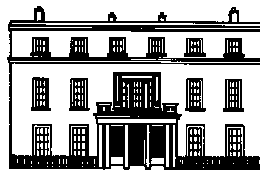


An Roinn Oideachais agus Scileanna
Department of Education and Skills

Subject Inspection of Mathematics
REPORT

St John's College, De La Salle
Ballyfermot, Dublin 10
Roll number: 60510M

Date of inspection: 28 November 2013



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

**REPORT
ON
THE QUALITY OF LEARNING AND TEACHING IN MATHEMATICS**

INFORMATION ON THE INSPECTION

Dates of inspection	27 th and 28 th November 2013
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 six class periods• Examination of students' work• Feedback to principal and teachers

MAIN FINDINGS

- The quality of teaching and learning was very good overall, and some examples of excellent practice were also noted.
- Students demonstrated very good learning by being attentive and interested and by participating very well in their lessons.
- Very good assessment practices were observed.
- The classroom atmosphere was warm and encouraging with teachers frequently affirming students.
- There are very good strategies in place to encourage students to study Mathematics at the highest level possible for as long as possible.
- An analysis of students' attainment in Mathematics in the certificate examinations indicates that the school is performing well in comparison with national norms.

MAIN RECOMMENDATIONS

- The very good teaching strategies observed during the evaluation should be shared among the mathematics teachers through collaboration on lesson planning and through peer observation.
 - The mathematics teachers should collaborate on ensuring that their planned programmes of work reflect the way *Project Maths* is examined by identifying and including cross-topic links in the programmes.
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INTRODUCTION

St John's College, De La Salle, Ballyfermot is an all-boys school with a current enrolment of 406 students. The school participates in Delivering Equality of Opportunity in Schools (DEIS), the Department of Education and Skills action plan for educational inclusion. The curricular programmes offered are the Junior Certificate, the Junior Certificate School Programme (JCSP), the Leaving Certificate Applied (LCA) and the established Leaving Certificate programmes. Transition Year (TY) is compulsory for all students with the exception of students who opt for LCA.

TEACHING AND LEARNING

- The quality of teaching and learning was very good, overall. Some examples of excellent practice were also noted. However, there was some scope for improvement in most lessons. All lessons were well planned and structured. The learning objectives were shared with students at the outset of each lesson and checked as the lessons progressed. Suitable material was taught at an appropriate pace in almost all lessons. There was a need for a slower pace and a reduction in the difficulty and quantity of the material covered in one lesson.
- Very good quality learning was evident in almost all lessons observed. Students were attentive and interested, and participated very well. They demonstrated understanding of the concepts taught in their answers to teacher questions and in their discussions.
- In some lessons students engaged in activities that allowed them to be independent learners, for example, where they worked in groups on tasks that were very well designed to facilitate full exploration of the concepts taught. In other lessons, there was a need for strategies to reduce the students' dependence on teacher input. It is essential that students are facilitated in developing mathematical confidence through practising problem solving and critical thinking in order to be well prepared for *Project Maths* examination questions. It is, therefore, recommended that activities, which facilitate problem solving, discovery and investigation be included in all lessons.
- The main methodologies used included teacher example followed by students completing similar exercises, *PowerPoint* presentations, group and pair work, drawing exercises and individual student tasks. In a number of lessons students were brought to the board to complete exercises and this was effective in encouraging participation. In some lessons there was scope for a better balance between student activity and teacher instruction and this should be addressed.
- Elements of a *Project Maths* approach such as ensuring that explanations were clear and conceptual, contextualising material and including links to other areas of the syllabuses were evident in almost all lessons. Students were encouraged to think for themselves in the lessons where *Project Maths* was strongest. In these lessons teachers provided general instructions and advice rather than direct assistance to students. This approach facilitated students in working through the difficult conceptual parts of the work at hand and is very good practice.
- Teachers differentiated learning by providing assistance to students experiencing difficulty and by including tasks that ranged in difficulty. In a small number of lessons there was scope for the inclusion of additional strategies to differentiate learning. For example, it is recommended that students, who finish their work ahead of their peers be provided with additional and more challenging material.

- Very good assessment practices were evident. Teachers made very good use of questioning and observation to assess students' progress. In some cases higher-order questioning was used to develop students' understanding and this practice should be extended. Advice on how to improve was provided orally by teachers and was also written into students' copybooks.
- The classroom atmosphere was warm and encouraging during the lessons evaluated. Teachers frequently affirmed their students and the students responded very positively to this. Additional support for students is also generously provided by teachers in their own time. This is evidence of the teachers' commitment to meeting their students' needs and to developing students' confidence with Mathematics.

SUBJECT PROVISION AND WHOLE SCHOOL SUPPORT

- There is very good whole-school support for Mathematics. Continuing professional development (CPD) by teachers is encouraged and facilitated. Timetable allocation is very good. Leaving Certificate students have three double classes of Mathematics each week. This is to accommodate students from a neighbouring school to access higher-level Mathematics. While this arrangement was reported to be working well, it should be kept under review to ensure that the students' needs are continuing to be met. A very good range of resources that includes information and communications technology (ICT) is provided for the subject.
- Literacy has been targeted as part of the school's self-evaluation (SSE) process for this year and the positive effects of this were noted in the lessons observed. Numeracy is on next year's agenda and measure, common approaches to routine operations and problem solving are part of the school's plan. The school also plans as part of the SSE process to survey students on the activities that help them to learn best. This is all very good practice.
- There are very good strategies in place to encourage students to study Mathematics at the highest level possible for as long as possible.
- An analysis of students' attainment in Mathematics in the certificate examinations that includes a comparison with national norms is completed annually. This analysis indicates that the school is performing well.
- Valuable extracurricular opportunities are provided for students to experience Mathematics for fun.

PLANNING AND PREPARATION

- A co-ordinator for the mathematics department has been appointed and formal planning time is provided once per term. It is recommended that meeting time be used to share teaching strategies and to discuss how the very good teaching and learning practices described earlier in this report and, in particular, independent learning and problem solving activities can be integrated into lessons. This should be done through collaboration on lesson planning and peer observation.
- The mathematics plan contains common programmes of work for each year group and level that are set out in terms of topics to be covered within defined timeframes. While a *Project Maths* approach was evident during most lessons evaluated, this is not reflected in

the programmes of work. The syllabuses should be taught in a way that supports the need for students to gain an appreciation of the cross-topic links that exist. It is recommended that the subject team collaborates in ensuring that the programmes of work are planned to reflect the way *Project Maths* is examined. This will mean identifying cross-topic links and using them in planning for teaching the subject.

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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