An Roinn Oideachais agus Scileanna

Department of Education and Skills

Subject Inspection in Mathematics

REPORT

Ainm na scoile / School name	Kildare Town Community School
Seoladh na scoile / School address	Dunmurry Road, Kildare Co Kildare
Uimhir rolla / Roll number	91530S

Date of Inspection: 05-10-2017

AN ROINN OIDEACHAIS AGUS SCILEANNA | DEPARTMENT OF EDUCATION AND SKILLS

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.

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.

SUBJECT INSPECTION

INSPECTION ACTIVITIES

Dates of inspection	04-10-2017 and 05-10-2017
Inspection activities undertaken • Review of relevant documents • Discussion with principal and key staff • Interaction with students	• Observation of teaching and learning during ten class periods • Examination of students' work • Feedback to principal and relevant staff

School context

Kildare Town Community School is a co-educational secondary school under the patronage of the Diocese of Kildare and Leighlin, and Kildare and Wicklow Education and Training Board. The school offers, the Junior Certificate, the Leaving Certificate Vocational Programme, the Leaving Certificate Applied, the Leaving Certificate and an optional Transition Year (TY) Programme to its 881 students.

SUMMARY OF MAIN FINDINGS AND RECOMMENDATIONS:

Findings

- The overall quality of teaching and learning observed was satisfactory.
- Very effective use was made of the available information and communication technology (ICT) to support learning in some lessons.
- The mathematics department comprises fourteen teachers, some of whom have limited contact with the subject and others who are not graduates in the area.
- Time allocated to Mathematics is very good, however, timetabling in relation to class formation from second year and arrangements for TY Mathematics require attention.
- Very good opportunities are in place for students to access co-curricular and extra-curricular activities in Mathematics.
- Subject department planning is satisfactory with further development required using available baseline data.

Recommendations

- Teaching approaches that engage, challenge and extend students' learning for understanding should be used in lessons.
- Management should work towards increasing the qualifications profile within the mathematics department and address timetabling issues outlined within the report.
- Subject department planning schemes of work should be reviewed and updated using baseline data to guide and direct this work.
- To improve student attainment, management and the mathematics department should work collaboratively to establish specific, measurable, attainable, realistic and time bound (SMART) targets underpinned by the analysis of available data.

DETAILED FINDINGS AND RECOMMENDATIONS

1. TEACHING, LEARNING, AND ASSESSMENT

- Teaching observed ranged from fair to good, with the overall quality being of a satisfactory standard.

- Where best practice was noted, learning intentions were explicit and referenced during the lesson. In other lessons, teachers provided an overview of the lesson content. Most lessons concluded with the assignment of homework with little time available for a review of the progress made in the lesson. The conclusion of lessons is an area for development.

- The predominant methodology observed was traditional whole-class teaching. This mostly took the form of the teacher demonstrating an example and students completing a series of questions. In the majority of lessons this practice was insufficiently challenging for many students and in many led to an imbalance between teacher input and students being actively engaged in meaningful tasks. Greater planning for lessons, where an appropriate teaching strategy is selected is recommended.

- Effective practice was noted, during the teaching of simultaneous equations and in a lesson on number, where a group activity was used to consolidate learning. This successful teaching strategy should be used more often in lessons.

- In some lessons students who completed the assigned class tasks were given additional questions from a teacher-prepared supplementary worksheet. These generally required students to complete a series of questions which were mostly of a similar standard. All activities should facilitate students to engage with rich tasks that serve to deepen their understanding which underpin key concepts of the lesson.

- In many lessons there was an over reliance on global and lower-order questions strategies, which mostly focused on procedural type questions. This practice limited the opportunity for teachers to extend and challenge students' learning. It is recommended that higher-order questioning strategies be used that provide students with an opportunity to become more confident learners while allowing them to accept that mistakes are part of the learning process.

- In many lessons teachers used mathematical terminology however, there were little opportunities for students to develop oral literacy.

- The overall standard of learning in most lessons was satisfactory. There was evidence in some lessons where the subject knowledge and understanding demonstrated by students was not in line with their stage in the cycle as their prior knowledge was poor. It is recommended that teachers plan their schemes of work to ensure that all students make appropriate progress in their learning.

- ICT was available in all lessons and was very effectively used to provide a visual for students when teaching the graphing of functions.

- Homework was assigned in all lessons. The practice, as noted in an algebra lesson, where the teacher judiciously selected a range of questions that consolidated and checked students' understanding should be used by all teachers in the assignment of homework.

- There is evidence that teachers are monitoring student copybooks. However, there is further scope for teachers to include more formative written feedback in student copybooks that guides their learning.

2. SUBJECT PROVISION AND WHOLE SCHOOL SUPPORT

- Provision for Mathematics is mostly very good. This includes a good distribution of lessons across the week and the deployment of additional teachers to most year groups.

- Current scheduling of TY Mathematics is less than ideal. Some TY mathematics classes have one or more teachers, teaching them at different times throughout the week. This practice should be kept under constant review.

- Banding of classes takes place from second year onwards. The current practice of arranging mathematics classes into two bands should be continually reviewed to maximise the deployment of the additional teacher allocation in place to support all students' learning.

- Fourteen teachers are deployed to teach Mathematics, not all of whom are graduates in the subject area. Some teachers have upskilled in the area of Mathematics. Management should work towards increasing the qualifications profile within the department.

- This year, some teachers are deployed to teach one class group or teach one class period of Mathematics. It is recommended that management should work towards creating a core team of teachers, each of whom has greater contact with the subject.

- A wide range of co-curricular and extra-curricular events take place to encourage students to access Mathematics outside the classroom context. Teachers work and commitment to promoting Mathematics is acknowledged and commended.

3. PLANNING AND PREPARATION

- The quality of collaborative and individual planning and preparation for Mathematics is satisfactory.

- A mathematics plan has been developed and provides an overview of the organisational details for the subject. Schemes of work require further development to ensure that students' learning is progressed in an incremental way. This should ensure that adequate subject skills and knowledge are acquired as they progress through their study of Mathematics. Evidence from baseline data such as student attainment in ability tests, and other data sources should be used to advance schemes of work.

- An analysis of student performance in certificate examinations is undertaken by management. The number of students sitting foundation level particularly at Leaving Certificate has increased in recent years which may not be reflective of students' abilities.

- It is therefore recommended that management and the mathematics department work collaboratively to work to improve overall student attainment in Mathematics. The setting of SMART targets should be used to support and guide such improvements.

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 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

The Board of Management of Kildare Town Community School welcomes the Maths Report.

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 notes the findings and commits to implementing the recommendations, each one in turn, right across the board.

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