

**An Roinn Oideachais agus Scileanna**  
**Department of Education and Skills**

**Subject Inspection in Mathematics**

**REPORT**

<b>Ainm na scoile / School name</b>	Kishoge Community College
<b>Seoladh na scoile / School address</b>	Ninth Lock Road, Lucan Co. Dublin
<b>Uimhir rolla / Roll number</b>	76152C

**Date of Inspection: 18-10-2016**



**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. Learning, teaching 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 DURING THIS INSPECTION

<b>Dates of inspection</b>	17 and 18 October 2016
<b>Inspection activities undertaken</b> <ul style="list-style-type: none"><li>• Review of relevant documents</li><li>• Discussion with principal and key staff</li><li>• Interaction with students</li></ul>	<ul style="list-style-type: none"><li>• Observation of teaching and learning during six class periods</li><li>• Examination of students' work</li><li>• Feedback to principal and relevant staff</li></ul>

### SCHOOL CONTEXT

Kishoge Community College is a co-educational post-primary school which opened in the south Lucan area in September 2014. The school operates under the patronage of Dublin and Dún Laoghaire Education and Training Board and in partnership with Educate Together. Kishoge Community College has three year groups and has a current enrolment of 338 students with a projected enrolment of 1000.

### SUMMARY OF MAIN FINDINGS AND RECOMMENDATIONS:

#### FINDINGS

- The quality of teaching and learning in the majority of lessons ranged from good to excellent.
- Teaching approaches used in many lessons were of a very high standard.
- Very effective use of Assessment for Learning (AFL) strategies was noted in many lessons.
- The overall quality of planning and preparation within the mathematics department is excellent and has resulted in the development of comprehensive schemes of work.
- Management provides excellent support to Mathematics.
- The mathematics department has doubled in personnel this year.

#### RECOMMENDATIONS

- In a small number of lessons the overall structure of group work requires attention, particularly in relation to students' specific roles and responsibilities.

## DETAILED FINDINGS AND RECOMMENDATIONS

### 1. TEACHING AND LEARNING

- The quality of teaching and learning in the majority of lessons ranged from good to excellent.
- Clear learning intentions were established by all teachers and in most cases were revisited during or at the end of the lesson. This practice supported teachers' planning for subsequent lessons. Effective use was made of a reflection sheet in a lesson facilitating students to be active in assessing their progress. In a very small minority of cases the conclusion of the lesson required attention.
- Teachers and students regularly and appropriately used subject-specific terminology and mathematical symbols during the lessons. However, on a few occasions, care in the use of mathematical notation or in the acceptance of a student's inaccurate oral representation of Mathematics was noted as an area for development.
- Very effective practice was observed where teachers made links between prior and current learning and with students' real life experiences.
- A range of mostly very effective teaching strategies was observed in lessons. These included, think-pair-share, independent and collaborative student activities. Where very effective teaching approaches were observed the practice provided appropriate challenges for students.
- Effective group tasks were characterised by students having clearly defined roles and responsibilities within the group and there was clarity regarding what was to be achieved during the activity. In a small number of lessons, there is a need to provide further direction to be given to students, such as how feedback will be gathered and who will be responsible for providing such responses.
- A teacher-led approach prevailed in a very small number of lessons. This approach limits opportunities for students to be actively involved in their learning and should be reviewed.
- Very effective examples of differentiation were noted in many lessons and included extension worksheets and different homework. Such practices could be used more often in lessons to cater for the range of abilities in a class grouping.
- In the majority of lessons, there was a very good balance of higher-order and recall type questions and between global and directed questions. These practices enabled teachers to probe and challenge students' understanding while engaging them in higher-order thinking.
- Highly effective practice was noted where students' responses or queries were used as a learning opportunity for the entire class. In a small number of lessons, such opportunities were missed and teachers generally answered the question without inviting other contributions.
- Classroom management was mostly very effective. Most teachers are classroom based and the layout of classes support collaborative learning approaches. The learning environment was greatly enhanced by a wide range of student developed and commercially sourced visual aids which were displayed in classrooms.
- Information and communication technology was also used by students in some lessons as a learning tool. Mini-whiteboards were used very effectively to check students' answers at the end of a lesson.

- Very effective AfL strategies were noted in lessons. An example of this practice was noted where a teacher used a class based assessment to identify students' strengths and areas for development. These findings were then used to assist in the design of a series of lessons to teach the topic. This strategy could be shared and used more readily by all members of the department.
- There is evidence that teachers are monitoring students' copybooks, however, it is unclear who takes responsibility for the regular correction of homework. This is an area for development to ensure that there is further clarity about students' sharing in the correction of their work.

## **2. SUBJECT PROVISION AND WHOLE SCHOOL SUPPORT**

- There is excellent support from management for Mathematics in the school. This includes the deployment of additional teachers to Mathematics and a good provision of time to the subject.
- All classes are taught in mixed-ability settings. Concurrent timetabling is arranged from second year onwards, ensuring that there is flexibility to move to banding should a need present itself.
- Given the context of the school, one that is in early development, the number of teachers deployed to teach Mathematics has doubled this year. The majority of teachers are subject specialists in Mathematics with some members participating in or who have just completed the Professional Diploma in Mathematics for Teaching.
- Excellent continuing professional development (CPD) opportunities are available to all teachers in the school. In addition to participation in national in-service, teachers are encouraged to share their experiences with colleagues. Peer-learning is facilitated within the school. Commendably, there were many examples of the practices encountered through such CPD events evident in lessons observed.
- A significant range of co-curricular and extra-curricular opportunities is available to students. A weekly Maths club is facilitated and participation by students in events including Ireland Maths Week, Problem Solving for Irish Second Level Mathematicians (PRISM) and Maths Olympiads is promoted.

## **3. PLANNING AND PREPARATION**

- The overall organisation and co-ordination of the mathematics department is very good and to-date a significant programme of work has been achieved.
- Overall planning and preparation achieved by the mathematics department is excellent. This has resulted in the development of comprehensive schemes of work. These planning and supplementary subject materials are shared electronically and should prove invaluable as the mathematics department grows.
- Long-term planning for Mathematics includes the development of the TY mathematics curriculum and the recording of common strategies for the teaching of mathematics topics. The recently developed action plans could usefully be updated to support these long-term objectives.

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 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**

In general we are very happy the content of the report. We believe that it affirms a lot of the good work that has been done in the school in its first two years. We welcome the acknowledgement that three of the six members of the maths department were only in the school for six weeks at the time of the inspection.

### **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 main recommendation is in relation to Group Work “in a small number of lessons”. We plan to address this by engaging with PDST resources; arranging whole-staff CPD sessions led by the three members of staff currently participating in Instructional Leadership Training, agreeing a whole-school best-practice approach to Group work.

Other issues that emerge in the body of the report will be addressed as follows:

- Feedback from group work to be focused on in CPD
- Maths Department to research the issue raised in relation to corrections of homework to come up with a strategy for dealing with same.
- All departments to take on board recommendation in relation to planning – to include action plan for future development.

## 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 the school's provision of each area.

Level	Description	Example of descriptive terms
<b>Very Good</b>	<b>Very good</b> 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 <b>outstanding</b> 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
<b>Good</b>	<b>Good</b> 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 <b>very good</b> standard.	Good; good quality; valuable; effective practice; competent; useful; commendable; good standard; some areas for improvement
<b>Satisfactory</b>	<b>Satisfactory</b> 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
<b>Fair</b>	<b>Fair</b> 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
<b>Weak</b>	<b>Weak</b> 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;