

An Roinn Oideachais agus Scileanna
Department of Education and Skills

Subject Inspection in Mathematics

REPORT

Ainm na scoile / School name	Millstreet Community School
Seoladh na scoile / School address	Millstreet Town Co Cork
Uimhir rolla / Roll number	91390F

Date of Inspection: 28-02-2020



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	27 and 28 February 2020
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 six lessons• Examination of students' work• Feedback to principal and relevant staff

School context

Millstreet Community School is a co-educational school operating under the trusteeship of the Diocese of Kerry, Catholic Education: An Irish School's Trust (CEIST), and Cork Education and Training Board (ETB). It offers the Junior Cycle programme, an optional Transition Year (TY), the Leaving Certificate Vocational Programme (LCVP) and the Leaving Certificate (Established) (LCE). It has a current enrolment of 329 students.

SUMMARY OF MAIN FINDINGS AND RECOMMENDATIONS:

Findings

- Overall, the quality of teaching and learning is good; opportunities exist to maximise outcomes from collaborative learning tasks.
- Very supportive formative feedback was provided to students in all lessons, though some aspects of the formal assessment load need review.
- Student attitudes to Mathematics were very positive and they engaged well in lessons, showing perseverance and resilience during extended tasks.
- Overall, the quality of subject provision and support is good, but some aspects of resource deployment should be changed.
- The quality of planning and preparation is very good; the department is actively engaged in reflecting and assessing how it can best progress the principles contained in the new specification and brings much experience to bear in this area.

Recommendations

- The underlying skills being developed through collaborative tasks should be shared with pupils in order to maximise the learning outcomes provided by these opportunities.
- Senior management, in consultation with the mathematics department, should ensure that resources are deployed so that all students have an equity of contact time at the different levels of study.
- The mathematics department, in collaboration with senior management, should review the formal assessment requirements in the subject to ensure that students are not over-assessed.

DETAILED FINDINGS AND RECOMMENDATIONS

1. TEACHING, LEARNING, AND ASSESSMENT

- The overall quality of teaching and learning is good. Relationships were positive and respectful in all lessons, and environments were supportive, open, and encouraging.
- Students' attitudes to Mathematics were very positive and students engaged well with most aspects of lessons. Students were able to work independently for extended periods of time in some lessons, showing perseverance and resilience in doing so, and practice which supports the development of these skills should be incorporated in all lessons. Occasionally students were very quiet, even when feedback was encouraged, and strategies to support students' development of verbal reasoning and communication skills should be identified and utilised.
- Very supportive and specific formative feedback was provided to students in all lessons.
- For the most part, students' copies demonstrated high levels of training with regard to the clarity of presentation of their work. It would be beneficial now for the department to articulate common expected standards of work, which would include students' checking their own solutions as part of completing work and undertaking second attempts where needed.
- Collaborative work was a feature of most lessons, but opportunities exist to maximise learning from pairwork and groupwork. The rationale and underlying skills being developed through collaborative work should be shared with students so that they understand the importance of fully participating in such activities. While opportunities for students to reflect on content covered were sometimes provided after these tasks, student reflection would be greatly enhanced by the provision of key learning questions for them to reflect on throughout and at the end of lessons.
- In some lessons, students had the opportunity to create and share their own questions, which encouraged creativity, curiosity, and the development of higher order skills. This practice should be extended and incorporated into teachers' schemes of work.
- In some lessons, students had the opportunity to delve very deeply into the nature of Mathematics, with resources that assisted them in making deeper links and connections between concepts. Students' engagement in these lessons was at a higher level, with many supportive learning conversations between students taking place. The practice of using this type of resource, that allows students the opportunity to work for extended periods of time, engage with each other, teach each other, and reason out approaches should be extended.
- On occasion, the greater use of digital technologies was advised, especially use of the visualiser and other available graphing software, to support students' learning and to share both teacher-created and student-created exemplars.

2. SUBJECT PROVISION AND WHOLE SCHOOL SUPPORT

- Overall, the quality of subject provision and support is good. Students work in mixed ability groups in first year, the current second year, and TY. Timetabling is concurrent in all other year groups to allow the formation of higher level and ordinary level classes, and, where appropriate, foundation classes.
- Most students study higher level at junior cycle and state examination results compare favourably with national norms. Discussion around progressing the extent and suitability of

mixed ability groups within levels should be had at department level, coupled with a sharing of the expertise that exists within the department around mixed-ability teaching.

- Some aspects of resource deployment should be modified to ensure that all students have equal access to the subject at all levels. Currently in fifth year, foundation level students have three periods per week in a foundation level group and two periods per week in an ordinary level group. In sixth year, higher level classes have more periods per week than students studying at ordinary and foundation level. Senior management, in consultation with the department, should ensure that resources are deployed appropriately so that all students have equity of access to subject levels and teaching time, especially in relation to the formation of ordinary-level and foundation-level class groups.
- Currently, students who are not in third year and sixth year complete summative assessments in October, February and May, in addition to classroom tests. In light of the recent move to classroom -based assessments (CBAs), and assessment tasks (ATs) in junior cycle which promote the development of students' formative assessment skills, thought should be given as to the purpose, type and frequency of the different assessment modes. In addition, consideration should be given as to how the balance of formative and summative assessment can be used to best effect to support student progress. Senior management, in consultation with staff, should discuss and review the formal assessment requirements in the school, and within subject departments, to ensure that students are not over-assessed.
- Student experience is supported and extended by their ongoing participation in very wide-ranging competitions at local and national level, in addition to a very well organised Maths Week. Complementary experiences from other modules, especially in TY, also enhance student experience.

3. PLANNING AND PREPARATION

- Subject department planning is of a very good standard and the department is actively engaged in reflecting on and assessing how it can best progress the principles contained in the junior cycle specification. The department is relatively newly formed, and it is very positive that the subject coordinator position rotates between members of the department. Individual planning is of a very high standard.
- The very good collaborative planning should be further enhanced by the articulation of the type of experiences that the main mathematics teachers wish students to have as they progress through the school. This would assist teachers who do not teach the subject in consecutive years to ensure students are exposed to similar mathematical experiences, as the number of mathematics teachers deployed is dependent on the needs of each current cohort of students.
- It is very positive to see that the department engages in an annual subject improvement plan. Currently, this plan is mainly related to student experience outside the classroom. The department should ensure that this plan contains specific, measurable, achievable, realistic and timebound (SMART) targets which are linked to the school's self-evaluation process and takes into account areas of classroom practice and student experience that the department would like to develop. This should be guided by the teachers' knowledge of their own students and the recommendations provided in this report.

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 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 broadly welcomes the report on the recent Mathematics subject inspection in Millstreet Community School.

The Board is satisfied that the very high standards of work by our teachers and students is positively recognised 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.

Recommendations are being incorporated into subject planning and individual pedagogy, limited at present by the impact of Covid-19 restrictions on learning and teaching methodologies.

Notwithstanding the fact that that need for a Senior Cycle Foundation Level Mathematics Class only became apparent in term 2 of Year 1 of that cycle, and that limited resources prevented school management from creating a formal third mathematics class at that point in time, all students now have equity of access to the subject at all levels.