

An Roinn Oideachais agus Scileanna
Department of Education and Skills

Curriculum Evaluation
Mathematics

REPORT

Ainm na scoile / School name	Knockavilla N S
Seoladh na scoile / School address	Dundrum Co Tipperary
Uimhir rolla / Roll number	14426N

Date of inspection: 15-05-2018



**An Roinn Oideachais
agus Scileanna**
Department of
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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 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, 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.

Curriculum Evaluation

Date of inspection	15-05-2018
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

Knockavilla NS, under the patronage of the Catholic Archbishop of Cashel and Emly has an enrolment of 116 pupils. The school has five mainstream class teachers and two special education teachers (SETs), both of whom are based in the school.

SUMMARY OF MAIN FINDINGS AND RECOMMENDATIONS:

FINDINGS

- The overall quality of pupils' learning in Mathematics is very good.
- High quality learning experience are provided for pupils in all settings.
- The quality of teachers' individual practice is highly commendable; they direct very good attention towards consolidating and reinforcing mathematical concepts and skills.
- Pupils' attainment in criterion referenced and standardised testing is consistently monitored; there is potential for the extension of assessment for learning processes.
- There is currently an over-emphasis on the withdrawal of pupils for support interventions and an imbalance in the provision for literacy and numeracy, with significantly more support being provided for literacy.
- School planning for Mathematics, including SSE is of a good quality; there is some scope to further develop SSE processes to evaluate the impact on pupil learning outcomes.

RECOMMENDATIONS

- A greater emphasis should be placed on assessment for learning in order to inform differentiated progression steps in the pupils' mathematical learning.
- The structure of provision for pupils with special educational needs (SEN) should be reviewed to increase the frequency of in-class interventions and to redress the imbalance between provision for literacy and numeracy.
- The school should continue to build on the planning and SSE processes in place through reviewing the impact of maths initiatives on pupils' outcomes and developing a common planning template for teachers.

DETAILED FINDINGS AND RECOMMENDATIONS

1. THE QUALITY OF PUPILS' LEARNING

The overall quality of pupils' learning is very good and a significant number of them achieve very high standards. The pupils display a very good understanding of number facts and operations and competently engage in tasks on money, fractions and algebra. They use appropriate mathematical language when describing the application of measures to length, weight and capacity. They capably collect, organise and interpret data. Pupils demonstrate an increasing capacity to employ a range of strategies to address problem-solving tasks as they progress through the school. In many of the lessons observed, the pupils were encouraged to communicate their thinking strategies and this very good practice should be extended throughout the school. Many pupils display an ability to apply mathematical skills across both the strands of the curriculum and in cross-curricular learning activities. Discussion with pupils through the focus group and interaction with them in their class settings suggests that they enjoy their learning in Mathematics and that they are confident in their mathematical abilities. Pupils' written work indicates that they benefit from a broad and balanced mathematics curriculum.

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

The quality of learning experiences provided for the pupils is very good. Attractive and stimulating learning environments are presented by all teachers. Very good use is made of concrete materials to support teaching and learning and significant emphasis is placed on connecting content to the pupils' life experiences and to the immediate school environment. During the course of the focus group interview, the pupils spoke enthusiastically about their experiences in Mathematics. They described their learning as fun and showed particular enthusiasm for what they termed "sensible maths". This work involves the examination of supermarket receipts, exploring VAT rates, working outside the classroom and using their *maths eyes* to engage in trails and orienteering. Pupils' engagement in learning is encouraged through a range of actions which include; the provision of positive feedback for effort, the use of open-ended questioning, and the facility for pupils to work collaboratively with a shared responsibility for the completion of tasks.

The overall quality of teaching is very good. Teachers set high expectations for the pupils and they afford very good attention to consolidating and reinforcing mathematical concepts and skills. Lessons were very well structured and well-paced. Teacher planning indicates that good consideration is given to meeting the range of ability in classrooms. Differentiated questioning allows for the confident and successful participation of all pupils.

The quality of teaching and learning observed in special educational settings was very high. Teachers took opportunities to connect new and existing knowledge and to revise concepts before progressing learning. In withdrawal settings, the pupils successfully explored the concepts of measures. Special education teachers (SETs) also made a significant contribution to progressing pupils' learning during station-teaching. The structure of provision for pupils with special educational needs (SEN) should be reviewed to increase the frequency of in-class interventions and to redress the imbalance between provision for literacy and numeracy.

Pupils' attainment in criterion referenced and standardised tests is monitored at class and at whole-school level. The school should extend the assessment for learning processes, through deeper analysis of the outcomes of summative testing, in order to inform differentiated progression steps in the pupils' mathematical learning.

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

School planning for Mathematics, including SSE is of a good quality. The whole-school plan provides useful guidance for teachers on teaching methodologies, approaches to operations and mathematical language. While all teachers prepare short and long-term planning, along with monthly progress records, it would be beneficial to develop a common reporting template. This would facilitate the analysis of content and skills taught and assist the school in its self-evaluation of Mathematics.

The school has successfully engaged in the SSE process with specific focus on improved attainment in problem-solving. It has introduced a range of strategies to affect improved learning outcomes. Resultantly, the pupils demonstrate a positive attitude towards problem-solving and those who participated in the focus-group discussion reported that they enjoyed this aspect of work in Mathematics. It is now opportune for the school to evaluate the impact of this initiative on pupil outcomes in problem-solving. While a Mathematics co-ordinator has been appointed, this role should be extended to focus on continued improvement in teaching, learning and assessment.

Teachers work collaboratively to devise learning opportunities for pupils that extend beyond the curriculum for Mathematics. They participate in national initiatives including Maths Week and Engineering Week to develop the pupils' mathematical and scientific skills. Teachers' collective practice has enabled the school to successfully participate in the Discover Science and Maths Awards Programme 2018.

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;

Appendix

SCHOOL RESPONSE TO THE REPORT

Submitted by the Board of Management

Area 1 Observations on the content of the inspection report

The Board of Management of Knockavilla NS welcomes the opportunity to engage with the DES Inspectorate in this curriculum review. The Board and its teachers find the Mathematics Curriculum Evaluation Report to be very positive, and affirming of the high standard of work undertaken in our school.

The Board is especially pleased to find that the very high standards of teaching and learning in Knockavilla NS have been recognised by the DES.

The Board welcomes the guidance on how to improve on our school's already high standards in Mathematics.

Area 2 Follow-up actions planned or undertaken since the completion of the inspection activity to implement the findings and recommendations of the inspection.

The Board of Management and teachers will give careful consideration to the recommendations of the Inspectorate.

Assessment for learning has always been an important part of our assessment procedures here in Knockavilla NS and we will strive to place a greater emphasis on it in the future. The SEN team will examine the skills and processes involved in the standardised test results for indications of areas which may need whole-school concentration.

Team and Station teaching methods will continue to be expanded throughout the school.

With the lifting of the INTO embargo on SSE Scoil Mhuire Knockavilla will again consolidate and develop the very effective SSE process which we have engaged in earlier. The work undertaken to-date in this area has seen great improvements in the area of problem-solving and the pupils' positive attitudes to Mathematics in general.

We will investigate the use of a common template for progress reports in Mathematics.