

An Roinn Oideachais agus Scileanna
Department of Education and Skills

Curriculum Evaluation
Science

REPORT

Ainm na scoile / School name	Scoil Náisiúnta Cnoc Doire
Seoladh na scoile / School address	Knockerra Kilrush County Clare
Uimhir rolla / Roll number	183271

Date of inspection: 15-01-2020



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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 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 on the findings and recommendations of the report; the board chose to accept the report without response.

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	15-01-2020
Inspection activities undertaken	<ul style="list-style-type: none">• Observation of teaching and learning• Examination of pupils' work• Interaction with pupils• Feedback to principal and teachers
<ul style="list-style-type: none">• Discussion with principal• Review of relevant documents• Pupil focus-group interview	

SCHOOL CONTEXT

Scoil Náisiúnta Cnoc Doire (Knockerra National School) is a co-educational primary school located approximately nine kilometres from Kilrush, County Clare. It operates under the patronage of the Catholic Bishop of Killaloe. The school has two mainstream class teachers, including a teaching principal. Three special education teachers (SETs) based in other schools also work in the school. There were thirty-three pupils enrolled at the time of the evaluation.

SUMMARY OF MAIN FINDINGS AND RECOMMENDATIONS:

FINDINGS

- The overall quality of pupils' learning in Science is good; there is scope to improve their knowledge of scientific concepts in some strand units.
- Pupils' ability to work collaboratively in a very effective manner across class levels is highly commendable.
- Learning experiences are of a good quality overall; pupils' engagement in open-ended investigations is limited.
- The quality of teaching is good; there was an over-emphasis on teacher input in the lessons observed.
- There is good-quality school planning for Science.

RECOMMENDATIONS

- Pupils' ability to discuss scientific concepts across all strands of the science curriculum should be extended.
- Pupils should engage in more open-ended investigations in all strands of the science curriculum.
- Teachers should ensure that greater emphasis is placed on guided discovery methodologies in science lessons.

DETAILED FINDINGS AND RECOMMENDATIONS

1. THE QUALITY OF PUPILS' LEARNING

The overall quality of pupils' learning in Science is good. All pupils demonstrated high levels of engagement and were motivated to learn during the lessons observed. Pupils in the focus-group interview reported that they very much enjoy their learning in Science.

The majority of pupils could discuss their learning in the curriculum strands *Living things* and *Environmental awareness and care*, as well as in the strand units *Forces* and *Electricity*. Their knowledge of scientific concepts in some strand units was limited. Pupils' ability to discuss their learning across all strands of the science curriculum should be extended.

The majority of pupils achieve a good standard in developing their skills as scientists. These include observing, predicting, experimenting and recording. Commendably, pupils in all classes have opportunities to develop their designing and making skills in some strands of the science curriculum.

Pupils in the middle and senior classes could discuss their work in Science, Technology, Engineering, Arts and Mathematics (STEAM) initiatives confidently and some pupils demonstrated a good understanding of the concept of a fair test.

High-quality samples of work in Science were displayed in copies and classrooms. Photographic evidence of pupils' engagement in activities to support their learning in Science were displayed attractively on corridors.

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

Pupils' learning experiences are of a good quality, overall. All pupils engaged in meaningful learning activities during the lessons observed.

While pupils conduct a range of experiments in Science, their engagement in open-ended investigations is limited and needs to be extended. Pupils in the focus-group interview reported that they would like more opportunities to conduct investigations as they enjoyed the problem-solving approach of this work.

It is highly commendable that pupils in middle and senior classes participate in STEAM initiatives. This includes a Creative Cluster which affords the pupils opportunities to develop their scientific and creative skills in pupil-led projects. The opportunity to share their learning with parents and with their peers in other schools through their participation in these initiatives is very valuable.

Pupils' ability to work collaboratively in a very effective manner across class levels is highly commendable. Their behaviour during the evaluation was exemplary.

The overall quality of teaching is good. Elements of practice in the lessons observed ranged from very good to satisfactory. All teachers were very well prepared for lessons. They used a range of highly commendable strategies to introduce lessons, including eliciting pupils' prior knowledge. The emphasis on the explicit teaching of scientific vocabulary in both classrooms is very effective. The development of pupils' numeracy and literacy skills is integrated very successfully with their learning in Science. The teachers' engagement in continuing professional development (CPD) in Science is highly commendable. Teachers organise occasional field trips and visits from external speakers to support pupils' learning. Further opportunities for pupils to use their local environment should be identified.

While all pupils had opportunities to be active in the lessons observed, there was an over-emphasis on teacher input. At times, the pace of the lessons did not allow for sufficient exploration of scientific concepts. Teachers should ensure that a greater emphasis is placed on guided discovery methodologies in science lessons.

The overall quality of assessment is good. A range of strategies is used to monitor pupils' progress in Science including checklists, concept maps, teacher-designed tasks and self-assessment.

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

School planning for Science is of a good quality. The science plan has been reviewed recently, and provides very good guidance to teachers for the delivery of the curriculum over a two-year cycle. The inclusion in the plan of suggested designing and making activities for each strand is highly commendable. A list of the scientific investigations to be conducted and an environmental audit of the locality should now be included. The school has a good range of resources to support teaching and learning in Science and these are very well organised.

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;