

An Roinn Oideachais agus Scileanna
Department of Education and Skills

Subject Inspection in Mathematics

REPORT

Ainm na scoile / School name	Bremore Educate Together Secondary School
Seoladh na scoile / School address	Stephenstown Campus Naul Road Balbriggan
Uimhir rolla / Roll number	68262N

Date of Inspection: 23-01-2020



**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	21-01-2020 and 23-01-2020
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 one-hour lessons• Examination of students' work• Feedback to principal and relevant staff

School context

Bremore Educate Together Secondary School has a current enrolment of 364: 127 girls and 237 boys. 2019/2020 is the fourth year since the school was established. The programmes available are the Junior Cycle and a compulsory TY. The school also has a special class for students with Autism Spectrum Disorder (ASD).

SUMMARY OF MAIN FINDINGS AND RECOMMENDATIONS:

Findings

- Overall, teaching and learning was good; there was variation in the quality of lesson planning, learning activities and student engagement across lessons.
- In most lessons, students were provided with assistance or further challenge and their needs were well met; however, at times students' needs were not accurately identified or addressed.
- Most teacher explanations were clear, conceptual and contextualised; however, some explanations lacked sufficient rigor.
- Students had a strong voice in lessons and demonstrated independence and autonomy in their learning.
- The quality of subject provision and whole school support is very good.
- The mathematics teachers collaborate very well; they create and share valuable resources and use technology in a highly effective manner.

Recommendations

- All lessons should be comprehensively planned to include a variety of high-quality learning activities that meaningfully engage students for the full lesson's duration.
- A range of assessment modes should be used to identify students' needs and assessment should be better used to inform classroom practice.
- The underlying meaning of each mathematical concept should form the basis of all teacher explanations so that students can achieve a deep understanding of the Mathematics taught.

DETAILED FINDINGS AND RECOMMENDATIONS

1. TEACHING, LEARNING, AND ASSESSMENT

- The overall quality of teaching and learning was good but there was a wide range in quality across the lessons observed. Some lessons were very well planned and the quality of teacher practice was excellent. However, at times there was significant scope for improvement in the quality of planning and delivery of lessons.
- The quality of student engagement and participation in learning ranged from excellent to fair. Where the quality was highest, students were interested, paying attention, contributing to class discussions and collaborative tasks, and were demonstrating enjoyment of learning. At times though, there was evidence of students disengaging from the lesson activities. In these instances, a wider variety of tasks, and greater teacher awareness of student learning and behaviour was required.
- Lessons are one hour long. Some teachers had planned comprehensively to ensure that the lesson was productive and that meaningful learning was taking place for the full duration. In other lessons, the scope and pace of the learning were less effective. It is recommended that teachers ensure that lessons are planned to include a substantial amount of high-quality learning activities to ensure best use of class time.
- Assessment and the provision of feedback were very good in general. Most teachers showed a keen awareness of students' individual needs and provided assistance or further challenge where necessary. However, this practice was not universal. There were instances where students' needs were not sufficiently met. It is recommended that strategies, such as the use of mini-white boards, be used to ensure that students' needs can be more easily identified and addressed.
- In most lessons, concepts were explained clearly using simple language. Additionally, time was taken to fully thrash out the meaning of key mathematical terms. This approach is of particular importance given the number of students with English as an additional language (EAL) needs in the school. There was scope at times for deeper engagement with the key words of lessons.
- Highly effective practice was noted when teachers presented concepts in their full mathematical context. Some teachers also used real-life examples to enable students to link new learning to their personal experience and existing knowledge. This very good practice outlined should be extended to all lessons. At times, some explanations lacked sufficient rigor and overly depended on tricks or shortcuts that bypassed the underlying meaning of the Mathematics.
- All classrooms are set out for group work and collaborative learning formed part of almost all lessons. In some cases, the balance between student collaboration, individual work and teacher instruction was highly effective. At times there was a need for better balance.
- In addition to working in their copybooks, students maintain their work on a school-wide electronic platform. Evaluation of student work indicated that this platform is used as a significant aid to learning and study. Teachers review students' work electronically and provide feedback in written and audio form. Students engage very positively with this way of working.

- The relationships between students and their teachers were observed to be very good. There was evidence of a strong student voice in lessons. This was characterised by students being listened to, their exact words being used on the board, and their contributions being shared with other students.

2. SUBJECT PROVISION AND WHOLE SCHOOL SUPPORT

- The quality of subject provision and whole school support is very good. All classrooms are bright stimulating learning environments with all of the necessary resources available. Students are assigned to mixed-ability classes for Mathematics in first year and, with the exception of Transition Year, are separated into levels from second year onwards. This is good practice.
- An extensive range of continuous professional development (CPD) opportunities has been availed of by the mathematics teachers. Two teachers in the school, one mathematics teacher and a science teacher, are participating in the *Deep Dive* project which links concepts across subjects. The topic chosen is *Statistics in an Investigative Context*; the project has shown some success to date.
- Students have digital tablet devices and the use of technology is an integral part of lessons. To facilitate effective use of technology, significant in-house CPD is provided. There is a students' digital committee for students to provide support to each other and to teachers as the need arises. The school participates in the Professional Development Service for Teachers (PDST), *Formative Assessment using Digital Portfolio* initiative to further enhance expertise.
- There are very good links between the school and the primary school which shares its campus. The mathematics department has engaged in collaborative work with the primary school in recent years. It is suggested that the links between the school and this local primary school be further used to share teaching, learning and lesson planning strategies.

3. PLANNING AND PREPARATION

- The members of the mathematics department work well as a team and there is evidence of significant collaborative planning taking place. Minutes of mathematics meetings show extensive work on embedding the school self-evaluation (SSE) literacy priorities in the subject plan and classroom practice.
- The teachers generate a considerable amount of resources for teaching and learning and there is very good practice around using technology to create and share these resources. Text books are used but to a limited extent. The teachers are to be commended on their energy, creativity and commitment to this important work.
- The mathematics plan is very good and much consultation has gone into it. The school is new and growing. This year has seen the first TY for example, and the work involved in creating and reviewing new programmes and plans has been onerous for the teaching team. The mathematics teachers annotate their planning documents with reflective notes to inform future reviews. This is excellent planning practice.
- The TY plan is very good and comprises a range of valuable learning experiences. Of particular note is the 'Maths Trail' project completed with the pupils of the neighbouring

primary school. This project involved the students designing questions based on the local environment, organising a number of events, and leading the primary pupils in their learning.

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.

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 Bremore Educate Secondary School welcomes the Maths Inspection Report. The Board was pleased that the report recognises the quality of teaching and learning observed during the evaluation was good. In particular, it was pleased that the overall quality of subject provision and whole school support is very good. We were delighted to hear that the contribution of strong student voice was evident and that the relationships between teachers and students was recognised as very good.

The school community strives to have high standards of creativity and collaboration and we are pleased that the Inspectorate has recognised and commended the teachers' efforts in this regard. Noting our dedication to the use of technology and commitment to embedding School Self-Evaluation into the classroom environment is also very welcome.

The Board of Management are happy with the praise for its commitment to a broad programme of CPD which utilises both formal and informal resources to enhance the teaching and learning of our students.

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 Board of Management welcomes the feedback and recommendations from the Inspectorate and in keeping with our commitment to evaluation and improvement, we will take actions based on the recommendations provided. The Board of Management is committed to building on the very good practice noted.

We will support and facilitate the Maths department to ensure that a high quality of teaching, learning and assessment procedures are experienced by all students. Where necessary and appropriate, we will engage with external supports to assist with this.

As a developing school, we will continue to reflect on our practice and enhance our performance, which is a tradition already established through annual teacher reflection exercises which informs planning for the following academic year.

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;