

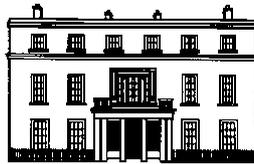
An Roinn Oideachais agus Scileanna

Department of Education and Skills

**Subject Inspection of Science and Biology
REPORT**

**St Mary's Secondary School
Mallow, County Cork
Roll number: 62350D**

Date of inspection: 28 September 2011



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

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

INFORMATION ON THE INSPECTION

Date of inspection	27 & 28 September 2011
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 eight class periods• Examination of students' work• Feedback to principal and teachers

MAIN FINDINGS

- The standard of teaching and learning was good, with some very good practice observed.
- The teaching and learning environment is enhanced by facilities which are modern, well organised and very well resourced.
- Given that Junior Certificate Science and Leaving Certificate Biology are optional subjects, the level of uptake is very high.
- Time allocated to first year Science is below recommended syllabus guidelines.
- Lessons observed provided some examples of the integration of Information and Communication Technology (ICT) and a shared space has been developed for the sharing of resources.

MAIN RECOMMENDATIONS

- Learning outcomes should be identified for each lesson and shared with the students.
 - The teaching team should reflect on classroom practice and gather, share and record effective approaches in the subject plans.
 - Planning documentation in the Sciences should be reviewed and evaluated by the science team with a view to having consistency of approach across the subjects.
 - An indicative timeframe for student practical skill attainment in relation to the practical components of the syllabuses should be included in the plans for the subject.
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INTRODUCTION

St Mary's Secondary School is a voluntary secondary school providing post-primary education currently to 606 girls. The school serves both an urban and rural student population. It is one of three post-primary schools in the town of Mallow.

TEACHING AND LEARNING

- The quality of teaching and learning was good, with some very good practice observed. Skilful preparation and planning facilitated well-structured lessons. Stating the intended learning outcomes at the start of each lesson is recommended. The use of learn checks during the lesson, the recording of key learning points and key words for the students, allowing time for lesson review near completion of the lesson and the use of differentiation are additional elements to lesson delivery worth consideration by the team.
- In many lessons, good links with previous learning were made with good integration between course areas evident. A review of prior learning occurred at the start of most lessons, with teachers ensuring that all student materials were closed to enable a true assessment of student knowledge, which is good practice. Specialist words were used and explained well in the lessons with alternatives given when required to aid learning.
- A good balance of questioning styles was observed, which is good practice. It is advised that all students be involved in some questioning during the lesson with chorus answering discouraged.
- Student learning benefited from the use of visual images including ICT presentations, handouts and well-constructed board work. In addition, when required, students worked well in groups on written tasks. There was good communication between the learners in these instances which aided their understanding and the development of the topics under investigation. Teachers moved around the room to aid students and also monitor progress, which is good practice.
- In the main, a range of teaching methodologies was employed, which is good. Best practice was where teacher-led instruction was well balanced with student input and active learning methodologies were central to lesson delivery. This was observed in many instances.
- Practical work was observed in some lessons with students very enthusiastic about doing the activities. They worked in small groups which had a definite focus. Where activities were time bound, students were more focused. Further development of the enquiry-based approach which will aid students' skill development is encouraged.
- The use of routines familiar to students, such as a roll call and a brief period of settlement, was also a common feature of the lessons observed. Lessons were well managed. Teacher-student rapport was very good and students' behaviour was exemplary.
- Subject-specific information and posters were present on the laboratory walls and corridors around the science facilities. Some were of student origin, which is good. This display should be updated regularly to reflect and support current learning.
- Homework was assigned and previous work corrected in many of the lessons. This good practice should feature regularly in all lessons. Monitoring of homework should be done more consistently by the team.
- Student practical copies were monitored by the teachers, which is good practice. Follow through on students' corrections should occur to ensure accuracy. The very good practice of awarding students marks for their practical copies as part of their overall grade in the subjects is acknowledged. Regular formative assessment is one mechanism used to monitor students' progress in the subjects, which is good practice. Summative assessments, some of which are common, occur. These common assessments could be

used to look at the standards across the various year groups the outcomes of which could inform future planning.

SUBJECT PROVISION AND WHOLE SCHOOL SUPPORT

- The majority of junior cycle students are studying Science, which is very positive. At Leaving Certificate, Biology, Chemistry and Physics are provided. Biology is by far the most popular senior science subject in the school with over three quarters of the total current Leaving Certificate cohort choosing to study this subject, which is commendable. Students study all science subjects in mixed-ability groups.
- Whole-school support for the Sciences is good. An annual budget is assigned to the Sciences. This could be used not only to replace materials and equipment annually but to increase the resources within the Sciences over time. Currently, all facilities are well equipped with good organisation of materials evident. ICT equipment is also present and available for use in all laboratories.
- The school has three functioning laboratories with associated preparation spaces and a chemical store. A demonstration room is also available for use by the science team. Student access to the laboratories is good, with rotation for access occurring when required, which is good practice.
- One single lesson and one double lesson per week are allocated for first-year Science. The curriculum guidelines recommend two single lessons and one double lesson weekly. In second year and third year, students receive this tuition. The time allocation for Biology is within curriculum guidelines.
- Parents are kept informed of student progress through the annual parent teacher meeting for each year group as well as reports home following the two summative assessment points during the academic year, which is positive. In addition, state examination classes also get a report of their pre-examination results.

PLANNING AND PREPARATION

- A subject co-ordinator is appointed. This co-ordinator facilitates the running of the department. It is advised that this role be rotated among the science teaching team. Formal meetings are facilitated by management each term. Minutes of department meetings are retained. This is positive.
- It is acknowledged that considerable work has gone into the development of subject plans. Individual planning should be reviewed and the range of approaches evaluated with a view to reaching departmental agreement as to which approach is most appropriate.
- Building on the planning work to date, it is recommended that a learning-outcomes approach be taken to programme design. The area of self-evaluation and reflection could also be explored by the team to inform effective classroom practice.

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.

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