

An Roinn Oideachais agus Scileanna

Department of Education and Skills

**Subject Inspection of Science
REPORT**

**Saint Jarlath's Secondary School,
Tuam, County Galway
Roll number: 68074M**

Date of inspection: 18 September 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 SCIENCE**

INFORMATION ON THE INSPECTION

Date(s) of inspection	18 September 2014
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 5 class periods• Examination of students' work• Feedback to principal, deputy principal and teachers

MAIN FINDINGS

- Subject planning is of a good quality and is supported by well-documented processes and appropriate structures.
- The overall quality of teaching and learning was found to be good, with students demonstrating good progress in their learning during the lessons that were observed.
- Provision for Science at a whole-school level is of a generally high quality with resulting effects such as a high level of uptake of science subjects at senior cycle being evident.
- The science facilities are generally in good repair and fit for purpose.

MAIN RECOMMENDATIONS

- The team of science teachers should build on their existing good planning practices by identifying actionable priorities for teaching and learning which, when implemented, will further improve students' learning.
 - The school should explore all possible avenues to remediate the main science preparation area.
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INTRODUCTION

St Jarlath's College, Tuam is an all-boys' voluntary secondary school under the trusteeship of the archbishop of Tuam. The school's total enrolment is 559 students. In addition to the Junior Certificate and Leaving Certificate programmes the school provides a Transition Year programme and the Leaving Certificate Vocational Programme.

TEACHING AND LEARNING

- In the lessons observed a range of teaching methods was used. Foremost among these methods were questioning and the performance of experimental work. In all instances the various teaching approaches were successful in helping students to achieve the lesson objectives. In particular, lessons included the appropriate use of techniques which helped students to consolidate their learning.
- It was evident that the teachers had planned well for the lessons as the sequencing and approaches were differentiated according to the students' abilities and previous learning. For example, for one group, experimental work was undertaken in a sequenced manner with a high level of teacher monitoring and support, which was wholly appropriate to the year group and their previous learning experience of Science. In another group, there was very good use of visual aids and higher-order questioning with the use of wait time, all of which prompted and supported the students to go beyond recall-based answers and to think about the topic.
- In engaging with the students the inspector found that they were interested and motivated in their study of Science. They reported positive experiences of learning Science. They gave good answers to questions that were posed by their teachers and they asked questions of their teachers which showed that they were curious and enthusiastic about Science. The students' practical skills were observed to be satisfactory and it was evident that they had experience of working collaboratively as a member of a team when undertaking science experiments.
- All experimental work was undertaken safely and the teachers gave appropriate safety instructions and maintained vigilance throughout the lessons. All lessons were characterised by high levels of teacher support for students and all questions were accepted in an open manner and responded to affirmatively by the teachers.
- Classroom management was good for all of the lessons observed. There was a positive and supportive learning atmosphere. The students were addressed by name and it was evident, from discussions that the inspector had with the teachers, that the teachers were aware and sensitive to the students' learning needs.
- Samples of students' homework copybooks, experimental copybooks, and homework journals were examined. These showed that homework had been assigned regularly. There was evidence of good practice in relation to the frequent use of written formative feedback by teachers. This feedback included both guiding and affirming comments designed to help improve the students' learning.
- Literacy for the subject was well addressed in all lessons. The teachers paid appropriate attention to ensuring that students were familiar with the scientific terms they encountered as well as overall reading, writing and comprehension literacy. The main approach which was used involved keywords related to the topic being studied. Where this was combined with other literacy support techniques, for example, writing and phonological awareness, this was good practice.

SUBJECT PROVISION AND WHOLE SCHOOL SUPPORT

- The range of science subjects available at senior cycle is very wide, with Physics, Chemistry, Biology and Agricultural Science being available for students. The overall uptake of these subjects is high, suggestive of positive attitudes among students to studying science subjects.
- The time allocation for Science meets with the requirements of the syllabus. The school strives to ensure a balanced deployment of class periods across the week to support the continuity of students' learning, and this has been achieved as far as possible.
- A variety of extra-curricular and co-curricular science-related activities is provided by the school. Attendance at and participation in events such as the Tyndall lecture series, Science week, ecology field trips, and the BT Young Scientist and Technology Exhibition help to promote students' interest in the sciences.
- The science laboratories are generally in good condition and well maintained. However, the main preparation area has scope for improvement. It has little usable space for preparation work. The school should explore all available avenues for remediation of the preparation room. This work should result in improved preparation space and better storage and more secure facilities for chemicals, some of which are currently stored on open wooden shelves.
- Numerous examples were provided of continuing professional development events which the science staff has attended, indicating good support for on-going professional development. Whole-staff professional development has taken place on a range of themes and this positively supports the teachers in their work.

PLANNING AND PREPARATION

- Very good work has been done by the science staff in compiling a comprehensive subject plan for Science. This good work has been supported by appropriate structures including formal planning meetings and evidence of collaboration and positive relationships among the science staff. The subject plan includes a section that addresses elements of teaching and learning, and this is wholly appropriate. It is recommended that the science teachers build on their existing good planning practices by identifying actionable priorities for teaching and learning which, when implemented, will further improve students' learning.
 - All lessons were very well planned and prepared. This was evidenced by the efficient manner in which the lessons proceeded. Materials and resources had been prepared in advance and were appropriate to the lessons and helpful in aiding the students' learning. The teachers demonstrated in-depth knowledge of the topics being taught and showed high levels of subject matter expertise.
 - Students' progress is assessed frequently with reports sent home periodically and this is appropriate. The mechanisms that are used to report to parents include parent-teacher meetings, school reports, results of in-class examinations, and use of the homework journal. The school is working to ensure that the journal system is used in a systematic manner and this is to be encouraged.
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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. 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.