

**An Roinn Oideachais agus Scileanna**  
**Department of Education and Skills**

**Subject Inspection of Mathematics**  
**REPORT**

**The King's Hospital**  
**Palmerstown, Dublin 20**  
**Roll number: 60272W**

**Date of inspection: 5 February 2015**



**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>	5 and 6 February 2015
<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 nine class periods</li><li>• Examination of students' work</li><li>• Feedback to principal and teachers</li><li>• Discussion with learning-support co-ordinator</li></ul>

**MAIN FINDINGS**

- The quality of teaching and learning in the vast majority of lessons was very good or excellent.
- Teaching for understanding underpinned by deep teacher content knowledge and high-quality planning were common features of the very best lessons.
- Timetabling provision for Mathematics in first year needs to be addressed, otherwise the provision is very good.
- The mathematics department boasts a very strong core team, is strongly supported by management and is effective in promoting positive attitudes to Mathematics.
- Provision for students with special education needs or requiring learning support in Mathematics is very good.
- Subject department planning in Mathematics is very good and an excellent subject department plan is in place.

**MAIN RECOMMENDATIONS**

- Timetabling provision for Mathematics in first year should be reviewed to bring it in line with the requirements of Circular 58/2011.
  - In order to ensure that all those teaching Mathematics have appreciable exposure to teaching the subject, the size of the mathematics department should be reduced.
  - The schemes of work in the subject plan should be extended to address key skills, common misconception and problem solving and how they might be addressed in lesson delivery.
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## **INTRODUCTION**

The King's Hospital is a voluntary, Church of Ireland, co-educational secondary school for boarders and day-pupils offering a broad curriculum including Transition Year and Applied Mathematics as an option in senior cycle. At the time of the inspection, the school had an enrolment of 713 of which 270 were boarders.

## **TEACHING AND LEARNING**

- The vast majority of lessons featured either very good or excellent teaching. In the remaining lessons the quality of teaching was good.
- In those lessons where the quality of teaching was at its best, it was underpinned by deep teacher content knowledge and an approach to teaching that sought to impart understanding of the material being covered and where high expectations of student engagement and attainment were explicit.
- The best lessons also featured high-quality lesson planning that succeeded in contextualising the lesson content and providing convincing arguments to help the students make sense of any procedures encountered. Excellent teacher questioning demanding that the students reflect, hypothesise and defend their reasoning also guaranteed that they engaged with the material being covered in a profound and explorative manner.
- In a minority of cases, where there was scope for improvement, the lesson content was treated with insufficient depth and the ultimate goal of the lesson was unclear particularly in relation to the skills and competences being developed.
- Student learning was, in the vast majority of cases very good. Not only was their response to teacher questioning of a very high standard but they posed very good questions themselves. This level of engagement with the lesson content reflected the positive attitudes to Mathematics generally evident across the school.

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

- Students in first year are provided with four periods of Mathematics per week, with a double period each Thursday. This level of provision is poor and it is recommended that in framing future timetables students in first year be provided with one period of Mathematics each day. This will bring the school's provision in line with the requirements of Circular 58/2011. Otherwise, timetabling provision for Mathematics is very good. The availability of Applied Mathematics as an option in senior cycle adds greatly to the school's overall mathematics provision.
- Arrangements for student access to the level of Mathematics most suited to their needs and abilities are very good. The number of students taking higher-level Mathematics in the certificate examinations and their overall performance in the examinations illustrates the success the school has had in promoting Mathematics and in ensuring that students are following the most appropriate level.
- The mathematics department has a very strong core team that operates in a very effective manner. However, the number of teachers teaching Mathematics is too large with three of its members teaching Mathematics to just one class group each. It is recommended therefore that the number of teachers teaching Mathematics be reduced. This will ensure

that the remaining members will have increased exposure to the subject and that the existing core team will be further reinforced.

- The mathematics department is very well resourced and is strongly supported by management. All of the mathematics teachers have been facilitated in attending the workshops and seminars provided as part of the rollout of *Project Maths* and additional supports are available for teachers choosing to pursue further studies in their own time.
- Formal assessment practices in Mathematics are very good. Common papers and marking schemes, agreed following an extensive moderation process, are available within levels in each year. The homework policy detailed in the subject department plan for Mathematics is also very good, however the implementation of elements of the policy, particularly those dealing with students correcting their own work and the role of formative assessment, varies across the department. The department should take steps to address this.
- Students with special education needs or requiring learning support in Mathematics are very well supported. Provision for this cohort benefits greatly from the presence of a full-time learning-support mathematics teacher, the variety of interventions utilised and the outstanding leadership within the learning-support department.

#### **PLANNING AND PREPARATION**

- Subject department planning in Mathematics is well established and is supported by very good whole-school planning structures, the work of the department's joint co-ordinators and the culture of collaboration that pervades the department.
  - An excellent subject department plan is in place. At its heart is the *Subject Profile for Mathematics* which details in a clear and well-structured manner how the department operates, how Mathematics should be taught and the role of assessment and homework in enhancing the students' experience of Mathematics. This plan is supported by extensive schemes of work written in terms of learning outcomes.
  - In building on the existing very good work and in order to reflect the philosophy underpinning the department plan, future planning should focus on including sections on key skills, common misconception and problem solving and how they might be addressed in lessons should be included within the schemes of 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. The board of management 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**

**Area 1: Observations on the content of the inspection report.**

**Area 2: Follow-up actions planned or undertaken since the completion of the inspection activity to implement the findings and recommendations of the inspection**

- Timetabling provision for Mathematics in First Year has been reviewed and will be addressed for 2015-2016.
- The size of the mathematics department will be reduced by at least one member for 2015-2016.
- The schemes of work are being extended by the co-ordinators of the mathematics department in consultation with colleagues.