### Curriculum Evaluation

**Mathematics**

**REPORT**

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<th>AINM NA SCOILE / SCHOOL NAME</th>
<th>St Patricks GNS</th>
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| SEOLADH NA SCOILE / SCHOOL ADDRESS | Foxrock Ave  
                                   Foxrock  
                                   Dublin 18 |
| UIMHIR ROLLA / ROLL NUMBER | 19259W |

**Date of inspection: 05-12-2017**
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 inspectors evaluated learning and teaching in Mathematics 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.
Curriculum Evaluation

Date of inspection  05-12-2017

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

SCHOOL CONTEXT
St. Patrick’s GNS is a large, vertical, girls’ primary school situated in South Dublin. It has a current enrolment of five hundred and sixty-nine pupils and a staff of twenty eight teachers, including an administrative principal. The patron of this school is the Roman Catholic Archbishop of Dublin.

SUMMARY OF MAIN FINDINGS AND RECOMMENDATIONS:

FINDINGS
- Pupils are highly motivated and interested in achieving and the learning outcomes in standardised and school-based tests are very good.
- Pupils display very high levels of competency in particular aspects of Mathematics but are less confident and practised in using mathematical skills in other key areas.
- The overall quality of teaching in the school is good.
- Currently pupils with any identified need in Mathematics or who are unable to keep up with the class work are taken out of their mainstream classes for their mathematics lessons; this practice in learning support is under review.
- The quality of assessment of learning is generally good but there is scope for developing assessment for learning practices, ensuring a more balanced approach to assessment and its purpose.
- There is a very good emphasis on school self-evaluation in the school and actions for improving teaching and learning in Mathematics have been agreed and are being implemented throughout the school.

RECOMMENDATIONS
- A more comprehensive Mathematics programme that includes a broader range of learning experiences for pupils and a greater focus on the development of particular skills is required.
- A more balanced approach to assessment and its purpose is recommended. Assessment for learning practices need to be developed and used more widely through the school.
- In developing a new model of learning support, the leadership should ensure a more inclusive approach where team-teaching, in-class support and differentiation in mainstream classes are key features.

1. THE QUALITY OF PUPILS’ LEARNING IN SUBJECT

The overall quality of learning in Mathematics is good with some very high standards being achieved in standardised and school-based tests. Pupils are highly motivated to achieve and express a keen interest in Mathematics. They display very high levels of competency in particular aspects of
Mathematics, for example in procedural fluency, the use of estimation strategies and the recall of mathematical facts. They have acquired a very good vocabulary of mathematical language and are very familiar with a particular strategy for solving problems and can apply this strategy effectively. Learning outcomes such as communicating their learning, applying knowledge of mathematical processes to a variety of contexts, and integrating and connecting different aspects of Mathematics, as identified in the primary school curriculum, are less well developed. Extending learning in these areas would ensure a more balanced and meaningful programme of mathematical learning for the pupils. In the infant and junior classes, pupils have acquired good foundation skills in counting, number operations and foundational concepts. A number of initiatives such as Maths Week, Maths Eyes and inter-school quizzes effectively support the learning. The standard of presentation in copies is very good and written tasks are regularly monitored.

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

While the quality of pupils’ engagement in mathematical lessons is generally good there is scope to improve the quality of their learning experiences. Pupils reported high levels of enjoyment and engagement when opportunities were given in class to explore mathematical concepts in collaboration with others. Similarly, Mathematics was experienced positively where differing abilities and interests were taken into account and lessons were paced to suit individual needs. Commendable playful learning was supported in some of the infant and junior classes. Concrete materials are readily used in the infant and junior classes but more thought needs to be given to how support materials can be most effectively utilised and accessed in the middle and senior classes. During the focus group interview with the pupils it was clear that pupils prefer to work at their own pace and level of competency rather than either trying to ‘keep up’ with the class or being insufficiently challenged. The strong emphasis on testing on a regular basis in the school impacts on the pupils’ learning experiences. It results in a very fast pace of learning, a lot of recall and little time for developing and extending mathematical thinking and talking.

The quality of teaching practices range from satisfactory to highly effective. Teaching in the majority of classes was good, especially where there was effective planning and preparation for lessons, where manipulatives were used appropriately and where lessons were focused and well structured. In a small number of classes, the teachers very successfully facilitated the learning and provided opportunities for the pupils to direct and lead their own learning, placing an appropriate emphasis on thinking, reasoning, exploring, talking and justification. Learning environments are generally very good. Pacing the lessons appropriately and responding to differing needs in the mainstream classes are particular challenges for the school and should be addressed at a whole-school level. Checking for understanding, supporting pupils to communicate their own knowledge and exploring mistakes and problems are aspects of the teaching practice that need development. Teachers are very committed to improving their teaching skills in Mathematics and are very open to whole-school opportunities to engage in further continuous professional development in this area. While the use of Information and communication technology (ICT) in the teaching of Mathematics is currently limited there are some plans to develop this aspect of teaching and learning.

The quality of assessment of learning is generally good but there is scope for developing assessment for learning practices and ensuring a more balanced approach to assessment and its purpose. Teachers have engaged in productive whole-school analysis of the standardised tests where pupils’ progress is tracked from year to year. This analysis is also used as a tool in identifying pupils for learning support. Regular teacher-designed tests and checklists on objectives learned are carried out and records of
these are maintained and reported to parents at termly intervals. Some individual teachers use good assessment for learning strategies such as explanation copies, informed teacher observation, the provision of constructive feedback and the sharing of learning intentions. These types of assessment practices need to be developed and used more widely through the school to enable teachers to respond more appropriately to the differing learning needs of the pupils.

While the learning support provision was being reviewed at the time of the evaluation, the current practice is that pupils with any identified need in Mathematics or who are unable to keep up with the class work, are taken out of their mainstream classes for their mathematics lessons. In the context of implementing the new model of learning support there is an opportunity for the leadership to re-envision how learning support could be provided in a more inclusive manner in the school. In the first instance the assessment for learning strategies outlined above will help teachers more accurately identify the differing learning needs and strengths among the pupils. Secondly, the development of team-teaching and in-class support will aid class teachers to respond more effectively to the diverse range of needs and facilitate thinking, questioning and the development of understanding. The review will also provide an opportunity for school leaders to draw up clear criteria for pupils who should be withdrawn for supplementary mathematics support and for how this support should be most effectively provided. The current practice of banding at a particular class level should be discontinued.

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

Overall school planning for Mathematics is effective. The school plan for mathematics informs practice and will need revising in light of the school self-evaluation actions that have been put in place. The leadership should now facilitate the building of a shared understanding of a more balanced mathematics programme, specifying the types of learning experiences and pedagogy that will inform their teaching of Mathematics into the future. Teachers prepare on a long and short-term basis. Commendably teachers at the various class levels plan and prepare together. Plans that included learning intentions and teaching approaches to address different abilities and interests in the classes were evidently more helpful to the teachers.

While the school is not currently engaging in school self-evaluation due to industrial action, improving the teaching of mathematics has been a focus for the school in recent years. Agreed actions for teaching a wide mathematical vocabulary and a strategy for solving-word problems, are being successfully implemented through the school.

4. CHILD PROTECTION

The following aspects of the Child Protection Procedures for Primary and Post Primary Schools were checked during the evaluation:

1. Teachers’ access to a copy of the school’s Child Protection policy
2. The prominent display of the name of Designated Liaison Person near the main entrance

The school was fully compliant with both aspects.
Appendix

SCHOOL RESPONSE TO THE REPORT

Submitted by the Board of Management
Part A Observations on the content of the inspection report

The staff of St Patrick’s GNS, Hollypark has read the recent Curriculum Evaluation of Maths in our school. Teachers were delighted that recognition was given to the high standard in procedural fluency, to the use of estimation strategies and to the recall of mathematical facts.

The standard of written work was also acknowledged as being very good throughout the school and it was noted that written tasks are well monitored.

Staff were pleased that our overall school planning is effective and that it was recognised that our school plan for mathematics informs our practice.

We appreciate the positive feedback regarding our learning environments and that above all, teachers in our school are very committed towards improving maths and in working together.

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

In accordance with the recommendations of the report we are looking forward to extending the strategy of team teaching, currently in use at junior level, to all levels in the school and have scheduled PDST training in this regard.

A further recommendation was that staff take a broader approach to assessment in maths; teachers are looking forward to collaborating at all class levels to develop a more pupil-based assessment process and to develop practices in assessment for learning. The current practice of banding will no longer be used and teachers will continue to differentiate and adjust the pace of work to suit the needs of the children.
**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>
<th>Example of descriptive terms</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 <strong>outstanding</strong> 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 very good 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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