An Roinn Oideachais
Department of Education

Curriculum Evaluation: Science
Report

REPORT

Ainm na scoile/School name	Knockanes Mxd N S
Seoladh na scoile/School address	Knockanes Headford Killarney
Uimhir rolla/Roll number	13150Q
Dáta na cigireachta/ Date of evaluation	04-10-2022
Dáta eisiúna na tuairisce/Date of issue of report	29/11/2022

What is a curriculum evaluation?

Curriculum evaluations report on the quality of teaching and learning in specific subjects of the *Primary School Curriculum (1999)* and the *Primary Language Curriculum (2019).* 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 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.

Actions of the school to safeguard children and prevent and tackle bullying

During the inspection visit, the following checks in relation to the school's child protection and anti-bullying procedures were conducted:	
Child Protection	*Anti-bullying*
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.	1. The school has developed an anti-bullying policy that meets the requirements of the *Anti-Bullying Procedures for Primary and Post-Primary Schools (2013)* and this policy is reviewed annually. 2. The board of management minutes record that the principal provides a report to the board at least once a term on the overall number of bullying cases reported (by means of the bullying recording template provided in the *Procedures*) since the previous report to the board. 3. The school's anti-bullying policy is published on its website and/or is readily accessible to board of management members, teachers, parents and pupils.

The school met the requirements in relation to each of the checks above.

Curriculum evaluation

Date of inspection	04-10-2022
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

Knockanes National School is a vertical, co-educational primary school under the patronage of the Catholic Bishop of Kerry. At the time of the evaluation, the school had sixty-six pupils on roll. Staffing consisted of three mainstream class teachers, one teacher to provide special-class support for pupils who are deaf and hard of hearing, two special education support teachers (SETs) and three special-needs assistants.

Summary of main findings and recommendations:

Findings

- The quality of pupils' learning in Science was very good and pupils were highly motivated and engaged in their learning.
- Pupils' learning experiences were of a very high standard and pupils at all levels had opportunities to actively engage in a range of practical activities.
- The teaching observed in all classrooms was very good and lessons were designed to challenge all children at an appropriate level.
- It was evident that the teachers work together to ensure a collaborative approach to the implementation of many aspects of the science curriculum.

Recommendations

- A whole-school approach to assessment and to recording pupils' progress in both the knowledge and skills of Science should be agreed by teachers and included in the revised school plan.
- Teachers should place an additional focus on the subject-specific language to be taught in science lessons to ensure pupils can use it confidently and effectively when describing their learning.

Detailed findings and recommendations

1. The quality of pupils' learning

The quality of pupils' learning in Science was highly commendable. The skills and knowledge of Science were very well developed overall. Pupils enjoyed Science and were motivated to learn through engagement in interesting, well-structured, differentiated activities.

The pupils in the junior room explored the curricular strand of Materials. The lesson was taught through *Aistear: the Early Childhood Curriculum Framework*, using an integrated and thematic approach. The pupils investigated various materials for waterproof properties in an effort to design a rain jacket. They engaged in hands-on activities to test the characteristics of various materials, taking time to collaboratively speculate and predict outcomes in advance. This group activity provided opportunities to use reasoning skills and to develop attitudes necessary for lifelong learning. Pupils in the middle classes used their prior knowledge of the strand energy and forces to design and make a parachute from various materials. The pupils showed persistence with the

assigned tasks and the teacher supported and guided their learning with appropriate questioning. Senior class pupils explored the functions of the lungs in the strand living things. They engaged in activities designed to attune them to a greater awareness and understanding of the respiratory system through controlled breathing and hands-on construction. The pupils' science copies were clearly organised and included relevant science facts in the form of labelled diagrams, note taking and procedural writing. Pupils in all classes were familiar with the concept of a fair test and those in middle and senior classes were able to competently identify variables in their experiments.

2. Supporting pupils' learning: Learner experience and teachers' practice

The quality of learner experiences was very good. Pupils demonstrated very high levels of interest and participation in learning. Pupils at all levels had opportunities to work as scientists and engage in practical activities and research in a safe manner, individually and in small groups. Pupils participating in the focus group activity were respectful of and interested in the opinions and experiences of their classmates. While they discussed their learning with confidence and enthusiasm, there was scope to extend and develop their use of specific science vocabulary and terminology.

The teaching observed in classrooms was very good overall. Teachers worked together to devise appropriate learning opportunities for pupils across all strands of the science curriculum to ensure a breadth and balance of provision in each class. Examples of very good teaching were observed where outcomes and success criteria for tasks were clearly identified and shared with pupils at the beginning of the lesson and where topic-specific language was taught and modelled by the teacher. Extending these approaches to all classrooms would further enhance provision.

In all lessons, pupils' existing ideas and understanding were identified through talk and discussion. Very good opportunities were provided for pupils to learn through hands-on activities, usually in pairs or small groups. The learning activities were very well structured with teachers demonstrating clear understanding of the knowledge and skills to be taught at each class level. A pupil-centred learning environment, based on mutual respect, was evident in all classes and teachers modelled enthusiasm and enjoyment in learning.

The overall quality of assessment in Science was good. Teachers used practices such as teacher observation and oral feedback as an integral part of teaching and learning. An agreed whole-school approach to assessment and recording in Science should be incorporated into the revised school plan to support continuity and progression in the pupils' learning.

Teachers worked very effectively with eachother on whole-school science initiatives such as The Green Schools Programme, Erasmus+ and on Science, Technology, Engineering, Arts and Maths projects. These whole-school learning activities enabled pupils to make meaningful connections between learning in different curricular areas such as Mathematics, Visual Arts, SPHE and English.

3. The effectiveness of school planning, including SSE, in progressing pupils' learning

The quality of school planning was good and the principal has led whole-school engagement in the process of self-evaluation in an effective manner. Recent cycles of SSE have included a focus on the implementation of fundamental movement skills and on the adoption of a whole-school approach to handwriting. There is evidence that these developments have been implemented on a whole-school basis.

It was evident that the teachers work together to ensure a collaborative approach to the implementation of many aspects of the science curriculum. Staff members have however identified a need for the science plan to be revised. A whole-school approach to assessment and to the recording of pupils' progress in both the knowledge and skills of Science should be agreed by teachers and included in the revised plan.

Resources were managed very effectively to enhance and extend pupils' learning. The school has benefitted from very good relationships with parents and the school community. Visiting speakers have supported learning in Science, through activities such as environmental awareness talks and the organisation of workshops with pupils.

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

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 Knockanes NS Wholeheartedly accepts the findings and recommendations of the Curriculum Evaluation 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.

The Board of Management and staff of Knockanes NS are committed to overseeing the implementation of the recommendations of the Curriculum Evaluation report. These recommendations will influence future whole school planning in teaching and learning in Science going forward. The recommendations will be used to further develop standards of teaching and learning in the area of Science.