

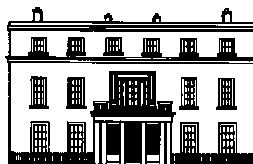
An Roinn Oideachais agus Scileanna

Department of Education and Skills

**Subject Inspection of Technical Graphics and Design
and Communication Graphics
REPORT**

**Oatlands College
Stillorgan, County Dublin
Roll number: 60050E**

Date of inspection: 16 September 2011



**AN ROINN | DEPARTMENT OF
OIDEACHAIS | EDUCATION
AGUS SCILEANNA | AND SKILLS**

REPORT
ON
THE QUALITY OF LEARNING AND TEACHING IN TECHNICAL GRAPHICS AND
DESIGN AND COMMUNICATION GRAPHICS

INFORMATION ON THE INSPECTION

Date of inspection	16 September 2011
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 five class periods• Examination of students' work• Feedback to principal and teacher

MAIN FINDINGS

- A wide variety of effective and active teaching methodologies were employed during the lessons observed with areas for development identified in lesson structuring and demonstration techniques.
- Resources that enhanced lessons were prepared in advance and provided students with tangible examples of abstract concepts.
- Graphics subjects have recently been introduced to the school's curriculum and have received significant support at this early stage of development.
- Students receive a very good level of support particularly in relation to the information provided to them during the sampling programmes in first year and TY.
- Students are progressing at a rate appropriate to their abilities and commensurate with their exposure to the subjects.

MAIN RECOMMENDATIONS

- The subject department should place a significant emphasis on improving the structure and sequencing of lessons in order to maximise students' learning, especially in single class periods.
 - Every opportunity should be taken by the subject department to model the correct layout, construction and draughting techniques.
 - Senior management should work toward regularising the manner in which graphics subjects are timetabled.
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INTRODUCTION

Oatlands College first introduced Technical Graphics (TG) and Design and Communication Graphics (DCG) as optional subjects in its Junior Certificate, Transition Year and Leaving Certificate programmes at the beginning of the 2010/2011 school year. The school's current enrolment is 524 students. 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.

TEACHING AND LEARNING

- Subject matter was introduced effectively utilising teacher-directed questioning to help students to recapitulate topics and to engage with their prior learning.
- A wide variety of teaching strategies were employed in the lessons observed. These strategies often included active participation from students and resulted in lively and energetic lessons.
- Group demonstrations that utilised data projection worked well as the students' view was unobscured. When demonstrations took place at students' desks using traditional drawing equipment, some students were unable to observe the finer detail of the tasks at hand.
- The single period lesson observed presented a challenge in relation to structure and sequence. To address these challenges in future, clear goals for the lessons should be identified at the beginning and shared with the class group. Following the introduction of new material, time should be allocated to facilitating students' learning through circulation and individual assistance. This cycle should be repeated as desired until the final segment of the lesson when students and teacher can ascertain the success of the lesson in relation to the achievement of learning outcomes. This cyclical approach, particularly in single period lessons, would help to provide a more defined structure and clearer purpose to lessons.
- Instances of the teacher modelling good practice at the whiteboard were limited. To encourage students to adhere to conventions and to maintain high standards in draughting, every opportunity should be taken to model effective draughting techniques.
- The use of geometric and parametric models enabled students to visualise and understand complex concepts. This technique should be integrated into lessons whenever possible and students should be encouraged to use the models independently to improve their own problem-solving skills.
- There was a very positive atmosphere in all lessons observed. A respectful rapport has developed between teacher and students allowing for a high work ethic to be maintained in an enjoyable and professional environment.
- At senior cycle, student learning is at a level appropriate to their exposure to the subject. Junior cycle students demonstrated good levels of technical ability and displayed a sound understanding of fundamental concepts such as first-angle projection.
- Formative feedback is given to students primarily on an individual basis. This very good practice helps students to identify their areas for development and also allows the teacher to reflect on the appropriateness of methodology, time spent on topics and choice of student activities.

SUBJECT PROVISION AND WHOLE SCHOOL SUPPORT

- The recent introduction of graphics subjects into all of the school's curricular programmes is a most welcome development. This now provides the subject department with an opportunity to embed the subjects in the school's curriculum within a relatively short period of time.
- Graphics subjects are proving to be a popular choice among students with considerable numbers choosing them in second and fifth year.
- The time allocated to graphics subjects is in line with national norms. Current timetabling of graphics is not ideal in that class groups may have two single lessons on the same day or lessons after the standard school day ends. These compromises have been made in order to provide students with the opportunity to study the subjects. In the medium-term, school management should strive to facilitate more regular timetabling for the subjects.
- The school provides students in first year and TY with an opportunity to sample graphics subjects. In first year, students take part in a year-long subject sampling programme where they are introduced to the subject. In TY students access the subject during an eight-week module. These procedures help students to choose their preferred subjects based upon their aptitudes, skills and knowledge of the subjects.
- The subject specialist room is well equipped and provides this new subject department with the required facilities to teach and assess students effectively.

PLANNING AND PREPARATION

- Records are maintained of subject meetings. The good practice of incorporating both graphics and technology subject teachers into planning discussions helps to develop a collaborative approach to common areas such as integrating parametric modelling into lessons and using software as a teaching and learning tool.
- Significant efforts have resulted in the development of subject plans that outline clearly short and medium-term learning outcomes for students. As these plans are being used for the first time, it presents the subject department with a very good opportunity to revise and review their implementation. The subject department envisages this review occurring throughout the delivery of each syllabus. This planned ongoing reflective practice is most welcome.
- To supplement these plans the subject department should develop long-term strategic goals for the subjects. These plans should be cognisant of the school's overall curricular plans. Areas of enquiry should include consolidation of the subject on the curriculum and setting attainable targets for individual students. These targets should be developed collaboratively with students and reflect students' abilities and their exposure to the subject.
- The teacher's individual planning incorporated records of attendance, completed coursework and assessments. Preparation for lessons was extensive and examples included the preparation of electronic models, topic specific presentations and geometric models all used to enhance students' learning.

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

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