

An Roinn Oideachais agus Scileanna
Department of Education and Skills

Subject Inspection in Mathematics

REPORT

Ainm na scoile / School name	Davitt College
Seoladh na scoile / School address	Springfield Castlebar Co Mayo
Uimhir rolla / Roll number	76060U

Date of Inspection: 05-10-2017



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

Date of inspection	05-10-2017
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 seven class periods• Examination of students' work• Feedback to principal and relevant staff

School context

Davitt College is a co-educational, non-denominational post-primary school which operates under the auspices of the Mayo, Sligo and Leitrim Education and Training Board (MSLETB). It is one of three second-level schools located in the town of Castlebar. As well as the junior cycle and the Established Leaving Certificate programmes, it offers the Junior Certificate School Programme (JCSP), the Leaving Certificate Vocational Programme (LCVP), the Leaving Certificate Applied (LCA) and an optional transition year (TY) programme as part of the school's educational curriculum.

SUMMARY OF MAIN FINDINGS AND RECOMMENDATIONS:

Findings

- The quality of learning ranged from very good to fair in the lessons observed.
- Overall, the quality of teaching was satisfactory; very effective teaching practices were observed in two lessons, the quality of teaching in the remaining lessons was satisfactory or fair.
- Very good assessment practices were a feature of the best lessons.
- The standard of whole-school support for Mathematics is good.
- The quality of individual planning ranged from highly effective to fair.
- Collaborative planning and preparation for Mathematics is satisfactory with significant scope to further develop short-term schemes of work.

Recommendations

- Opportunities to increase students' active engagement in their learning should be a focus area for improvement.
- The range of teaching methodologies used is an area for development and the effective strategies identified during the inspection should be shared and discussed with a view to improving overall provision.
- It is recommended that approaches to improving the standards of assessment be agreed and implemented by the mathematics teachers and that the good practice seen in some instances be extended to all lessons.
- Lesson planning should include clear learning intentions which are suitably pitched, high-quality resources, and activities which will provide elements of success and challenge for all students.
- Management should set clear expectations around curriculum planning to help ensure consistent and cohesive provision for learning Mathematics.

DETAILED FINDINGS AND RECOMMENDATIONS

1. TEACHING, LEARNING, AND ASSESSMENT

- The quality of learning in two of the lessons was very good. The standard in the remaining lessons ranged from fair to satisfactory. Where learning was best, expectations for students' ability and knowledge were suitably high, and well-planned activities ensured all students were actively engaged and making progress with the lesson content.
- Exemplary teaching strategies were observed in two lessons; there was significant scope for improvement in the others. Best practice was noted where there was a good balance between teacher and student input. Collaboration among students was facilitated and the resources and worksheets provided to support learning were of high quality, were suitably pitched and required students to actively engage with the tasks. In one lesson, the quality of the worksheets given to students was unsatisfactory. In many instances, opportunities to effectively facilitate collaboration among students were not utilised and students were overly dependent on teacher input for most of the lesson time.
- The overall quality of assessment was satisfactory. There was scope for improvement in the majority of lessons. The very good assessment tools noted in some lessons should be extended to all class groups. Good quality questioning was used in some instances to check for understanding, elicit prior knowledge and prompt students' thought processes. Adequate time was allowed for students to formulate responses and all solutions were included as part of the lesson content. Written formative feedback was noted in some copybooks which guided for improvement and affirmed specifics. In one lesson, students were required to reflect on both their learning and areas of need after a class test. The teacher then used this feedback to plan for future revision lessons. This is very good practice. All students would benefit from exposure to the high-quality assessment tools identified during the inspection.
- Students' behaviour was very good in all lessons and the good rapport between teachers and students helped create positive and affirming learning environments for the majority of the time. Where students were not adequately supported or challenged, they became disengaged and frustrated. It is recommended that consideration be given to students' learning experiences in lessons and teaching practices be modified to ensure their experiences are positive and productive. In the most effective lessons, students enjoyed their learning experiences and felt supported and safe to make progress.
- In the best lessons, students worked enthusiastically and all efforts were affirmed. Students felt that they were safe to succeed as well as to make mistakes. Lesson planning ensured that tasks were suitably differentiated and additional tasks were offered for homework. It is important that providing differentiated work does not draw adverse attention to students' needs or abilities, as was the case in one lesson.

2. SUBJECT PROVISION AND WHOLE SCHOOL SUPPORT

- Subject provision and whole-school support for Mathematics is good. Timetable provision is in line with syllabus requirements for junior cycle and TY. There is a generous allocation of six periods per week, including one double lesson, for fifth and sixth-year classes and four periods per week for LCA students. Requests made by the mathematics department for an additional teacher for sixth year were also met by management.

- All first-year students are taught in mixed-ability settings. Concurrent timetabling for the other year groups allows students to remain at the highest level for as long as possible. Currently, one of the six leaving certificate class groups is studying for the higher-level leaving certificate examination.
- The subject department is responsible for allocating teachers to levels and year groups. The option to teach the higher-level senior cycle is open to all and should be encouraged. Rotating the teaching of levels and year groups is good practice. It helps build the capacity of the department members and ensures all teachers have exposure to and experience of the entire course content.
- Currently, there are eleven teachers assigned to teaching Mathematics in the school. The majority are from the core team of mathematics teachers. The remainder are timetabled for one class group and may not teach Mathematics every year. To support these teachers and to ensure continuity and consistency of provision for the students, it is necessary to have comprehensive short term schemes of work in place. It is recommended that the number of teachers who have only one class group of Mathematics be kept to a minimum and that the number who teach Mathematics some years only be reduced, where possible.
- The mathematics department is well resourced. All teachers have been provided with a laptop or tablet device and classrooms are equipped with data projectors and visualisers. In many instances, ICT was used to support teaching by displaying pre-prepared examples and solutions. The visualisers were used regularly to display work and show methods. There were a number of missed opportunities where ICT could have further enhanced learning. Relevant and accurate online examples could have been used to demonstrate some of the concepts being taught. In some instances, opportunities to research the topics and methods of the lesson would have helped reinforce learning for students.

3. PLANNING AND PREPARATION

- The standard of individual planning ranged from very good to fair. Where planning was best, lesson intentions were student centred and relevant to the cohort, and a range of teaching methodologies and assessment tools was used effectively.
- There is a commendable system for rotating the roles of subject co-ordinator. Each year, the mathematics department is jointly co-ordinated by two of the subject teachers; one in a leading capacity and the other member in a supportive role. The lead co-ordinator would have acted in the support role the previous year. This system helps ensure that there is continuity and that responsibility is shared.
- The subject department is in the process of transferring the subject plan to an online shared system. This is good practice. The ease of access and flexibility of having the subject department plan readily available to all teachers will help ensure there is continuity and cohesion for teaching and learning Mathematics. It also allows for resources, web links and methodologies to be reflected upon and shared. However, the absence of comprehensive short-term schemes of work needs to be addressed. Management should take a more active role in setting expectations for the overall quality of subject planning and the standard of teaching experienced by the students of Mathematics.

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 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.

Appendix

SCHOOL RESPONSE TO THE REPORT

Submitted by the Board of Management

Part A Observations on the content of the inspection report

The board accepts the content of the inspection report and welcomes the recommendations.

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

- The subject department has completed the process of transferring the subject plan to an online shared system and is currently updating subject plans.
- Management now has weekly meetings with the mathematics department.
- Sub-committees have been set up within the department of eleven teachers and each sub-committee is preparing short term plans based on advice from inspector.
- Examples of good practice are now shared during weekly meetings and in short term planning.

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;