An Roinn Oideachais agus Scileanna

Department of Education and Skills

Curriculum Evaluation

Science

REPORT

Ainm na scoile / School name	Cobh Mixed N S
Seoladh na scoile / School address	Bellevue Cobh Co Cork
Uimhir rolla / Roll number	10771K

Date of inspection: 22-01-2019

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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 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	22-01-2019
• Inspection activities undertaken • Discussion with principal and teachers • 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

CONTEXT

Cobh Mixed NS operates under the patronage of the Church of Ireland Bishop of Cork, Cloyne and Ross. It has two mainstream class teachers and one fulltime special education teacher. There are twenty-five pupils enrolled in the school, in classes from second to sixth.

SUMMARY OF MAIN FINDINGS AND RECOMMENDATIONS:

FINDINGS

- The overall quality of pupils' learning of Science is good; conceptual understanding is at a high level in general although there is scope for greater exploration of the *Materials* strand within the curriculum for Science.
- High quality learning experiences are provided for the pupils; learning is further enriched through their engagement with outside professionals.
- The quality of teaching in Science is very good; teachers collaborate effectively to devise integrated learning opportunities for the pupils.
- The overall quality of assessment is good; there is potential to explore different methods, including information and communications technology (ICT) to record pupils' work to enable them to reflect, discuss and monitor their own learning.
- The quality of school planning, including school self-evaluation (SSE), in progressing pupils' learning is very good.

RECOMMENDATIONS

- To ensure breath and balance in curriculum provision, greater attention should be directed towards exploration of the *Materials* strand of the science curriculum.
- The school should use its existing ICT resources to a greater extent to support teaching, learning and assessment in Science.

DETAILED FINDINGS AND RECOMMENDATIONS

1. THE QUALITY OF PUPILS' LEARNING

The overall quality of pupils' learning is good. They present as motivated, enthusiastic learners and display a positive attitude towards Science. Conceptual understanding is at a high level, in particular in the *Living Things* and *Energy and Forces* strands. The pupils exhibit good capacity to describe their learning using appropriate scientific language. They can identify body parts and their functions, understand how forces act upon objects and demonstrate an awareness of strategies to promote environmental care. They enjoy regular opportunities to work as scientists and engage collaboratively in practical activities in a safe manner, both indoors and outdoors. Skills such as

observing, predicting, questioning, and communicating are systematically developed as the pupils progress through the school. Written presentations of their work are of a high quality. The skills of designing and making are developed through the design of stethoscopes, bridges and functioning rain gauges. While senior pupils can identify variables in testing, the concept of fair testing has yet to be consolidated. There is potential for greater exploration of the contribution of scientists to society with particular reference to Irish scientists. In an effort to ensure breath and balance in curriculum provision, it is recommended that further attention be directed toward the *Materials* strand of the curriculum.

Through the interview with a focus group of pupils, it was clear that they have engaged in a wide range of scientific activities and investigations. They reported that they enjoyed learning about nature and observing snail trails on the school grounds. They outlined their investigative work, the process of trial and error and discussed the outcomes of investigations that are not consistently predictable. They described the development of their scientific learning through attendance at workshops in the local community.

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

High quality learning experiences are provided for the pupils. They engage in problem-solving activities in the classroom and good use is made of the attractive school garden to support their learning. The garden provides a suitable opportunity for the pupils to develop their horticultural skills and commendably, parents are facilitated to share their expertise in gardening. Pupils engage in a range of fieldtrips to facilitate their appreciation of and care for the wider school environment. Good use is made of local facilities to support their learning on coastal and marine life and the school participates in a range of community initiatives on trees, biodiversity and environmental care. It has participated in the Green Schools Programme and is currently participating in the Health Promotion initiative. Learning is further enriched through the pupils' engagement with outside professionals who support the pupils in making authentic connections between their learning in the classroom and their learning at a global level.

The quality of teaching in Science is very good and teachers collaborate effectively to devise integrated learning opportunities for the pupils. They prepare purposeful and challenging learning activities and create stimulating and well-resourced learning environments for the pupils. They make effective use of curriculum-appropriate approaches including guided discovery, investigations, experimentation and use of the outdoors. They provide learning activities based on the pupils' existing ideas which are designed to help them to test their predictions though designing and making and through investigation. Learning intentions are shared with pupils at the outset of lessons and scientific language is explicitly and consistently taught. Pupils are enabled to use skills practised in Mathematics and in Visual Arts to very good effect in science lessons.

The overall quality of assessment is good. Teachers demonstrate an awareness of the role of assessment, both of and for learning, Formative, summative and evaluative practice is promoted through the school's policy on assessment. The pupils carefully record their learning on worksheets and in science copies. While teachers provide feedback to pupils, in general they lack confidence in describing their capacity in Science. There is potential to explore different methods, including information and communications technology (ICT) to record pupils' work to enable them to reflect, discuss and monitor their own learning.

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

The quality of school planning, including SSE, in progressing pupils' learning is very good. The whole-school plan for Science was reviewed in June 2018. The revised plan provides very useful guidance to teachers. It outlines strategies to be used to determine pupils' existing knowledge so that lessons can be planned and pitched to progress pupils from their present levels of conceptual understanding. The plan also recommends a range of approaches to recording and communicating findings which include annotated drawings, making models and the use of ICTs. The plan, along with the whole-school approach to teaching and learning in Sciences, emphasises an active, integrated methodology, with minimum reliance on textbooks.

The quality of work undertaken in SSE, to progress pupils' learning is good. The current focus is on Social, Personal and Health Education, and the school improvement plan seeks to guide the school's engagement with the National Health Promotion initiative. The school proposes to progress its work in SSE to focus on the implementation of the Digital Framework. The school demonstrates a very good capacity to plan, to implement and to monitor the effectiveness of its plans for improvement.

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;

Appendix

TO THE REPORT

Submitted by the Board of Management

Part A Observations on the content of the inspection report

The Board of Management of Cobh Mixed National School wishes to acknowledge the positive findings of this report and the recommendations within.

In particular, the Board welcomes the acknowledgement and recognition of the high quality learning experiences provided to the pupils by the teachers and how school planning in progressing pupils' learning in Science is very good. We welcome the positive comments about the pupils' attitude towards Science and the wider range of skills they possess.

The Board of Management will work with the staff of the school in implementing the recommendations contained in the report.

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

We appreciate the suggestions given to further enhance the teaching and learning of Science in our school. The school will implement the recommendations of the report and the following areas will be addressed.

- The teaching staff will review assessment practices and ICT will be used as an assessment tool to support assessment in Science and other curricular areas. This assessment practice will be implemented in our Digital Learning Framework.
- The teaching staff will ensure that all strands and strand units are implemented over a two year cycle and in particular, will ensure that the strand of materials gets sufficient time allocation to it.