

An Roinn Oideachais agus Scileanna
Department of Education and Skills

Curriculum Evaluation
Science

REPORT

Ainm na scoile / School name	S N Lomchluana
Seoladh na scoile / School address	Lumcloon Cloghan Birr.
Uimhir rolla / Roll number	18777Q

Date of inspection: 30-01-2020



**An Roinn Oideachais
agus Scileanna**
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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(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.

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	30-01-2020
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

Lumcloon National School is a rural, co-educational primary school situated approximately eighteen kilometres from Birr, County Offaly. The school is under the patronage of the Catholic Bishop of Ardagh and Clonmacnoise. At the time of the evaluation, there were 43 pupils enrolled from junior infants to sixth class, including two special classes for pupils with Autistic Spectrum Disorder (ASD). There are two mainstream teachers and three special education teachers employed in the school.

SUMMARY OF MAIN FINDINGS AND RECOMMENDATIONS:

FINDINGS

- The overall quality of learning in Science is very good; pupils understand the concept of a fair test and use appropriate scientific language and terminology when recalling previous learning.
- The quality of learning experiences provided for pupils is very good and the school has a good range of resources to support teaching and learning in Science.
- The teaching of Science is very good; teachers present interesting and challenging lessons.
- The quality of assessment in Science is good; whole-school assessment practices should be further developed and pupils enabled to regularly reflect on their own learning.
- School planning, including school self-evaluation (SSE), is effective in progressing pupils' learning.

RECOMMENDATIONS

- Whole-school assessment practices should support the systematic recording of pupils' learning in Science and pupils should be provided with opportunities to reflect on and assess their own progress.

DETAILED FINDINGS AND RECOMMENDATIONS

1. THE QUALITY OF PUPILS' LEARNING

The overall quality of pupils' learning in Science is very good. Pupils exhibit very high levels of interest and motivation and report that learning in Science is fun. Their scientific knowledge is developed in a progressive manner across the school and pupils display high levels of competency in scientific skills, particularly those of questioning, observing, predicting, investigating and experimenting. Senior pupils are confident in their ability to work as scientists. They can identify variables, understand the concept of a fair test and use appropriate scientific language and terminology in discussions.

During the evaluation, junior pupils displayed skills in exploring, planning, making and evaluating their bridge constructions. Senior pupils worked collaboratively to refine their robotic designs as part of their participation in the VEX IQ Robot challenge. Lessons in the special classes for pupils with ASD provided learners with appropriate active, multi-sensory experiences. There is scope to extend the designing and making aspect of science provision in the ASD classrooms to enable pupils to visually apply their scientific knowledge.

Pupils demonstrated appropriate knowledge and understanding across all four strands of the science curriculum. Senior pupils confidently discussed their learning about light and sound waves and they could identify the work of many scientists. Pupils' participation in the Green Schools Programme has enabled them to develop an awareness of aspects of their local environment and an appreciation of the importance of recycling and the conservation of the Earth's resources. While some pupils record scientific work and experiments in copybooks, a more consistent approach to this recording would provide pupils with a means to annotate key facts and skills acquired. This record could support pupils in reflecting on their progress as learners and enable them to appreciate how their knowledge and understanding of concepts is developing over time.

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

The overall quality of learning experiences provided for pupils is very good. The enjoyment of Science is promoted and classroom and school environments display and celebrate learning in Science. Pupils are provided with opportunities to learn in both indoor and outdoor environments. Teachers use information and communication technologies, such as Bee-bots and Rasberry Pi very effectively to develop STEM skills such as sequencing, problem-solving and programming. Parents are invited to the school to view their learning and the school website promotes and displays their scientific experiments and activities.

During the evaluation pupils participated enthusiastically in meaningful, differentiated learning activities. In pupil focus group discussions, undertaken as part of the evaluation, senior pupils described how they reflect on their learning and often extend experiments at home. They provide their teacher with lists of various experiments which they would like to undertake in order to prove or disprove a theory. These are then incorporated into future learning experiences.

Overall, the teaching of Science is very good. In lessons observed teachers modelled enthusiasm for Science, communicated learning intentions for lessons, posed challenging questions and managed classrooms effectively. Pupils reported that teachers provide them with good explanations and enable active pair and group work regularly. Teachers collaborate effectively to deliver a wide variety of learning experiences and experiments.

The quality of assessment in Science is good. Pupil's written work is monitored and corrected with feedback. All teachers maintain a range of assessment data including teacher observations, tests, photographs and samples of pupils work. In some instances digital technologies are used to enable pupils to reflect and provide feedback on their learning in Science; this good practice should be extended across the school. Whole-school assessment practices should be further developed to support the systematic recording of pupils' progress in learning which is aligned more closely to curriculum objectives.

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

The quality of school planning, including SSE, is good. The whole-school plan provides effective guidance to teachers on the delivery of the science curriculum across a two-year cycle. The aspect of the whole-school plan which details the delivery of the *Living Things* strand should be enhanced by documenting the specific habitats in the local environment which each class group will explore and investigate.

It is evident that school self-evaluation practices, particularly in relation to oral language development, are having a positive impact on pupils' learning. In most lessons observed key vocabulary was identified and taught; this good practice should be implemented in all classrooms as an action towards developing the school's SSE language target. The school has a good range of resources to support teaching and learning in Science and these are organised and catalogued effectively.

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 welcomes this report and the acknowledgement that the overall quality of learning experiences provided for pupils in our school is very good.

We are pleased that it recognises that pupils exhibit very high levels of interest and motivation in Science and the overall quality of teaching and learning that is taking place in our school.

The Inspection process assisted greatly in the school's own self-evaluation process and the Board of Management will facilitate and support the school staff in implementing the recommendations outlined in the inspection report.

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

Whole School Assessment Practices: Staff will collaborate and share assessment tools which can be implemented at a whole school level. Teaching staff will engage in further CPD in the application of digital technologies to support assessment.

Using the School's Local Environment: The school's Science plan will be reviewed considering the recommendations following the Science inspection. Staff will discuss and identify learning opportunities provided by the school's setting which will reflect the environment and habitats that surround us. Such learning activities will be listed in the updated School Science plan.

Use of Scientific vocabulary: Staff will strive to provide more opportunities for students to use new scientific vocabulary during learning activities with a view to supporting the current focus of the School Self Evaluation process. Key scientific vocabulary will be identified and recorded to be included in the School Science plan. Teachers can refer to this document to assist with individual planning.