Subject Inspection of Mathematics
REPORT

Boyne Community School
Trim, County Meath
Roll number: 91508C

Date of inspection: 4 October 2011
REPORT
ON
THE QUALITY OF LEARNING AND TEACHING IN MATHEMATICS

INFORMATION ON THE INSPECTION

<table>
<thead>
<tr>
<th>Dates of inspection</th>
<th>3, 4 October 2011</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Inspection activities undertaken</strong></td>
<td><strong>Observation of teaching and learning during eight class periods</strong></td>
</tr>
<tr>
<td>• Review of relevant documents</td>
<td>• Examination of students’ work</td>
</tr>
<tr>
<td>• Discussion with principal and teachers</td>
<td></td>
</tr>
<tr>
<td>• Interaction with students</td>
<td></td>
</tr>
</tbody>
</table>

MAIN FINDINGS

- The quality of teaching and learning was good in the majority of lessons observed. Classroom management was effective in almost all lessons and students engaged in the work of the lesson.

- Teachers and students made good use of topic-specific terminology. There were also some good examples of lesson content being linked with students’ interests and experience.

- There was little evidence of the incorporation of Project Maths methodologies or approaches in lessons observed. Their adoption should be a priority for the mathematics team and for the school.

- There is very good provision and whole-school support for Mathematics including good time allocation to the subject, concurrent timetabling in most year groups and the formation of additional class groupings.

- The school and the mathematics team have shown themselves to be open to change in order to achieve the best possible outcomes for students and a commitment to students’ achievements is clear.

- A mathematics department structure is well established in the school and the quality of planning and preparation engaged in is good.

MAIN RECOMMENDATIONS

- Exploring the reasons for procedures and having students explain findings and justify conclusions should feature much more prominently in all mathematics lessons.

- Students’ written work and its correction need greater attention.

- Current arrangements for in-class student support are not optimal and should be reviewed.

- Time should be set aside at formal team meetings for the discussion of teaching methodologies, in line with Project Maths approaches.
INTRODUCTION

Boyne Community School is a co-educational school with a current enrolment of 721 students. Programmes offered in the school are the Junior Certificate, Junior Certificate School Programme (JCSP), optional Transition Year (TY), Leaving Certificate Applied, Leaving Certificate Vocational Programme (LCVP) and the established Leaving Certificate. The school participates in DEIS (Delivering Equality of Opportunity in Schools), the action plan of the Department of Education and Skills for educational inclusion.

TEACHING AND LEARNING

- The quality of teaching and learning was good in the majority of lessons observed. There was, however, scope for further development in a significant minority.

- Classroom management was effective in almost all lessons and students engaged in the work of the lesson.

- In most lessons observed, learning outcomes were not communicated to students. The explicit sharing of learning outcomes should form a routine part of each mathematics lesson, as should a review of their achievement prior to the conclusion of the lesson.

- Both teachers and students made appropriate use of topic-specific terminology. In addition, there were some good examples of the linking of lesson content with students’ interests and experience, thereby increasing its relevance.

- There was little evidence of the incorporation of Project Maths methodologies or approaches in lessons observed. The adoption of such methodologies into mathematics lessons should be a priority for the mathematics team and for the school.

- Questions asked of students were almost exclusively to find answers to calculations or the next steps in a solution. There were a small number of good examples of higher-order questions, requiring students to explain why something was the case.

- Exploring the reasons for procedures and having students explain findings and justify conclusions are commendable objectives contained in the subject plan. Their implementation, however, should feature much more prominently in all mathematics lessons.

- Students were observed to have made progress in almost all lessons visited and there was evidence of learning taking place. However, students’ written work and its correction need greater attention.

- Mutual respect was evident in all lessons and students were provided with a supportive learning environment.

SUBJECT PROVISION AND WHOLE SCHOOL SUPPORT

- There is very good provision and whole-school support for Mathematics. There is good time allocation to the subject and lessons are appropriately scheduled through the week.

- Second, third, fifth and sixth-year groups are concurrently timetabled allowing very good access to the different levels of the subject. Students are encouraged to study Mathematics at the highest level for as long as possible. First-year classes are taught a
common programme, appropriately allowing them time to settle prior to the formation of level-specific groups.

- An additional student grouping has been formed in third year as a means of supporting students who find the subject particularly challenging.

- Appropriate systems are in place to identify students with numeracy difficulties, which are addressed mainly through in-class support and small group withdrawal. Current arrangements for in-class support are not maximising its effectiveness and should be reviewed in conjunction with the learning support team.

- Most teachers are timetabled in line with their qualifications and subject expertise. Mathematics is well resourced with ICT and hands-on, practical materials that can be accessed by all members of the team.

- The school and the mathematics team have shown themselves to be open to change in order to achieve the best possible outcomes for students.

- A commitment to students’ achievements is clear, with supplementary classes being offered by some teachers on a voluntary basis to students preparing for higher-level examinations.

**PLANNING AND PREPARATION**

- The quality of planning and preparation is good. A mathematics department structure is well established in the school. It is intended that the current co-ordinator will remain in place during the introduction of Project Maths, following which the position will rotate in line with good practice. It would be useful for the subject team if a description of the role of co-ordinator was agreed and included in the subject plan.

- Formal meetings take place on average three times per year. Minutes of meetings indicate collegial discussion and collaboration on areas including assessment, organisation of classes and the targeting of additional resources. It is good practice that minutes of meetings are now shared with school management.

- It is recommended that time be set aside at formal meetings for the discussion of teaching methodologies, making the most of the opportunities to share experience and expertise. The trialling, reporting back and discussion of Project Maths teaching and learning plans would make a valuable contribution to this process.

- Significant thought has gone into the development of a subject plan, which includes aims and objectives, subject department review and programmes of work with indicative time frames for all year groups. The good practice of administering common end-of-term examinations within year group and level is also documented in the plan.

- As programmes of work are reviewed they should be rewritten in terms of learning outcomes, focusing on what students will learn during a unit of study. An indication of practical resources to support teaching and learning would also be useful.
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; a response was not received from the board.

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