

An Roinn Oideachais agus Scileanna

Department of Education and Skills

**Subject Inspection of Mathematics
REPORT**

**Castlepollard Community College
Castlepollard, County Westmeath
Roll number: 71420W**

Date of inspection: 6 March 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

Dates of inspection	5 th and 6 th March 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 four class periods• Examination of students' work• Feedback to principal and teachers

MAIN FINDINGS

- The standard of teaching and learning in the lessons observed was consistently very high.
- A *Project Maths* approach with very good questioning strategies used to encourage exploration of the lesson content was evident in all lessons.
- Teaching was student centred.
- Learning was very well differentiated.
- Whole-school provision for Mathematics is very good.
- Very good progress has been made in planning for Mathematics.

MAIN RECOMMENDATIONS

- The good practice observed whereby the learning objectives were central to lesson activities should be extended to all lessons.
 - Planning should focus on matching the learning outcomes on the syllabus with the teaching and learning plans provided by the *Project Maths* development team.
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INTRODUCTION

Castlepollard Community College is under the patronage of County Westmeath Vocational Education Committee (VEC). It has a current enrolment of 81 boys and 54 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

- The standard of teaching and learning in all the lessons observed was consistently very high. All lessons were very well planned.
- The main methodology used was a discovery approach with activities involving concrete materials. Information and communications technology (ICT) was used to very good effect in one lesson.
- Teachers related new learning to previous knowledge and used real life examples to help students contextualise lesson material. Lessons unfolded naturally as each new concept was placed within a solid mathematical context. This is very good practice.
- The teachers' instructions and explanations were clear. A *Project Maths* approach was evident in the very good higher-order questioning and discussion that was used to encourage students to think for themselves and to explore the concepts presented.
- In most cases the learning intentions were shared with the students at the start of the lesson, referred to as appropriate during the lesson and their achievement was checked at the end. This good practice ensured that the achievement of the learning objectives was at the centre of all of the planned activities. There was scope in one lesson for a clearer focus on specific student learning outcomes. It is, therefore, recommended that the good practice observed in most lessons be extended to all lessons.
- In all the lessons observed learning was very well differentiated mainly through the choice of activities which allowed each student to work at a pace that suited his or her own ability. In addition, individual students' needs were very well met as assistance was provided to any students experiencing difficulty and differentiated homework was given in one classroom visited. Additional and more challenging work was provided for students who had finished their work in another lesson also. This is all very good practice.
- Student contributions demonstrated that they had understood the concepts taught and in all lessons it was evident that they enjoyed the planned activities. Students actively engaged and participated fully in all the lessons observed.
- Progress was well monitored through questioning and observation. Laminate boards were used to assess learning in one lesson and were particularly effective as their use provided the teacher with a comprehensive and quick assessment of all students' learning. Some very good use of Assessment for Learning (AfL) principles was observed with comprehensive oral and written feedback provided to advise students on how they could improve the quality of their work. This very good practice should be extended to all written work.

SUBJECT PROVISION AND WHOLE SCHOOL SUPPORT

- The provision of time on the school's timetable and the provision of ICT and other resources for teaching and learning in Mathematics are very good.
- There are very good arrangements for level choice. In first year there are three mathematics class groups. They comprise two mixed-ability classes and a smaller class for students who have been identified as requiring additional support in the subject. While the students of the smaller group follow the full JCSP programme, it is very good that some of the JCSP interventions are provided for all first year classes. There is one second year class group and it comprises students of mixed-ability. Higher, ordinary and foundation-level classes are available as appropriate from third year onwards. It is good that concurrent timetabling of mathematics lessons is provided where there are classes of more than one level.
- There are three mathematics teachers in the school and they are currently involved in teaching all levels which is good practice. One full-time teacher and a substitute teacher, although they are very competent, are not fully qualified to teach Mathematics. It is good that both teachers plan to increase their qualifications for teaching the subject.
- School management supports teachers' engagement with continuing professional development (CPD) and there has been extensive involvement in CPD courses amongst members of the mathematics department.
- Students are provided with opportunities to participate in mathematical activities outside of the classroom which are valuable in encouraging an interest in the subject.

PLANNING AND PREPARATION

- There is very good provision of planning time for Mathematics by school management. A co-ordinator for the subject department has been appointed and in keeping with good practice this position is rotated. The minutes of mathematics department meetings indicate that much time is spent on organisational issues. It is recommended that time be set aside for curriculum planning and the sharing of experience.
- A very good subject plan has been created and work on planning for the implementation of *Project Maths* is well advanced. The syllabus documents and the teaching and learning plans provided by the *Project Maths* development team are used as valuable resources in lesson planning which is good practice. It was evident throughout the evaluation that this work has had a very positive impact on student learning experiences in the classroom.
- In order to progress work on the implementation of *Project Maths*, planning should now focus on matching the learning outcomes on the syllabus with the teaching and learning plans provided by the *Project Maths* development team. This is recommended to reduce the amount of planning work required to ensure that teaching and learning in Mathematics derives optimum benefit from the available planning resources.
- Students' individual learning needs are very well met by the mathematics department. This applies equally to students who experience difficulty with Mathematics and those who wish to study the subject at higher level.
- There was good evidence of the mathematics department's valuable work in supporting literacy and of its work in the development of a whole-school approach to numeracy.

- The mathematics department engages in a process of self-evaluation through completing a comprehensive analysis of student performance in the certificate examinations and through surveying students on their experience of Mathematics. In order to support the mathematics department's significant engagement with the planning process it is recommended that a section for action planning be added to the subject plan.
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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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