

An Roinn Oideachais agus Scileanna
Department of Education and Skills

Subject Inspection in Mathematics

REPORT

Ainm na scoile / School name	Newbridge College
Seoladh na scoile / School address	Newbridge Co. Kildare
Uimhir rolla / Roll number	61680T

Date of Inspection: 9-11-2017



WHAT IS A SUBJECT INSPECTION?

Subject Inspections report on the quality of work in individual curriculum areas within a school. 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 Mathematics under the following headings:

1. Teaching, learning and assessment
2. Subject provision and whole-school support
3. Planning and preparation

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.

SUBJECT INSPECTION

INSPECTION ACTIVITIES

Dates of inspection	9 & 10-11-17
Inspection activities undertaken <ul style="list-style-type: none">• Review of relevant documents• Discussion with principal and key staff• Interaction with students	<ul style="list-style-type: none">• Observation of teaching and learning during eight class periods• Examination of students' work• Feedback to principal and relevant staff• Meeting with representatives of the learning-support department

School context

Newbridge College is a fee-charging co-educational school with a current enrolment of 883. The Transition Year (TY) forms part of the school's senior cycle, alongside the Leaving Certificate Vocational Programme and the Leaving Certificate (Established).

SUMMARY OF MAIN FINDINGS AND RECOMMENDATIONS:

Findings

- The quality of teaching and learning was good or better in the vast majority of lessons.
- A feature of the best lessons was the rigour with which the lesson content was treated, the level of challenge with which the students were presented and the emphasis given to both skills and conceptual development.
- All of the lessons would have benefited from a more structured use of learning intentions.
- Classroom management and teacher preparation for lessons was very good.
- The mathematics department is strongly supported by senior management, is well resourced and its members are committed to their ongoing professional development.
- The provision for students with special educational needs (SEN) or requiring learning support in mathematics is very good.

Recommendations

- Greater focus should be given to problem solving in lesson preparation and delivery.
- In light of the finding above, assessment for learning (AfL), including a more structured approach to the use of learning intentions, should feature in future whole-school continuing professional development provision.

DETAILED FINDINGS AND RECOMMENDATIONS

1. TEACHING, LEARNING, AND ASSESSMENT

- The quality of student learning was good or very good in the vast majority of lessons with a lesson featuring learning that was of a satisfactory standard. In those lessons where student learning was of a high quality, student engagement with the lesson content was exemplary and support was provided to individual students whenever the need arose.
- In the best lessons, the lesson content was treated rigorously and the students were presented with an appropriate level of challenge. A very good balance was maintained between developing the students' skills and exploring deeper concepts.
- The quality of teaching was good or better in the vast majority of lessons. Teacher content knowledge was very good. The teachers taught with confidence and enthusiasm and any student questions or evident misconceptions were comprehensively dealt with.
- Where teaching and learning required improvement, the lesson content lacked focus. The students engaged with a large number of interventions, each of which was useful in its own right. However the various interventions were largely unconnected, their purpose was unclear and opportunities for students to reflect on their learning were not provided. The lesson would have been greatly improved if the number of interventions was reduced, their purpose clarified and time for reflection provided.
- All of the lessons would have benefited from a more structured use of learning intentions. Ideally, the learning intentions should be discussed and success criteria agreed at the outset of each lesson. A plenary, to establish the degree to which the learning intentions were achieved should also be conducted prior to the lesson's conclusion. This would support the very good work already underway in that it would make student learning more explicit and inform the content and teaching approaches for subsequent lessons.
- The majority of lessons featured a slight imbalance between teacher input and student activity. To address this, it is recommended that greater focus be given to problem solving as a method of motivating and mediating lessons content. This will promote collaboration, help to make the links between the curricular strands more obvious, promote solution curiosity, tolerance of ambiguity and resilience.
- Classroom management was very good in all cases. The students responded positively during lessons, answered teacher questions with confidence and asked very good questions themselves. All interactions were courteous and respectful. The learning environment in all of the classrooms was conducive to developing positive attitudes towards mathematics.
- Teacher lesson preparation was very good and resources, including those embracing digital technologies, were integrated in all lessons. The use of digital technologies was limited, in the majority of lessons, to assisting in the delivery of lesson content. Future planning should focus on how these technologies can be used in a more innovative and student-centred fashion.

2. SUBJECT PROVISION AND WHOLE SCHOOL SUPPORT

- Timetabling provision, both in relation to the amount of time allocated to Mathematics is very good. The scheduling of mathematics lessons ensures that students can access to the level most appropriate to their abilities. Higher-level classes in mathematics are mixed ability. This arrangement supported by effective differentiation of lesson content is working very well and reviews of future provision for Mathematics should seek to retain this approach. However the situation pertaining at present where two teachers teach Mathematics to one class group should be avoided in future timetables.
- The mathematics department is very well resourced and enjoys the strong support of senior management. There are currently seventeen teachers in the mathematics department, in order to maintain the cohesive manner in which the department operates, the size of the department should not grow beyond its current level.
- Support for students with SEN or requiring learning support in Mathematics is very good. It features a mix of provision including in-class co-operative support. The learning-support department maintains very good communication with the teachers of Mathematics in determining students' needs and designing the most appropriate interventions.
- The members of the department are committed to their ongoing professional development. Two are currently engaged in post-graduate studies in relation to Mathematics while a number availed of similar opportunities in the past.
- Formal assessment practices in Mathematics are comprehensive and feature common assessments with agreed marking schemes, within levels, for all house examinations. The examination papers contained in the department's folders are of a very high quality and contain a very good mix of questions designed to establish the students' conceptual understanding as well as their skill levels. There is scope for improvement, however, in the quality of formative assessment practices and it is recommended that AfL feature as part of future whole-school professional development programmes.
- The mathematics department works very hard to promote positive attitudes to Mathematics and facilitate student engagement with a range of relevant extra-curricular activities. One example of the department's approach to promoting Mathematics is the presence of subject-related murals on the walls and floors of the school.

3. PLANNING AND PREPARATION

- Subject department planning in Mathematics is very well organised. The department meets regularly and it is evident that more informal collaboration is integral to the operation of the department. The department benefits from very good leadership and the enthusiasm with which the current subject convener approaches the role is worthy of the highest praise.
- A very good subject department plan is in place and the approaches espoused in the plan are in line with the principles underpinning the reformed mathematics syllabuses.

The board of management was given an opportunity to comment in writing on the findings and recommendations of the report; a response was not received from the board.

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 of quality 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;