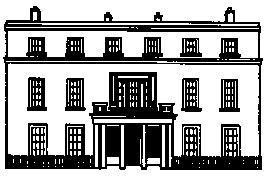
An Roinn Oideachais agus Scileanna

Department of Education and Skills

Subject Inspection of Mathematics
REPORT

McEgan College,
Macroom, County Cork
Roll number: 71030J

Date of inspection: 10 and 11 February 2016



AN ROINN OIDEACHAIS AGUS SCILEANNA | DEPARTMENT OF EDUCATION AND SKILLS

REPORT
ON
THE QUALITY OF LEARNING AND TEACHING IN MATHEMATICS

INFORMATION ON THE INSPECTION

Dates of inspection	10 and 11 February
Inspection activities undertaken • Review of relevant documents • Discussion with principal and teachers • Interaction with students	• Observation of teaching and learning during five class periods • Examination of students' work • Feedback to principal, deputy principal and teachers

MAIN FINDINGS

- Teaching and learning was of a good standard, with some key areas to be developed as a department.
- Explanations of concepts were rigorous and thorough.
- Teachers were sensitive to, and aware of, the individual needs of students.
- Students with additional needs in the area of numeracy are well catered for, with a whole school approach evident.
- Whole school numeracy strategies are very effective in raising the profile of Mathematics.

MAIN RECOMMENDATIONS

- In accordance with Circulars 0058/2011 and 0025/2012, every effort should be made to ensure that first year students have the recommended daily contact time with the subject.
- The department should discuss and share best practice regarding the most effective strategies for the teaching of specific topics and document these in their schemes of work.
- The department should consider strategies to further incorporate the development of students' literacy and numeracy skills into lessons.

INTRODUCTION

McEgan College is a co-educational secondary school under the trusteeship of the Cork Education and Training Board. The school participates in Delivering Equality of Opportunity in Schools (DEIS), the action plan of the Department of Education and Skills for educational inclusion. It offers the Junior Certificate and the Junior Certificate School Programme, Transition Year (TY), the Leaving Certificate Vocational Programme, Leaving Certificate Applied and Post Leaving Certificate courses. It has a current enrolment of 167 students.

TEACHING AND LEARNING

- Teaching and learning was of a good standard. A wide range of effective strategies such as the incorporation of information and communications technology (ICT) to enhance explanation, collaborative work and individual tasks was observed to give the students a varied and positive experience of the subject.
- The classroom atmosphere in all cases was positive and affirming. Teachers had a good rapport with students and were very aware of their individual needs.
- Lessons were well-structured and teachers were clear about what they wanted students to achieve. In a minority of lessons, students were not given the opportunity to show that they had achieved the desired outcome due to the pace of the lesson. To address this, a greater use of differentiated learning intentions to plan and pace lessons is recommended.
- High quality, rigorous teacher-led explanation was incorporated into the majority of lessons. Where most effective, it allowed for student contribution to form part of the explanation. In some lessons, learning could be enhanced by reducing the time allocated to teacher exposition in favour of increased student activity.
- Students were attentive and cooperative. Engagement was enhanced when the type of task given was collaborative with clear direct instructions, where students were encouraged to converse and had an opportunity to discuss and analyse their work with their peers.
- Team teaching was used to good effect in a “Paired Maths” lesson. This lesson incorporated the use of TY students to assist junior students in small groups. This is very good practice, both in keeping with the spirit of TY, developing the verbal reasoning skills of the TY students involved, and allowing junior students to process the concepts under discussion at their own rate. There was a palpable level of enthusiasm felt throughout the lesson.
- Good use of questioning to assess understanding was evident in all lessons. Where questioning was most effective, it facilitated higher order thinking by the student. This, coupled with adequate thinking time, allowed students to ably contribute to the development of concepts.
- Homework is monitored on an almost daily basis, which is good practice. Consideration should be given, as a department, to how this aspect of lessons could proceed more quickly to allow more effective use of lesson time. Peer assessment to encourage students to take greater responsibility for their own learning could assist with this.

SUBJECT PROVISION AND WHOLE SCHOOL SUPPORT

- In accordance with Circulars 0058/2011 and 0025/2012, every effort should be made to ensure that first year students have the recommended daily contact time with the subject. Timetable provision for all other years is in line with syllabus requirements.
- Students are taught in mixed ability in first year and streamed in all other years, including TY. Given the desire of the school to increase the numbers taking higher level and continue to increase attainment at ordinary level, class organisation is reviewed frequently in planning meetings to ensure students' individual needs are being met. This is very good practice.
- Planning and provision for students with additional needs in Mathematics is very good. Subject specialists provide group and individual support. Class teachers and members of the special educational needs (SEN) department collaborate very effectively to ensure students are supported in studying the subject at the highest level practicable.
- The school assessment policy, adhered to by the department, is comprehensive with summative and formative feedback sent to parents every six weeks.
- The current numeracy targets are aimed at improving numerical ability across the school and the creation of a numeracy rich environment. Several effective cross-curricular events such as Numeracy Bake-Off and Measurement Week have taken place, aimed at improving both students' disposition towards the subject and their numeracy skills as a whole. Other initiatives such as Maths4Fun, Puzzle of the Week and Paired Maths, with the TY students, continue to support the achievement of these targets.
- Whole school support for the subject is very good. Staff have attended the Project Maths workshops and participated in the Learning School project, which set the current path for School Self-Evaluation.
- There have been some changes to staffing recently and, while the recruitment of available teachers of Mathematics has proved difficult at times, management has put good arrangements in place to ensure that the needs of the students are met by the current Mathematics teachers in the school. As they have done previously, the school should continue to make every effort to recruit teachers of Mathematics. This, in conjunction with the consistent deployment of teachers to class groups where possible, will support students' positive experience of the subject.

PLANNING AND PREPARATION

- The department meet formally throughout the year and the minutes of these meetings are retained in the subject planning folder. A high degree of informal collaboration was evident.
- Given changes in staffing, it is recommended that the department, as a whole, review the subject plan. Discussion and documenting of common approaches, key questions and useful strategies that encourage student participation, will help to develop a consistent vision for the development of Mathematics in the school. Learning outcomes, topic-specific methodologies and material already developed should also be included.

- An analysis of results is conducted every year. In combination with other evidence bases now available, it provides a good opportunity for furthering discussion around the use of specific methodologies used in the maths classroom.
- Teachers are conscious of the role they play in supporting the development of numeracy and literacy skills. To build on this, it is recommended that the department agree on specific strategies that are to be used in all lessons that will further develop the skills and competencies associated with these areas, which include improving verbal reasoning and providing opportunities for students to take greater responsibility for their learning. The effectiveness of these strategies and approaches should be reviewed periodically at subject department meetings.

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 was given an opportunity to comment in writing on the findings and recommendations of the report; a response was not received from the board.

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