

An Roinn Oideachais agus Scileanna

Department of Education and Skills

**Subject Inspection of Metalwork and Engineering
REPORT**

**City Vocational School
New Street, Kilkenny
Roll number: 70610W**

Date of inspection: 26 September 2013



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

INFORMATION ON THE INSPECTION

Date of inspection	27 September 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 four class periods• Examination of students' work• Feedback to principal and teachers

MAIN FINDINGS

- The quality of teaching and learning observed was good.
- Teachers' demonstration skills, including digital presentations, were very good.
- Student behaviour was very good in all lessons observed.
- The majority of junior cycle students sit ordinary level examinations and most senior cycle students sit higher level examinations, with a good range of attainment in both programmes.
- All students are given the opportunity to sample Metalwork in first year, however only a few girls choose to continue studying the subject after the sampling period.
- Planning and preparation for the lessons observed was very good and subject planning is progressing well.

MAIN RECOMMENDATIONS

- Safe operational zones should be identified around all machines in the metalwork room.
 - The subject plans for Metalwork and Engineering should be amalgamated.
 - A more focused approach aimed at improving students' literacy and numeracy skills should be adopted and implemented at subject level.
 - The methodologies identified in the Transition Year (TY) plan should be reviewed in order to align them more closely with the approaches specified in the guidelines for TY.
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INTRODUCTION

Kilkenny City Vocational School (KCVS) provides its students with the opportunity to study both Metalwork and Engineering at junior and senior cycle respectively. At senior cycle, the school does not offer Transition Year (TY), however it does provide an Engineering module that students enrolled in St Kieran's College may avail of. In addition to this arrangement, KCVS invites students from St Kieran's College and Coláiste Pobail Osraí to avail of any additional places in its Leaving Certificate Engineering classes. This has resulted in the fifth and sixth-year groups being comprised of mainly students from St Kieran's College. The school has a current second-level enrolment of 135 students.

TEACHING AND LEARNING

- Good quality teaching and learning was observed in all four lessons evaluated during the inspection process. Some areas for improvement were also identified with school management and the teaching team.
- Learning intentions were very clear in all lessons observed. Particularly good practice was observed in a first-year class where digital projection was used to highlight key skills using animated graphic interchange formats to reinforce the main learning points.
- Teachers' demonstration skills were very good overall. Information and communication technologies (ICT) were utilised where appropriate. In some instances, the use of ICT enhanced students learning experiences and assisted in the teaching and learning process. One example of this was seen in a sixth-year lesson that focused on generating phase diagrams from pure metal and alloy cooling curves.
- Effective use of team teaching was observed in one lesson. Ongoing development and improvement to this model should now focus on identifying and utilising the most suitable opportunities to maximise the impact on student learning, for example, deciding when station teaching would be more appropriate than parallel teaching.
- Teachers circulated the classroom consistently and provided students with very good oral formative feedback. Classroom activities were very well managed, particularly during practical lessons where students were active participants in a variety of practical tasks and skill based exercises. Student behaviour was very good and a positive and supportive environment was evident in all lessons.
- Students were, on occasion, provided with the opportunity to be creative and to carry out design and make tasks. A second-year class group, working on projects for the school's 'French Day' worked in pairs to create models of famous Parisian landmarks. This cross-curricular link enabled students to design, modify, manufacture, evaluate and display their work to a wider audience.
- Student learning was good in all lessons observed. Expectations were appropriately set depending upon the class group and their exposure to the subject area.
- Uptake of higher level and attainment in certificate examinations varies depending upon the programme of study. At junior cycle, the majority of students take ordinary level examinations and achieve quite well at their chosen level. At senior cycle, most students take higher level examinations and generally achieve positive results.

SUBJECT PROVISION AND WHOLE SCHOOL SUPPORT

- Metalwork and Engineering are offered as optional subjects in the school's junior and senior cycle programmes. The time allocated to these subjects is good in the case of Engineering and very good in the case of Metalwork.
- Two teachers that hold the appropriate qualifications to teach the subjects to the highest level are deployed to teach the subjects. In addition to this, a third teacher with a technology background is also deployed to contribute in a team teaching role with a first-year group for two periods per week. This support from school management is commended.
- All students take part in a year-long subject sampling programme. At the end of first year students are asked to choose their preferred optional subjects. Currently Metalwork is offered in a fixed band with Home Economics. This may be a contributory factor to the relatively low uptake of Metalwork among girls in the school and should be reviewed when resources allow.
- The metalwork room is well equipped and maintained to a good level. Materials and equipment are easily accessible and ICT resources provide both teachers and students with useful teaching and learning opportunities. There are currently no exclusion zones marked around large machines. The subject department should address this issue with a view to creating a visual deterrent for students in relation to working within safe operational areas.

PLANNING AND PREPARATION

- A subject co-ordinator has been identified and subject department meeting are held periodically. Records of these meetings and of the team-teaching meetings are maintained as is good practice.
- Subject plans for both Metalwork and Engineering have been developed. These plans are well developed and include information pertaining to organisational details, strategic goals for the subjects, curricular content and a number of literacy and numeracy initiatives. To streamline subject planning, the subject department should amalgamate these plans to form one cohesive document and should endeavour to identify a key literacy and numeracy strategy that would complement the subject area.
- The subject plan also contains a curricular plan for the TY module offered to students enrolled in St Kieran's college. The content of this module is appropriate however the methodologies employed should be reviewed in order to align more closely with the approaches specified in the guidelines for TY.
- Teachers' individual planning was of a consistently high standard. Resources and teaching aids were prepared in advance and contributed to enhancing students' learning experiences.

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

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Appendix

SCHOOL RESPONSE TO THE REPORT

Submitted by the Board of Management

Area 1: Observations on the content of the inspection report

The Kilkenny City Vocational School BOM welcomes the very positive subject inspection of Engineering and Metalwork in particular that:

- The quality of teaching and learning was good.
- Student behaviour was very good in all lessons observed.
- Teachers' demonstration skills, including digital presentations, were very good.
- Planning and preparation for the lessons observed were very good and plans were progressing well.

Area 2: Follow-up actions planned or undertaken since the completion of the inspection activity to implement the findings and recommendations of the inspection

- Safe operation zones have been marked around equipment as identified.
- The subject plans for engineering and metalwork have been amalgamated.
- The subject teachers continue to implement the schools literacy and numeracy strategies at subject level.
- The methodologies identified in the TY plan have been reviewed to align them more closely with the approaches specified in the guidelines for TY.