

An Roinn Oideachais agus Scileanna

Department of Education and Skills

**Subject Inspection of Mathematics
REPORT**

**St. Kevin's Community College
Fonthill Road, Clondalkin, Dublin 22
Roll number: 70042L**

Date of inspection: 28 September 2015



**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	28 and 29 September 2015
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 nine class periods• Discussion with the learning-support co-ordinator• Examination of students' work• Feedback to principal, deputy principal and teachers

MAIN FINDINGS

- The quality of teaching and learning varied from good to excellent.
- The very best lessons featured the teaching approaches espoused by Project Maths, sought to deepen the students' understanding of Mathematics and address identified misconceptions.
- In lessons requiring improvement, the lesson content was dealt with in an overly academic fashion and the more practical real-life applications of Mathematics were overlooked.
- Timetabling provision, in relation to the time available for teaching Mathematics, is very good, but the scheduling of mathematics lessons is in need of review.
- Provision for students with special education needs or requiring learning support in Mathematics is very good.
- Subject department planning in Mathematics is very good

MAIN RECOMMENDATIONS

- The approach to teaching, at ordinary and foundation level in junior cycle, should provide the students with a more practical experience of Mathematics and place greater emphasis on improving the students' mathematical literacy.
- Future timetabling in Mathematics should ensure that the occurrence of double periods is rationalised and the implications they have for teaching and learning are fully discussed.
- The manner in which the members of the department are deployed should be reconsidered and instances where the teachers are assigned to teach Mathematics to just one class group should be discontinued.
- In order to promote the wider implementation of effective active teaching methods, peer observation of lessons should become an integral part of ongoing planning in Mathematics.

INTRODUCTION

St Kevin's Community College is an inclusive school with an enrolment of 365 students. It operates under the aegis of the Dublin and Dún Laoghaire Education and Training Board (DDLETB) and participates in the Delivering Equality of Opportunity in Schools (DEIS) action plan for educational inclusion. The school provides a broad and balanced curriculum including the Junior Cycle Schools Programme (JCSP) and Transition Year (TY).

TEACHING AND LEARNING

- The quality of teaching varied from good to excellent with the majority of lessons being good. The best lessons featured a range of teaching approaches designed to deepen the students' understanding and appreciation of Mathematics. These lessons featured the teaching methods espoused by Project Maths and included the use of individual white boards, group work, innovative use of the interactive whiteboard and higher-order questioning which facilitated very good individual and group learning.
- Another feature of the very best lessons was the effective manner in which any misconceptions the students may have had about the key mathematical operations were identified and dealt with.
- In the lessons where there was some scope for improvement the material was dealt with in an overly academic fashion. It is recommended that, particularly at ordinary and foundation level in junior cycle, the students' experience of Mathematics be made as practical as possible. This can be achieved by relating the lesson content to the students' everyday experience and to the other subjects they study and by allowing the students to construct their own learning through exploration and practical investigations. In addition, greater emphasis should be placed on improving the students' mathematical literacy by encouraging them to hypothesise, explain their reasoning and to suggest alternative approaches to solving problems.
- Classroom management was excellent and featured, in many cases, differentiation of the lesson content through interventions at the point of need with individuals and small groups. Occasionally, the difficulties encountered by individual students were used to prompt whole-class teaching and were used to give the lessons an authenticity and relevance that was truly impressive. The atmosphere in all lessons was exemplary and featured very good rapport between teachers and students.
- The quality of student learning varied from good to excellent with the majority of lessons featuring good learning. High-quality learning was facilitated through the very good use of assessment for learning (AfL) including questioning strategies requiring the students to provide considered and comprehensive answers, and demonstrate that they understood the lesson content.
- Formal assessment practices are very good. A comprehensive homework policy, which addresses the role of homework in reinforcing learning, is in place and is being implemented. Whole-school assessment practices in Mathematics involve the use of common papers, within levels, for house examinations and reflect the diverse needs of the students both in terms of the content and marking of the papers. The role of AfL in enhancing student understanding is also comprehensively dealt with.

SUBJECT PROVISION AND WHOLE SCHOOL SUPPORT

- Timetabling provision in relation to the time available for teaching Mathematics is very good. However, the scheduling of mathematics lessons is in need of review. The provision of two double periods of Mathematics in first year should be avoided in future timetables and if double periods are to be a feature of mathematics provision in the future, their inclusion should follow a period of consultation and discussions as to why they are preferable to single periods and the implications their inclusion has for teaching and learning.
- School management, the ETB and the teaching staff have collaborated very effectively in arranging extra allocation for Mathematics to allow for the creation of a discrete higher-level class in fifth year. This arrangement had just come into being at the time of the evaluation and reflects the positive disposition of the mathematics department and senior management to promoting Mathematics within the school.
- The members of the mathematics department are committed to their continuing professional development and all have attended the workshops provided as part of the national rollout of Project Maths. A number have also gained postgraduate qualifications, in areas relevant to the teaching and learning of Mathematics, in their own time. The manner in which the members of the department are deployed, however, should be reconsidered. At present two of the teachers are assigned to teach Mathematics to just one class group each. This arrangement is less than desirable and should be discontinued in future timetables.
- Provision for students with special education needs or requiring learning support in Mathematics is very good. The procedures for identifying the needs of students when students enter first year ensure that students receive the support appropriate to their needs and abilities. The subsequent use of group and individual learning plans serves to provide teachers with invaluable guidance as to the most effective teaching approaches to be adopted during lessons.

PLANNING AND PREPARATION

- Subject department planning in Mathematics is very well established and features an admirable degree of collaboration both within the department and with the whole-school numeracy team.
- A very good subject department plan is in place. The schemes of work are written in terms of learning outcomes, differentiated to reflect the diverse needs of the student cohort. The department benefits greatly from the leadership of the co-ordinator whose enthusiasm for Mathematics and openness to new ideas is most impressive.
- In order to build on existing practice, future planning should include peer observation of lessons with a view to exploring planning for learning and the wider implementation of effective active teaching methods.
- An existing plan for Mathematics in TY should be reviewed to ensure that the content has greater depth and less breadth and addresses any identified shortcomings in the student learning from junior cycle.

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

The Board of Management and staff welcome the very positive report received from the Department of Education and Skills. The report highlighted the tremendous dedication and commitment shown by teachers to their students in the school. The board would like to acknowledge the many positive comments contained in the report, including

- The quality of teaching ranged from good to excellent
- Provision for students with Special Educational Needs is very good
- There was very good use of AfL
- Classroom management was excellent
- Very good rapport between students and teachers
- The atmosphere in all lessons was exemplary
- Formal assessment practices are very good

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

- The Mathematics Department will address the issue of providing students with more practical experiences of Mathematics and will place a greater emphasis on mathematical literacy
- Issues relating to the timetabling of Mathematics will be addressed
- The lack of consistency in relation to the teaching of class groups will be addressed
- Peer observation of lessons will become an integral part of ongoing planning.