An Roinn Oideachais agus Scileanna

Department of Education and Skills

Curriculum Evaluation

Mathematics

REPORT

Ainm na scoile / School name	Doon Convent National School
Seoladh na scoile / School address	Doon, Co. Limerick
Uimhir rolla / Roll number	14625T

Date of Evaluation: 17-10-2016

AN ROINN OIDEACHAIS AGUS SCILEANNA | DEPARTMENT OF EDUCATION AND SKILLS

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.

Curriculum Evaluation

INSPECTION ACTIVITIES DURING THIS INSPECTION

Date of inspection	17-10-2016
Inspection activities undertaken • Discussion with principal • Review of relevant documents • Pupil focus-group interview	• Observation of teaching and learning • Examination of pupils' work • Interaction with pupils • Feedback to principal and teachers

SCHOOL CONTEXT

Doon Convent National School is located in the village of Doon, Co. Limerick, approximately thirty kilometres from Limerick city. The school has five mainstream class teachers, including a teaching principal. The school also has one learning support teacher based in the school and a resource teacher who is shared with another school in the locality. At the time of this inspection, there were 119 pupils enrolled in the school.

SUMMARY OF MAIN FINDINGS AND RECOMMENDATIONS:

FINDINGS

- The overall quality of pupils' learning in Mathematics is very good.
- Pupils have a positive attitude to Mathematics and enjoy their learning.
- The overall quality of support for pupils' learning in Mathematics is good.
- The majority of the lessons observed involved whole class teaching. Greater differentiation of content and learning activities is required to support the diversity of pupils' learning needs.
- The whole school focus on mathematical language and problem solving is impacting positively on pupils' learning. Further engagement in active learning methodologies would enhance pupils' mathematical skills.
- Support for pupils with special educational needs is provided through a combination of in-class and withdrawal models of support. The organisation of this support requires review to ensure more effective differentiated provision.
- The school has engaged successfully in the school self-evaluation (SSE) process. An evidence-based improvement plan for numeracy, with a focus on problem solving, has been devised. Delegation of the leadership of this plan would ensure its continued positive impact on pupils' learning in Mathematics.

RECOMMENDATIONS

- To further support pupils' understanding of mathematical concepts and development of problem-solving skills, the employment of more active learning methodologies is recommended in all settings.
- In-class models of support, aligned to pupils' prioritised learning needs, should be further developed in order to facilitate focused, differentiated numeracy instruction in small groups.
- In order to ensure the consolidation and development of teaching and learning in Mathematics, it is recommended that a member of the in-school management team lead teaching and learning in Mathematics in the school.

DETAILED FINDINGS AND RECOMMENDATIONS

1. THE QUALITY OF PUPILS' LEARNING IN MATHEMATICS

The overall quality of pupils' learning in Mathematics is very good. There is progression in pupils' knowledge and understanding of mathematical concepts and procedures. The whole school focus on mathematical language and problem solving is impacting positively on pupils' learning. Based on lesson observations and focus group interview with pupils from middle and senior classes it is evident that pupils have a positive attitude to Mathematics and enjoy their learning. The school has recorded improvements in mathematics achievements of pupils in the last two years.

2. SUPPORTING PUPILS' LEARNING IN MATHEMATICS: LEARNING EXPERIENCES AND TEACHERS' PRACTICE

The overall quality of support for pupils' learning in Mathematics is good. All teachers exhibited proficient classroom management skills and positive pupil teacher interactions were observed. Observations of lessons, monthly progress reports and pupils' copies confirm the progressive and developmental nature of the mathematics programme in the school. The pupils are provided with a broad and balanced programme in Mathematics that attends to all strands and strand units of the *Primary School Curriculum (1999)*. Classroom and corridor displays help to scaffold, reinforce and celebrate pupils' learning in Mathematics.

The overall quality of teachers' practice in the mathematics lessons observed was good. Where teachers' practice was very good, clear learning objectives had been identified, the structure and pace of lessons were appropriate and learning activities had been carefully planned to ensure effective pupil engagement. The setting of clear learning objectives for each lesson should be embedded in school practice. Practice was most effective where teachers employed a blend of teaching methodologies including whole class teaching, pair and group work, talk and discussion, the use of concrete materials and effective questioning techniques used to stimulate and extend pupils' thinking. The employment of more active learning methodologies is recommended to support pupils' understanding of mathematical concepts and development of problem-solving skills. It is recommended that the board of management invest further in concrete materials to ensure that all classrooms are equipped with sufficient and appropriate concrete materials to support pupils' learning in Mathematics.

Teachers explicitly teach mathematical language in a systematic and effective manner. In the majority of settings, there was good emphasis on oral mathematical skills including counting and number facts at the start of lessons. This good practice should become an integral part of teaching and learning in Mathematics. Further use of number fans, mathematical games, mathematical trails and problem or number of the day is recommended.

Learning support is delivered through a combination of in-class and withdrawal approaches. In-class models of support, aligned to pupils' prioritised learning needs should be further developed in order to facilitate focused, differentiated numeracy instruction in small groups.

A variety of assessment tools, including checklists, teacher tests and standardised tests, is used to evaluate pupils' progress. Pupils' work in copies is presented neatly and their work is regularly monitored. Standardised test results have been analysed and pupils' achievements are tracked as they progress through the school. This practice is highly commendable. It is recommended that formative assessment be further developed to enable pupils to reflect on and discuss their learning in Mathematics.

Teachers have engaged in continuing professional development in the teaching of Mathematics and there are good levels of collaboration between support teachers and mainstream class teachers. To build on this good practice, it is advised that teachers share expertise and good practice with each other through discussion, modelling of lessons and team teaching.

Pupils in the focus group reported that they enjoy the use of the school's external environment and the integration of Mathematics with other curricular areas to support their learning in Mathematics. Further opportunities for linkage and integration should be explored at each class level. Classroom observations and pupil discussion in the focus group indicate that there is scope for development in the use of information and communications technology as a learning tool.

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

The whole school plan for Mathematics gives effective guidance to teachers on the approach to planning, the use of resources and the teaching of mathematical language. The SSE process is impacting positively on pupils' learning in relation to mathematical language and problem solving. In order to ensure the consolidation and development of teaching and learning in Mathematics, it is recommended that a member of the in-school management team lead teaching and learning in Mathematics in the school.

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 *very good* 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. 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.	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;

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