-whiteboards were used to very good effect in one lesson as a means of monitoring students' understanding. The use of such strategies should be discussed further at subject department level with a view to developing a department-wide policy in relation to AfL.

SUBJECT PROVISION AND WHOLE SCHOOL SUPPORT

- Subject provision and whole-school support for Mathematics are very good. Timetable provision for Mathematics is in line with syllabus requirements at junior cycle and 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. It is school policy to encourage students to study at the highest level possible for as long as possible. Evidence of this is the notable increase in the proportion of students sitting the higher-level papers in the Junior Certificate examination in recent years.
- Students in need of additional numeracy support are catered for through the formation of smaller class groups where feasible. One-to-one and small-group withdrawal is also arranged as students' needs dictate. The more-able students are given the opportunity to participate in a range of mathematics-related competitions.
- 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*.
- There has been good rotation among teachers in the teaching of different levels at junior cycle up to now and this practice has recently been extended to senior cycle. One teacher has availed of upskilling in this area and this brings to three, the number of teachers with the capacity to teach the Leaving Certificate higher-level course. This represents good capacity in the context of the school size.
- The mathematics department is very well resourced. All classrooms are equipped with a data projector and a desktop computer. An annual budget is available for the purchase of additional resources to support learning and teaching in Mathematics.

PLANNING AND PREPARATION

- The standard of planning and preparation for Mathematics is good. Subject planning is well established and the subject plan outlines in good detail how the mathematics department operates. The creation of further synergies with other subject departments is an area for development through the further documentation and exploitation of cross-curricular links.
- Well-developed schemes of work are in place for all year groups and for all levels of study. These schemes of work are laid out clearly in tabular format. Future development should include the further tailoring of resources, methodologies and assessment modes to individual learning outcomes. This will facilitate the ongoing cataloguing of good practices.
- The TY plan promotes more active learning strategies with a focus on project work. Further detail is required in relation to the scope of these activities, including project descriptors and associated assessment criteria.
- A mathematics competency test is used to determine students' level of fluency in basic skills. The results of this test, combined with the findings of the school's numeracy working group, have been used to inform the school's numeracy strategy. The current focus is on problem solving and the use of learning tools such as graphic organisers.

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; a response was not received from the board.