

An Roinn Oideachais agus Scileanna
Department of Education and Skills

Subject Inspection in Mathematics

REPORT

Ainm na scoile / School name	Christian Brothers Secondary School
Seoladh na scoile / School address	Castleredmond Midleton Co Cork
Uimhir rolla / Roll number	62360G

Date of Inspection: 27-03-2019



**An Roinn Oideachais
agus Scileanna**
Department of
Education and Skills

SUBJECT INSPECTION

Subject Inspections report on the quality of work in individual curriculum areas within a school. They affirm good practice and make recommendations, where appropriate, to aid the further development of the subject in the school.

HOW TO READ THIS REPORT

During this inspection, the inspector evaluated learning and teaching in Mathematics under the following headings:

1. Teaching, learning and assessment
2. Subject provision and whole-school support
3. Planning and preparation

Inspectors describe the quality of each of these areas using the Inspectorate's quality continuum which is shown on the final page of this report. The quality continuum provides examples of the language used by inspectors when evaluating and describing the quality of the school's provision in each area.

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.

CHILD PROTECTION

During the inspection visit, the following checks in relation to the school's child protection procedures were conducted:

1. The name of the DLP and the Child Safeguarding Statement are prominently displayed near the main entrance to the school.
2. The Child Safeguarding Statement has been ratified by the board and includes an annual review and a risk assessment.
3. All teachers visited reported that they have read the Child Safeguarding Statement and that they are aware of their responsibilities as mandated persons.

The school met the requirements in relation to each of the checks above.

SUBJECT INSPECTION

INSPECTION ACTIVITIES

Dates of inspection	26 and 27 March 2019
Inspection activities undertaken <ul style="list-style-type: none">• Review of relevant documents• Discussion with principal and key staff• Interaction with students	<ul style="list-style-type: none">• Observation of teaching and learning during 7 class periods• Examination of students' work• Feedback to principal and relevant staff

School context

Christian Brothers Secondary School is an all-boys voluntary secondary school operating under the trusteeship of the Edmund Rice Schools Trust (ERST). The school offers the Junior Cycle programme, an optional Transition Year (TY) programme, the Leaving Certificate Vocational Programme (LCVP), and the Leaving Certificate (Established) (LCE). It has a current enrolment of 785 students.

SUMMARY OF MAIN FINDINGS AND RECOMMENDATIONS:

Findings

- The overall quality of teaching, learning, and assessment is good; opportunities exist to develop students' skills around verbalising their learning and working collaboratively.
- While overall the quality of subject provision and whole school support is very good, the current practice of organising students into tightly streamed classes needs to be reviewed.
- Additional support for students with special educational needs (SEN) is very good; it is student-centred, and evidence based.
- The overall quality of planning and preparation is good; opportunities exist to improve schemes of work.
- It is very positive that teachers in the department are actively pursuing and trialling new methodologies and approaches in their lessons in a systematic and effective way.

Recommendations

- Senior management, in consultation with the mathematics department, should review and adjust the process by which students are assigned to classes and adopt an approach whereby students are taught in mixed ability groups within each level from second year.
- The department should review its schemes of work and adjust its practice in order to identify and include opportunities that will allow students to develop their verbal reasoning and collaborative skills.

DETAILED FINDINGS AND RECOMMENDATIONS

1. TEACHING, LEARNING, AND ASSESSMENT

- The overall quality of teaching, learning, and assessment is good. There was a very good rapport between teachers and students in all lessons. The atmosphere in all classes was relaxed but purposeful. Students were confident in asking questions, with very supportive and encouraging teacher-student interactions evident.
- Learning intentions were consistently shared with students. Teachers universally assessed students' prior knowledge through effective questioning at the outset of lessons. Teachers should consider how learning intentions could be used to assist students in actively assessing their own progress at the end of lessons.
- Literacy strategies were consistently well-embedded into classroom practice and very good homework correction strategies that maximised lesson time were observed. Many different strategies were used in relation to both these areas and it would be worthwhile to share the different approaches used at department level.
- Teachers' mathematical explanations were rigorous and thorough. In some instances, students were allowed to explore a "trial and error" approach to the problem posed, with the teacher facilitating feedback on their experience at the end of the task. This approach brought rigor to the students' language, with students themselves identifying the new learning achieved. There was greater engagement of students when using this approach, rather than when new learning was presented by the teacher at the outset of the lesson. This approach, which facilitates students in becoming more resilient with regard to their learning, should be incorporated into regular practice where possible.
- Though collaborative strategies were used in a number of lessons, it was noted that students were quiet at times, with teachers doing the majority of the work in some lessons. In this regard, opportunities exist to identify and utilise a greater range of collaborative learning strategies and, importantly, to share the rationale for the use of these strategies with students. This would assist students to develop their collaborative skills and give them further opportunities to verbalise their learning.
- Very effective use of a well-planned, extended think-pair-share activity was observed in one lesson. In another, students were provided with the opportunity to work together to investigate quadratic functions. Consequently, students had the opportunity to develop their verbal reasoning to a much greater extent. On both occasions, collaborative learning formed a key part of the lesson, with students being facilitated to work together at an early point. These types of very effective approaches should be shared.
- Teachers made very good use of digital technologies in a variety of ways to support learning, including the use of a wide range of subject-specific software. In a small number of lessons, teachers shared student work using a visualiser. This approach was very beneficial as it allowed the teacher to articulate expected standards of work and gave students the opportunity to assess their peer's work.

2. SUBJECT PROVISION AND WHOLE SCHOOL SUPPORT

- While, overall, the quality of subject provision and whole school support is very good, the current practice of organising students into tightly streamed class groups needs to be reviewed and adjusted.

- Classes are taught in mixed ability groups in first year, except for a small group of students with identified need who are taught separately in a specially formed class. At present, students are organised according to ability, with streamed groups being formed in higher and ordinary level from the start of second year. This arrangement focuses students on their summative outcomes and is not conducive to assisting all students to develop a positive attitude to the study of Mathematics. Therefore, it is recommended that senior management, in consultation with the mathematics department, review and adjust the process by which students are assigned to classes and adopt an approach whereby students are taught in mixed ability groups within each level from second year.
- The review should also include reconsidering the current practice of forming a special class for a small group of students for first year and, instead, include these students in their mainstream class group. The further development of team teaching, as a model of inclusive practice, and which the school has identified as an area to be developed, will assist in this regard.
- Senior management is very supportive of the subject. The department is very well resourced, and the staff involved use of the opportunities provided by concurrent timetabling to meet regularly. Almost all teachers have their own classroom. It is very positive that senior management have encouraged teachers to observe each other and department members report that they are open to availing of this.
- Additional support for students with special education needs (SEN) is very good; it is student-centred, and evidence based. Dependent on the level of need, students can access different types of numeracy support.
- It is very positive that students have the opportunity to participate in local and national Mathematics competitions, with teachers providing training for these events.

3. PLANNING AND PREPARATION

- The overall quality of planning and preparation is good. Individual lesson planning was of a very high quality and the subject plan outlines clearly how the department operates. The department makes very good use of digital technologies to collaborate and share resources.
- Teachers in the department are actively identifying and trialling new methodologies and approaches in their lessons in a systematic and effective way, the outcomes of which are documented very effectively. In addition, teachers have put much work into investigating how digital technologies can support in-class learning and extend learning beyond the classroom. These practices demonstrate the pro-active and reflective nature of the department.
- In the context of the above very good practices, the department should review its schemes of work to identify and include opportunities that will allow students to develop their verbal reasoning and collaborative skills. The bank of methods that the department has already trialled will be of great use in this regard.
- Given the large size of the department, and the likelihood that student numbers will increase in coming years, it would also be very beneficial for the department to articulate a common vision, with an associated action plan, around the kind of mathematical experience teachers would like students to have in light of the new Junior Cycle specification.

The draft findings and recommendations arising out of this evaluation were discussed with the principal, deputy principals and subject teachers at the conclusion of the evaluation.

THE INSPECTORATE'S QUALITY CONTINUUM

Inspectors describe the quality of provision in the school using the Inspectorate's quality continuum which is shown below. The quality continuum provides examples of the language used by inspectors when evaluating and describing the of quality the school's provision of each area.

Level	Description	Example of descriptive terms
Very Good	Very good applies where the quality of the areas evaluated is of a very high standard. The very few areas for improvement that exist do not significantly impact on the overall quality of provision. For some schools in this category the quality of what is evaluated is outstanding and provides an example for other schools of exceptionally high standards of provision.	Very good; of a very high quality; very effective practice; highly commendable; very successful; few areas for improvement; notable; of a very high standard. Excellent; outstanding; exceptionally high standard, with very significant strengths; exemplary
Good	Good applies where the strengths in the areas evaluated clearly outweigh the areas in need of improvement. The areas requiring improvement impact on the quality of pupils' learning. The school needs to build on its strengths and take action to address the areas identified as requiring improvement in order to achieve a <i>very good</i> standard.	Good; good quality; valuable; effective practice; competent; useful; commendable; good standard; some areas for improvement
Satisfactory	Satisfactory applies where the quality of provision is adequate. The strengths in what is being evaluated just outweigh the shortcomings. While the shortcomings do not have a significant negative impact they constrain the quality of the learning experiences and should be addressed in order to achieve a better standard.	Satisfactory; adequate; appropriate provision although some possibilities for improvement exist; acceptable level of quality; improvement needed in some areas
Fair	Fair applies where, although there are some strengths in the areas evaluated, deficiencies or shortcomings that outweigh those strengths also exist. The school will have to address certain deficiencies without delay in order to ensure that provision is satisfactory or better.	Fair; evident weaknesses that are impacting on pupils' learning; less than satisfactory; experiencing difficulty; must improve in specified areas; action required to improve
Weak	Weak applies where there are serious deficiencies in the areas evaluated. Immediate and coordinated whole-school action is required to address the areas of concern. In some cases, the intervention of other agencies may be required to support improvements.	Weak; unsatisfactory; insufficient; ineffective; poor; requiring significant change, development or improvement; experiencing significant difficulties;

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 of Midleton C.B.S. Secondary School is pleased with the content of the inspection report and commends the good work and commitment of the Mathematics Department as highlighted in the report.

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

- Senior Management, in consultation with the Mathematics Department will review the current practice of organising students into tightly streamed classes with a view to adopting an approach whereby students are taught in mixed ability groups within each level from second year as recommended in the report.
- The Mathematics Department will review its schemes of work in order to incorporate methodologies that will identify and include opportunities that will allow students to develop their verbal reasoning and collaborative skills as recommended in the report.