

An Roinn Oideachais agus Scileanna
Department of Education and Skills

Subject Inspection of Metalwork and Engineering
REPORT

Killinarden Community School
Tallaght, Dublin 24
Roll number: 91337B

Date of inspection: 3 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	3 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 five class periods• Examination of students' work• Feedback to principal and teachers

MAIN FINDINGS

- The quality of teaching was good in all lessons and learning was either good or very good.
- Students demonstrated an obvious enthusiasm for the subject.
- Metalwork and Engineering are popular subjects in Killinarden Community School.
- Differentiation was used effectively in all lessons to support student engagement.
- Subject sampling is provided for first-year students, and student preferences inform the formation of subject option bands for the senior cycle programmes.
- Subject planning includes a timetable for delivery of the subject content, with an accompanying literacy and numeracy plan.

MAIN RECOMMENDATIONS

- It is recommended that all practical lessons identify the skills to be acquired, developed and reinforced.
- Greater attention should be paid to assessing students' learning during practical activities, consistent with the principles of assessment for learning (AfL).
- The subject department should formally identify a co-ordinator to take responsibility for reporting, planning, development and reflection.
- The subject plan should be expanded, so as to highlight the planned development of students' skills.

INTRODUCTION

Killinarden Community School is a co-educational secondary school with a current enrolment of 471 students. The curricular programmes provided by the school are the Junior Certificate, the Junior Certificate School Programme (JCSP), the established Leaving Certificate and the Leaving Certificate Applied (LCA) programme. The school provides 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 lessons were observed during the course of the evaluation, one theoretical in nature and two focused on practical activity. The quality of teaching was good in all lessons and student learning was either good or very good.
- The students' enthusiasm for the subject and their level of engagement was high in all lessons and demonstrated the value of the subject in building students' self-esteem and empowering their learning. There was a very good rapport between the teachers and the students during all lessons, and a mutually respectful atmosphere
- Differentiated learning was evident in all lessons and used effectively in most to engage the students in their work and to guide their learning. A clear focus, stated in terms of learning outcomes, was evident in some lessons, and this provided a good basis for directing and assessing learning throughout the lesson and facilitating an effective closure. It is recommended that this good practice and other appropriate AfL techniques should be extended to all lessons.
- Effective questioning strategies were employed in the majority of lessons to enable students to revisit prior learning and to assess their knowledge and understanding. There was clear evidence of very good learning in these cases. In one practical lesson, the students' enthusiasm for the subject matter was evident from the questions they asked during plenary sessions.
- In general, a greater use of visual displays and examples of finished project and artefact work would have supported more effectively the students' various learning styles and helped them to identify more clearly the intended learning outcomes.
- One practical lesson made very good use of a variety of methodologies, including questioning, demonstration, practice, individual guidance, and reading of textbooks to identify procedural steps in support of practical skill acquisition. It is recommended that all practical lessons clearly identify the key skills to be developed and reinforced, and that the lesson structure and methodologies be selected to support these learning objectives.
- In the majority of lessons, opportunities were availed of to enhance students' literacy and numeracy development. Strategies included: focusing on keywords associated with the lesson topic, reading activities, and the calculation of dimensions in connection with practical tasks. It is recommended that teachers, in their planning, be aware of opportunities to promote literacy and numeracy, and take full advantage of them.
- Students' competence in respect of practical skill development, and their theoretical knowledge and understanding, showed broad variation. One senior cycle theory lesson demonstrated the capacity of students to engage very effectively with higher level syllabus material. The setting of high expectations for the students' learning in respect of

both practical and theoretical aspects should be encouraged, and uptake at higher level in certificate examinations should be kept under review in support of this goal.

SUBJECT PROVISION AND WHOLE SCHOOL SUPPORT

- Access to Metalwork and Engineering is very good, and the subject is popular in junior and senior cycle.
- A recently introduced sampling programme at the beginning of first year has led to an increased number of students opting for the subject. Students and teachers now make the decision on subject choice based on experience and an assessment of aptitude for the subject. Two first-year class groups, one a dedicated JCSP group, are currently pursuing the subject at junior cycle. The sampling programme has also resulted in a very good gender balance in the subject.
- In senior cycle, students are given a choice, and the option bands are devised to suit their needs and preferences. This practice also positions students centrally in the decision making process.
- There are two specialist rooms. Both are well maintained and the combined facilities indicate a well-resourced department. The rooms are prominently located in the school building with ready-made display areas. It is recommended that this valuable space be further developed and utilised to profile the subject and in particular the students' work.
- The subject teachers have pursued professional development and are encouraged to avail of the school's financial support for membership of subject associations. Both teachers have opportunity to teach their second subject, Technical Graphics and Design and Communication Graphics (DCG), which is commendable.
- A risk analysis has been carried by the department. However, it needs to be reviewed and signed off with greater regularity. It is recommended that the document be updated as soon as possible.

PLANNING AND PREPARATION

- There was evidence of collaboration and teamwork in the department. It is recommended that this arrangement be formalised to identify a subject co-ordinator, to act on a rotating basis. It is also recommended that minutes of department meetings be taken, and shared with senior management.
- The subject department has developed a plan that outlines the delivery of the syllabus content in both junior and senior cycles. The comparison with national norms of attainment in certificate examinations is a positive exercise, and should be extended to incorporate reflection on the implication for future strategies in the department.
- The subject plan also identifies methodologies and resources to support delivery of the subject, and a literacy and numeracy plan for the subject area. It is recommended that this work be further developed to include appropriate learning outcomes and associated methodologies and assessment modes for the theoretical content and the practical skills to be acquired by the students.
- Preparation for lessons was good in most cases. It is recommended that planning for practical lessons place an emphasis on explicit identification of the skills to be developed.

It is also recommended that progress and achievement records be kept on file for all students.

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; a response was not received from the board.

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