Subject Inspection of Technical Graphics and Design
and Communication Graphics
REPORT

Coola Post Primary School
Riverstown, Co. Sligo
Roll number: 72310U

Date of inspection: 11 May 2011
REPORT
ON
THE QUALITY OF LEARNING AND TEACHING IN TECHNICAL GRAPHICS AND DESIGN AND COMMUNICATION GRAPHICS

INFORMATION ON THE INSPECTION

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<th>Date of inspection</th>
<th>11 May 2011</th>
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<td><strong>Inspection activities undertaken</strong></td>
<td><strong>Observation of teaching and learning during nine class periods</strong></td>
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<tr>
<td>• Review of relevant documents</td>
<td>• Examination of students’ work</td>
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<td>• Discussion with principal and teachers</td>
<td>• Feedback to principal and teachers</td>
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<td>• Interaction with students</td>
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MAIN FINDINGS

- The teaching and learning in all lessons observed were of a high standard.
- The use, by teachers, of a wide range of resources during lessons created a stimulating learning environment.
- The subject department has good whole school support.
- Students’ portfolio work is well organised and is monitored frequently by teachers. A proportion of marks are awarded for portfolio work at Christmas and summer assessments.
- There is a strong sense of collaboration within the subject department and planning is well progressed.

MAIN RECOMMENDATIONS

- Homework should be allocated more regularly to all year groups studying the subjects.
- The subject department should increase the use of assessment for learning (AFL) principles and practices to ensure that more written developmental feedback is given to students on their drawing sheets.
- The schemes of work, within the subject plans, should include proposed learning outcomes for each topic, as well as the methodologies to be used, the resources available and the proposed methods of assessment.
INTRODUCTION

Coola Post Primary School offers Technical Graphics (TG) as a subject choice for the Junior Certificate (JC). Design and Communication Graphics (DCG) is one of the optional subjects offered at senior cycle level. Transition Year (TY) is optional and contains a year-long module on design and technology. The school currently has an enrolment of 387 students, 216 boys and 171 girls.

TEACHING AND LEARNING

- Lessons were delivered in a structured manner and were linked well with previous learning.
- Good classroom routines were evident during all lessons visited.
- Questioning techniques were good, with teachers using a combination of global and individual questions. The answers provided indicated that learning was taking place.
- Teachers used information and communications technology (ICT) well to vary the teaching and learning experiences of students. The use of teacher-generated SolidWorks models to support and reinforce learning is commended.
- A variety of models were incorporated into lessons. These resources were suitable for the lesson content and they assisted students with their understanding of specific concepts such as orthographic projection and the oblique plane.
- Freehand and ruled chalkboard work by teachers was of a high standard. Drawings were usually constructed during lessons and care was taken to ensure that students followed the different steps involved. A visualiser was also used to good effect, in some lessons, to demonstrate the construction of drawing solutions.
- An important element in the teaching of the DCG syllabus is the development of the ability to communicate through sketching. In order to build students’ confidence in this area, sketching skills need to be taught from an early stage in the junior cycle years. It is recommended, therefore, that more opportunities be taken in lessons to promote freehand sketching.
- Portfolios are well organised and contain a good body of work. It was evident that they are subjected to regular monitoring by teachers with some written comments on sheets. It is recommended that the teaching team increase the frequency and the amount of such constructive and formative written feedback.
- A proportion of marks awarded to students at Christmas and summer is based on their portfolio work. This is good practice.
- From the examination of students’ journals and from discussion with teachers and pupils it was evident that homework is not allocated regularly to all class groups. It is recommended that homework be assigned on a regular basis to students studying the subjects at all levels.
- Teacher movement around the classroom, during the lessons observed, was smooth and unobtrusive. The level of students’ progress and understanding was constantly being monitored with individual, targeted support provided when needed.
SUBJECT PROVISION AND WHOLE SCHOOL SUPPORT

- Students choose their optional subjects for the junior cycle prior to entering the school. Support is provided at this decision-making time through the provision of a subject information booklet as well as presentations from subject departments during enrolment night.

- The subject banding arrangements at junior cycle level provide all students with the opportunity of choosing to study a materials-based technology subject such as Metalwork or Materials Technology (Wood) alongside TG. This is good practice given the complimentary nature of these subjects.

- The year-long TY module provides students who did not study graphics in junior cycle with the opportunity to explore and experiment with parametric modelling and freehand sketching. This puts them in a more informed position when making subject choices.

- Subject option blocks for students moving to senior cycle are devised to meet, as far as is practicable, the preferences of students.

- The subject department is well resourced with materials and technology.

- Time provision for the subjects is good with class periods well distributed across the week.

- There are two rooms available for the teaching of the subjects. One of these is particularly well organised and laid out.

- The display, in one of the rooms, of subject-specific posters, quality student work and the DCG assignment helps to immerse the students in an appropriate graphics environment. Teachers are advised to keep these displays up to date in order to maintain students’ interest.

- Each of the four teachers in the department has attended sessions of the programme of continuing professional development (CPD) made available through the Technology Subjects Support Services (t4). Recent whole-school professional development events include training on the use of Moodle. The support and facilitation of the in-career development of the teaching team is commended.

PLANNING AND PREPARATION

- A separate subject coordinator is in place for TG and DCG. These positions are rotated amongst the four-member teaching team, as is good practice. Formal meetings once per term are supplemented by frequent informal meetings.

- Minutes of formal meetings are retained. These should be copied to management.

- Separate planning folders exist for each subject. Planning is well progressed and follows the SDPI template.

- Schemes of work have been created for each year group. These consist of topic headings to be covered with broad timeframes for the completion of each body of work.

- To further improve on the schemes of work it is recommended that each topic be examined to determine the exact learning outcomes to be achieved by students from that unit of study. The most appropriate methodologies and strategies to teach the topic, the resources available and the proposed method of assessment should also be documented.
• The medium-term planning documents, as well as other planning materials, should be incorporated into the main subject planning folders.

• Results from certificate examinations are analysed and compared to national norms. The results from this analysis provide information on, amongst other things, the uptake of higher level and the gender balance within the subjects. As is good practice, the trends identified are used to inform future planning for the subjects.

• The TY module on design and technology focuses on four areas, two of which are parametric modelling and the development of freehand sketching skills. It is a varied and relevant programme of work.

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; a response was not received from the board.

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