

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

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

**Oaklands Community College**  
**Edenderry, County Offaly**  
**Roll number: 725400**

**Date of inspection: 14 May 2013**



**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>	14 May 2013
<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 five class periods</li><li>• Examination of students' work</li><li>• Feedback to principal and teachers</li></ul>

**MAIN FINDINGS**

- The quality of teaching and learning was either good or very good with much evidence of students' learning.
- 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
- A variety of learning experiences was offered to support students' learning.
- Optional subject bands are designed taking account of students' preferences.
- Planning for the delivery of Metalwork and Engineering is methodical and reflective.

**MAIN RECOMMENDATIONS**

- The further development and sharing of effective questioning strategies to facilitate critical thinking by students is recommended.
  - It is recommended that the context for learning emphasise an intrinsic motivation for the acquisition of skills and knowledge additional to the state examination requirements.
  - The subject department, in collaboration with other technology teachers, should develop a TY module that encompasses all three of the technology subjects offered in the school.
  - Each teacher should be facilitated to teach their range of subjects at all levels, where practicable.
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## **INTRODUCTION**

Oaklands Community College is a co-educational, non-denominational school under the management of County Offaly Vocational Educational Committee (VEC) with a current enrolment of 464 students. The school participates in the Delivering Equality of Opportunity in Schools (DEIS) action plan. The school provides Metalwork and Engineering as optional subjects in its junior and senior cycle programmes respectively. Currently Engineering does not form part of the school's Transition Year (TY) or Leaving Certificate Applied (LCA) programmes.

## **TEACHING AND LEARNING**

- Two double-period lessons and one single-period lesson were observed where the quality of teaching and learning was either good or very good with much evidence of students' learning. The most effective learning was evident where dynamic teaching and the captivating contextualisation of the subject matter served to bring about enthusiastic student engagement.
- All lessons had a clear structure and purpose and were well prepared. In the majority of lessons the learning outcomes were explicitly shared with the students at the beginning of the lesson and very effectively revisited towards the end, thereby identifying and reinforcing learning. Lessons should always be planned to allow time for revisiting the learning outcomes.
- Differentiated learning was evident in all lessons and was most effective where pair and group work were utilised, supported by prepared worksheets for individual completion with targeted teacher guidance. There was a very good variety of learning experiences in all lessons and smooth transitions between lesson phases.
- The level of practical skills demonstrated by the students demonstrated effective learning and were well developed for their age. Review of the students' written work showed good quality note-taking and neat and well-ordered folders which contained evidence of formative written assessment.
- The tasks planned to support learning were appropriately challenging in the majority of lessons. The explicit analytical task undertaken in one lesson requiring students to assess fellow students' work and to apply a marking scheme was a commendable initiative. It is recommended that the challenge for the students be sufficient to ensure deep learning and that the context for learning and engagement with the material not be limited to state examination requirements but emphasise an intrinsic motivation for the acquisition of the skills.
- Questioning was used to good effect in the majority of lessons to stimulate interest and assess learning. Best practice was observed where higher-order questioning was used to get students to think at a deeper level. There was a predominance of global questioning and therefore it is recommended that a more judicious mix of targeted and global questioning and the use of higher-order questions be promoted to identify and support individual student learning.
- The students were very well behaved in all the lessons observed. The students' enthusiasm for the subject was most evident where there was a warm rapport between student and teacher and where learning activities were challenging and purposeful.
- Literacy development was promoted in all lessons, with the identification of keywords associated with the lesson topic. This good practice should be further developed by

providing opportunities for students to articulate orally and in writing the use and application of identified keywords. One lesson featured very good numeracy development with reinforcement of the ratio concept and the associated mathematical operation of division in the context of gear mechanisms.

- Attainment in the state examinations is consistently very good. A commendable effort has been made recently to ensure that students' expectations are maximised and that they study the subject at the level most challenging for them. A continued emphasis on this initiative is recommended.

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

- Metalwork and Engineering form part of the school's junior cycle and senior cycle programmes respectively. Currently, Engineering does not form part of the school's LCA or optional TY programme. In order to further promote the subject at senior cycle, and facilitate inter-subject collaboration, it is recommended that school management consider developing a design-focused TY module which is supported by the relevant subject departments.
- The time allocated to both Metalwork and Engineering is appropriate and is scheduled with maximum use of double class periods for third and sixth year. This greatly facilitates student project work and coursework.
- Optional subject bands are devised based upon student preferences in first and fifth year. This good practice positions students centrally in the decision-making process.
- Metalwork is a very popular subject in junior cycle. However, there are no girls taking the subject at present. It is suggested that the subject department and school management consider how a better gender balance may be attained when implementing the reform of the junior cycle programme.
- There are two specialist rooms. Both are well maintained and the combined facilities indicate a well-resourced department. A comprehensive Risk Analysis has been completed for the two rooms and issues identified for follow-up have been addressed.
- The subject teachers have actively pursued personal professional development and membership of the subject teacher association is financially supported by the school. To enhance the professional development of the subject teachers, it is recommended that both teachers be provided with the opportunity to teach at junior and senior cycle level and also be deployed where practicable to teach their second subject, Technical Graphics or Design & Communication Graphics.

#### **PLANNING AND PREPARATION**

- The subject department has developed a methodical and reflective approach to subject planning. This includes reflection on the adaptation and implementation of a whole-school common test for first-year students and on an initiative to improve learning strategies.
- The quality of the curriculum plan is substantial, with learning objectives identified for syllabus content. It is suggested that the department further develop this fine work to include appropriate methodologies and assessment modes for each topic. It is also recommended that learning objectives be identified and developed for the practical skills

to be acquired by the students commensurate with the detail employed in the plan for the knowledge element of the syllabus.

- As the co-ordinator's role is not linked to a post of responsibility, it is recommended that the concept of a rotating coordinator be employed to support collaboration, professional development and sharing of skills.

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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; a response was not received from the board.