

An Roinn Oideachais agus Scileanna
Department of Education and Skills

Subject Inspection of Science and Biology
REPORT

St Mogue's College
Bawnboy, Co Cavan
Roll number: 70360C

Date of inspection: 28 November 2012



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 SCIENCE AND BIOLOGY**

INFORMATION ON THE INSPECTION

Date of inspection	28 November 2012
Inspection activities undertaken <ul style="list-style-type: none">• Review of relevant documents• Discussion with principal and teachers• Interaction with students	<ul style="list-style-type: none">• Observation of teaching and learning during two double class periods• Examination of students' work• Feedback to principal and teachers

MAIN FINDINGS

- The quality of teaching and learning in the lessons visited ranged from very good to exemplary.
- Students displayed positive attitudes to Science and worked with enthusiasm.
- All learning activities were well managed in a safe and supportive learning environment.
- The classroom atmosphere was positive and good interpersonal relations were evident.
- Students were challenged by the lesson content and by the nature of the tasks set.
- Science is well-promoted in the school through the science team and senior management.

MAIN RECOMMENDATIONS

- All science teachers should promote the use of the investigative approach in practical work.
 - Areas for development which have been identified by the science team should now be compiled into a time-bound action plan.
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INTRODUCTION

St Mogue's College is a co-educational school catering for a total of 191 students. It operates under the auspices of County Cavan Vocational Education Committee. The college offers a good range of curricular programmes which include the Junior Certificate, the Junior Certificate School Programme (JCSP), Transition Year (TY), Leaving Certificate and the Leaving Certificate Vocational Programme (LCVP). Participation in the TY programme is optional in the school and uptake is good.

TEACHING AND LEARNING

- The quality of teaching and learning was very good with instances of excellent practice. All lessons began with an outline of the learning outcomes for students. It is very good practice that the outcomes were discussed and clarified with students. Lessons were linked to students' prior learning and instruction was clear and concise.
- Teachers adopted a good range of questioning strategies during the lessons and excellent practices were observed where students were challenged to think for themselves and analytical and critical thinking skills were promoted.
- A very good range of resources was selected and these included models, charts, live specimens, interactive white board and PowerPoint software. Best practice in the use of PowerPoint was observed where diagrams and content were clear and videos and animations had been incorporated into the presentation. Students displayed positive attitudes to Science and worked with enthusiasm.
- Classroom management was excellent. All learning activities were well managed in a safe and supportive learning environment. The classroom atmosphere was positive and conducive to work. Good interpersonal relations were evident. Students were challenged by the lesson content and by the nature of the tasks set.
- There was good attention to the development of students' literacy skills. In all lessons, new words were explained and the use of subject-specific terminology was encouraged.
- Students engaged well with all classroom activities and showed good understanding of concepts and facts taught. During practical activities, students paid careful attention to health and safety regulations while working. Good routines have been established. Very good practices were observed in the discussions around the use of a control in scientific experiments. An investigative approach should be adopted in practical work where possible.
- Homework is regularly assigned and checked by teachers. Students were observed to make very good use of tablet computers in one lesson where lesson content and homework is available through the school website. Students' class work and homework copybooks showed evidence of checking and annotation which included formative and directional feedback. This is very good practice.

SUBJECT PROVISION AND WHOLE SCHOOL SUPPORT

- Science is well promoted in the school and the timetabling of both Science and Biology is appropriate.
- Science is a core subject at Junior Certificate level. There is an optional TY programme containing modules of Physics, Chemistry and Biology. At Leaving Certificate level the school offers Biology and Agricultural Science as well as Physics and Chemistry.
- There is one laboratory which is tidy and well organised. However, the benches, sinks and flooring are well worn and show evidence of their high level of use. In addition, the single glazed glass display cupboards in the laboratory are a potential hazard due to both their composition and location. Management should investigate potential avenues to remedy this as soon as is practicable.
- There is a storage room and preparation area adjacent to the laboratory, Chemicals are stored appropriately and this room is locked when not in use. However, security and accessibility around the window area in the preparation room should be reviewed.
- There has been good engagement with continuing professional development (CPD) and this is encouraged by management. Members of the science team have attended CPD in areas such as assessment for learning (AfL), Discover Sensors and mixed-ability teaching.
- There is a good emphasis on health and safety in the laboratory. A code of conduct is prominently displayed and appropriate use of health and safety equipment was observed at the time of the evaluation. Accident reporting procedures are in place.
- The school has an assessment policy in place which includes the use of in-class assessment, homework and external assessment procedures.

PLANNING AND PREPARATION

- The subject department meets regularly and minutes of these meetings are recorded. It is good to note that student progress has been a key item on the agenda in the majority of meetings.
- Comprehensive planning documentation was provided for Junior Certificate Science and Leaving Certificate Biology. It is good to note that all schemes of work focus on the learning outcomes for students. There is evidence of a good link with the special needs department and student profiles are used in planning for students' learning.
- Teachers had meticulously planned for their individual lessons and an appropriate range of resources had been selected.
- There was evidence of very good record keeping in regard to students' attendance, homework completed and achievement in assessments. Within the modes of assessment for Junior Certificate Science there is scope to include a practical activity or experiment to augment the range of assessment tools used.

- It is good practice that the science team has engaged in self-evaluation and has identified a number of areas for future planning. These areas for development should now be compiled into a time-bound action plan.

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