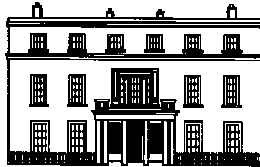


An Roinn Oideachais agus Scileanna
Department of Education and Skills

Subject Inspection of Mathematics
REPORT
Deansrath Community College
Dublin 22
Roll number: 70040H

Date of inspection: 23 October 2014



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	21 st and 23 rd 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 eight class periods• Examination of students' work• Feedback to principal and teachers

MAIN FINDINGS

- The quality of teaching and learning ranged from very good to outstanding.
- Teachers made excellent use of questioning to encourage mathematical thinking and to assist students in fully exploring the lessons' ideas.
- All of the lessons were very well planned with a range of activities and resources prepared.
- Students engaged and participated very well in all lessons.
- The provision of resources, which includes information and communications technology (ICT), to support teaching and learning in Mathematics are very good.
- There is a very good whole-school approach to literacy and numeracy.
- There is an excellent level of sharing knowledge, methodologies and ideas amongst the teaching team.

MAIN RECOMMENDATIONS

- The possibility of providing an additional lesson period for Mathematics in each senior cycle year should be considered, if resources allow.
- The subject department's analysis of the students' achievement in the certificate examinations compared to national averages should include a comparison with student intake assessment data, student ongoing achievement in the school and other indicators such as attendance.
- Some planning time should be given to identifying cross-topic links to ensure that the programmes of work for Mathematics better reflect the way the subject is examined in the certificate examinations.

INTRODUCTION

Deansrath Community College, operates under the trusteeship of the Dublin and Dún Laoghaire Education and Training Board (DDLETB). It has a current enrolment of 199 boys and 171 girls. The school participates in Delivering Equality of Opportunity in Schools (DEIS), the Department of Education and Skills action plan for educational inclusion. All the Junior Certificate and Leaving Certificate programmes are provided in the school. Transition year is not provided.

TEACHING AND LEARNING

- The quality of teaching and learning ranged from very good to outstanding. All teachers clearly shared the learning objectives with the students at the start of lessons. By the end of all lessons the students were able to demonstrate that the learning objectives were achieved. In almost all lessons the teaching approaches reflected the spirit of *Project Maths*.
- In most lessons students engaged in activities that encouraged them to think for themselves. These activities included; participating in group and pair work, engaging in tasks that facilitated discovery and investigation and working independently. Students discussed the mathematics taught, justified their reasoning and explained concepts to their peers. This is all excellent practice. In a small number of lessons there was an over reliance on teacher led instruction. It is recommended that the good strategies outlined above be extended to all lessons.
- Teachers made excellent use of questioning to encourage mathematical thinking and to assist students in fully exploring the lessons' ideas. Students were regularly asked to describe what they noticed or to make connections.
- All of the lessons were very well planned with a range of activities and resources prepared. ICT was integrated very well into the work of all lessons.
- In most lessons there was a strong focus on conceptual learning rather than the mastery of techniques or methods. This involved teachers focusing on students fully understanding the core ideas underlying the Mathematics being taught. This excellent practice will contribute positively to students' ability to deal with *Project Maths* examination questions. In most cases, new concepts were taught in their appropriate mathematical context. There was scope in a few lessons for a deeper treatment of the lesson material.
- Students engaged and participated very well in all lessons. They demonstrated very high quality learning in their discussions with each other and their teachers, in their answers to questions, in the logic they displayed and in the enthusiasm they demonstrated for the subject.
- Very good use of key words in explaining mathematical concepts was observed. Students used mathematical language in a very effective and natural way, in their classroom discussions.
- Very good assessment practices were observed in the evaluation. These included the use of 'show me boards', to assess progress. All teachers observed students working and provided very full feedback and appropriate levels of assistance as they administered individual attention.
- The atmosphere in all classrooms was warm and affirming. Teachers demonstrated a very high level of care for their students' learning and it was evident that they are dedicated to ensuring best outcomes for their students in Mathematics.

SUBJECT PROVISION AND WHOLE SCHOOL SUPPORT

- The provision of resources, which includes ICT, to support teaching and learning in Mathematics are very good. Mathematics is allocated five periods per week in all years. The possibility of providing an additional period in each senior cycle year should be considered, if resources allow.
- Students are assigned to mixed ability classes in first year and are assigned to higher, ordinary and foundation level groups for all other years. It is very good that mathematics lessons are concurrently timetabled, to allow movement between levels, from second year onwards.
- The school provides for students with special educational needs through individual and small group withdrawal. This year team teaching was introduced as an additional mode of delivery. This a very good development and should be extended to supporting mixed ability teaching in first year.
- There is a very good whole-school approach to literacy and numeracy. Many very valuable strategies, such as the well-integrated use of key works to explain mathematical concepts, and the use of spelling journals are being implemented in all mathematics lessons.
- School management actively encourages teachers to engage in continuing professional development (CPD) and facilitates attendance at subject specific and whole-school CPD events. Teachers also attend additional CPD courses in their own time.

PLANNING AND PREPARATION

- The mathematics teachers meet formally once per term to organise the work of the subject department. A co-ordinator has been appointed and in keeping with good practice this position rotates amongst members of the mathematics department. There is an excellent level of sharing knowledge, methodologies and ideas amongst the teaching team. This has contributed to consistent high quality teaching and learning. It is recommended that teachers observe each other's lessons as a further way to share expertise.
- An annual analysis of the students' achievement in the certificate examinations, compared to national averages, is completed. In keeping with excellent practice this analysis focuses on identifying what went well and also highlights possible strategies for future improvement. It is recommended that a comparison with student intake assessment data, student ongoing achievement in the school and other indicators such as attendance, be completed. This will provide a more accurate measure of the school's performance, will better highlight success and will provide the mathematics teachers with a source of affirmation.
- The mathematics teachers have worked hard in planning for the subject. Very good programmes of work for each year group and level have been created to incorporate the new syllabuses. Self-evaluation is a strong and valuable feature of subject planning in the school. It is recommended that some planning time should be given to identifying cross-topic links to ensure that the programmes of work better reflect the way the subject is examined in the certificate examinations.

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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