

An Roinn Oideachais agus Scileanna
Department of Education and Skills

Subject Inspection of Metalwork and Engineering
REPORT

Lanesborough Community College
Lanesborough, County Longford
Roll number: 71720L

Date of inspection: 19 March 2015



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

Dates of inspection	19-20 March 2015
Inspection activities undertaken <ul style="list-style-type: none">• Review of relevant documents• Discussion with principal and teacher• Interaction with students	<ul style="list-style-type: none">• Observation of teaching and learning during seven class periods• Examination of students' work• Feedback to principal and teacher

MAIN FINDINGS

- The quality of teaching and learning was good with scope for development required in the area of assessment for learning (AfL).
- Students worked in a diligent and very respectful manner.
- Most students choose higher level in certificate examinations in both Metalwork and Engineering.
- Both subjects have typically been popular option choices though presently the first year class is particularly small in number.
- Subject planning needs to be further developed to support delivery of Metalwork and Engineering.

MAIN RECOMMENDATIONS

- An increased focus on identifying and using diverse resources and strategies, including AfL, should be undertaken to support deeper student learning.
 - The subject plan should be further developed to include detailed learning outcomes, as well as methodologies, resources and assessment modes.
 - The subject department should use scheduled meetings to action and progress issues of importance to the department, including the uptake of Metalwork in junior cycle, particularly among girls and the development of a TY module in Engineering.
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INTRODUCTION

Lanesborough Community College is a co-educational post-primary school under the patronage of Longford and Westmeath Education and Training Board. It has a current enrolment of 157 students. The school provides Metalwork as an optional subject in its junior cycle programme and Engineering as an optional subject in its Leaving Certificate programme.

TEACHING AND LEARNING

- The quality of teaching and learning was good in the lessons observed with some evidence of very good practice. All lessons were practical in nature and had a planned learning intention. Good interpersonal relations and a mutually respectful interaction between the teacher and students were a feature of all lessons.
- In the best lesson, previous learning was activated, assessed and applied. This process was guided by a very effective questioning strategy which included the use of open and developmental questions that promoted student thinking. Good practical illustrations, making use of displayed student work helped promote conceptual understanding.
- Teacher demonstrations were employed in all lessons and engaged the students. To ensure optimal transfer of learning, students should be encouraged to more actively participate during demonstrations and to demonstrate their learning through verbal feedback and practical skill illustration.
- In one lesson where students engaged in certificate examination project work, the teacher made himself available to advise students as and when they requested assistance. To reduce the tendency to instruct the students on the next step in the process being undertaken, students should be encouraged and supported to think through the solution and to problem-solve in order to experience a deeper learning experience.
- All students worked diligently in a safe and orderly manner. The students demonstrated a very good understanding of classroom procedures.
- The teacher regularly circulated to provide differentiated individual feedback. Students who were progressing more rapidly than the rest received much guidance and attention. More individual feedback should also be provided to students who require additional support to progress their skill development.
- The quality of student practical work was generally good and included examples of excellent work and some where there was significant scope for development. In the latter case, the quality of the work could have been improved if the principles of assessment for learning (AfL), particularly relating to success criteria, had been employed to greater effect. It is therefore recommended that such success criteria be modelled and made available to students to facilitate self-reflection and self-evaluation.
- Though all lessons had a planned learning intention and students continued with their practical tasks, a more explicit presentation of learning outcomes and evaluation of same should be undertaken in all lessons to promote successful progression of student work. Collaborative engagement by students should also be undertaken to further support problem-solving and the sharing of learning.
- No information and communication technology (ICT) resources were used during the lessons observed. It is recommended that judicious use be made of ICT to add to the students' learning experience.

- High expectations are maintained for students in Metalwork and Engineering and students are expected to follow higher level in both subjects in the certificate examinations.

SUBJECT PROVISION AND WHOLE SCHOOL SUPPORT

- Whole school support for Metalwork and Engineering is very good. Metalwork and Engineering are option subjects in the school's junior cycle and senior cycle programmes respectively. A compulsory Transition Year (TY) programme to include Engineering is planned for introduction by the school for the 2015-2016 school year.
- The time allocated to Metalwork and Engineering is appropriate, and the use of multiple-period classes effectively facilitates student project work.
- Subject sampling is provided in the first term to support first-year students in making their subject option choices. This helps students make their decision based upon their experience and aptitude for the subject. Option bands are designed to take account of student preferences at the end of the first term. Students are expected to take the senior cycle follow-on subject consistent with their choice in first year.
- Typically both Metalwork and Engineering have been popular subject choices. It is noted that the current first-year Metalwork class is particularly small in number. It is recommended that the subject department work with school management to identify priorities for the subject in the context of the school's junior cycle options.
- The introduction of a TY programme should provide an opportunity for students to experience the subject in senior cycle should they not have done so in junior cycle. It is recommended that the envisaged TY Engineering module focus on developing students' design and problem-solving skills.
- The space in the specialist room is used effectively and the room features attractive examples of student work and subject-specific artefacts. The existing safety statement should be complemented by an up-to-date risk assessment document, first-aid kit and include demarcated safe operation zones around machines.
- Continuing professional development has been undertaken by the subject teacher through membership of the subject teacher's professional association and work undertaken with the state examinations commission.

PLANNING AND PREPARATION

- Though progress has been made in respect of planning for the delivery of Metalwork and Engineering, there is scope for development. A basic subject plan has been formulated. This deals with the delivery of both subjects and contains records pertaining to recent student attainment in the certificate examinations. Minutes of some departmental meetings are also maintained.
- Basic curricular plans have been developed for most year groups illustrating the content to be delivered. It is recommended that the plan be augmented and re-constructed to reflect specific learning outcomes, corresponding methodologies and associated assessment modes in support of the theoretical content and practical skills to be acquired in all programmes being delivered. This development should also include the selection of ICT resources and feature activities to promote development of design skills.

- Technology department meetings take place and minutes available indicate reflection on issues pertinent to the department, including the delivery of enhanced information to parents and the raising of students' academic expectations. A useful template is used for recording the business of meetings. It is recommended that minutes be recorded for all meetings and that actions identified be tracked and re-visited at subsequent meetings.
- It is noted that few girls take the subjects of Metalwork and Engineering. Those who have chosen the subject expressed themselves very happy with their choice and with their progress. The inclusion of more girls should be a focus for department action planning in addition to the number of first-year students selecting Metalwork as an option subject.

The draft findings and recommendations arising out of this evaluation were discussed with the principal and subject teacher 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.