An Roinn Oideachais agus Scileanna

Department of Education and Skills

Subject Inspection of Mathematics
REPORT

Templemichael College
Templemichael, County Longford
Roll number: 71730O

Date of inspection: December 8 2015

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	8 and 9 December 2015
Inspection activities undertaken • Review of relevant documents • Discussion with principal and teachers • Interaction with students	• Observation of teaching and learning during seven class periods • Examination of students' work • Discussion with the learning-support co-ordinator • Feedback to principal and teachers

MAIN FINDINGS

- The quality of teaching and learning was very good with excellent practice evident in the majority of lerssons.
- A range of effective approaches to teaching designed to develop the students' understanding were evident in the all lessons.
- Classroom management, student behaviour and engagement were excellent
- Assessment for learning (AfL) was evident in most lessons and is a key element of the department's assessment policy.
- The teachers' commitment to continuing professional development (CPD) is excellent.
- Subject department planning in Mathematics is of the highest quality

MAIN RECOMMENDATIONS

- In further enhancing the transfer of students into first year, the mathematics teachers should arrange to visit the primary schools from which their students come to observe teaching and learning and engage in discussions relating to Mathematics with their primary colleagues.
- The subject department plan for Mathematics should include reference to effective teaching methods and links to appropriate resources.

INTRODUCTION

Templemichael College is a multi-denominational, co-educational school operating under the aegis of the Longford and Westmeath Education and Training Board (LWETB). It participates in the Delivering Equality of Opportunity in Schools (DEIS) action plan for educational inclusion. Students are offered the Junior Certificate School Programme (JCSP), the established Leaving Certificate and the Leaving Certificate Vocational Programme (LCVP). At the time of the inspection the school had an enrolment of 199 post-primary students and 324 following post-leaving certificate (PLC) courses.

TEACHING AND LEARNING

- The quality of teaching and learning varied from good to excellent with the majority of lessons featuring teaching of the very highest quality. All of the lessons featured teaching for understanding, pair and group work and excellent differentiation of the lesson content. The approach to differentiation was ideally suited by the classroom organisation model, which allowed the teacher to circulate and deal with issues, while the students worked on the high-quality tasks assigned to them.
- A problem solving approach was used in a lesson to very good effect in developing the students' understanding of integers and the order of operations. Provided with rich tasks that could be approached in a number of different ways, the students worked in pairs to solve the various problems. The use of the tasks prompted discussion and deep thinking. This was further supported by bringing the pairs to the board to describe and explain their solutions.
- Discussions relating to the more difficult concepts encountered by students was a notable feature of two lessons. Here, the teacher supported the students in making sense of the lesson content by asking probing questions and allowing the students to reflect before answering. In formulating their answers the students were invited to speculate and hypothesise. The teacher also sought to increase the relevance of the lesson content by linking it to authentic real-life contexts.
- The use of models, video and pair work facilitated student understanding of complex problems relating to area. By encouraging the students to use models, draw sketches and discuss their ideas the teacher ensured their active engagement with the subject matter. The approach also ensured that the students could explore a number of approaches to solving the problems providing rich material for subsequent whole-class teaching.
- Classroom management was excellent in all lessons. The teachers taught with real enthusiasm, sought to model positive dispositions to Mathematics and made explicit their high expectations of student engagement and attainment. Student behaviour was excellent and all interactions in the lessons were respectful and warm.
- AfL was evident in the majority of lessons and was manifest through the provision of feedback for improvement, comprehensive use of the learning intention and success criteria at the lessons' outset. Promoting use of AfL as a key approach in driving enhanced outcomes for students is just one element of the mathematics department's excellent assessment policy.
- Formal assessment practices in Mathematics are very good and feature papers with agreed marking schemes for the house examinations where appropriate. The school's policy of formally assessing the students in weeks ten, twenty and thirty ensures that their progress

is appropriately monitored and that students experiencing difficulties are identified in good time.

SUBJECT PROVISION AND WHOLE SCHOOL SUPPORT

- Timetabling provision for Mathematics is very good. All junior cycle classes are provided with five classes of Mathematics per week while those in senior cycle have six. It is advised that, where possible, senior cycle be provided with one double period of Mathematics per week to support the department's adoption of the teaching approaches espoused by the revised syllabuses.
- An increase in enrolment in the school has allowed for the formation of a discrete higher-level class for Mathematics in second and third year. The remaining two classes in each year follow ordinary level and since the mathematics classes are concurrently timetabled the students can change level without disrupting their remaining timetable if the need arises.
- Senior management is very supportive of the work of the mathematics department and are keen to promote positive attitudes to Mathematics amongst the student and parent body. The mathematics department is very well resourced. All teachers of Mathematics have access to the schools information and communication technology infrastructure and to a range of resources to facilitate active teaching and learning. Resource integration in lesson delivery is a particular strength of the department.
- The qualifications profile of the mathematics department is excellent. All four teachers are fully qualified to teach mathematics and three of them have just completed the postgraduate diploma in Mathematics provided by the Department of Education and Skills through the University of Limerick. Their commitment to their own CPD is also evident from their attendance at the workshops provided to support the rollout of Project Maths.
- A whole-school plan for numeracy is in place and is managed and driven by the mathematics teachers. The profiling of students and the progress they make against the baseline data gathered when they enter first year are very well managed. Students identified as requiring additional support in Mathematics are catered for in the small classes created by the three-way split of mathematics classes in second and third year. However, consideration should be given to the use of team teaching as the model of support in these classes.
- The transfer of students into first year and their subsequent experience of Mathematics in first year is characterised by very good collaboration with the primary schools from which they come. This could be further enhanced if the mathematics teachers were to visit the primary schools to observe teaching and learning and to initiate a process of professional dialogue relating to Mathematics with their primary colleagues.

PLANNING AND PREPARATION

- Subject department planning in Mathematics is excellent and while there is a co-ordinator in place, there is a palpable sense of shared leadership within the department with each teacher bringing their influence to bear on the operation of the department.
- A very good subject department plan is in place and its structure supports the aims and objectives of the new syllabuses. The DEIS targets for numeracy feature prominently and planning is underway to identify and make explicit the key skills that students should

master in each curricular area. This good work would be further supported if the planning documentation contained reference to teaching approaches that work well in each curricular area, links to valuable resources and common pitfalls to be avoided.

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 of the school 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.

Published April 2016

Appendix

SCHOOL RESPONSE TO THE REPORT

Submitted by the Board of Management

Part A Observations on the content of the inspection report

The Board of Management and staff welcome the very positive report received from the Department of Education and Skills. The Board congratulates the Maths Department on the excellent findings. The Board of management wishes to thank the inspector for his positive engagement with staff. The report highlighted the tremendous dedication and Commitment shown by teachers to their students in the school. The board would like to Acknowledge the many positive comments contained in the report, including

- The quality of teaching and learning which was excellent.
- The range of effective approaches to teaching designed to develop the students' Understanding which was evident in all lessons.
- Classroom management, student behaviour and engagement which was excellent
- Assessment for learning (AfL) which was evident in most lessons.
- The teachers' commitment to continuing professional development (CPD) which is excellent.
- Subject department planning in Mathematics which is of the highest quality

Part B Follow-up actions planned or undertaken since the completion of the inspection activity to implement the findings and recommendations of the inspection.

- In order to further enhance the transfer of students into first year, the mathematics teachers will arrange to visit the primary schools from which their students come to observe teaching And learning and engage in discussions relating to Mathematics with their primary Colleagues.
- The subject department plan for Mathematics will include reference to effective teaching Methods and links to appropriate resources.