

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

**Subject Inspection of Metalwork and Engineering**  
**REPORT**

**Coolmine Community School**  
**Clonsilla, Dublin 15**  
**Roll number: 913150**

**Date of inspection: 20 January 2014**



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

**REPORT  
ON  
THE QUALITY OF LEARNING AND TEACHING IN METALWORK AND  
ENGINEERING**

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**INFORMATION ON THE INSPECTION**

<b>Date of inspection</b>	20 January 2014
<b>Inspection activities undertaken</b> <ul style="list-style-type: none"><li>• Review of relevant documents</li><li>• Discussion with principal, deputy principal and teachers</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 teachers</li></ul>

**MAIN FINDINGS**

- The overall quality of teaching and learning was good, with scope for development identified in the area of assessment for learning (AfL).
- Very respectful teacher-student relations were evident in all lessons.
- Teachers were very supportive of students in all lessons
- There was scope for a broader range of teaching strategies and for a more developed student learning experience.
- Whole-school support for the provision of Metalwork and Engineering is very good.
- An electronic resource archive has been developed by the subject department.

**MAIN RECOMMENDATIONS**

- An increased focus on identifying and using diverse resources and strategies, including AfL, should be undertaken to support deeper student learning.
  - Curricular plans for all year groups should be reviewed, to include methodologies and assessment modes to support deeper student learning.
  - A co-ordinator for the subject department should be identified and the role should be rotated regularly to facilitate the leading of department initiatives.
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## **INTRODUCTION**

Coolmine Community School is a large co-educational school drawing its students mainly from the Dublin 15 area. The school provides the Junior Certificate, an optional Transition Year (TY) and the Leaving Certificate programmes. Enrolment currently stands at 1,091 students. The school caters for a wide range of academic abilities and students come from a variety of socio-economic and cultural backgrounds.

## **TEACHING AND LEARNING**

- Two double-period and two single lessons were observed during the course of the evaluation. All lessons focused on practical activity. The quality of teaching and learning was good in the majority of lessons.
- All lessons were characterised by the dominance of independent student work with supportive individual guidance by the class teacher. Very respectful teacher-student relations were in evidence in all lessons and a warm relaxed atmosphere existed in all cases.
- In the majority of lessons, students pursued further work related to project tasks already initiated. In the TY lesson, a variety of achievable tasks was assigned to support differentiated learning. Students engaged well and demonstrated effective learning.
- In the lesson which featured the introduction of a new practical activity, students were clearly cognisant of procedures related to the development of the task. Diverse practical activities were also planned to optimise the use of available resources during this lesson.
- Though individual support was offered to students during all lessons, there was a need to take greater control of the student learning experience and to plan for deeper learning and more varied learning experiences. Plenary sessions should be used to direct and support learning and to facilitate the student voice in lessons.
- In one lesson there was a need for a much greater focus on identifying correct skill development and sharing this with the students, individually and collectively. In all lessons there were few opportunities for students to articulate, discuss or evaluate their learning. The use of available ICT resources to support the learning experience should be exploited to a much greater extent.
- Consistent with the principles of AfL, it is recommended that all lessons clearly identify the learning outcomes, employ diverse and appropriate methodologies to support the attainment of the identified outcomes, and include effective lesson closure. Contextualisation of the learning and the intrinsic value of the skills to be acquired, apart from the certificate examination requirements, should be identified. Students should also be familiar with success criteria particular to the skill and activity in question.
- Key words and key terms were identified in all lessons, typically on the board or on a handout. It is recommended that these be shared consistently with the students and be developed during the lesson. A greater emphasis on students' discussing, summarising, giving feedback and self-evaluating would also support their literacy development.
- Commendably, all students are encouraged to take higher level in the certificate examinations. The participation at higher level in junior certificate is particularly high. Considering the wide range of student academic ability accommodated by the subject

department, it is suggested that the department continue to keep the choice of level under review to ensure realistic and achievable levels for all the students.

- Records of summative assessment are kept for some classes. Since all students would benefit from the maintenance and sharing of both summative and formative written feedback on their work, it is recommended that this procedure become the norm.

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

- The quality of whole-school support for the provision of the subject is very good.
- Metalwork and Engineering is offered as an optional subject in the Junior Certificate and Leaving Certificate programmes. All students who select the TY programme study a module of Engineering. The timetabling arrangements are good, and all Metalwork and Engineering classes are timetabled for at least one double period each week.
- Students may choose Metalwork as an option in first year and almost one quarter of students typically select it during the school's 'exploratory' first year. Students subsequently select their subjects for the remainder of the junior cycle at the end of first year. It is possible to select Metalwork at this juncture without previous experience, and there was evidence that some students availed of this opportunity. Similarly, students are accommodated in selecting Engineering at senior cycle without prior experience of the subject.
- Option bands at second and fifth year are created based on student preferences, providing for a very student-centred approach.
- The specialist rooms are well maintained and resourced, and a hazard analysis for the room has recently been completed.
- Subject department teachers are also facilitated in teaching their second subject, Technical Graphics, in junior cycle. This is supportive of the teachers' professional development.
- To facilitate professional development, it is suggested that the in-school technology teachers' meetings also be used as a forum to include exploration and discussion of teaching and learning strategies. Engagement in peer-observation is also advocated.

#### **PLANNING AND PREPARATION**

- The subject department is currently developing an electronic resource archive to support the sharing of resources amongst teachers and with students. This is a very worthwhile development.
- The records of the department meetings show a collaborative approach and a concentration on operational issues pertinent to the department's work. It is recommended that future meetings also include time for development and discussion of issues specific to teaching and learning.
- Analysis of students' performance in the certificate examinations forms part of the department's work and includes reflection on this analysis. To further develop this work, an action plan should be developed to take account of the findings and to identify learning initiatives in support of identified goals.

- The subject plan includes a listing of all students in receipt of learning support and also some individual education plans. The department's support for students with learning needs also includes a role for the special-needs assistant in the classroom.
- Curricular plans include learning outcomes for subject topics. These need to be developed further to identify appropriate methodologies and assessment modes to further support student learning. An emphasis on co-operative learning and student creativity should be included, particularly in the TY plan, in line with the goals of the TY programme.
- At present there is no formal subject department co-ordinator. It is recommended that this role be undertaken on a rotating basis to progress and support the department's development.

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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 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**

#### **Area 1: Observations on the content of the inspection 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**

- Metalwork and Engineering teachers have consulted with colleagues of other practical subjects to explore means of promoting deeper student learning. One innovation which is under consideration is the use of student diary/workbook to support student learning in practical classes. Further exploration is ongoing.
- A review of curricular plans in line with the recommendations made in this report has commenced.
- A co-ordinator for the subject has been identified.