An Roinn Oideachais agus Scileanna

Department of Education and Skills

Curriculum Evaluation

Science

REPORT

Ainm na scoile / School name	Newtown National School
Seoladh na scoile / School address	Newtown Abbeyknockmoy Tuam County Galway
Uimhir rolla / Roll number	20280U

Date of inspection: 15 November 2017

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 inspector(s) evaluated learning and teaching in Science 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 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.

Curriculum Evaluation

Date of inspection	15 November 2017
Inspection activities undertaken • Discussion with principal and teachers • Review of relevant documents	• Observation of teaching and learning • Examination of pupils' work • Interaction with pupils • Feedback to principal and teachers

SCHOOL CONTEXT

Newtown National School is a rural co-educational primary school with five mainstream class teachers and two special education teachers. The school, which is under the patronage of the Archbishop of Tuam, was established in 2007 following the amalgamation of two adjacent single-sex schools. There were 136 pupils enrolled at the time of the evaluation. The school participates in Delivering Equality of Opportunity in Schools (DEIS), an action plan of the Department of Education and Skills for educational inclusion. Challenges with regard to classroom accommodation were raised during the inspection. Since then the school has submitted an application to the Department's Planning and Building Unit.

SUMMARY OF MAIN FINDINGS AND RECOMMENDATIONS:

FINDINGS

- The overall quality of the learner experiences and teachers' practice observed during the inspection was good, with some instances of excellent practice.
- The lessons observed generally provided effective opportunities for pupils to work independently and collaboratively.
- The overall quality of pupils' learning in Science was satisfactory; some gaps were evident in learner outcomes, particularly in the *Working Scientifically*, and *Designing and Making* sections of the curriculum.
- The school's management of its resources for learning in Science was very good; the grounds and adjacent public areas have been developed effectively as a resource for learning in Science.
- School planning for teaching in Science was satisfactory.

RECOMMENDATIONS

- Teachers should ensure, through their individual and collective practice, that pupils are enabled to achieve the objectives for their class level across the four content strands of the Science curriculum and especially in the *Working Scientifically*, and *Designing and Making* sections of the curriculum.
- To support improvement in learner outcomes, teachers should assess pupils' existing knowledge and skills with regard to the topic being taught, set clear learner outcomes for the lesson(s) being planned and assess the extent to which pupils have achieved these outcomes.
- As part of the upcoming review of the school plan for Science, the school should include an outline of what pupils at each class level will learn in the *Working Scientifically*, and *Designing and Making* sections of the curriculum. There should also be an indication of what pupils at each class level are expected to learn from their study of local resources and habitats.

DETAILED FINDINGS AND RECOMMENDATIONS

1. THE QUALITY OF PUPILS' LEARNING

The overall quality of learner outcomes in Science was satisfactory. This was evident from interaction with pupils and from observing samples of pupils' work. In two of the classrooms visited, the learner outcomes demonstrated by pupils were very good. There was evidence in these settings that pupils had attained the knowledge, skills and attitudes set out for Science in the *Primary School Curriculum.* Effective arrangements were also in place to record and monitor pupils' progress. Pupils in other settings responded well to questioning on some of the curriculum objectives relevant to their class level. There were gaps, however, in pupils' knowledge and vocabulary and scope for development in the procedural skills that are the focus of the *Working Scientifically*, and *Designing and Making* sections of the curriculum.

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

The overall quality of the learner experiences and teachers' practice observed during the inspection was good, with some instances of excellent practice. Teachers in all of the classrooms visited demonstrated the requisite subject knowledge and classroom-management skills and had prepared suitable equipment and materials for the lessons. The lessons generally provided effective opportunities for pupils to work independently and collaboratively. In most of the lessons observed, pupils demonstrated high levels of interest and participation. Teachers should ensure, through their individual and collective practice, that pupils are enabled to achieve the objectives for their class level across the four content strands of the Science curriculum and especially in the *Working Scientifically*, and *Designing and Making* sections of the curriculum.

The overall quality of assessment in the subject was fair. To support improvement in learner outcomes, teachers should assess pupils' existing knowledge and skills with regard to the topic being taught, set clear learner outcomes for the lesson(s) being planned and assess the extent to which pupils have achieved these outcomes. To support continuity and progression in pupils' learning, pupils should be enabled to keep an on-going record of their own learning in Science. It would be particularly beneficial if the records were continued as the pupils progressed from one classroom to the next.

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

The school's management of its resources for learning in Science was very good. While Science has not been a specific focus of the school's engagement with school self-evaluation, the school has conducted a review of its provision and has compiled a useful inventory of materials and equipment. The school reports that there are plans to carry out surveys among pupils and their parents as part of the review of its provision for Science.

The school grounds and adjacent public areas have been developed effectively as a resource for learning. A range of habitats are available for study and a 'bug hotel' was in the process of being developed at the time of the inspection. The school participates in An Taisce's Green Schools programme and has been awarded three green flags in recognition of its work in the areas of litter and waste, energy, and water. Visiting experts have provided pupils with additional learner experiences in areas such as bird watching and engineering. There have also been various field trips aimed at supporting learning in Science.

School planning for teaching in Science was satisfactory. The school plan provides useful general guidance on good practice in the teaching of the subject and sets out what should be covered in the content strands of the curriculum at each class level. This plan is due to be reviewed in June 2018. As part of this review the outline of what is to be covered at each class level should be revised to include what pupils will learn from the *Working Scientifically*, and *Designing and Making* sections of the curriculum. There should also be reference to what pupils at each class level will learn from their study of local resources and habitats.

4. CHILD PROTECTION

The following aspects of the *Child Protection Procedures for Primary and Post Primary Schools* were checked during the evaluation:

1. Teachers' access to a copy of the school's Child Protection policy
2. The prominent display of the name of the Designated Liaison Person near the main entrance

The school was fully compliant with both aspects.

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 of Newtown NS wish to acknowledge the recommendations of the Inspectorate regarding the delivery of the Science curriculum in the school. We have instigated many changes and improvements in facilities and resources for Science around the school over the past number of years and are looking forward to supporting the teachers in developing and applying the revised school plan for Science. We welcome in particular the noted examples of good teaching practice that were identified in the report and the professionalism of the teaching staff in delivering the science curriculum at all class levels.

This report has provided the board of management with a framework with which to evaluate the teaching of Science in the school. This will involve a review of the whole school plan for Science. Included will be an examination of individual teaching methodologies to ensure the main elements of the science curriculum are being implemented fully and are in evidence in the children's investigations.

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

1. The children in the senior classes will develop a notebook/folder that will detail their work and experiments conducted from 3rd class, to begin in September 2018. This will ensure progress is tracked and evidence is available to demonstrate the variety of investigations conducted by the children as they move from class to class. Importantly, this will highlight aspects of both the children working scientifically and also designing and conducting their own experiments. Teachers in the lower classes will investigate the collating of children's work in a suitable folder or portfolio which will similarly track the children's progress and skill development.
2. The school is currently conducting a School Self Evaluation (SSE) on the teaching of Science in the school. This will focus on three main areas-
   -An outline of the strands to be covered at each class level
   -An emphasis on skills developed as the children work together scientifically
   -A review of the resources available to the teachers both in the classroom and in the local environment.

   Both children's attitudes and the attitudes of parents towards Science will be examined during the SSE process.
3. The teaching staff is currently undertaking a review of all experiments conducted in Science. In particular, they are undertaking an evaluation of the potential for experiments to be designed by the children themselves on locations and resources available in the local environment.
4. A list of scientific terms and vocabulary is being developed for each class level so that children can build upon and broaden their understanding of key scientific terms.

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 *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. 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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