

An Roinn Oideachais agus Scileanna
Department of Education and Skills

Subject Inspection of Metalwork and Engineering
REPORT

Collinstown Park Community College
Rowlagh, Clondalkin, Dublin 22
Roll number: 70041J

Date of inspection: 24 October 2013



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

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

INFORMATION ON THE INSPECTION

Date of inspection	24 October 2013
Inspection activities undertaken <ul style="list-style-type: none">• Review of relevant documents• Discussion with principal and teachers• Interaction with students	<ul style="list-style-type: none">• Observation of teaching and learning during six class periods• Examination of students' work• Feedback to principal, deputy principal and teachers

MAIN FINDINGS

- The quality of teaching and learning was good or very good in the lessons observed.
- All lessons observed were clearly structured, well prepared and had a definite learning intention which was shared with the students.
- There was active promotion of literacy in the lessons observed
- Differentiation was used effectively to promote student engagement and progression of learning.
- A student-centred approach underpins subject provision in all programmes.
- An extensive electronic resource archive has been developed by the subject department.

MAIN RECOMMENDATIONS

- A greater emphasis should be placed on implementing assessment for learning (AfL) strategies, with a view to promoting active and co-operative student learning.
 - The subject plan and the minutes of subject department meetings should be used to record professional dialogue pertaining to teaching and learning.
 - The curricular plans should identify clearly the key skills to be developed along with appropriate teaching methodologies.
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INTRODUCTION

Collinstown Park Community College is a co-educational community college with a current enrolment of 648 students. The curricular programmes provided by the school are the Junior Certificate, the Junior Certificate School Programme (JCSP), Transition Year (TY), the established Leaving Certificate, the Leaving Certificate Vocational Programme (LCVP) and the Leaving Certificate Applied (LCA) programme. The school offers Metalwork and Engineering as optional subjects in all its curricular programmes. The school participates in the Delivering Equality of Opportunity in Schools (DEIS) action plan.

TEACHING AND LEARNING

- Three double-period lessons were observed during the course of the evaluation. The quality of teaching and learning was good or very good in the lessons observed.
- All lessons were very well structured in support of the learning intention and developed in a sequential and methodical manner.
- Instruction was clear in most lessons and was supported by good explanation and demonstration. Good use was made of ICT in all lessons. This included the use of a visualiser in practical lessons and animation to support a theoretically oriented lesson.
- In one lesson, teacher instruction dominated. While the students were receptive, they did not have sufficient opportunity to take ownership of their learning. In this instance, integration of strategies such as ‘think, pair, share’ and purposeful student tasks to enhance critical thinking and note-making would have facilitated greater capacity for independent learning.
- In another lesson, scaffolding of student’s learning was clearly evident in the teacher’s questioning strategies. An appropriate mix of global and directed questioning should be utilised in all lessons to maximise student participation.
- Very good teacher-student relations was evident in all lessons. It was clear that teachers were aware of students’ individual needs and differentiated learning was supported, in the practical lessons in particular, by individual student guidance in support of their learning.
- All lessons featured clear identification of the learning outcomes. Further to this good AfL practice, it is recommended that time be left at the end of all lessons to revisit the intended outcomes in order to assess student learning and assist students in identifying their own learning.
- The practical lessons were focused and were successful in progressing the development of students’ skills. In one lesson, further consideration could have been given to identifying the underpinning components of the skills and concepts being developed in the lesson so as to deepen the learning experience for the students. The assessment of the students’ real-time learning experience with a view to appropriate intervention should also be a focus in all lessons.
- Teacher demonstration was used appropriately in all practical lessons. It is recommended that the active participation of the student in demonstration so as to deepen their learning experience and to facilitate assessment of their learning should become the norm.
- The students’ capacity to make notes during the theoretical component of one lesson was commendable and the practical skills being developed were appropriate. Students also demonstrated very good ability to follow instruction in practical activity.

- Literacy development was promoted in all lessons: key words associated with the lesson topic were identified and defined. This good practice should be further developed by providing opportunities for students to use the key words appropriately, orally and in writing.

SUBJECT PROVISION AND WHOLE SCHOOL SUPPORT.

- Access to Metalwork and Engineering is excellent, with its inclusion in all of the school's programmes. Currently, half of all first-year students study Metalwork. A dedicated class to support students availing of special needs support forms part of each junior cycle year. Almost all students at junior cycle are able to study their preferred option subjects.
- In senior cycle, subject option bands are devised on the basis of student preferences in fifth year. Option lines are created to ensure compatibility of Engineering with the LCVP. This practice positions students centrally in the decision-making process.
- The compulsory TY programmes also features a short introductory module to Engineering and a module to support technical drawing and parametric modelling skill development. This is very useful in the absence of Technical Graphics and Design and Communications Graphics from the school's curriculum. It is suggested that this module include a focus on sketching and design to further support the senior cycle technology subjects.
- There are two specialist rooms. Both are well maintained and the combined facilities indicate a well-resourced department. It is suggested that the subject department develop a costing for the project work on all programmes to assist resource allocation decisions.
- Commendably, extensive continuing professional development has been undertaken by the subject department teachers. This has included whole-school support and individual teacher initiative.
- A health and safety statement is in place relating to the subject department and a risk analysis for both rooms has been commenced. It is recommended that this be completed as soon as possible and be reviewed regularly.

PLANNING AND PREPARATION

- Collaboration within this subject department and with the other technology teachers was evident from the minutes of meetings reviewed. This is a very positive exercise to foster professional development. It is recommended that future meetings and minutes, identify and track the development of professional dialogue, such as AFL methods, which have been prioritised for development in the subject plan.
- The analysis of attainment in certificate examinations and comparison with national norms is a positive exercise. An action plan detailing strategies to address the issues identified should now be developed
- A basic plan for the delivery of the subjects at junior and senior cycle is presented in terms of learning outcomes. A new version has been commenced which features a timeline for delivery, supporting methods and resources, and assessment modes. The completion of this new version should further support the quality of the teaching and learning in all programmes. It is recommended that planning for all practical activity clearly identify the skills to be developed and the appropriate supporting methodologies.

- An extensive repository of resources has been developed by the department which is stored, accessed and shared electronically. Records of student progression are also maintained electronically.

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

Area 1: Observations on the content of the inspection report.

The Board considers this report to be an endorsement of teachers' hard work and professionalism and congratulate the Metalwork and Engineering Department.

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 school has endeavoured to implement fully the recommendations contained in this report.

- The department will continue to develop AFL techniques especially in areas such as active learning techniques and cooperative student learning. The department will seek the support from colleagues within the school who are leading the development of AFL techniques in the school and link with teachers involved in the new initiative in first year to further develop AFL teaching methodologies.
- The subject plan and minutes of department meetings will be used to record professional dialogue in order to further enhance teaching and learning.
- The identification and developing of specific key skills in curricular plans is already included in a new Subject Department plan which is due for completion by the end of this academic year.