

An Roinn Oideachais agus Scileanna
Department of Education and Skills

Subject Inspection in Mathematics

REPORT

Ainm na scoile / School name	Dungarvan College
Seoladh na scoile / School address	Youghal Rd Dungarvan
Uimhir rolla / Roll number	72220T

Date of Inspection: 11 September 2018



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 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.

INSPECTION ACTIVITIES

Date of inspection	11 September 2018
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 four class periods• Examination of students' work• Feedback to principal and relevant staff

School context

Dungarvan Community College is a co-educational school operating under the auspices of the Waterford and Wexford Education and Training Board. The school offers the Junior Cycle, an optional Transition Year programme, the Leaving Certificate Vocational Programme, the Leaving Certificate Applied programme and the Leaving Certificate (Established). The school also offers a wide range of post-Leaving Certificate courses. There is a current enrolment of 188 second-level students. The school participates in the Delivering Equality of Opportunity in Schools (DEIS), the action plan of the Department of Education and Skills for educational inclusion.

SUMMARY OF MAIN FINDINGS AND RECOMMENDATIONS:

Findings

- The overall quality of teaching is good; examples of very good practice were also observed.
- The overall quality of learning is good; in some lessons, the structure of the lesson did not allow student learning to be maximised.
- Subject provision and whole school support for the subject is good, and very good in relation to how the numeracy plan promotes the development and understanding of the subject.
- Special educational needs (SEN) provision is very good, clearly documented, and with individual monitored plans in place for each student.
- Individual planning is of a good quality and the schemes of work are well-advanced but the development of key skills needs to be planned for.
- The department is very pro-active in extending learning and encouraging students to develop their numeracy skills beyond the classroom.

Recommendations

- Learning intentions, phrased in student-friendly language, should be used to inform and plan the key learning for a lesson, with opportunities provided to students to reflect on their learning at the end of the lesson.
- As a newly formed team of teachers, the department should articulate and develop an action plan that outlines a clear vision for Mathematics education in the school over the next five years; the development of key skills should form part of this.

DETAILED FINDINGS AND RECOMMENDATIONS

1. TEACHING, LEARNING, AND ASSESSMENT

- Overall, the quality of teaching and learning was good. In all lessons observed, there was a collegial, friendly atmosphere where students had a very positive experience of Mathematics. Teachers were keenly aware of the individual needs of students.
- In most lessons, questioning was of a very high standard, with teachers providing substantial wait time to allow students to answer with a high degree of rigour. At all times, students were encouraged to develop and expand on their answers.
- Consideration needs to be given to how students' prior knowledge and experience of a concept can be assessed and incorporated into lessons. In the majority of lessons, prior knowledge was elicited from students and was used effectively to develop the topic under discussion. Learning was less effective and students were less engaged where they did not have this opportunity.
- In one very effective lesson, there was a focused and purposeful atmosphere. Students were working within minutes of starting the lesson. The activity, which related to the different areas of being numerate, set up high expectations for the standard of work and level of participation expected from students. This type of activity, which allowed students to work independently, while the teacher circulated the room to assess the quality of homework, and gave individual formative feedback, made very good use of class time. This practice should be encouraged across the department.
- Formative assessment techniques were used in every lesson. It is very positive that these techniques have been agreed upon at a whole school level. In effective lessons, teachers combined these techniques with the development of key skills, making good use of class time and encouraging students to see the purpose of formative assessment.
- In a majority of lessons, these formative assessment techniques replaced the explicit use of learning intentions. In some cases, these techniques took precedence over the development of mathematical content. It is recommended that learning intentions, phrased in student-friendly language, should be used to inform and plan the main learning of lessons with opportunity provided to students to reflect on their learning at the end of the lesson. This approach, used in conjunction with success criteria and formative assessment strategies, will assist students to take greater responsibility for their own learning.
- In almost all lessons, students spent a portion of time taking notes. Consideration needs to be given as to the purpose of note-taking during lesson time, particularly at the early stages of the introduction of a new topic. The department should consider how the key skill of making notes, perhaps as part of assigned homework, could be developed.
- In the most effective lessons, tasks were chosen to provide students with the opportunity to identify the links between the procedures they were learning and the underlying concepts. Where this was not the case, greater consideration needed to be given to the order in which mathematical content was presented so that procedures are not taught in isolation from purpose.
- Greater use could be made of digital technologies, especially to speed up the presentation of material and share students' work.

2. SUBJECT PROVISION AND WHOLE SCHOOL SUPPORT

- Subject provision and whole school support is very good, with all classes concurrently timetabled. Classes are streamed, starting in second year. The department makes use of standardised testing results and other data available to ensure that students are working at the correct level. All students have access to all levels. Summative assessments, with reports home, take place at four points throughout the year. In light of the new specification for Junior Cycle,

the department will need to identify how formative feedback will be communicated to students and parents and used effectively.

- Special educational needs (SEN) provision is very good, clearly documented and with individual monitored plans in place for each student.
- The department is very pro-active in extending learning beyond the classroom, and many opportunities are provided to students to engage in numeracy-based activities throughout the school. Students have the opportunity to participate in activities such as engaging puzzles relating to Mathematics in sport, homework club and darts at lunchtime. It requires an extensive commitment to organise these activities and thought should be given as to how this workload could be best distributed on a long-term basis.

3. PLANNING AND PREPARATION

- In all cases, individual planning and preparation was of a good standard. In lessons where teachers had planned for students to do more of the Mathematics, rather than relying on teacher exposition, the pace of learning was higher. Practice should be shared in relation to this approach.
- Department planning is of a good standard. As the team is newly formed, it is recommended that the department develop an action plan that outlines a clear vision for mathematics education in the school over the next five years. While the current schemes of work are detailed, the department should assess how useful they are as planning documents on a day-to-day basis. Teachers are encouraged to share the good practice evident in the school to ensure that the schemes document how different mathematical areas are connected and can be taught in a coherent way. Thought should also be given to how key skills will be developed over time.
- All members of the department are keenly aware of promoting Mathematics as a subject that is a skill learned over time, and of promoting a culture in their classroom that is positive, encouraging and inclusive. Given the high quality of formative feedback happening in the classroom, the department should now look at how the use of formative feedback can encourage students to take greater ownership of their learning and actively plan for this in their schemes.
- It is very positive that the department analyses its examination results and makes informed use of data to assist it to achieve the school's DEIS targets.

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;

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 Dungarvan College welcomes this report which recognises that the quality of teaching and learning of mathematics is of a good standard. The Board is very satisfied that the 'collegial, friendly atmosphere' in Dungarvan College was recognised, as this is a central part of the college's caring ethos.

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

Follow-up actions planned or undertaken since the completion of the inspection include:

- The Mathematics Department will ensure to make learning intentions and success criteria an integral part of all lessons.
- The Mathematics teachers will continue to increase the use of digital technologies in all their lessons which will help with the sharing of class materials.
- The newly formed Mathematics Department will work together, to mould its vision in a five year plan.