An Roinn Oideachais agus Scileanna
Department of Education and Skills

Curriculum Evaluation
Mathematics

REPORT

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<tr>
<th>Ainm na scoile / School name</th>
<th>Portroe National School</th>
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<td>Seoladh na scoile / School address</td>
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<td>Nenagh</td>
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<td>Co Tipperary</td>
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<td>Uimhir rolla / Roll number</td>
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Date of Evaluation: 24-10-2016
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 inspectors evaluated learning and teaching in Mathematics under the following headings:

1. Quality of pupils’ learning
2. Supporting pupils’ learning through learning 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.
INSPECTION ACTIVITIES DURING THIS INSPECTION

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<th>Date of inspection</th>
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| Inspection activities undertaken | • Observation of teaching and learning  
• Examination of pupils’ work  
• Interaction with pupils  
• Feedback to principal and teachers |

SCHOOL CONTEXT
An evaluation of Mathematics was undertaken in Portroe National School in October 2016. Portroe National School is located in County Tipperary. The school has an administrative principal and five mainstream class teachers. The school has three support teachers based in the school. At the time of the evaluation six of the teachers were employed in a substitute or temporary capacity. A class to support pupils with autistic spectrum disorders (ASD) was established in September 2016. At the time of this inspection, there were 114 pupils enrolled in the school.

SUMMARY OF MAIN FINDINGS AND RECOMMENDATIONS:

FINDINGS
- The overall quality of pupils’ learning in Mathematics is very good.
- Pupils are motivated to learn through access to a good range of mathematical resources; the use of information and communications technology (ICT) needs to be further developed as a learning resource across the school.
- The overall quality of teachers’ practice in Mathematics is good.
- The overall quality of support for pupils’ learning in Mathematics is good. Further differentiation of mathematical programmes is required in mainstream settings to provide appropriate challenge for all pupils.
- Teachers implement a commendable range of assessment strategies to evaluate and improve pupils’ learning in numeracy.
- The whole-school focus on problem solving and language development is impacting positively on pupils’ learning in Mathematics.

RECOMMENDATIONS
- Teachers in mainstream settings should differentiate mathematical programmes more effectively to ensure there is appropriate challenge for pupils of all ability levels.
- The use of ICT, as a learning resource for Mathematics, needs to be further developed at whole-school level.

DETAILED FINDINGS AND RECOMMENDATIONS

1. THE QUALITY OF PUPILS’ LEARNING IN SUBJECT

The overall quality of pupils’ learning in Mathematics is very good. During the evaluation process, the majority of pupils were positively engaged in their learning. The learning outcomes from the majority
of the lessons observed were good. Most pupils could apply their learning confidently across concepts and at a cross-curricular level. Pupils’ achievements in numeracy are generally well above expectations. The pupils’ knowledge, skills and understanding of Mathematics are being developed to a high standard. In the pupil focus-group interview, pupils stated that they enjoy their learning in Mathematics and are motivated to learn through collaborative group work, mathematical games and problem-solving strategies. As part of the focus-group interview, pupils highlighted that access to ICT is limited. There was also scope for development in the use of ICT as a learning resource for Mathematics in the majority of lessons observed during the evaluation.

2. SUPPORTING PUPILS’ LEARNING IN SUBJECT: LEARNING EXPERIENCES AND TEACHERS’ PRACTICE

The overall quality of support for pupils’ learning in Mathematics is good. Classroom environments provide good quality mathematical displays. Teachers implement a range of teaching methodologies and provide for depth and balance across the Mathematics curriculum. Whole-school assessment practices in Mathematics are directed effectively to evaluate and improve learning.

The learning experiences provided for pupils in Mathematics are good. Pupils are supported in their learning through a combination of collaborative group work and independent learning opportunities. Problem-solving strategies are displayed across the school. To build on this good practice the school environment should be further developed to support pupils in effectively identifying Mathematics outside of classroom settings.

The overall quality of the teaching in Mathematics is good. Almost all teachers prepare competently for good learning outcomes for their pupils. Classroom management is very good in the most settings. The majority of the lessons observed were well paced and structured to support pupils’ mathematical knowledge and skill development. Notwithstanding this, in a few of the in-class support settings evaluated the quality of the support provision for pupils with special educational needs (SEN) was unsatisfactory. In most of the mainstream settings observed teaching was at whole-class level. Teachers in mainstream classrooms need to implement differentiated learning programmes to provide an appropriate challenge for pupils of all ability levels. Teachers use a commendable range of methodologies including pair work, collaborative group work and the use of concrete material to support pupils’ mathematical learning. The development of pupils’ discussion of their learning would further support their understanding of mathematical concepts.

The overall quality of assessment is good. Teachers implement a wide range of assessment of learning (AoL) and assessment for learning (AFL) strategies to evaluate and improve learning outcomes in Mathematics. These include: teacher-designed tasks, concept checklists and standardised tests. Where high quality practice was observed, teachers were implementing pupil-led assessment strategies and sharing the outcomes for lessons with their pupils. The detailed tracking and analysis of pupils’ achievements in Mathematics at whole-school level is commendable. This analysis needs to be presented with greater clarity to support interpretation of the data.

The overall management of school resources for Mathematics is good. Teachers use a range of good quality concrete materials and manipulatives to support teaching and learning in the subject. Pupils with SEN are being supported through a combination of in-class support and withdrawal teaching. To further develop this practice, in-school management (ISM) should maximise provision for all pupils by deploying support teachers to enhance the differentiation of mathematical programmes in
mainstream settings. The class for pupils with ASDs, which was established this current year, is providing effective support for pupils in the development of their early numeracy skills.

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

The overall effectiveness of school planning, including school self-evaluation (SSE) planning, is good. The whole-school plan for Mathematics outlines a broad and developmental learning programme at all class levels. The plan provides support for classroom practice in relation to mathematical language development and the use of the school environment to promote mathematical learning. There is scope for development in providing guidance at whole-school level in relation to the teaching of mathematical operations and mental mathematics.

The SSE process for numeracy is being implemented effectively across the school. The school improvement plan (SIP) for numeracy has been developed in collaboration with all school partners. It was evident during the evaluation that the emphasis on mathematical language development is impacting positively on pupils’ learning. Whole-school analysis of pupil achievements in numeracy, by in-school management, provides evidence of improvement in relation to school targets. To further support the principal in the leadership and implementation of school improvement in Mathematics, curricular duties in numeracy should be developed as part of the responsibility of the ISM team.
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.

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<tr>
<th>Level</th>
<th>Description</th>
<th>Example of descriptive terms</th>
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<tr>
<td>Very Good</td>
<td>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.</td>
<td>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</td>
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<td>Good</td>
<td>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 very good standard.</td>
<td>Good; good quality; valuable; effective practice; competent; useful; commendable; good standard; some areas for improvement</td>
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<td>Satisfactory</td>
<td>Satisfactory applies where the quality of provision is adequate. Overall, learners have access to a basic level of provision. 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.</td>
<td>Satisfactory; adequate; appropriate provision although some possibilities for improvement exist; acceptable level of quality; improvement needed in some areas</td>
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<td>Fair</td>
<td>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.</td>
<td>Fair; evident weaknesses that are impacting on pupils’ learning; less than satisfactory; experiencing difficulty; must improve in specified areas; action required to improve</td>
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<td>Weak</td>
<td>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.</td>
<td>Weak; unsatisfactory; insufficient; ineffective; poor; requiring significant change, development or improvement; experiencing significant difficulties;</td>
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