

An Roinn Oideachais agus Scileanna

Department of Education and Skills

**Subject Inspection of Mathematics
REPORT**

**Pobalscoil Éanna,
Blakestown Community School
Blanchardstown, Dublin 15
Roll number: 91316Q**

Date of inspection: 3 October 2012



**A N R O I N N | D E P A R T M E N T O F
O I D E A C H A I S | E D U C A T I O N
A G U S S C I L E A N N A | A N D S K I L L S**

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

INFORMATION ON THE INSPECTION

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| Dates of inspection | 2nd and 3rd October 2012 |
| Inspection activities undertaken <ul style="list-style-type: none">• Review of relevant documents• Discussion with principal and teachers• Interaction with students | <ul style="list-style-type: none">• Observation of teaching and learning during eight class periods• Examination of students' work• Feedback to principal and teachers |

MAIN FINDINGS

- The quality of teaching was good or very good in most lessons observed.
- The quality of student learning was highest where clear learning objectives had been set for the lesson.
- Very good practices for assessing and monitoring the students' progress were noted.
- Students participated and engaged very well and their efforts were regularly affirmed in most lessons.
- Whole-school support for Mathematics is very good.
- Opportunities are provided for students to engage in extracurricular mathematical activities.

MAIN RECOMMENDATIONS

- The learning activities and methodologies described in the teaching and learning plans produced by the *Project Maths* development team should be widely incorporated into lessons.
 - The conceptual approach used in some lessons should be extended to the teaching of all mathematical concepts.
 - The syllabus documents should become the main resource in planning programmes of work and coverage of each learning outcome using *Project Maths* methodologies should be the focus of sequential planning.
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INTRODUCTION

Pobalscoil Éanna, Blakestown is a community school with a current enrolment of 262 boys and 243 girls. The school participates in Delivering Equality of Opportunity in Schools (DEIS), the Department of Education and Skills action plan for educational inclusion and offers the Junior Certificate, the Junior Certificate School Programme (JCSP) and the Leaving Certificate programmes. Transition Year (TY) is not offered.

TEACHING AND LEARNING

- In all lessons teacher instructions and explanations were clear, an appropriate pace was maintained and there was a good balance between teacher input and student activity.
- The quality of student learning was highest where clear learning objectives had been set for the lesson. In most lessons the learning objectives were shared with the students at the outset; they were the focus of all learning activities throughout the lesson, and student achievement of the learning objectives was checked at the end. This practice should be extended to all lessons.
- The main methodology used was teacher instruction followed by the students completing a variety of appropriate exercises. An investigative approach was used very successfully in some lessons. For example, one lesson included a series of activities for the students using playing cards. There was scope however, for the inclusion of a wider variety of learning activities. It is recommended that the learning activities and methodologies described in the teaching and learning plans produced by the *Project Maths* development team be widely incorporated into lessons.
- In some lessons the concepts taught were presented in their appropriate mathematical context and the logic behind each concept was clearly explored. This approach contributed significantly to the students' level of understanding. In other lessons the focus of the teaching was on learning to use a formula or mathematical method without fully understanding why the formula or method works. It is recommended that the conceptual approach described above be used in the teaching of all mathematical concepts.
- The strategies used to differentiate learning included the use of activities that allowed students to work at their own pace, the provision of individual attention for those experiencing difficulty and the provision of additional work for better able students. While some or all of these strategies were used successfully in most lessons, there was significant scope for learning to be differentiated in a minority of lessons and this should be addressed.
- Very good practices for assessing and monitoring the students' progress were noted. Learning was assessed through questioning and observation in class. Comments advising students on how to improve the quality of their work are provided on the students' written work.
- Students participated and engaged very well and their efforts were regularly affirmed in most lessons. In the majority of classrooms visited the standard of student behaviour was very good and reflected the quality of the relationships between students and their teachers. In a minority of cases however, this was an area for improvement.

SUBJECT PROVISION AND WHOLE SCHOOL SUPPORT

- Timetable provision and arrangements for level choice for Mathematics are very good. There is also very good provision of resources and information and communications technology (ICT) for the subject.
- Students are assigned to class groups in one of two ability bands in first year. Levels are set in every other year, although in some class groups the levels are mixed. Concurrent timetabling is provided in all years where students are separated into level groups. This allows every student the flexibility to study the subject at a level appropriate to his or her ability. This is all very good practice.
- Higher-level Mathematics throughout the school is currently the responsibility of just one teacher. It is recommended that more teachers become involved in teaching Mathematics at this level.
- School management actively encourages teachers to engage in continuing professional development (CPD) and facilitates attendance at subject specific and whole-school CPD events.
- Opportunities are provided for students to engage in extracurricular mathematical activities. This is very valuable in encouraging an interest in the subject. Teachers are very generous in providing additional mathematics classes for students in their own time.

PLANNING AND PREPARATION

- The mathematics department has engaged well with planning for the subject and frequent meetings take place. The work of co-ordinating the planning process for Mathematics is currently the responsibility of the deputy principal, who originally undertook the role as part of a post of responsibility. It is recommended that this position be rotated amongst the mathematics teachers to enable them to take a greater role in leading planning for the subject.
- Good work has been done on target setting for Mathematics as part of the DEIS planning process in the school. It is recommended that details of this aspect of planning be included in the planning documentation.
- The mathematics plan includes programmes of work for each class group which is good. However, the quality of these varies. Best practice is evident in those that have been derived directly from the syllabuses and include reference to resources and to appropriate teaching methodologies. Others comprise a list of text book chapters with timeframes indicating the sequence in which topics will be taught and are in need of development. It is recommended that the syllabus documents become the main resource in planning programmes of work and that coverage of each learning outcome should be the focus of sequential planning. In undertaking this work it is essential that a *Project Maths* approach be favoured in the choice of methodologies to be used in delivering the syllabuses. This is to ensure that students have achieved all the expected learning outcomes outlined in the syllabuses in a way that supports them in developing the independent thinking and problem solving skills that will be essential for tackling *Project Maths* examination questions.
- The members of the subject department should engage in a process of action planning, self-evaluation and reflection to ensure that *Project Maths* becomes fully embedded in their work.

- In the senior cycle ordinary and foundation level students are taught together. It is recommended that the teaching team collaborate on planning for the additional challenges that this arrangement brings.

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 on the findings and recommendations of the report; the board chose to accept the report without response.