

An Roinn Oideachais agus Scileanna
Department of Education and Skills

Subject Inspection in Mathematics

REPORT

Ainm na scoile / School name	Desmond College
Seoladh na scoile / School address	Station Road Newcastle West Co. Limerick
Uimhir rolla / Roll number	71790J

Date of Inspection: 10-12-2019



**An Roinn Oideachais
agus Scileanna**
Department of
Education and Skills

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.

The board of management of the school was given an opportunity to comment on the findings and recommendations of the report; the board chose to accept the report without response.

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.

SUBJECT INSPECTION

INSPECTION ACTIVITIES

Dates of inspection	9 and 10 December 2019
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 9 lessons• Examination of students' work• Feedback to principal, deputy principal and relevant staff

School context

Desmond College is a co-educational school under the trusteeship of the Limerick and Clare Education and Training Board (LCETB). The school offers the Junior Cycle, an optional Transition Year programme (TY), the Leaving Certificate Vocational Programme (LCVP), the Leaving Certificate Applied (LCA), and the Leaving Certificate (Established) (LCE). Additionally, the school has one special class for students with mild general learning disability and two classes for students with autism spectrum difference (ASD). The school also has an aonad lán Ghaeilge, providing instruction through the medium of Irish. The school participates in Delivering Equality of Opportunity in Schools (DEIS), the action plan of the Department of Education and Skills for educational inclusion and has a current enrolment of 392 students.

SUMMARY OF MAIN FINDINGS AND RECOMMENDATIONS:

Findings

- The overall quality of teaching, learning, and assessment in Mathematics is very good; on occasion the greater use of mixed ability teaching strategies was advised.
- Students' experience of the subject is very positive; high expectations are set for students with regard to their participation in lessons and overall achievement in learning.
- Subject provision and whole school support is of a very high standard and the process of decision-making with regard to class organisation and in relation to individual students is consultative and evidence-based.
- Students with additional needs are very well supported in the development of their mathematical understanding and skills.
- The school's DEIS plan informs the selection of pedagogical approaches and strategies used by the department to enhance student experience.
- Planning and preparation is very good; collaborative practices are actively promoted and encouraged throughout the mathematics department.

Recommendations

- Teachers should share their very good practice in relation to the teaching of mixed ability groups and other highly effective teaching strategies on a more formal basis, with the facilitation of peer observation by senior management, where possible.

DETAILED FINDINGS AND RECOMMENDATIONS

1. TEACHING, LEARNING, AND ASSESSMENT

- The overall quality of teaching, learning, and assessment in Mathematics is very good, including examples of excellent practice. Students' experience of the subject is very positive. In almost all lessons, through a combination of the uplifting and affirming atmosphere created by teachers and through the tasks chosen, students were able to demonstrate their resilience and perseverance and deepen their understanding of Mathematics.
- High expectations are set for students with regard to their participation in lessons and overall achievement in learning. These high expectations were communicated through the explicit sharing of appropriate learning intentions and the provision of very high quality verbal feedback to students at suitable points during lessons. This was observed to work best where achievement of these high expectations was also supported through the use of well-designed activities that activated students' prior knowledge. This allowed students of differing abilities to access tasks at different levels and, overall, experience success as a mathematician.
- Lessons were very well structured and based on very sound pedagogical approaches that facilitated students doing a large proportion of the work in the lesson. Adequate reflection time was provided in most lessons. However, teachers should ensure that this time is focused on students reflecting on progress in their own learning from the tasks they have undertaken, rather than on teachers reflecting on work completed in the lesson.
- There was a very high standard of questioning in almost all lessons, which assisted students in developing a deeper understanding of the nature of Mathematics. On occasion, the effectiveness of asking these types of rich questions could be further enhanced by providing all students with an opportunity to respond through the use of strategies such as think, pair, share or mini-whiteboards. This would avoid an overreliance on one-to-one questioning or chorus answering.
- Where practice was most effective, students were provided with the opportunity to talk, to discuss and to hypothesise through the use of collaborative tasks. Additionally, in these lessons students were enabled to make links between the key areas of algebra, graphing, transformations, and geometry independently of their teachers. The focus in these lessons was on understanding, connecting, and reasoning, rather than on procedure, and students were very articulate in their responses. This type of approach should be extended, especially in mixed-ability groups.
- In one excellent junior cycle lesson, the task was grounded in an authentic real-world context that had meaning and relevance for the students, and took cognisance of the students' own experiences outside school. Concrete materials were readily accessible, and very effective use was made of them by both the teacher and the students. Students were observed to make excellent progress in this lesson with very high quality outcomes achieved.
- Teachers provided students with very high quality verbal feedback throughout lessons, especially in those where, because of the type of task assigned, teachers had the opportunity to circulate and engage with learners on a small group basis. Teachers were very open and responsive to students' suggestions and ideas, facilitating the creation of an environment where students felt at ease, supported and valued.

- Teachers made very good use of digital technologies and subject-specific software which both engaged students and enhanced their learning. Both teachers' use and students' use of such technology was seamless in most lessons and it is very positive that its ongoing development as a learning tool is supported by the school's digital learning plan.
- On occasion, the greater use of mixed-ability strategies to both challenge and support students was advised. These would have further enhanced student experience and allowed all students to make greater progress. Teachers should share the very good practice observed during the evaluation in relation to mixed-ability teaching and other highly effective teaching strategies on a more formal basis, part of which should include the facilitation of peer observation by senior management, where possible.

2. SUBJECT PROVISION AND WHOLE SCHOOL SUPPORT

- Subject provision and whole school support is of a very high standard. The process of decision-making with regard to class organisation and in relation to individual students is consultative and evidence-based. Students are taught in mixed-ability groups in first year and, depending on the size of the year group, in TY. Students are also provided with a wide range of cross-curricular and co-curricular activities that promote the subject, many of which are linked to the school's DEIS targets.
- Provision for students with additional learning needs is very good. The department utilises team-teaching in first year. Students may also have one-to-one support or small group support provided by a member of the mathematics department, in addition to their mainstream mathematics provision. For a very small number of identified students, the school provides a very high quality Level 2 Learning Programme (L2LP) in Mathematics as part of their junior cycle provision. Students in this programme were seen to be very well supported in the development of their mathematical understanding and skills.
- It was evident throughout the evaluation that the school's DEIS plan informs the selection of pedagogical approaches and strategies used by the department to enhance student experience. This was particularly evident in relation to the use of learning intentions, success criteria, and formative feedback. Numeracy skills are included on the school timetable for all first-year and second-year students.
- The department is focused on improving both uptake and attainment of students at higher level and has been very successful in this regard over the last number of years.
- The role of formal assessment has been discussed by the department and at whole-school level. The department is cognisant of providing students with learning opportunities and assessment modes that will enable them to demonstrate the skills required by the new mathematics specification, thereby extending practice that is already used in TY.
- Teachers are actively involved in developing their practice and participate in learning communities with other schools as part of their continuing professional development.

3. PLANNING AND PREPARATION

- Planning and preparation is of a very good quality. The department is overseen by a subject co-ordinator who is responsible for promoting collaborative planning, and facilitates the review of schemes of work, in addition to an administrative role.
- Teachers' individual planning took cognisance of the promotion of positive attitudes and dispositions towards Mathematics. All lessons were very well prepared. The development of

students' mathematical literacy was very well planned for in all lessons, including those delivered through Irish.

- In the current first-year scheme of work, the department has identified key learning questions, the use of which promotes the development of students' mathematical understanding. This work is also supporting practice in other year groups.
- Very high levels of collaborative practice are actively promoted and encouraged throughout the department. It is supported by the use of shared folders on a digital platform and social media mechanisms, in addition to very strong informal collaboration.

The draft findings and recommendations arising out of this evaluation were discussed with the principal, deputy principal and subject teachers at the conclusion of the evaluation.

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;