

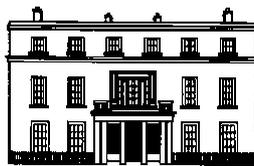
**An Roinn Oideachais agus Scileanna**

**Department of Education and Skills**

**Subject Inspection of Mathematics  
REPORT**

**St Kilian's Deutsche Schule,  
Roebuck Road, Clonskeagh, Dublin 14  
Roll number: 60630W**

**Date of inspection: 8 November 2011**



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

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

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**INFORMATION ON THE INSPECTION**

<b>Dates of inspection</b>	7 and 8 November 2011
<b>Inspection activities undertaken</b> <ul style="list-style-type: none"><li>• Review of relevant documents</li><li>• Discussion with principal and teachers</li><li>• Interaction with students</li></ul>	<ul style="list-style-type: none"><li>• Observation of teaching and learning during seven class periods</li><li>• Examination of students' work</li><li>• Feedback to principal and teachers</li></ul>

**MAIN FINDINGS**

- The quality of teaching ranged from good to very good.
- The quality of learning was good, with some instances of very good learning opportunities provided for students.
- Timetabling and organisation of Mathematics within the school is very good.
- There is very good support from school management for Mathematics and for its promotion within the school.
- Whole-school support for students to access co-curricular and extracurricular activities is very good.

**MAIN RECOMMENDATIONS**

- Subject planning should focus on discussing methodologies and questioning strategies that will increase active learning opportunities and promote higher-order thinking skills in lessons.
  - Strategic plans should be developed to progress identified key areas for development in Mathematics.
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## **INTRODUCTION**

St Kilian's Deutsche Schule, is a co-educational secondary school with a student population of 361. It is a fee-paying school serving an urban catchment in south Dublin. The school offers the Junior Certificate and the established Leaving Certificate. In addition, a compulsory Transition Year programme is also available in senior cycle. The board of management of the school was given an opportunity to comment on the findings and recommendations of the inspection; the board chose to accept the report without response.

## **TEACHING AND LEARNING**

- In all instances, the quality of teaching was of a good or very good standard. Most lessons were characterised by the use of clear and focused learning objectives, the establishment of a good lesson pace, the use of appropriately chosen support materials and good student engagement. However, sufficient time should be apportioned to providing the opportunity to recall key learning objectives of the lesson.
- Methodologies used were effective and included whole-class teaching, some group work and an investigative approach. While the methodologies observed were of a very good standard, continual review of practice and discussion at subject meetings is necessary to identify a range of more active learning methodologies for the teaching of different topics.
- In almost all lessons, very good linkages were established between prior learning and the integration of students' current work. In some instances, very good use was made of real-life situations to support student learning. For example, data from the recent presidential election was effectively integrated into the teaching of statistics.
- In all lessons, the use of subject-specific terminology and symbols was evident by both teacher and students. This is very good practice.
- The quality of questioning strategies varied and was most effective when teachers had prepared a range of questions for the lesson. In most instances, teachers used recall-type questions to begin the lesson or to ascertain students' knowledge. The use of a variety of questions, with greater emphasis on higher-order questioning, should be included in all lessons to support and promote analytical thinking among students.
- Resources were used effectively in lessons. Information and communication technology (ICT) was integrated into teaching to record key points or to demonstrate data. In addition, use of the textbook and some key-word sheets was noted. There is a need, however, to supplement learning through the use of differentiated worksheets. This should allow students to work to their own ability.
- Classroom atmosphere was very positive and conducive to good learning. Students were co-operative, attentive and well-behaved during all lessons observed.
- Teachers frequently circulated during the lessons to provide assistance and when necessary. In some instances, this allowed teachers to identify possible misconceptions and address them with the whole class. This is good practice.

- Practices and procedures in relation to recording student attainment and attendance are very well established. Regular assessment of student work takes place and information on progression and attainment is communicated to parents.
- A review of students' mathematics work indicates that there is scope for further monitoring by some teachers. For example, students should be encouraged to present their work in an orderly manner and to make the necessary amendments as work is corrected in class. In some instances, teachers include annotated feedback in students' copies; however, collaboration is required to ensure greater consistency in the correction of students' work.

#### **SUBJECT PROVISION AND WHOLE SCHOOL SUPPORT**

- The organisation of Mathematics within the school is very good. This includes appropriate time allocation to the subject, the deployment of additional teachers to reduce class size and concurrent timetabling of Mathematics from first year onwards.
- The mathematics department comprises six teachers. Effective practices are in place that allow for the sharing of responsibility for the teaching of the different levels particularly at junior cycle. Currently, two teachers share responsibility for teaching higher level at senior cycle. Given the increased desire by students and encouragement by management to promote higher level, ongoing monitoring of the availability of teachers to teach the subject to the highest level is advised.
- Senior management and the board of management provide excellent support for Mathematics including access to an annual budget, the enhancement of ICT facilities in classrooms, and funding for membership of the Irish Mathematics Teachers Association. In addition, teachers are encouraged and facilitated to access nationally provided continual professional development.
- A very good range of co-curricular and extracurricular activities is in place to support students of Mathematics. Activities include Maths Olympiads, Problem Solving for Irish Second Level Mathematicians competitions and events undertaken during Maths Week. The school's Maths Club also promotes awareness of the subject within the school and provides opportunities for students to access Mathematics in situations other than in the classroom context. Consideration should be given to a display area that would highlight upcoming mathematical events while acknowledging students' achievement in mathematics competitions.
- The school offers Mathematics at higher, ordinary and foundation when necessary. In line with management's concerted efforts to promote Mathematics, there has been a marked increase in the number of students choosing higher level. This is commended. Students' attainment in Mathematics in the state examination is very good.

#### **PLANNING AND PREPARATION**

- The role of subject co-ordinator is not rotated. This practice should be reviewed to build leadership experience and allow for all Mathematics teachers to share in the responsibility for the organisation and management of a department.
- To date, very good collaborative planning for Mathematics has taken place. Schemes of work with associated learning objectives have been developed. However, to further this

work, schemes should be updated to include teaching and learning methodologies, suggested resources that could be used with each topic and proposed assessment methods.

- Minutes of departmental meetings indicate the identification, discussion and agreement of key areas for the improvement of Mathematics in the school. This is very good practice. Strategic planning could be progressed by the development of action plans to support further areas of development. These actions plans should be measurable and attainable to ensure successful completion of this work.

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

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