

An Roinn Oideachais agus Scileanna

Department of Education and Skills

**Subject Inspection of Metalwork and Engineering
REPORT**

**Greenhills College
Greenhills, Dublin 12
Roll number: 70130I**

Date of inspection: 29 March 2012



**A N R O I N N | D E P A R T M E N T O F
O I D E A C H A I S | E D U C A T I O N
A G U S S C I L E A N N A | A N D S K I L L S**

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

INFORMATION ON THE INSPECTION

Date of inspection	29 March 2012
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

- Teaching was observed to be effective with good levels of student learning in all lessons.
- A good range of methodologies was employed, but there is scope to develop collaborative learning practices and active learning opportunities.
- Students' work is well monitored with some scope for development in the provision of formative feedback.
- Uptake of higher level and attainment in certificate examination has improved in recent years.
- The school and subject department face a significant challenge in maintaining the viability of the subjects in the school and have begun to address this challenge through the promotion of the subjects and the provision of additional information to prospective students and parents.
- The subject department has developed a reflective approach to delivering Metalwork and Engineering, encouraging the development of self-evaluative practices that are currently being embedded in the department's ongoing planning cycle.

MAIN RECOMMENDATIONS

- The subject department should further develop teaching and learning strategies in order to improve student participation and to maximise the benefits of collaborative learning.
 - The subject department should further develop its formative assessment procedures in order to ensure that students are fully aware of their areas for development and how to improve their knowledge, understanding and skills.
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INTRODUCTION

Greenhills College comprises an all-boys second-level vocational school and a co-educational further education college. The second-level school is involved in Delivering Equality of Opportunity in Schools (DEIS) planning and offers Metalwork as an optional subject in its junior cycle programme and Engineering as an optional subject in its Leaving Certificate programme. 142 second-level students are currently enrolled in the college.

TEACHING AND LEARNING

- Overall teaching was effective with good levels of student learning observed in all lessons.
- All lessons included a brief introduction to the topic at hand, and broad aims for the lessons were outlined. However, the identification of more specific learning outcomes would be desirable as this would assist in assessing student achievement and ensuring lessons remained focused on key concepts.
- A good range of appropriate methodologies was employed in all lessons observed. These methods ranged from traditional teacher-led strategies to more collaborative and facilitative methods.
- In a minority of instances, teacher-led strategies resulted in limited student participation and activity, and this should be addressed. Where collaborative learning activities were incorporated into lessons, there were opportunities to enhance this good practice through the structuring of group work and the implementation of additional collaborative learning tactics.
- Information and communication technology (ICT) was incorporated into all lessons observed. Best practice was observed when ICT enhanced and supported students' learning. This was particularly apparent when the classroom visualiser was utilised to demonstrate correct marking-out procedures. In some instances, ICT presentations contained significant quantities of text. To maximise the benefits of data projection, the subject department should consider the use of dynamic graphic organisers and mind-mapping software to help students to scaffold and present their knowledge.
- There was a clear focus on literacy development in all lessons observed. Keywords were identified and reinforced throughout lessons and students had a very good knowledge of subject-specific terminology.
- Lessons observed were orderly and characterised by good student-teacher interactions. Students were generally very willing to contribute to lessons and were afforded every opportunity to engage in question and answer activities and class discussions.
- Assessment of students' written work varied from monitoring the completion of tasks to the provision of formative comments that identified areas for improvement. The latter should be extended and developed by the subject department.
- In recent years, the majority of students chose ordinary level at both junior and senior cycle. This trend is being addressed and the subject department is commended for its efforts in increasing the uptake of higher level in Metalwork and Engineering.
- Students' skill acquisition is good as evidenced by the high standard of project work completed by students and displayed in the classroom.

SUBJECT PROVISION AND WHOLE SCHOOL SUPPORT

- The current provision of Metalwork and Engineering includes one third-year group and a class group in both fifth and sixth year. The school and subject department face a significant challenge in relation to maintaining the viability of the subjects. Recent efforts, including increasing student and parental awareness of the subjects, have resulted in an increase in interest in Metalwork among incoming first-year students. The progress in this regard is most welcome and should be maintained.
- When resources and numbers permit, Metalwork and Engineering are offered in optional bands with Materials Technology (Wood) and Construction Studies respectively. Every effort should be maintained to continue providing students with this level of choice.
- The timetable allocation to Metalwork and Engineering is appropriate.
- The specialist room utilised for the second-level student groups is very well maintained and equipped to a good standard. There is a good level of attention given to safety awareness in the room with personal protective equipment readily available and safe operating zones clearly identified. Subject specific posters and Junior Certificate School Programme (JCSP) support materials are displayed in addition to the wide range of student project work on display. These elements combine to create an aesthetically appealing learning environment.

PLANNING AND PREPARATION

- Good systems have been developed to facilitate subject planning. The subject department comprises two suitably qualified teachers. Good levels of collaboration were evident in the sharing of electronic resources and the organisation of ongoing management issues that arise from maintaining a functioning practical classroom.
- The subject plan is currently being developed and good progress has been made in this regard. To enhance subject planning further, additional consideration should be given to developing the planned methodologies section. This should reflect practice and include areas for development such as the incorporation of collaborative learning techniques and effective use of ICT.
- There is very good evidence of self-evaluation in the Metalwork and Engineering subject plan. This section identifies trends in student attainment levels and also provides a detailed analysis of possible contributory factors. This very good practice should be further developed to assist the subject department's priority of improving student attainment rates. A possible strategy could include focused target setting informed by students' ability tests. Teachers would then be able to track student achievements and make more informed decisions regarding the focus of required interventions. This form of tracking and target setting should be informed by the school's DEIS planning protocols.
- The subject department has developed a literacy and numeracy strategy. This discussion document will provide the subject department with a good starting point when progressing the implementation of additional literacy and numeracy initiatives as per the whole-school literacy and numeracy plan.

- Common curricular plans have been developed. Ongoing development should now focus on clearly identifying specific learning outcomes for students. This will benefit teachers when defining lesson objectives, focusing on key concepts and assessing student learning.
- All lessons were very well planned and teachers prepared for each teaching and learning activity effectively. Good records of student attendance and achievement are maintained with short-term teacher plans informing progress.

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 of the school was given an opportunity to comment on the findings and recommendations of the report; the board chose to accept the report without response.

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