

An Roinn Oideachais agus Scileanna

Department of Education and Skills

**Subject Inspection of Mathematics
REPORT**

**Saint Joseph's College
Lucan, County Dublin
Roll number: 60263V**

Date of inspection: April 6 2011



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

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

INFORMATION ON THE INSPECTION

Date(s) of inspection	5 and 6 April 2011
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 twelve class periods• Examination of students' work• Feedback to principal and teachers

MAIN FINDINGS

- The quality of teaching and learning in Mathematics was very good particularly where the integration of resources created a clear context for the material being covered.
- Mathematics is strongly supported on the timetable and the mathematics department is very well resourced.
- The formal and informal assessment of student progress in Mathematics is very thorough and well organised.
- Provision for students with special educational needs or in need of learning support in Mathematics is very good.
- Subject department planning in Mathematics is very well managed and the mathematics department operates in a collaborative and reflective fashion.

MAIN RECOMMENDATIONS

- The number of class periods allocated to Mathematics in first year should be increased by one period per week.
 - All students transferring into first year should sit a mathematics competency test, the outcomes of which should inform the design, delivery and assessment of the first-year mathematics programme.
 - The mathematics programme in transition year should be restructured to include a core supplemented by a number of modules. The core should seek to address any shortcomings in the students' key skills set.
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INTRODUCTION

St Joseph's College is a voluntary Catholic secondary school, operating under the aegis of CEIST-*Catholic Education an Irish Schools Trust*. It became a full secondary school in 1966 and now has enrolment of 845 girls who are drawn from Lucan and the surrounding area. A major extension to its facilities was completed in 2005. The board of management of the school was given an opportunity to comment on the findings and recommendations of the report; a response was not received from the board.

TEACHING AND LEARNING

- The quality of teaching, in the vast majority of cases, was very good. Where the teaching was at its best, strategies to actively engage the students in their own learning and to deepen their understanding were effectively employed. There was very little reliance on the text book and, as a result, the lesson content was ideally suited to the needs and abilities of the students.
- In most effective classes, the integration of resources created a clear context for the lesson content, facilitated effective differentiation and enabled the students to arrive at solutions to problems. In a small minority of cases, the intended learning outcomes were agreed at the outset of the lesson. This approach, which is in keeping with the schemes of work contained in the subject department plan, should be universally adopted across the department.
- Ongoing assessment of student understanding of the material being covered was conducted through insightful and searching questioning. This worked best where the students were encouraged to speculate and to reflect upon their own learning. Written homework was also utilised effectively.
- Student learning was, in all but a few instances, of a very high standard. This was borne out by the quality of their written work and the quality of their responses to teacher questioning. Student performance in the certificate examinations is also very good.
- Classroom management, student behaviour and engagement were very good. The classroom atmosphere was warm and respectful. The classrooms, which were decorated with mathematics posters, student material and other relevant paraphernalia, were indicative of the prevailing positive attitudes towards Mathematics.

SUBJECT PROVISION AND WHOLE SCHOOL SUPPORT

- Timetabling provision for Mathematics in all but first year is very good. Generous tuition time is provided and the concurrent scheduling of classes within each year allows students to change level without disrupting the remainder of their timetables. Students in first year, however, are provided with just four periods of Mathematics per week. This provision is less than ideal. Therefore, the allocation in first year should be increased to one period of Mathematics per day as soon as is practicable.
- Management and staff have identified the promotion of higher-level Mathematics as a key priority. To this end, higher-level mathematics classes are provided with additional tuition time in fifth and sixth year and a range of co-curricular activities designed to

challenge the more able students and to harness positive attitudes to Mathematics are provided.

- Upon completion of the junior cycle, all students enter transition year (TY). Mathematics classes are streamed in TY but follow very similar programmes with some modifications to reflect the different levels. This model should be reviewed, and in future years the TY programme should comprise a core and a number of modules designed to develop identified key skills and to reflect the interests and strengths of the team delivering the programme. The modules should be delivered in a mixed-ability setting and provision should be made for at least one major collaborative project each year.
- Practices in relation to monitoring student progress in Mathematics are comprehensive and very well managed. Common assessments within levels are provided for each formal house examination and the synchronisation of curriculum delivery that this demands is detailed in the subject-department plan for Mathematics. The papers produced for formal examinations are of a high standard and are similar in style and layout to the certificate examinations.
- Provision for students with special educational needs or in need of learning support in Mathematics is very good. The students are identified during the transfer from the feeder primary schools and a number of appropriate interventions are put in place. The progress of these students is monitored closely and, if necessary, the support they receive is altered to more closely meet their needs.
- More could be done to ensure that the assessments used during the transfer programme have greater influence on composition and delivery of the mathematics programme in first year. Therefore, it is recommended that in addition to the existing assessments, all incoming students sit a mathematics competency test and that the analysis of the outcomes focus on the areas of the curriculum where students are experiencing difficulties and where there are particular strengths. The first-year programme should then address these weaknesses and build on the identified strengths.
- The mathematics department is very well resourced. Materials designed to facilitate active teaching and learning are readily available and the mathematics classes have access to the school's extensive information and communication technology (ICT) infrastructure. Further developments of this infrastructure are in hand and it is recommended that one member of the mathematics department be chosen to act as ICT co-ordinator for Mathematics, to ensure that the benefits accruing from the enhanced ICT infrastructure are maximised.

PLANNING AND PREPARATION

- Subject department planning in Mathematics is very well established. The department's various activities are very well managed and planning for the implementation of Project Maths is at an advanced stage.
- Effective collaborative planning has resulted in the development of a very good subject department plan for Mathematics. The plan is very well structured and the inclusion of schemes of work written in terms of learning outcomes is in line with best practice.
- Individual teacher lesson planning was, in the vast majority of cases, very good. This resulted in lessons that had a good structure and in lessons that had an appropriate level of challenge for the students. Where the planning was less effective, the material covered in

the lessons was inappropriate and the techniques adopted by the teacher were unsuited to the students' abilities.

- Planning for the integration of resources in lesson delivery was very good and practices in relation to recording students' attendance and attainment were excellent.

The draft findings and recommendations arising out of this evaluation were discussed with the deputy principal and subject teachers at the conclusion of the evaluation.

