Curriculum Evaluation

Science

REPORT

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<th>Ainm na scoile / School name</th>
<th>Boston National School</th>
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<td>Seoladh na scoile / School address</td>
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<td>County Clare</td>
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Date of inspection: 10-05-2019
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.
SCHOOL CONTEXT
Boston National School is a co-educational primary school situated in the Burren, in north County Clare. It operates under the patronage of the Catholic Bishop of Killaloe. There are two mainstream class teachers, including a teaching principal, and a school-based special education teacher (SET). At the time of the evaluation, there were thirty-eight pupils enrolled.

SUMMARY OF MAIN FINDINGS AND RECOMMENDATIONS:

FINDINGS
- The overall quality of learning in Science is very good.
- The school exploits very effectively the potential of the local natural environment through the use of the outdoor classroom.
- Learner experiences are of a very high quality and the value of parental input is recognised by the school.
- The overall quality of teaching in Science is very good and staff members are highly commended for their commitment to partaking collaboratively in related continuing professional development (CPD).
- The quality of school planning is effective overall; however, the whole-school plan for Science is not sufficiently specific to the school context.
- The principal works diligently to promote a learning culture in the school with a particular emphasis on promoting Science, Technology, Engineering and Mathematics (STEM).

RECOMMENDATIONS
- The school plan for Science should be reviewed so as to document the highly effective practices in evidence and to include a scientific audit of the local environment.

DETAILED FINDINGS AND RECOMMENDATIONS

1. THE QUALITY OF PUPILS’ LEARNING
The overall quality of learning in Science is very good. Pupils’ enjoyment in learning in the subject was evident and they demonstrated highly commendable levels of interest, enthusiasm and engagement in their activities. Pupils’ scientific skills are very well developed at each class level. Most pupils demonstrate very good knowledge across the strands of the science curriculum. They were able to use subject-specific language when describing their learning experiences. Pupils were familiar with the flora and fauna of their locality. The school exploits very effectively the potential of the local natural environment through the use of the outdoor classroom in the adjacent Burren.

During the evaluation, very good examples of developing the practical skills of investigation were observed. Predicting, questioning, measuring and recording, as well as interpreting results, are an
integral part of the experiments conducted by the pupils. Pupils are enabled to develop their scientific skills and can apply their scientific knowledge and understanding through very effective designing-and-making activities. These activities include independent or group planning, designing, assembly, testing and review. Pupils in the middle and senior classes demonstrated a very good understanding of the concept of the fair test.

In the focus-group interview, pupils spoke enthusiastically about the breadth and balance of learning activities and experiences provided for them in Science. In addition, they described the valuable opportunities to use various digital learning technologies.

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

Learner experiences are of a very high quality. Pupils engage in meaningful and challenging learning experiences to develop their scientific skills. In all lessons observed, they participated very successfully in collaborative activities. They were given valuable opportunities to use a range of materials in their group tasks and the applications of Science in real-life situations were explored effectively. The use of Aistear: The Early Childhood Curriculum Framework in the junior classroom promotes some strands of the science curriculum. The principal works diligently to promote a very successful learning culture with a particular emphasis on promoting STEM.

The school has participated in a wide variety of co-curricular and extra-curricular activities which have enhanced the pupils’ experience of Science including the Discover Primary Science and Maths, and the Áitbheo Community Programme. Pupils are afforded opportunities to participate actively in experiences such as field trips and they benefit from visits by guest speakers. It is highly praiseworthy that the school encourages and values parental involvement in its provision for Science.

The overall quality of teaching in Science is very good. Pupils’ ideas and prior knowledge were the starting point for the lessons observed. The teachers used a variety of teaching methodologies very effectively including pair and group work. Scientific language was taught explicitly. The school is very well resourced and these resources are used very effectively in the classrooms to support the teaching of Science. Digital technology is used very well to teach and to record results of investigations and to assess pupils’ learning. Staff members are highly commended for their collaborative participation in science-related CPD as part of their whole-school commitment to ensuring breadth, balance and progression in science provision.

A commendable range of assessment strategies is used to enable pupils to reflect on their learning in the subject, including portfolios, teacher-designed tests, photographs and pupils’ copybooks. Pupils’ learning is celebrated using a variety of media, including displays in classrooms and halls, project work, and digital recordings.

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

The quality of school planning for Science is effective overall. The whole-school plan includes an extensive list of resources and equipment to support teaching and learning in Science. The plan supports the delivery of a broad and balanced programme, and a two-year cycle for the implementation of all strands and strand units has been devised. To further contextualise the whole-school plan to the school setting, it is recommended that the plan be amended. It would be
worthwhile to record the highly effective scientific practices which are implemented in the school in the plan. In addition, the school is advised to include an environmental audit that identifies areas of the locality for pupils to explore and investigate on an incremental basis.
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 Boston National School are pleased to accept the inspector’s report and its findings.

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 are taking on board the recommendations and have ratified a new Science plan including the scientific audit of our local environment at our board meeting on June 19th 2019.
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.

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<th>Level</th>
<th>Description</th>
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<td>Very Good</td>
<td><strong>Very good</strong> 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 <em>outstanding</em> and provides an example for other schools of exceptionally high standards of provision.</td>
<td>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</td>
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<td>Good</td>
<td><strong>Good</strong> 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 <strong>very good</strong> standard.</td>
<td>Good; good quality; valuable; effective practice; competent; useful; commendable; good standard; some areas for improvement</td>
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<td>Satisfactory</td>
<td><strong>Satisfactory</strong> 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.</td>
<td>Satisfactory; adequate; appropriate provision although some possibilities for improvement exist; acceptable level of quality; improvement needed in some areas</td>
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<td>Fair</td>
<td><strong>Fair</strong> 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.</td>
<td>Fair; evident weaknesses that are impacting on pupils’ learning; less than satisfactory; experiencing difficulty; must improve in specified areas; action required to improve</td>
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<td>Weak</td>
<td><strong>Weak</strong> 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.</td>
<td>Weak; unsatisfactory; insufficient; ineffective; poor; requiring significant change, development or improvement; experiencing significant difficulties;</td>
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