

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

**Subject Inspection of Mathematics**  
**REPORT**  
**Mount Seskin Community College**  
**Jobstown, Tallaght, Dublin 24**  
**Roll number: 70141N**

**Date of inspection: 29 January 2016**



**AN ROINN | DEPARTMENT OF**  
**OIDEACHAIS | EDUCATION**  
**AGUS SCILEANNA | AND SKILLS**

**REPORT  
ON  
THE QUALITY OF LEARNING AND TEACHING IN MATHEMATICS**

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**INFORMATION ON THE INSPECTION**

<b>Dates of inspection</b>	28 and 29 January 2016
<b>Inspection activities undertaken</b> <ul style="list-style-type: none"><li>• Review of relevant documents</li><li>• Discussion with principal and teachers</li><li>• Interaction with students</li></ul>	<ul style="list-style-type: none"><li>• Observation of teaching and learning during seven class periods</li><li>• Examination of students' work</li><li>• Feedback to principal and teachers</li><li>• Discussion with the learning support co-ordinator</li></ul>

**MAIN FINDINGS**

- The quality of teaching ranged from fair to very good with teaching for understanding a key strength of the best lessons.
- Whole-class teaching was the preferred approach to lesson delivery.
- The lesson content was differentiated through very good teacher movement designed to support students at the point of need.
- Most lessons featured very good teacher questioning but many would have benefited from a greater focus on the inclusion of higher-order questions.
- Practices relating to homework are very good.
- Students transferring into first year are well supported and their mathematical capabilities are clearly established.

**MAIN RECOMMENDATIONS**

- Greater emphasis should be placed on group and pair work in mathematics lessons
  - Agreement should be reached on how algebra is introduced in junior cycle and how the structure and rules of algebra are taught and learned.
  - The practice of providing students with written guidance for improvement on their homework should be adopted as standard across the department.
  - The schemes of work in the subject department plan should be rewritten to include a focus on learning outcomes, teaching methods and improving the students' literacy and numeracy skills.
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## **INTRODUCTION**

Mount Seskin Community College is a co-educational school operating under the aegis of Dublin and Dun Laoghaire Education and Training Board. The school participates in the Delivering Equality of Opportunity in Schools (DEIS), the action plan of the Department of Education and Skills for educational inclusion. It provides a broad curricular programme which includes the Junior Certificate School Programme, the Leaving Certificate Applied and the Leaving Certificate Vocational Programme.

## **TEACHING AND LEARNING**

- The quality of teaching varied from fair to very good with some examples of excellent practice particularly relating to teaching for understanding.
- The very best lessons featured clear learning intentions that were rigorously interrogated during the course of the lessons and a plenary prior to their conclusion to determine the extent to which the intentions were achieved. These lessons were also conducted at a very good pace and high expectations of student attainment and engagement were explicit.
- The majority of lesson featured whole-class teaching and the diverse needs of the students were catered for by very good teacher movement designed to support the students at the point of need. While this was managed very effectively greater emphasis should be placed on student-centred activities, including pair and group work.
- Resources were integrated very effectively into a number of lessons. In one lesson, for example, the interactive whiteboard and two different types of software were used to introduce the circle in senior cycle. A teaching approach that sought to explore the principles underpinning the lesson content, ensured that the potential of the software was fully exploited.
- Teacher questioning, designed to develop and elicit student understanding was, in the majority of cases, very good and featured a good mix of directed and global questions. However, there was scope in most lessons for the use of higher-order questioning and problems that contained a level of ambiguity and which didn't have immediately obvious solutions. Such questions should also be an integral part of homework and other ongoing assessment devices.
- All of the lessons had a commendable focus on developing the students' algebraic skills. However, agreement needs to be reached on a common approach to dealing with how algebra is introduced in junior cycle. Agreement on how the structure and rules of algebra are to be taught and learned should also be reached and then uniformly implemented.
- Classroom management and student behaviour and engagement were universally very good. The mathematics classrooms contained very nice displays of student work and number of co-curricular activities to support student engagement with Mathematics are available to students.
- Homework practices are very good. Homework was assigned in every lesson and the quality of work contained in the students' copybooks and workbooks was, in the majority of cases, very good. In some cases, the copybooks contained written commendations and guidelines for improvement. This practice should be adopted as standard across the department.

- The quality of student learning was, in most lessons, very good. In these lessons, the students' understanding of the material being covered was evident from the quality of their responses to teacher questioning and the type of questions they asked themselves.

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

- Timetabling provision for Mathematics is very good. Each class group is provided with five periods of Mathematics per week and the scheduling of mathematics classes ensures that the balance of provision across the week is very good.
- Arrangements for facilitating student transfer to first year are very good. A year-long transfer programme involving close collaboration with the students' primary schools and visits to the school by prospective students is in place. Procedures within the programme for ascertaining the mathematical capabilities of incoming students are very good. The use of a mathematics competency test and feedback to the primary schools following analysis of the outcomes helps ensure that the content and delivery schedule of the first-year mathematics programme is appropriate to the needs of the students. Subsequent student attainment in identified curricular areas is determined through the use of a second competency test at the beginning of second year.
- The qualifications profile of the mathematics department is very good and its members are committed to ongoing professional development. All of the mathematics teachers have attended the workshops provided as part of Project Maths and a number have availed of relevant postgraduate programmes in their own time.
- The mathematics department is very well resourced and the effective use of these resource was in evidence in the lessons visited during the evaluation. The mathematics teachers have access to the school's extensive information and communications technology facilities including data projectors, interactive whiteboards and the school's computer room.
- A very good assessment policy is in place. Common assessments with agreed marking schemes are prepared for all house examinations throughout first year and within levels thereafter.

#### **PLANNING AND PREPARATION**

- Subject department planning in Mathematics is well advanced and very good planning structures are in place. Responsibility for co-ordinating the department's activities is adopted in rotation by the members of the department and the work of the co-ordinator is well supported by the remaining mathematics teachers.
- A subject department plan for Mathematics, which is in need of review, is in place. The schemes of work contained in the plan should be written in terms of learning outcomes to better reflect the revised mathematics syllabuses. The schemes should also place greater emphasis on effective teaching methods and developing the students' literacy and numeracy skills.
- In line with the recommendations made earlier in this report, the schemes of work contained in the revised plan should also detail common approaches to teaching key curricular areas particularly the manner in which algebra is introduced, taught and learned.

- Individual lesson planning was, in the majority of cases very good and as a result the best lessons had a good pace and clear learning intentions that were fully addressed as the lessons progressed. Where lesson planning was in need of improvement the learning intentions were unclear and the lesson pacing was pedantic. Many of the lessons would have benefited from the inclusion of a plenary at their conclusion to establish the degree to which the intentions were realised.
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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 board accepts the report as the final inspection report available for publication and wishes to respond formally to the report. The Board agrees that the response submitted will be included as an appendix to the published report. The board's response is submitted below.

# **Appendix**

SCHOOL RESPONSE TO THE REPORT

**Submitted by the Board of Management**

### **Part A: Observations on the content of the inspection report**

The report states that the quality of teaching ranged from fair to very good. However in the verbal feedback the inspector had identified some teaching as outstanding. We feel that this observation merited inclusion in the final report.

The subject department plan already contains suggestions for methodologies in the area of improving students' literacy and numeracy skills.

### **Part B: Follow-up actions planned or undertaken since the completion of the inspection activity to implement the findings and recommendations of the inspection**

- We have a homework policy which is in the subject department plan. This will be amended to include written recommendations for guidelines and improvements. This will be brought to the attention of all members of the department.
- We take on board the recommendation on the introduction of Algebra to Junior Cycle students. We are currently engaging with Project Maths support in relation to the teaching of Algebra. We will use this to agree a common approach as a department.
- The Department's plan will be scaled back and plans will be updated and adapted as required on an on-going basis.
- Group work is a tool employed to improve teaching, learning and student understanding depending on class content and topic. We will encourage and emphasise continued use of this tool.