

An Roinn Oideachais agus Scileanna
Department of Education and Skills

Subject Inspection in Mathematics

REPORT

Ainm na scoile / School name	Edmund Rice College
Seoladh na scoile / School address	Carrigaline Co. Cork
Uimhir rolla / Roll number	68264R

Date of Inspection: 02-04-2019



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 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	1 and 2 April 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 5 class periods• Examination of students' work• Feedback to principal and relevant staff

School context

Edmund Rice College is a co-educational, voluntary secondary school, operating under the trusteeship of the Edmund Rice Schools Trust (ERST). The school was established in September 2016 and currently has 238 students enrolled across all three years of junior cycle. The school provides the Junior Cycle programme and will, in future, provide a Transition Year Programme and Leaving Certificate programmes.

SUMMARY OF MAIN FINDINGS AND RECOMMENDATIONS:

Findings

- The overall quality of teaching and learning is very good; it would be valuable for the department to share effective practice including that observed during the inspection.
- The quality of assessment is good; while elements of very good practice relating to peer assessment were observed, students' formative feedback and assessment skills could be further developed.
- The overall quality of subject provision and whole school support is very good.
- The overall quality of planning and preparation is good and individual planning for lessons was of a very high quality; opportunities exist to develop departmental schemes of work.
- Teachers actively plan for inclusion of students of all abilities in their lessons, using a variety of strategies that support the mathematical development and holistic wellbeing of their students.

Recommendations

- The department should develop an action plan that promotes the sharing of effective practice, and identifies and embeds strategies that will assist students to further develop formative feedback and assessment skills.
- Schemes of work should be developed to assist students to understand the nature of Mathematics and make it an explicit learning outcome, and, where appropriate, take cognisance of the unifying strand in the new Junior Cycle specification.

DETAILED FINDINGS AND RECOMMENDATIONS

1. TEACHING, LEARNING, AND ASSESSMENT

- The overall quality of teaching and learning is very good. All lessons were well planned, with clear learning intentions communicated to students that were successfully achieved in the majority of lessons. It would be very beneficial for students to be given opportunities to reflect on these learning intentions and their overall progress in lessons.
- Collaborative learning was a feature of all lessons and was very effectively used across all lessons observed. Peer assessment was used to very effectively and efficiently correct student homework, maximising the time available for new learning.
- Highly effective pair work was observed in one lesson. Students were confident in working together and discussing the outcome with very good use of subject-specific language. In the same lesson, students were able to work for an extended period of time, without input from the teacher. Maximum impact was achieved as the teacher was able to circulate between groups, providing support and asking questions that deepened students' understanding. This approach should be shared at departmental level and utilised to assist all students to talk about their learning more frequently.
- Very well structured group work was observed in some lessons, relating to probability and statistics. In one case, the teacher had planned for the presence of bias in the experiments, so that students would have to reason out and explain their outcomes in a more rigorous fashion. This is very good practice as it prepares students to become familiar with the unknown and provides opportunities for them to become more mathematically resilient.
- In all cases outlined above, students had an opportunity to collaborate, hypothesise and justify their findings. All of the practices outlined above would benefit from teachers sharing the rationale for these approaches with students, so that students become aware of the key skills that are also being developed. In this way, students may further develop responsibility for their own learning.
- All teachers very effectively questioned students, using a mixture of higher and lower order questions. Where students were given a longer wait time, the answering was of a higher quality. As most of the questioning was on a one-to-one teacher-student basis, the department should give some thought as to how a greater proportion of students can be actively engaged in the questioning process.
- In one, very effective, revision lesson, high expectations were scaffolded by the use of a very good resource and associated task. This resource allowed students to work at a rate appropriate to them by assisting recall, consolidating learning, providing procedural practice, and requiring the justification of any conclusions reached. This approach allowed students to see Mathematics as a coherent system, where knowledge and skills are developed simultaneously. It is very positive that the department has systems in place to share such resources.
- In one lesson, students had the opportunity to assess how they had improved in their learning from one summative assessment to another which is very positive. In other lessons, students did not have sufficient time to process what they had learned and were not given sufficient opportunity to verbalise their own learning. In light of this, the department should

develop an action plan that identifies and embeds strategies that will assist students to further develop formative feedback and assessment skills, especially given the addition of classroom based assessments to the Junior Cycle specification.

- It is very positive that teachers have embedded the use of an electronic learning platform into their practice where students can access homework as it further encourages students' independent learning.

2. SUBJECT PROVISION AND WHOLE SCHOOL SUPPORT

- The overall quality of subject provision and whole school support is very good. Students are taught in mixed ability classes in first year. The subject is concurrently timetabled in second and third year. Higher level and ordinary level classes are formed in each of these year groups, dependent on the needs of the students. It is very positive that the classes formed within each level are of mixed ability groupings. The department is well resourced, and most teachers have their own classroom. The department coordinator role rotates between members.
- The department adheres to the assessment policy of the school, with three formal assessments throughout the year, which are common to the relevant levels, as well as a series of class tests.
- For students with special educational needs (SEN), the main mode of additional support is through small group withdrawal, with specific mathematics teachers assigned to numeracy support. This is in addition to their mainstream mathematics lessons. This support is very well structured, planned and monitored. These students were also very well supported in their mainstream lessons.
- A very small number of students with autism spectrum disorder (ASD) follow a Level 2 programme for numeracy. The decisions made about students working at Level 2 are evidence based and are made in consultation with their parents. This is very good practice.

3. PLANNING AND PREPARATION

- The overall quality of planning and preparation is good. Individual planning for lessons was of a very high quality. Teachers actively plan for inclusion of students of all abilities in their lessons, using a variety of strategies that support the mathematical development and holistic wellbeing of their students. Consequently, the students' experience of Mathematics is very positive. Individual approaches to planning for wellbeing and planning that assists students to understand the nature of Mathematics should be shared with the department.
- The subject department plan serves as a useful manual for provision but there is an opportunity to develop the schemes of work so that the nature of Mathematics is made more explicit for students in lessons. In this regard, schemes of work should be developed to assist students to understand the nature of mathematics and make it explicit as a learning outcome, and, where appropriate, take cognisance of the unifying strand in the new Junior Cycle specification. Consideration should be given to developing and documenting ways in which students could demonstrate their deeper understanding throughout the scheme of work; the inclusion of key learning questions in schemes may assist this. Individual teacher

expertise observed in this area will assist this process as will the sharing of effective practice at department level.

The draft findings and recommendations arising out of this evaluation were discussed with the 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 is pleased to note the positive findings of the inspector in relation to the quality of teaching and learning, assessment, subject provision, planning and preparation and the inclusion of students of all abilities.

The board is also pleased to note the inspector's statement "The students' experience of Mathematics is very positive".

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 members of the Mathematics department have begun to implement both recommendations.