An Roinn Oideachais agus Scileanna

Department of Education and Skills

Subject Inspection of Technical Graphics and Design and Communication Graphics
REPORT

Castlecomer Community School
County Kilkenny
Roll number: 91360T

Date of inspection: 17 May 2012

AN ROINN OIDEACHAIS AGUS SCILEANNA | DEPARTMENT OF EDUCATION AND SKILLS

REPORT
ON
THE QUALITY OF LEARNING AND TEACHING IN TECHNICAL GRAPHICS (TG) AND DESIGN AND COMMUNICATION GRAPHICS (DCG)

INFORMATION ON THE INSPECTION

Date of inspection	17 May 2012
Inspection activities undertaken • Review of relevant documents • Discussion with principal and teachers • Interaction with students	• Observation of teaching and learning during four class periods • Examination of students' work • Feedback to principal, deputy principal and teachers

MAIN FINDINGS

- Technical Graphics and Design and Communication Graphics are delivered effectively in Castlecomer Community School with some scope for development identified in the areas of presentation of students' work, questioning and the integration of differentiated teaching strategies.
- Teaching resources were integrated into learning activities in a constructive manner and contributed positively to students' learning experiences.
- Graphics subjects are well supported on the school's curriculum, and uptake of the subjects has remained relatively consistent in recent times.
- Overall subject planning is appropriate with some scope for development identified in the Transition Year (TY) programme and a lack of documented planning for the Leaving Certificate Applied (LCA) plan for Graphics and Construction.
- Individual planning and preparation is of a high standard and contributed positively to students' learning.

MAIN RECOMMENDATIONS

- As part of ongoing subject planning, strategies aimed at improving the quality of questioning, differentiation and the presentation of students' work should be identified, implemented and reviewed.
- The DCG TY plan should be reviewed to include aspects of research and design and the LCA programme should be formally outlined in the subject plan.

INTRODUCTION

Castlecomer Community School offers TG and DCG as part of its Junior Certificate and Leaving Certificate programmes. A DCG module is also offered during the school's optional TY programme and Graphics and Construction Studies is offered as an elective module in the school's LCA programme. The school has a current enrolment of 603 students.

TEACHING AND LEARNING

- The Graphics lessons observed were of a consistently high quality. Lessons were clearly introduced and reinforced students' knowledge, understanding and skills in areas of prior learning. This form of revision was appropriate for the time of year and was often taught in an active and participatory manner.
- The content and pace of lessons was appropriate and a high work ethic was maintained in all instances. Transitions were well managed and all lessons included effective introductory and developmental sections. To enhance the quality of lesson structure and to reinforce students learning, a focused review of lesson content, based upon stated learning outcomes, should be included in all lessons.
- Good quality resources and teaching aids were incorporated into all lessons observed. These resources included exemplar drawings that were used to help students to identify high standards of draughting and presentation, card models to explain key concepts and effective use of information and communication technology (ICT) resources primarily for display purposes.
- In one instance, co-operative learning was facilitated among a small group of junior cycle students. This activity was well managed and gave students the opportunity to develop their understanding in a practical manner. Efforts should be made to extend and develop this strategy throughout the subject department.
- Teachers' use of the various demonstration media available to them was of a high standard. ICT enhanced the visual representation of drawings and also helped students to model best practice. Computer-Aided Design (CAD) programmes were integrated effectively into students' learning experiences and were both practical and innovative in their application. This was particularly applicable when parametric modelling was used to explain the horizontal sectioning of geometric solids.
- Questioning was used throughout the lessons observed and was in some instances characterised by chorus answering among students. A more considered approach should be taken to framing and directing questions and to accepting responses from questions posed.
- Oral formative feedback was used extensively in the lessons observed. This feedback was both affirmative and directional. Students' folders were generally well maintained; however, some required improvements in the levels of presentation achieved. One method adopted within the subject department is an incentive system that enables students to gain credit for portfolio work as part of their terminal assessment. This good practice should be developed throughout the subject department where appropriate.
- Differentiated approaches to teaching and learning were observed in a few instances. This area should be further developed and practical strategies discussed and implemented at subject department level.

- Students were very well behaved during the evaluation and classroom activities were well organised and helped to foster an orderly and productive learning environment.
- Students demonstrated good levels of learning. Uptake of higher level in certificate examinations is consistently good at both junior and senior cycle. To maintain and possibly improve these positive trends, systems focusing on individual student target setting and monitoring should be adopted, implemented and the resulting outcomes reviewed.

SUBJECT PROVISION AND WHOLE SCHOOL SUPPORT

- The time allocated to graphics subjects is appropriate. This includes four periods per week during the Junior Certificate and LCA programmes and a minimum of five periods per week during the Leaving Certificate programme.
- The scheduling of graphics lessons is good with a suitable balance between single and double lessons. This system offers the subject department adequate opportunity to meet class groups regularly and to reinforce learning consistently throughout the week.
- Uptake is generally good at junior cycle, although quite a low proportion of girls choose to study graphics subjects. This trend should be monitored and contributory factors identified and resolved if possible. At senior cycle, uptake has remained constant and the subject department are confident that this will remain the case, thereby ensuring the ongoing viability of the subject.
- First-year students choose their optional subjects prior to entry. These choices are supported through open evenings and informative literature. The subject department reported that there is considerable flexibility during the initial weeks of term in order to allow student transfers within optional subject bands.
- An optional half-year Graphics module is offered to TY students. This module is educationally worthwhile in its own regard and provides them with a very good introductory course in many of the areas of enquiry developed in greater detail during the Leaving Certificate programme.
- Both members of the graphics subject department have attended recent continuing professional development courses and maintain good links with the online resources available on the support service's website.

PLANNING AND PREPARATION

- Teachers of technology subjects in the school form an overarching subject planning group. This provides a forum for professional dialogue and the sharing of expertise and has resulted in the development of a coherent graphics subject plan. This plan includes sections detailing the department's strategies to promote inclusion and a number of differentiated teaching strategies suitable to a mixed ability setting. The subject department should now further develop these areas. To assist in this process, the wider technology subjects planning group should discuss these matters and address them within the context of their shared experience of technology education.
- Curricular plans have been developed for junior certificate, TY and leaving certificate students. The current TY plan is primarily based upon developing students' modelling skills. This plan should be developed to integrate additional aspects of research and

design. The LCA programme, as outlined during the evaluation, contains a good blend of design, modelling and manufacture with appropriate cross-curricular applications. This plan should be outlined in the overall subject plan.

- The level of individual planning and preparation was of a very high quality. The methods used to prepare and plan lessons varied considerably and each method adopted was effective.

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