

An Roinn Oideachais agus Scileanna
Department of Education and Skills

Curriculum Evaluation
Mathematics

REPORT

Ainm na scoile / School name	Carnaross National School
Seoladh na scoile / School address	Carn na Ros Ceannannas Mor Contae na Mí A82 H316
Uimhir rolla / Roll number	16991I

Date of inspection: 11-01-2018



WHAT IS A CURRICULUM EVALUATION?

Curriculum Evaluations report on the quality of teaching and learning in specific subjects of the *Primary School Curriculum* (1999). 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(s) evaluated learning and teaching in Mathematics under the following headings:

1. Quality of pupils' learning
2. Supporting pupils' learning through learner experiences and teachers' practice
3. The effectiveness of school planning, including SSE, in progressing pupils' learning

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 was given an opportunity to comment in writing on the findings and recommendations of the report; a response was not received from the board.

Curriculum Evaluation

Date of inspection	11 January 2018
Inspection activities undertaken <ul style="list-style-type: none">• Discussion with principal and teachers• Review of relevant documents• Pupil focus-group interview	<ul style="list-style-type: none">• Observation of teaching and learning• Examination of pupils' work• Interaction with pupils• Feedback to principal and teachers

SCHOOL CONTEXT

Carnaross National School, under the patronage of the Roman Catholic Archbishop of Meath, is a co-educational rural school catering for 158 pupils from junior infants to sixth class. At the time of the evaluation, there were six mainstream class teachers and two special education teachers.

SUMMARY OF MAIN FINDINGS AND RECOMMENDATIONS:

FINDINGS

- The overall quality of pupils' learning in Mathematics is very good with pupils demonstrating a very good ability to articulate and describe their learning; opportunities for pupils to write about their mathematical learning should be extended.
- The overall quality of pupils' learning experiences is very good and pupils are afforded regular opportunities to engage in active learning; some possibilities for development exist, at whole-school level, in respect of pupil-initiated mathematical investigations.
- Teachers' practice in Mathematics is very good and team teaching is used very effectively to support pupils' learning; there is potential to refine existing systems of record-keeping to document the ongoing attainment of pupils requiring additional support in Mathematics.
- The instructional leadership by the principal is very effective.
- Early intervention and prevention strategies are successfully prioritised in the junior classes.
- The quality of school planning and school self-evaluation (SSE) is very good.

RECOMMENDATIONS

- Lessons should incorporate opportunities for pupils to write reflections on their learning in Mathematics.
- A more consistent emphasis should be placed on the further development of pupils' enquiry-based thinking through their participation in on-going, authentic mathematical investigations arising from the pupils' own observations and questions.
- A more refined system of record keeping should be developed to provide a succinct overview of the progress of individual pupils towards the attainment of agreed learning targets in numeracy.

DETAILED FINDINGS AND RECOMMENDATIONS

1. THE QUALITY OF PUPILS' LEARNING

The overall quality of pupils' learning in Mathematics is very good. Their conceptual knowledge, skills and understanding are at a very good standard in accordance with the objectives, skills and concepts

outlined in the *Primary School Curriculum*. Pupils are motivated and demonstrate a positive approach to their learning. They approach mathematical challenges confidently and use a wide range of solution methods for solving problems. Pupils ably recall, connect and apply different aspects of their mathematical thinking. During the evaluation, pupils were observed to make meaningful connections between their learning in Mathematics and their learning in other curriculum subjects. Pupils also demonstrated a very good ability to articulate and describe their learning. To further enhance pupils' learning and consolidate their understanding of mathematics concepts, lessons should incorporate opportunities for pupils to write reflections on their learning in Mathematics.

2. SUPPORTING PUPILS' LEARNING: LEARNER EXPERIENCES AND TEACHERS' PRACTICE

The overall quality of pupils' learning experiences is very good. A positive mathematics learning environment exists wherein pupils are appropriately challenged and supported and their contributions to lessons are encouraged and affirmed. A broad range of high-quality resources and manipulatives is used very effectively to facilitate pupils' understanding of mathematical concepts. The classroom and school environment promotes and celebrates Mathematics and provides for the development of pupils' mathematical thinking. While pupils are afforded regular opportunities to engage in mathematics activities, games and trails and have engaged in enquiry-based learning in Mathematics, they would benefit from more structured involvement in pupil-initiated, on-going mathematical investigations. Pupils in the focus-group spoke enthusiastically about how they applied their mathematical learning in real-life contexts and praised the whole-school emphasis on active learning during lessons in Mathematics.

Teachers' practice in Mathematics is of a very good quality and the instructional leadership by the principal is very effective. Teachers use a very effective blend of methodologies including whole-class teaching, collaborative work, talk and discussion, and strategic questioning techniques to stimulate and extend pupils' mathematical thinking. All observed lessons were very well structured and suitably paced to ensure pupils' active involvement in the learning activity. Teachers were observed to make very effective incidental use of the learning environment to enrich pupils' early learning experiences in numeracy. Teachers used key mathematical language explicitly to introduce and explain concepts and to guide pupils' responses. The needs of pupils requiring additional support in Mathematics are effectively met through a judicious combination of in-class support and the withdrawal of groups of pupils for targeted interventions. Teachers in all settings were observed to successfully differentiate lesson content and activities to meet the varying abilities of pupils. Team teaching is used very effectively to promote inclusion and to support learning in numeracy. Early intervention and prevention strategies are successfully prioritised in the junior classes.

The overall quality of assessment is very good. There is a whole-school approach to analysing pupil attainment in standardised tests and tracking pupils' progress. Very good systems for recording pupil attainment during in-class support sessions were in evidence in almost half of observed settings. There is scope in the remaining settings to develop a more concise system of record-keeping to document the overall attainment of individual pupils in receipt of additional learning support in Mathematics.

The systematic analysis of whole-school assessment data has underpinned recent priorities for school improvement. While copybooks are well monitored in general, an agreed whole-school

approach to the provision of formative written feedback to pupils should be developed to enhance the impact of this monitoring.

3. THE EFFECTIVENESS OF SCHOOL PLANNING, INCLUDING SSE, IN PROGRESSING PUPILS' LEARNING

The quality of school planning and SSE is very good. The whole-school plan for Mathematics informs and reflects the practice in the school, including individual teachers' preparation and their work in classrooms. Very good provision is made for breadth and balance in the development of Mathematics in the school. Teachers regularly review aspects of provision for Mathematics, and collaboratively identify and plan for the development of further effective approaches in teaching and learning. Very good use is made of teachers' monthly progress records to facilitate the monitoring of teaching and learning across the strands of the mathematics curriculum. The current practice of including detailed teacher professional reflections on pedagogy in the monthly progress reports is highly commendable. The school has made very good progress in reviewing, achieving and adapting the targets established in its SIP for overall improvement in pupils' learning in Mathematics.

4. CHILD PROTECTION

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

1. The school principal is aware that revised child protection procedures for primary and post-primary schools came into effect on 11 December 2017 and arrangements are in place to begin the process of implementing these procedures.
2. The name of the designated liaison person for child protection matters was prominently displayed near the main door of the school.
3. The school has a child protection policy in place.
4. All teachers are aware that they are mandated persons and of their responsibilities in that regard.

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

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 of 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;