An Roinn Oideachais agus Scileanna

Department of Education and Skills

Subject Inspection in Mathematics

REPORT

Ainm na scoile / School name	De La Salle College
Seoladh na scoile / School address	Macroom Co Cork
Uimhir rolla / Roll number	62310O

Date of Inspection: 26 April 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 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.

SUBJECT INSPECTION

INSPECTION ACTIVITIES

Dates of inspection	26 and 27 April 2018
Inspection activities undertaken • Review of relevant documents • Discussion with principal and key staff • Interaction with students • Discussion with the Special Educational Needs (SEN) Coordinators	• Observation of teaching and learning during eight class periods • Examination of students' work • Feedback to principal, deputy principal and subject coordinator.

School context

De La Salle College in Macroom is an all-boys secondary school operating under the patronage of the Diocese of Cloyne. In addition to the Junior Cycle programme, it offers a compulsory Transition Year (TY), the established Leaving Certificate and the Leaving Certificate Vocational Programme (LCVP). It has a current enrolment of 326 students.

SUMMARY OF MAIN FINDINGS AND RECOMMENDATIONS:

Findings

- Overall, learning and teaching are of a very high standard.
- Whole school support and provision for the subject is very good.
- Planning and preparation is of a good standard; the subject plan outlines the main administrative processes in the department but schemes of work are of variable quality.
- Very effective assessment for learning (AfL) techniques were evident in the majority of lessons observed and, in a number of lessons, the use was exemplary.
- Transition Year (TY) is currently being used as a third year of the Leaving Certificate cycle, which is not in keeping with the spirit and ethos of the TY programme.
- Support for students with additional needs are of a good standard and are flexible to respond to students' needs.

Recommendations

- The department needs to reconsider how Mathematics is provided in TY and develop an appropriate scheme of work, in keeping with the spirit and ethos of the TY programme.
- As part of the planning process, the subject department should collaborate to identify, share and embed the most effective approaches to teaching and learning Mathematics evident in the school; these approaches should inform the development of new schemes of work and be consistently evident in classroom practice.

DETAILED FINDINGS AND RECOMMENDATIONS

1. TEACHING, LEARNING, AND ASSESSMENT

- Teaching and learning was of a very high standard overall, with all lessons observed being of a very good or good quality.
- In a number of lessons, there was a sense of shared ownership of learning between the teacher and students. Students were very comfortable in presenting and arguing their points, making a case for choosing certain procedures and in critiquing each other's work. In a small number of lessons, this skill needed to be embedded to a greater extent. To address this, teachers should ensure that opportunities are provided in every lesson for students to discuss and articulate their mathematical reasoning.
- In very good lessons, the rich nature of Mathematics was made evident to students and opportunities for them to discuss, evaluate, investigate and create Mathematics were provided. Continued efforts should be made to integrate the various strands of Mathematics and contextualise the content being addressed.
- A number of very effective AfL techniques were used in a majority of lessons, leading to a very high quality learning experience for students. The richness of these strategies should be documented and shared at a department level.
- The school has identified the use of learning intentions and success criteria as part of the strategies to be used in the next area of school self-evaluation (SSE) and some members of the mathematics department were observed to be trialling this approach. Students responded very positively to these techniques. In lessons where these strategies were combined with effective AfL strategies, students were confident talking about what they had learned, and the steps they would take to improve their learning further. The quality of learning in these lessons was of a very high standard and every student was assured of some level of success by the end of the lesson.
- Most classes began with a valuable review of homework, usually incorporating some element of peer assessment. In a minority of lessons, this review took up more lesson time than originally planned. There is a need for the department to investigate the most efficient ways to do this review to ensure that there is sufficient time for the planned new learning to be developed.
- In all lessons, teachers were acutely aware of students' individual needs. Teachers, through the provision of challenging but achievable tasks, positive, supportive language and communication of high expectations, created a very positive learning environment for all involved. These approaches, enhanced by teachers' evident enthusiasm and interest in the subject, facilitated high levels of student engagement.

2. SUBJECT PROVISION AND WHOLE SCHOOL SUPPORT

- Whole school support and provision for the subject is very good. Timetabling provision is very good with five classes per week provided in Junior Cycle and six classes per week for TY and senior cycle. Classes are taught in mixed ability in first year and then split into higher level and ordinary level classes based on data and assessments in first year, in consultation with students and parents. Teachers follow the homework, assessment and reporting policies of the school.

- Teachers have very good access to digital technologies and the effective use of these to support learning was observed in some lessons.
- The school is operating within considerable space constraints but has a dedicated mathematics room in which the majority of mathematics lessons take place. All other lessons take place in a range of classrooms. There is scope for developing some of the more frequently used rooms into a classroom of similar standard to the mathematics room.
- Support for students with additional needs are of a good standard and operate in a flexible manner, based on the needs of the student. Provision is made most frequently through small group withdrawal or one-to-one support. The further development of team teaching, a strategy used by the mathematics department in previous years, is recommended. Good informal and formal links between the mathematics team and SEN department are evident.
- The school runs a Paired Maths programme each year, which involves TY students teaching first years. The teachers involved have refined the programme from year to year as part of the school's SSE processes. This is very good practice as it encourages students to become involved in verbalising their learning in addition to the social benefits to be gained from such interaction between students.
- The students have opportunities to participate in many activities that promote the study of Mathematics. These include a well-organised Maths Week and many regional quizzes.

3. PLANNING AND PREPARATION

- Planning and preparation are of a good standard; the subject plan outlines the main administrative processes in the department but schemes of work are of variable quality. Individual preparation for lessons observed was very good in all instances. Best practice was noted where the lessons planned targeted key skills, particularly in relation to communication, personal and social development, and active learning.
- Teachers in the department are using different digital platforms to further enhance learning and encourage student independence. The department has an electronic shared folder of resources that is added to over time, and the administrative plan for the department is also available in this folder. It is very positive that teaching and learning are discussed at subject department meetings, as seen in the minutes.
- As part of the planning process and in light of the new specifications starting in September 2018, it is recommended that the subject department collaborate to identify, share and embed the best approaches to teaching and learning Mathematics evident in the school. These approaches should be used to inform the development of new schemes of work over the coming years. Sharing of the observed very good practice in the school, in addition to the resources already available, will assist their development.
- TY is currently being used as a third year of the Leaving Certificate cycle. The department needs to reconsider how Mathematics is provided in TY and develop an appropriate scheme of work, in keeping with the spirit and ethos of the TY programme.
- It was evident that the members of the mathematics department are very committed to the ongoing development of classroom practice, so as to give students a holistic and positive experience of Mathematics.

The draft findings and recommendations arising out of this evaluation were discussed with the principal, deputy principal and subject coordinator 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 *very good* 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

Area 1 Observations on the content of the inspection report

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Area 2 Follow-up actions planned or undertaken since the completion of the inspection activity to implement the findings and recommendations of the inspection.

Teaching, Learning and Assessment

With the introduction of the new Junior Cert mathematics specifications, there will be an increased focus on key skills such as communicating and presenting arguments, giving students more ownership of their development. A focus for developing an understanding of the links between the strands of Mathematics will also be prioritised.

To achieve these goals, an effort to improve collaborative thinking within the mathematics department has already begun in designing appropriate learning experiences, improving our schemes and sharing thoughts on best practice. Our school's approach to the use of learning intentions and success criteria (SSE phase 2) in all classes will contribute to the improvement of the teaching, learning and planning in individual lessons and the department as a whole.

In transition year, a new approach to homework is being trialed to avoid homework reviews consuming too much class time. This approach will significantly reduce the amount of daily homework given with an emphasis on one quality piece of work per week which may be presented and discussed in a follow up lesson. This approach will encourage the skills of investigation and independent thinking.

Also within the transition year programme while still maintaining a focus on the leaving certificate curriculum, new approaches to topics such as project work, practical application and the approach to homework are being explored.

Subject provision and whole school support

An additional designated mathematics room has been allocated this year providing mathematics teachers the opportunity to create numeracy and literacy rich classroom environments.