

An Roinn Oideachais agus Scileanna
Department of Education and Skills

Subject Inspection of Mathematics
REPORT

Coláiste Pobail Bheanntraí
Bantry, County Cork
Roll number: 76090G

Date of inspection: 26 and 27 April 2016



AN ROINN | DEPARTMENT OF
OIDEACHAIS | EDUCATION
AGUS SCILEANNA | AND SKILLS

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

INFORMATION ON THE INSPECTION

Dates of inspection	26 and 27 April 2016
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 standard of teaching and learning was very good or good, with effective and purposeful collaborative work observed in all lessons.
- The efficient use of class time, supported by an understanding of how to use differentiated learning intentions, is a key strength of the mathematics department.
- The use of team teaching, as a strategy to support students with special educational needs (SEN), is widespread across the department.
- Exceptional levels of collaboration and professional dialogue between department members were evident.

MAIN RECOMMENDATIONS

- Where team teaching is timetabled, every effort should be made to ensure consistent assignment of the second teacher involved in the team teaching.
 - The subject planning folders should be reviewed and streamlined, so that the schemes of work serve as a useful outcome-based planning tool.
 - The department should discuss, agree and implement strategies that increase the opportunity for students' verbal reasoning skills to be developed in class.
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INTRODUCTION

Coláiste Pobail Bheanntaí is a co-educational school with a current enrolment of 668 post-primary students and 34 Post Leaving Certificate (PLC) students. It operates under the joint patronage of the Cork Educational and Training Board (CETB) and the Diocese of Cork and Ross. The school offers the Junior Certificate, an optional Transition Year (TY), the Leaving Certificate Vocational Programme (LCVP), the established Leaving Certificate and PLC programme.

TEACHING AND LEARNING

- The standard of teaching and learning was very good or good, with effective and purposeful collaborative work observed in all lessons. Pair work and group work, with varying degrees of structure, were used to good effect in all lessons.
- Differentiated learning intentions were shared in the majority of lessons. They were observed to work most effectively when they were utilised throughout, and at the end, of lessons; this enabled students to assess and review their own progress. In some lessons, it was evident that students, through the use of this strategy, were very proficient at directing their own learning.
- Class time was used very efficiently. In one case, while a teacher was ensuring completion of homework, students were asked to complete a task during this short period of time. This task was then used as a component in a later part of the lesson. This type of use of short periods of class time, that may otherwise be under-utilised, is very good practice.
- Very good lessons were characterised by the high expectation that teachers had for students. This was evident in the amount of responsibility for their own learning given to students. This high level of responsibility was scaffolded through the utilisation of resources that allowed students to progress at their own, suitably challenging rate, supported by their peers.
- The classroom atmosphere was positive in all lessons. The atmosphere was most purposeful where students were engaged in rich tasks that encouraged discussion with their peers and where teacher instruction was clear and concise. The standard of verbal reasoning was observed to be particularly high in this type of lesson.
- In a majority of lessons, students had the opportunity to discuss and formulate their own theories individually and then with their peers. On occasion, whole class discussion, facilitated by the teacher and utilising the students' theories, followed. This process assisted in bringing the necessary mathematical rigour and technical vocabulary to the students' ideas. This is very effective practice that helps to develop high levels of mathematical literacy and problem solving capability in students.
- Teachers had a clear understanding of the individual and collective needs of their students. This stemmed from the accurate assessment of students' prior knowledge and the planning and development of lesson content accordingly. In many lessons, teachers had planned for time to circulate the room, discussing misconceptions with students and assisting them in their understanding on a one-to-one and small group basis.

SUBJECT PROVISION AND WHOLE SCHOOL SUPPORT

- From second year to sixth year all classes have a minimum of a period per day of Mathematics. This is very good practice. Provision for Mathematics for first years, including timetabling arrangements, should be kept under regular review, in accordance with the guidance on numeracy provision outlined in the Framework for Junior Cycle 2015, to ensure that it meets the numeracy learning needs of the students.
- Students are taught in a mixed ability setting in first year, second year and TY. They are taught in level-specific classes in all other years. Students are assigned to these level-specific classes having completed a common summer assessment, and following discussion with teachers, parents and the student. Timetabling is concurrent in third, fifth and sixth years to allow students to change level if necessary. A comprehensive procedure is in place for students wishing to change level.
- Support for students with additional educational needs is provided in different ways, with team teaching forming an important part of the provision. This is good practice. Where necessary, students may be withdrawn as a small group, with subject specialists delivering the support.
- Effective use of team teaching was evident throughout the observation. The positive practice of team teaching takes place throughout all year groups, except TY. As the mathematics department has previously requested, management should continue to make every effort possible to assign the same pair of team teachers to a class group.
- The school promotes Mathematics in numerous ways, including through the participation of students in many local and national initiatives and competitions, as well as support for the ongoing use of mathematical software by students in the school. Great effort has been put into creating a useful numeracy board in the school.
- The department has demonstrated ongoing commitment to their professional development and is supported by management in this commitment. The department is characterised by an evident openness and willingness to discuss pedagogy and teaching strategies, and to implement these in classroom practice.

PLANNING AND PREPARATION

- The role of coordinator rotates between department members, which is good practice. Department meetings occur regularly with detailed minutes available. Both formally and informally, exceptional levels of collaboration and professional dialogue between department members were evident.
- Analysis of the results of state examinations occur annually. In order to harness the potential of this valuable analysis, an action plan should be developed that will build on the strengths and address any weaknesses that may be identified.
- The department has extensive and comprehensive plans in place that indicate its clear vision for the teaching and learning of Mathematics in the school. Extensive subject planning folders and associated schemes of work are provided. However, the folders should now be reviewed and streamlined, so that the schemes of work serve as a useful outcome-based planning tool. In particular, it would be helpful if all aims, outcomes,

indicators, resources and timelines were accessible in one scheme of work that can be easily reviewed and modified.

- Individual planning for lessons was of a very high standard. Where best practice was observed, teachers were clear about their learning intentions. Resources had also been customised and developed to best meet these learning intentions in a manner that would challenge each student.
- Some very good practice in relation to the development of students' verbal reasoning skills was observed during the inspection. As a consequence, the department should discuss, agree and implement strategies that increase the opportunity for students' verbal reasoning skills to be developed in class. Utilising the considerable expertise that is available within the department should enable this very good practice to be disseminated across the mathematics department and beyond.

The draft findings and recommendations arising out of this evaluation were discussed with the acting principal, acting 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.