

An Roinn Oideachais agus Scileanna
Department of Education and Skills

Subject Inspection in Mathematics

REPORT

Ainm na scoile / School name	St Mary's Secondary School
Seoladh na scoile / School address	Convent Of Mercy Ballina Co Mayo
Uimhir rolla / Roll number	64520M

Date of Inspection: 10 March 2017



WHAT IS A 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. Learning, teaching 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.

Subject Inspection

INSPECTION ACTIVITIES DURING THIS INSPECTION

Date of inspection	10 March 2017
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 seven class periods• Examination of students' work• Feedback to principal and relevant staff

SCHOOL CONTEXT

St Mary's Secondary School has an enrolment of 509 girls, is situated in the town of Ballina, Co Mayo and operates under the trusteeship of CEIST (Catholic Education – An Irish Schools Trust). As well as the Junior Certificate and Leaving Certificate programmes, the school offers an optional Transition Year (TY) programme, Leaving Certificate Vocational Programme (LCVP) and the Leaving Certificate Applied (LCA).

SUMMARY OF MAIN FINDINGS AND RECOMMENDATIONS:

FINDINGS

- The quality of teaching was good or very good in the majority of lessons observed; in the remainder the quality was satisfactory.
- The overall quality of learning was good with very good learning achieved in two lessons.
- Individual planning was of a high quality in the majority of lessons but there is a need to significantly improve the quality of the subject department plan.
- The overall quality of assessment was satisfactory.
- Good rapport between teachers and students was observed during the evaluation and all interactions were respectful.
- The mathematics department is well resourced and timetabling provision for Mathematics is good.

RECOMMENDATIONS

- Teachers should reflect on students' experiences and levels of success after each lesson and use findings to plan for future lessons.
- The good practice of fostering independent learning skills and ensuring students' purposeful, active participation in their learning should be extended to all lessons.
- A common approach to assessment should be agreed, developed and implemented by the mathematics department.
- The mathematics department needs to further develop the mathematics plan and expand on the detail in the schemes of work.

DETAILED FINDINGS AND RECOMMENDATIONS

1. TEACHING, LEARNING AND ASSESSMENT

- The overall quality of teaching was good. In the best lessons, teachers were mindful of students' learning experiences in the classroom. A variety of methodologies was used to maximise engagement and maintain pace. Student-centred learning intentions, and suitably high expectations for students' knowledge and ability ensured the better lessons were interesting and progressive. Students' learning experiences and levels of engagement and success should be reflected on by teachers after lessons. Findings should then be used in planning to maximise learning opportunities for future lessons.
- The quality of learning ranged from satisfactory to very good. Where learning was best, students were actively engaged in the tasks set and had a sense of achievement when completed. Differentiation ensured inclusion for all. This was achieved through questioning and providing well-planned and varied tasks in class and for homework. There was room to improve the quality of learning where students became disengaged as they were not suitably challenged. In a small number of lessons, student engagement was overly passive.
- There was very good rapport between students and teachers as well as among students. All interactions were respectful and students were happy to ask questions, seek clarification and offer solutions in all lessons. Where pair and group work were facilitated, students worked collaboratively and the teachers circulated to support and check understanding. All class groups should have opportunities to work collaboratively and learning benefits can be extended by giving students opportunities to present findings to each other.
- There was scope to improve the quality of assessment and the level of monitoring of students' work in almost all lessons. Understanding and progress were checked largely through in-class questioning and summative assessments. Peer and self-assessment were used in a few lessons and it is recommended that success criteria be agreed and implemented to maximise benefits to improve learning. Apart from one lesson, there was little evidence, in the samples of work examined, of the use of effective written formative feedback or of sufficient monitoring of copybooks. This is an area in need of improvement.
- ICT was used as a teaching aid in the majority of lessons. At the end of one lesson it was used innovatively to check for understanding and recapitulate on the content covered. In others, it provided accurate diagrams and interactive examples for students to follow.
- In the majority of lessons, opportunities to highlight links with other mathematical topics were used to good effect. The whole-school literacy strategy of using keywords was evident in most lessons. Terminology was reinforced by teachers using relevant keywords throughout the lessons and students being encouraged to use the mathematical terminology when providing solutions.

2. SUBJECT PROVISION AND WHOLE SCHOOL SUPPORT

- Subject provision and whole-school support for Mathematics are very good. All year groups have at least the minimum number of lesson periods required by the syllabus. Additional support sees junior-cycle students being taught in smaller groups, TY students having five class periods weekly and both fifth and sixth years having six periods of Mathematics per week.
- The mathematics department is well resourced. Each classroom is equipped with ICT facilities and there is a shared folder on the school server where relevant teaching and learning material can be stored and shared. Hands-on resources are stored in a communal area to

which all teachers have access. Requests to management for additional resources to support teaching and learning are met favourably where possible.

- There are currently eight teachers assigned to teaching Mathematics, all but one of whom is appropriately qualified to teach the subject. That teacher is qualified to teach students with special educational needs (SEN) and is timetabled accordingly. Senior management and the board of management are supportive of teachers' engagement with continuing professional development (CPD). Many of the teachers partake in courses in their own time as well as availing of whole-school and subject department opportunities.

3. PLANNING AND PREPARATION

- Individual lesson planning was good overall. The best lessons were where the teacher facilitated students in achieving clear, student-centred learning intentions by using suitably pitched tasks. In these lessons, all students enjoyed elements of challenge and success. Questioning was used to prompt, support and scaffold learning and students were not dependent on the teacher for all solutions.
- The standard of department planning and preparation for Mathematics is fair. Common practices should be agreed and implemented throughout the department and school-wide where relevant. All subject teachers should be familiar with the content for every year group and this can be achieved through collaborative development and regular review of the plan. Opportunities to share individual lesson reflection, either at meetings or through engagement with the online version of the plan, would also add value to the plan to support teaching and learning.
- Schemes of work have been developed for each year group. They comprise details of content to be covered and a broad timescale for each topic. Further development should see student-centred learning outcomes being linked with teaching and learning methodologies, assessment strategies, relevant links and resources in more detailed timeframes.
- The mathematics department is co-ordinated on a rotating basis which is in line with good practice. Regular meetings are documented and minutes kept in the subject department plan. Opportunities to share and discuss methodologies for teaching and learning as well as for assessment practices should be included as agenda items at each meeting. An annual analysis of students' performance in the certificate examinations is conducted. Findings should be used to set overall improvement targets with agreed strategies on how to achieve them.

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.

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 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;