

An Roinn Oideachais agus Scileanna

Department of Education and Skills

**Subject Inspection of Technology
REPORT**

**C.B.S. Secondary School,
James's Street, Kilkenny
Roll number: 61550G**

Date of inspection: 15 May 2014



**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 TECHNOLOGY**

INFORMATION ON THE INSPECTION

Date of inspection	15 May 2014
Inspection activities undertaken <ul style="list-style-type: none">• Review of relevant documents• Discussion with the principal and teacher• Interaction with students	<ul style="list-style-type: none">• Observation of teaching and learning during three class periods• Examination of students' work• Feedback to principal and teacher

MAIN FINDINGS

- The quality of teaching and learning in the lessons observed was of a consistently high standard.
- Student achievement in certificate examinations is very good.
- There is very good integration of theory and practical skill development particularly in the area of control using integrated circuit boards.
- Planning and preparation for lessons was of a high standard with some very good practice observed as part of the subject department's planning for curriculum delivery and educational inclusion.
- Technology provision is well supported by school management.

MAIN RECOMMENDATION

- The subject department should further develop its formative assessment practices, particularly relating to students' written work.
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INTRODUCTION

CBS Secondary School Kilkenny is a voluntary secondary school situated in Kilkenny City centre. The school has a current enrolment of 663 boys. The school's curricular programmes include: the Junior Certificate, optional Transition Year (TY), the established Leaving Certificate and the Leaving Certificate Vocational Programme (LCVP).

TEACHING AND LEARNING

- The quality of teaching and learning in the lessons observed was of a consistently high standard.
- All lessons observed had explicit learning intentions that were shared and reviewed with students. These learning outcomes were both skill-based and knowledge-based. This integrated approach worked well and helped to reinforce learning through the practical application of knowledge. An example of this good practice was the identification and application of resistors on circuit boards.
- Lessons were well structured. Transitions between lesson segments were smooth and this enabled lesson content to be developed incrementally providing good opportunities for practice. This was particularly evident in the fifth-year lesson observed.
- Collaborative work was encouraged in most lessons. This practice was effective as it helped students to take responsibility for their assigned task and also helped them to prepare for future learning activities. A differentiated approach to assigning students to pairs facilitated the scaffolding of students' learning, particularly those students with less experience of the subject.
- Questioning was the key mode of assessment employed in the lessons observed. Questioning techniques varied from the global use to the direct use of questions. In most instances, questions were recall in nature. To further develop students' cognitive engagement during questioning, the subject department should consider developing more inclusive questioning strategies including 'no-hands' and 'show-me' boards.
- Demonstrations were effective. The classroom visualiser was used to good effect, particularly when demonstrating intricate techniques. Efforts should be made to improve the visibility of the projection screen in order to maximise the potential of this useful resource.
- Students received very good levels of oral formative feedback during lessons. Student self-reflection on the quality of their task work was also encouraged through the use of the 'two stars and a wish' approach in which two aspects of the work done well and one area for improvement were identified. Additional written formative assessment is required for students' written tasks in order to improve their learning and to help them to identify additional areas for improvement.
- Student learning was very good in all lessons observed. Students demonstrated very good practical skills and offered suggestions and solutions to the various problems posed by their teacher.
- Uptake of higher level at both junior and senior cycle is very good with only a few students choosing ordinary level over the past number of years. Student attainment rates are also high at both junior and senior cycle and the efforts to achieve these results are commended.

SUBJECT PROVISION AND WHOLE SCHOOL SUPPORT

- Technology is a compulsory component of the school's TY programme and an optional subject in all other curricular programmes. With the exception of first year, time allocated to the subject is good. In order to facilitate subject sampling, two periods per week are allocated to first-year technology classes and this system is operating effectively.
- Uptake of Technology is good. The sampling system and the TY module supports students by helping to develop their awareness of the subject and to make more informed optional subject choices.
- The school's technology classroom has developed over time. Space is maximised and tool and equipment storage is efficiently managed. Information and communication technology (ICT) resources are integrated into the classroom. These resources provide the subject department with good access to web-based applications and they facilitate the projection of intricate processes using the classroom visualiser.
- There is a good awareness of health and safety issues in the classroom. Standard safety signs are displayed appropriately and personal protective equipment is readily available where necessary. Systems are in place to monitor and identify hazards and to reduce and eliminate risks where possible.
- The subject department has been an active participant in a variety of subject specific continuing professional development (CPD) courses and competitive events. These courses focused on areas such as robotics, programming, computer-aided design (CAD) and computer networking. Technology students have exhibited projects and have been successful at the Young Scientist and Technology and SciFest exhibitions. This ongoing commitment to CPD and research and development is commended.

PLANNING AND PREPARATION

- As part of subject planning, a very good quality subject plan has been developed. Detailed learning outcomes are outlined for all year groups and the curricular plans are structured to develop students' knowledge, understanding and skills incrementally.
- A good quality TY module has been developed to support students of varying abilities access technology. This six-week module focuses on design, prototyping, skill development, computer-aided manufacturing (CAM) and control. Collaboration among students is encouraged and this also facilitates a co-operative approach to the teaching and learning of the module.
- Individual education plans (IEPs) are used to further include students with specific learning difficulties. These IEPs have facilitated the accommodation of students within their class groups, enabling specific and focused teaching strategies to be employed. The development and implementation of these plans is very good practice.

- The planning and preparation of all lessons observed was very good. Suitable teaching and learning resources were prepared in advance and activities were planned to supplement instruction. Laminated process sheets and labelled diagrams were prepared and used in conjunction with activity sheets during lessons. This practice is most beneficial and worth developing further.

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. 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.

Appendix

SCHOOL RESPONSE TO THE REPORT

Submitted by the Board of Management

Area 1: Observations on the content of the inspection report

The Board of Management of C.B.S. Kilkenny welcomes the very positive subject Inspection report on Technology completed by the Inspectorate of the Department of Education & Skills. The Board welcomes the very many positive findings particularly in terms of the consistently high standard of teaching and learning and the very high level of preparation and planning observed by the Inspectorate.

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

The Technology department is committed to building on the high standards as observed by the Inspectorate and outlined in the findings of this very positive report.