

**An Roinn Oideachais agus Scileanna**

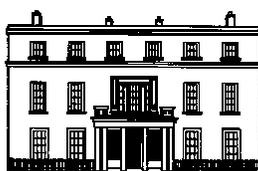
**Department of Education and Skills**

**Subject Inspection of Science, Biology and Agricultural  
Science**

**REPORT**

**Castlepollard Community College  
Castlepollard, County Westmeath  
Roll number: 71420W**

**Date of inspection: 23 February 2016**



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

**REPORT  
ON  
THE QUALITY OF LEARNING AND TEACHING IN SCIENCE, BIOLOGY AND  
AGRICULTURAL SCIENCE**

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**INFORMATION ON THE INSPECTION**

<b>Dates of inspection</b>	22 & 23 February 2016
<b>Inspection activities undertaken</b> <ul style="list-style-type: none"><li>• Review of relevant documents</li><li>• Discussion with principal and teachers</li><li>• Interaction with students</li></ul>	<ul style="list-style-type: none"><li>• Observation of teaching and learning during eight class periods</li><li>• Examination of students' work</li><li>• Feedback to principal and teachers</li></ul>

**MAIN FINDINGS**

- The quality of learning and teaching observed was good to very good in most lessons observed.
- Excellent use of questioning was observed in a number of lessons.
- Very high-quality group work was observed in one lesson.
- The level and quality of teacher-student interaction was very high in most lessons leading to high-quality engagement by students in the learning process.
- Whole-school support for the sciences is very good.
- An effective science department has overseen good curriculum planning which is thorough and appropriately detailed.

**MAIN RECOMMENDATIONS**

- It is recommended that, in a few lessons, clear and precise learning intentions are shared with students and that lesson structure and teaching methodologies are specifically chosen to achieve the lesson aims.
  - Students' written work should be affirmed and developmental feedback be provided to a greater extent.
  - Teachers should agree a common standard for the quality of presentation and content of written work and encourage students to attain this standard.
  - It is recommended that the work towards improvement carried out by the science department be documented to a greater extent.
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## **INTRODUCTION**

Castlepollard Community College is a rapidly expanding school with a current enrolment of 245 students. The school operates under the auspices of Longford and Westmeath Education and Training Board. The school participates in Delivering Equality of Opportunity in Schools (DEIS), the action plan of the Department of Education and Skills for educational inclusion.

## **TEACHING AND LEARNING**

- The quality of learning and teaching observed was good to very good in most lessons observed. There was scope for development in the teaching approaches used in a minority of lessons.
- Where learning and teaching were of a high standard, lessons were well structured, they proceeded at a purposeful pace, there was a good balance between teacher exposition and students' active participation and the lesson content was appropriately contextualised. Learning was frequently reinforced and was reviewed at the close of the lesson.
- Where practice was less effective, teacher presentation dominated and the lesson lacked a clear structure and objectives. In such cases, it is recommended that clear and precise learning intentions are communicated to students and that lesson structure and teaching methodologies are specifically chosen to achieve the lesson aims. Appropriate student-centred, active methodologies should be employed to promote student engagement.
- Excellent use of questioning was observed in a number of lessons. The questions ranged from lower to higher order and, in many instances, were designed to both challenge and engage students, while progressing the delivery of lesson content in an interactive environment that encouraged discussion and analysis. On occasion, the tendency of students towards chorus answering should be discouraged.
- A significant portion of one lesson featured very-high-quality group work. Students were enabled to research aspects of a problem in groups, and to combine outcomes to contribute to the overall solution. Students were very engaged in the process and there was abundant evidence of deep learning.
- Assessment during lessons was mainly achieved through the observation and questioning of students and differentiation was achieved in a similar manner.
- Teachers were very affirming of students' efforts in class. However, although regular monitoring of students written work by most teachers was evident, there is a need to affirm written work and to provide developmental feedback to a greater extent. Teachers should agree a common standard for the quality of presentation and content of written work and encourage students to attain this standard.
- Literacy and numeracy support were in evidence in most lessons in a variety of useful and valuable ways.
- The use of assessment for learning (AfL) methodologies was evident in most lessons observed and management and teachers are commended for the extent to which this approach to supporting students' learning has been integrated into teaching and learning.
- Information and communications technology was well used to illustrate lessons, to record information during practical work and to engage students in an interesting and informative manner.

- The level and quality of teacher-student interaction was very high in most lessons leading to high-quality engagement by students in the learning process. Teacher-student rapport was also very positive and contributed to teachers' assessment of students' understanding and level of knowledge.
- Practical work was safely and efficiently managed. It is important to ensure, on occasion, that students are fully briefed before engaging in bench work and that their work is reviewed following the activity to rationalise outcomes and maximise the learning potential of the activity.

#### **SUBJECT PROVISION AND WHOLE SCHOOL SUPPORT**

- Whole-school support for the sciences is very good. Science is a core subject in junior cycle and Agricultural Science, Biology and Chemistry are offered as optional subjects in senior cycle. The curriculum of the school's Transition Year (TY) programme includes a module in the sciences.
- Best use is made of the school's science laboratory, which is well equipped and maintained. Although the number of students taking science subjects has increased significantly, class groups have at least weekly access to the laboratory for practical work. However, the necessary use of the laboratory for non-science classes constitutes a health and safety issue and should be minimised to the greatest extent possible.
- The allocation of time to the sciences meets or exceeds syllabus recommendations for each of the subjects.
- Teachers and school management have encouraged and enabled students to avail of a range of co-curricular and extra-curricular opportunities. A thoughtful and considered approach is taken to ensuring that students are encouraged and well supported to perform to a high level and gain the maximum level of benefit from their work.
- Support for teachers' continuing professional development is good and teachers have availed of such supports.
- There is a comprehensive system of assessing students' progress, both with traditional marked examinations and comment-only marking, at agreed stages during the year, and of reporting to parents on progress.

#### **PLANNING AND PREPARATION**

- An effective science department has overseen good curriculum planning which is thorough and appropriately detailed. Schedules are in place for the delivery of all courses and these facilitate common assessments which are used to the greatest degree possible.
- Detailed reference to AfL, literacy and numeracy supports are included, on a topic-by-topic basis in all plans and these were reflected in the interventions observed during most lessons. The biology and science plans also include extensive links to on-line resources.
- The TY plan includes an appropriate and interesting range of topics in Biology, Chemistry and Physics and it is suggested that topics related to Agricultural Science be included also.
- All lessons observed were well planned with required resources prepared in advance.

- Analyses of certificate examination results has been thorough and there is very good evidence of consequent improvement, especially in the proportion of students taking higher level in the various subjects. It is recommended that the details of the work undertaken to bring about this improvement be documented to a greater extent.

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The draft findings and recommendations arising out of this evaluation were discussed with the principal, deputy principal and the subject teachers at the conclusion of the evaluation. The board accepts the report as the final inspection report available for publication and wishes to respond formally to the report. The Board agrees that the response submitted will be included as an appendix to the published report. The board's response is submitted below.

# **Appendix**

**SCHOOL RESPONSE TO THE REPORT**

**Submitted by the Board of Management**

### **Part A: Observations on the content of the inspection report**

The Board welcomes the Report on the Quality of Learning and Teaching in Science, Biology and Agriculture Science. The Board, in particular, welcomes the positive findings in relation to Learning and Teaching, Group Work, teacher-student interaction, whole school support and Curriculum planning.

### **Part B: Follow-up actions planned or undertaken since the completion of the inspection activity to implement the findings and recommendations of the inspection**

The school is committed to continuous improvement. To this end, the Science department has met to discuss the recommendations and the verbal feedback given by the Inspector. Each of the recommendations will be implemented and the means to achieve this will be included in the Science Department future planning.