

An Roinn Oideachais agus Scileanna

Department of Education and Skills

**Subject Inspection of Science and Biology
REPORT**

**Heywood Community School
Ballinakill, Portlaoise, Co. Laois
Roll number: 91427C**

Date of inspection: 5 April 2011



**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

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| Date(s) of inspection | 4 and 5 April 2011 |
| Inspection activities undertaken <ul style="list-style-type: none">• Discussion with principal• Discussions with science and biology teachers• Review of teachers' notes, plans and records• Interaction with students | <ul style="list-style-type: none">• Examination of students' laboratory notebooks and copybooks• Observation of teaching and learning in eleven class periods• Feedback to science and biology teachers and principal |

MAIN FINDINGS

- Teaching and learning was of a uniformly high standard across the lessons observed and, in a number of instances, was of a very high standard.
- Teaching was carried out with energy and enthusiasm, lessons were very interactive and students' input was sought and valued.
- Practical work was well managed and carried out in an efficient and safe manner.
- The school's information and communication technology (ICT) infrastructure is very good and is well used to support teaching and learning.
- An effective science department is in place and a high level of co-operation and collegiality is evident among the teachers.
- Students' progress and competence is monitored and assessed effectively by a range of assessment modes and timely reports are issued to parents.

MAIN RECOMMENDATIONS

- The procedure of sharing learning objectives with students at the opening of lessons and reviewing these at the close of lessons should be adopted as standard practice across the science department.
 - It is recommended that teachers monitor students' written work and provide developmental feedback to an agreed common standard.
 - It is recommended that short safety notices be prominently displayed at various locations in the laboratories.
 - It is recommended that the science department members build on their annual detailed analysis of state examination outcomes by setting targets for improvement and by agreeing concrete steps to achieve these targets.
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INTRODUCTION

Heywood Community School offers Science as a core subject in junior cycle. Agricultural Science, Biology, Chemistry and Physics are offered as optional subjects in senior cycle. The optional Transition Year (TY) also provides modules in the sciences. The school has a current enrolment of 673 students. 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.

TEACHING AND LEARNING

- Classroom interactions were characterised by good quality teaching in all lessons observed, with very good practice in a number of lessons. Teachers set high expectations. Observation of and interaction with students indicated that they had a good understanding of subject knowledge and practical skills appropriate to their level.
- Teaching was carried out with energy and enthusiasm and there was a good balance between teacher-led and student-centred phases in all lessons observed. Lessons were very interactive and a good rapport between teachers and students was evident during all lessons. Students' input was sought and valued. However, in a small number of classrooms, care should be taken to ensure that all students are included in such interactions.
- Questioning of students was well used to test recall and understanding. An appropriate mix of lower-order and higher-order questions was used with questions being directed to named student in most instances. Very skilful questioning was used in a small number of lessons to elicit information from students in order to develop the lesson topic, thereby giving students ownership of the lesson content.
- Lessons were mostly well structured, with best practice evident where learning objectives were shared with students at the opening of the lesson and revisited when reviewing learning at the close of the lesson. This practice should be implemented as standard across the science department.
- Students' behaviour was exemplary in all lessons observed and they were well managed, guided and directed in all learning activities. They were well affirmed for their efforts by teachers, who circulated well in most lessons, in a very supportive, encouraging and caring manner.
- Practical work was well managed and carried out in an efficient and safe manner. Clear instruction was provided to students in advance and, in the best examples, an investigative approach was fostered.
- Students' progress and competence is monitored and assessed effectively by a range of assessment modes, for example oral questioning, regular class assessments, homework assignments and examination questions.
- Students' laboratory notebooks were mostly of a high standard, in particular where there was good monitoring of these and where developmental feedback was provided. It is recommended that teachers monitor students' written work, and provide supportive feedback, to an agreed common standard.

SUBJECT PROVISION AND WHOLE SCHOOL SUPPORT

- The time allocated to both Science and Biology is in keeping with relevant syllabus guidelines and classes in each subject are mixed ability. Numbers are very strong in Biology, which is the most popular of the senior cycle science subjects.
- Students' involvement in extracurricular activities is well supported by management and the science teachers. Activities include entry to the Young Scientist exhibition, Science Week quizzes and events, tours and visiting speakers.
- An appropriate system of formal and informal assessment of students' progress and of reporting to parents is in place and reports are issued twice each year for examination classes and four times for other students. Formal parent-teacher meetings are held once each year for every year group and additional contact with parents is as required.
- The school's ICT infrastructure is very good. Each laboratory is equipped with a data projector and has broadband access. The equipment is well used to support teaching and learning and also at an administrative level within the science department. An extensive set of high-quality resources have been produced to aid students' learning.
- The laboratories are well stocked and well organised. Best use is being made of them and all students have weekly access. Storage and preparation areas are well ordered. It is recommended that the rearrangement of chemicals, according to the colour-coded storage method, be completed at an early date.
- Attention to health and safety issues is thorough and an appropriate range of safety equipment is available. To enhance provision, it is recommended that short safety notices be prominently displayed at various locations in the laboratories.
- Teachers are well qualified and experienced and are appropriately deployed. They have a wide range of expertise which is used to support students' learning. Continuing professional development, including membership of the Irish Science Teachers Association, is well supported by school management and availed of by teachers.

PLANNING AND PREPARATION

- An effective science department is in place and a high level of co-operation and collegiality is evident among the teachers. Detailed, common schedules for the delivery of all courses have been prepared and are being implemented, facilitating the provision of common assessments.
 - All lessons observed were well planned and content was in keeping with planning schedules. Necessary resources to support high quality teaching and learning were in place.
 - It is recommended that the science department members build on their annual detailed analysis of state examination outcomes by setting targets for improvement and by agreeing concrete steps to achieve these targets on an ongoing basis.
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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.

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