

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

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

**Kinsale Community School**  
**Kinsale, County Cork**  
**Roll number: 91499E**

**Date of inspection: 28 and 29 January 2016**



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

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

---

**INFORMATION ON THE INSPECTION**

<b>Dates of inspection</b>	28 and 29 January 2016
<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 eight class periods</li><li>• Examination of students' work</li><li>• Feedback to principal and teachers</li></ul>

**MAIN FINDINGS**

- Overall, good quality teaching and learning was observed during the evaluation with examples of excellent practice as well as aspects with scope for development also featuring.
- High quality, rich-task resources, that allow students to be active participants in their learning, have been developed by teachers in the department.
- Incisive, higher order questioning, to effectively encourage and progress mathematical thinking, is a key strength of this department.
- Very effective use of information and communications technology (ICT) to support learning both in and out of the classroom, was observed throughout the evaluation.
- An established numeracy team, coupled with the substantial extra and cross curricular activities in which students participate, improves students' disposition to mathematical thinking.
- Provision for students with additional needs in Mathematics is of a very high standard.

**MAIN RECOMMENDATIONS**

- Learning intentions should be used consistently to differentiate outcomes and to structure and pace lessons more appropriately.
  - Schemes of work should be developed that explicitly detail learning outcomes, topic specific methodologies and associated resources.
  - The Transition Year (TY) plan should be revised to include material that is not on the Leaving Certificate syllabus.
-

## **INTRODUCTION**

Kinsale Community School is a co-educational school with a current enrolment of 875 students. In addition to the established Junior Certificate and Leaving Certificate, the school offers an optional TY programme, Leaving Certificate Vocational Programme, the Leaving Certificate Applied programme and Post-Leaving Certificate courses.

## **TEACHING AND LEARNING**

- Overall, good quality teaching and learning was observed during the evaluation with examples of excellent practice as well as aspects with scope for development also featuring. A wide variety of teaching methodologies was observed to give the students a rich mathematical experience. Classroom interactions were characterised by warmth and positivity.
- High quality, rich-task resources, that allow students to be active participants in their learning, have been developed by teachers in the department. These resources allowed students to review prior knowledge efficiently and to start new learning within a short period of time, thereby maximising time in lessons. Where best practice was observed, the use of resources was accompanied by clear, consistent instructions and allowed for optimal balance between teacher and student input. The judicious selection and use of appropriate resources to support learning, as well as the careful assessment of their effectiveness in addressing the desired learning outcomes, is particularly important in terms of ensuring students remain fully focused and on-task for the duration of lessons.
- Very effective use of general and subject specific ICT resources was observed throughout the evaluation.
- Incisive, higher order questioning, to encourage and progress mathematical thinking, is a key strength of this department. Almost all teachers posed challenging questions, with students supported and affirmed in their efforts when answering. Very good practice was seen where students were encouraged to reason out answers with peers, using the correct terminology, before committing to a final answer. Mini whiteboards were used on occasion to assist this valuable process.
- Where teachers flagged the development of verbal reasoning and higher order thinking skills as a key component of success when initiating a collaborative task, enthusiastic peer engagement and progression in students' thinking was observed. In contrast, in some lessons students were notably quiet and disinclined to converse with peers even when encouraged to do so. Strategies to address this issue and develop these skills should be discussed and implemented by the department.
- Learning intentions should be shared with students at the outset of lessons. Where this was observed, students had a clearer understanding of the purpose of the lesson and, in conjunction with well-chosen resources, were able to actively drive their own progress. Learning was maximised where the learning intentions were used as a tool by the teacher to differentiate outcomes for students, to structure and pace the lesson and to review the lesson with students.
- In addition to the formative feedback provided on students' continuous assessments, as reported by the school, it is advised that this positive practice be developed further with regard to the day-to-day homework and classwork completed by students. The department should look at how students can be encouraged to respond proactively to such feedback and consequently take more responsibility for their learning. Initiatives that are

already in place to encourage students' use of ICT resources outside the classroom could support this.

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

- First year classes have four class periods, instead of the recommended daily class contact time as per Circular 58/2011. Management is aware of this and plans are already in place to rectify this situation starting in September 2016. Good timetabling provision is in place for all other years.
- In the Leaving Certificate program, students are timetabled for seven class periods per week, including some double periods. This is very good. Thought should be given by the department as to how these double periods should differ in their approach to the teaching of Mathematics.
- Applied Mathematics is offered as an option in senior cycle.
- Students are taught in mixed ability classes in first year and streamed in all other years, including TY. Students wishing to change level must consult with the career guidance teacher. The decision is made with the class teacher, student and parental involvement.
- The well-established numeracy team and members of the mathematics department have been involved in a number of initiatives in the past number of years including the introduction of baseline testing in key areas such as fractions, decimals and percentages. The sharing of approaches to teaching these topics with other departments and feeder primary schools is very good practice.
- The activities of the numeracy team, supported by the substantial extra and cross curricular activities available to students, led by teachers across many subject departments, improves students' disposition to mathematical thinking. School-based initiatives span many areas, including numeracy boards, language and logic puzzles and common approaches to numeracy. Wider activities include the opportunities to run the school bank, participate in a variety of mathematics, science and robotics competitions at local and national level and opportunities to learn how to code.
- Provision for students with additional needs in Mathematics is of a very high standard, flexibly provided and responsive to needs. Subject specialists provide this support. There are well documented procedures in place for the liaising of the Special Educational Needs and Mathematics department members.

#### **PLANNING AND PREPARATION**

- The department is coordinated on a rotating basis in line with good practice. In addition to the regular formal meetings there is clearly ongoing informal collaboration between department members. Such collaboration, in conjunction with peer observation where possible, will continue to help each member of the large department to adapt and modify practice to further enhance the learning experiences of students.
- The subject plan is comprehensive in its aims and objectives for mathematical education, assessment procedures and future plans. Coupled with the teacher handbook, it gives a very clear overview of how the department works.
- The schemes of work across all years should be developed to explicitly detail learning outcomes, topic specific methodologies and associated resources. This would make it easier for the large number of teachers involved to develop a consistent approach to teaching and learning.

- Teachers' individual planning was of a very high standard. Where excellent practice was seen, the rationale behind the use of certain resources was thoroughly communicated to the students.
- Reports are received by parents on a monthly basis in second, third, fifth and sixth year through the use of ePortal. There are four points throughout the year where teachers comment on student progress in all year groups.
- The TY plan should be revised to include material that is not on the Leaving Certificate syllabus. TY should expose students to a wider range of mathematical experiences in a way that gives them a greater appreciation of the subject. The wide experience and subject knowledge of the members of the mathematics department will make this very possible.

---

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 of the school was given an opportunity to comment on the findings and recommendations of the report; the board chose to accept the report without response.