

An Roinn Oideachais agus Scileanna
Department of Education and Skills

Subject Inspection in Mathematics

REPORT

Ainm na scoile / School name	Holy Family Community School
Seoladh na scoile / School address	Kilteel Road Rathcoole Co Dublin
Uimhir rolla / Roll number	91301D

Date of Inspection: 24-04-2018



**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.

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	23-04-2018 & 24-04-2018
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 eleven class periods• Examination of students' work• Feedback to principal and relevant staff

School context

Holy Family Community School is a voluntary, co-educational secondary school with a current enrolment of 960 students. All curricular programmes, except the Junior Cycle School Programme, are offered in the school, including an optional Transition Year.

SUMMARY OF MAIN FINDINGS AND RECOMMENDATIONS:

Findings

- The overall quality of teaching ranged from satisfactory to very good, with scope to increase the student voice in some lessons.
- Timetabling arrangements are mostly very good with some anomalies noted in provision this year.
- Class formation has changed from streaming to a combination of mixed-ability and banding; management attributes improved student attainment, particularly at Junior Certificate to this development.
- Management is very supportive of Mathematics and is committed to increasing the qualifications profile of the mathematics department as not all teachers are graduates in the subject.
- Opportunities for students to engage with Mathematics in co-curricular and extra-curricular events are very good and many successes have been achieved.

Recommendations

- Teaching strategies that further enhance the learner engagement in lessons and facilitates increasing the student voice and confidence should be included in lessons.
- Planning time should be used to discuss and record best practice for the teaching of common strategies.
- Action plans for the ongoing development of the department and increasing student attainment should be developed and implemented.

DETAILED FINDINGS AND RECOMMENDATIONS

1. TEACHING, LEARNING, AND ASSESSMENT

- The overall quality of teaching ranged from satisfactory to very good.
- In all lessons, there was a very good rapport between students and their teachers. Overall, classroom management was very good and lessons were conducted in a positive atmosphere.
- In the majority of lessons learning outcomes were identified or an overview of what was to be achieved was noted by the teachers. This practice provided a good structure to the learning.
- Overall, very good preparation for lessons was noted. Highly effective use was made of the available information and communications technology. Dynamic software was used to very good effect in the demonstration, via animation, of the ratio between the circumference of a circle and the diameter.
- Highly effective teaching methods observed included, teacher instruction, problem-solving activities, a discovery and investigation approaches. In most lessons a combination of more than one methodology was used. For example, an investigative approach was used to establish the Golden Ratio.
- In almost all lessons teachers assigned classwork for students to complete. In some this took the form of completing a series of questions independently. Paired activity took place frequently in all lessons. In the most successful activities each student had a very clear understanding of their specific role and responsibility within the task. In a few lessons, however, such structures were missing. This is an area for development when planning student tasks.
- In some lessons where scope for improvement was noted, teaching strategies that engage students more in lessons were suggested. This was particularly so, in lessons, where the teacher voice dominated. It is therefore recommended that teachers review their practice to ensure that there is a balance between the delivery of content and students having a meaning and active role in their learning.
- Where students were required to take down notes about a mathematical procedure and an example, students were more passive in their learning. It is therefore recommended that students be given opportunities to develop the skills of note making.
- During interactions with students, many demonstrated good understanding of key concepts and used appropriate mathematical language. However, there was scope in many lessons for the student voice to be more prevalent. This could be achieved through the use of more questioning opportunities in lessons, where the students develop a curiosity about their learning and confidence in Mathematics.
- Assessment practices observed in lessons generally took the form of questioning. Most effective practice challenged students to think about their responses and required students to provide justification for their responses. In such lessons frequent use was made by teachers of “why” or “can you explain your answer?”
- Less effective was the over-reliance on recall or lower-order type questions which required a single answer response. This is an area for development to ensure that students have opportunities to reflect on the question posed and to use the mathematical knowledge and understanding to answer a question.
- A review of students’ copybooks indicates that homework is regularly assigned. However, while there is evidence that teachers are monitoring students’ work there is little if any evidence of formative written feedback that would guide and direct students. This is an area for development.

- A range of mathematical displays of both student and commercially sourced material was observed both inside and outside the classrooms. In some lessons, these materials were used to support the teaching of the topic or in another as an exemplar of what was to be achieved by the end of a task.
- Classroom layouts varied and allowed in the majority of lessons for a collaborative approach to learning without rearranging the furniture.

2. SUBJECT PROVISION AND WHOLE SCHOOL SUPPORT

- Management deploys additional teachers in almost all year groups to support Mathematics. Time allocated to Mathematics is very good particularly so for fifth and sixth-year classes. Concurrent timetabling of classes takes place within bands for Mathematics facilitating students to access a level appropriate to their ability.
- In general the scheduling of Mathematics is very good. However, this year some anomalies in timetabling arrangements have occurred. For example, it has not been possible, this year, to schedule daily contact with Mathematics for second-year students and some third-year classes. Also, one fifth-year class has one teacher for five lessons and a second teacher for one lesson per week. It is recommended that in future timetabling school management should work to address these areas.
- The current sixth-year students are the last cohort who were streamed based on ability on entry to the school. A combination of banding and mixed ability is now operated within the school for Mathematics. Management attributes the recent improvement in overall student attainment to this change in practice.
- The mathematics department comprises eleven mainstream mathematics teachers and four teachers who provide support in Mathematics. Not all mainstream teachers are graduates in the area. Management is working to increase capacity through the recruitment of graduates in Mathematics when a vacancy arises and the upskilling course in Mathematics, has been undertaken by a member of the department.
- Very good opportunities are in place for students to engage with Mathematics through a wide range of mathematics competitions and events.

3. PLANNING AND PREPARATION

- A newly appointed co-ordinator has undertaken the role this year and will need time to develop structures for the ongoing development of the department.
- Formal meetings take place at key intervals of the school year with more informal meetings taking place on a more regular basis. Minutes of department meetings, indicate that time is generally used to discuss organisational details of the department. It is recommended that time be given to discussing common approaches to the teaching of topics, and for the sharing of best practice in teaching methods.
- The department's plan has been updated to reflect teaching approaches, suggested timeframes and assessment practices developed in line with the subject syllabuses. However, in the coming year there will be a need for the plan to be updated to reflect the subject specification and the key principles of the junior cycle.
- Improvements in attainment, in the Junior Certificate have been recorded and may be attributed to the change in class organisation. However, going forward the mathematics department should develop action plans to further improve uptake and attainment within levels.

The draft findings and recommendations arising out of this evaluation were discussed with the principal, deputy principals 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.

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 quality of the school's provision in 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

Area 1 Observations on the content of the inspection report

The Board of Management welcomes the very positive Mathematics Inspection Report. The Board is pleased with the strengths identified in teaching, learning and assessment; subject provision and whole-school support and in planning and preparation. The Board is examining the recommendations with a view to their implementation.

Area 2 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 will support the Mathematics Department to further develop teaching strategies that enhance the learner engagement and increase student voice. The Mathematics teachers have reported to the Board that planning time will be used to discuss and record best practice for the teaching of common strategies. They will devise action plans to increase student attainment and further develop the Mathematics Department.