

An Roinn Oideachais agus Scileanna

Department of Education and Skills

**Subject Inspection of Science
REPORT**

**Coláiste Iascaigh
Easkey, County Sligo
Roll number: 72320A**

Date of inspection: 20 January 2016



**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 of inspection	20 January 2016
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 four class periods• Examination of students' work• Feedback to principal, deputy principal and teachers

MAIN FINDINGS

- The quality of teaching and learning was good with some examples of exemplary practices observed.
- Teachers were well prepared and a range of methodologies, including enquiry-based learning and information and communication technology (ICT), was used in all lessons.
- Homework is assigned regularly and evidence of written formative feedback was seen in samples of students' work.
- Science is a core subject in the school and students can choose to study Biology at senior cycle.
- The school has one old science laboratory where the majority of science lessons take place.
- The science department's planning is good and it includes very good record-keeping as well as an analysis of certificate examination results.

MAIN RECOMMENDATIONS

- The science teachers should ensure that learning intentions are recapitulated during lessons and should implement strategies to aid students in reflecting on these intentions to improve their learning skills.
- The science department should assign a wider variety of homework, to complement the current practice which is primarily written homework tasks.
- Management should endeavour to provide Physics and Chemistry as options for senior-cycle students into the future, should teaching resources become available.
- Management should prioritise the upgrade or refurbishment of the current laboratory.

INTRODUCTION

Coláiste Iascaigh is a co-educational school operating under the auspices of Mayo, Sligo and Leitrim Education and Training Board. The school participates in the Delivering Equality of Opportunity in Schools (DEIS) initiative. At the time of the inspection it had an enrolment of 136 students. The school provides the Junior Certificate Schools Programme in addition to the Junior Certificate. At senior cycle, the established Leaving Certificate, Leaving Certificate Vocational Programme, and the Leaving Certificate Applied are all offered.

TEACHING AND LEARNING

- The quality of teaching and learning was good with some very good methodologies and exemplary practices observed. Teachers had prepared well for their lessons and good use was made of ICT. Prior learning was reinforced during lessons and learning intentions were shared with the students at the start of most lessons. The learning intentions should be used by teachers to recapitulate all lessons and the science department should encourage students to reflect on these intentions to improve their understanding of concepts and skills.
- A good range of learning and teaching methodologies was employed during the observed lessons and there was a good balance between teacher input and student activity. Good practices such as discovery learning methodologies, pair work, group work, clear teacher instruction, note-making, and student performance of experimental work were observed. Where pair work is undertaken, teachers should provide students with a clear timeframe and written and oral descriptions of the assigned task, ensure that all students are given roles and enable students to provide feedback to their peers.
- Classroom management was very good. Students were active and engaged and showed a good level of understanding of concepts and facts. Students were affirmed for their efforts and a good rapport between students and teachers was evident. The laboratory was print rich and students observed good health and safety procedures and gathered and cleared away equipment efficiently for practical lessons.
- Questioning was very good. Teachers distributed questions across the student cohort and there was a good mixture of higher and lower-order questions. All classes are of mixed ability and some differentiation strategies were used in lessons. However, the science department should ensure that all methodologies are differentiated carefully to ensure that they cater for students of all abilities and maximise students' engagement in learning.
- Homework is assigned, monitored and corrected regularly, and students were provided with written comments that identified strengths as well as guiding students towards improvement in their practical copybooks. Teachers should vary the type of homework given and avoid an over-reliance on written tasks and revision exercises. All teachers should also ensure that students write up their practical work in their own words rather than transcribing from a template.
- In the lessons observed, there was some attention given to the development of students' literacy through the explanation of keywords, and numeracy through an importance placed on percentages and scale. The science department should undertake a review of the effectiveness of any classroom strategies it uses currently to support literacy and numeracy.

SUBJECT PROVISION AND WHOLE SCHOOL SUPPORT

- Whole-school support for the sciences is good. Science is a core subject in the junior cycle. Students can currently only choose Biology, due to available teaching resources, from an open choice of subjects at senior cycle. Senior management should endeavour to provide Chemistry and Physics as options for senior-cycle students into the future, should teaching resources become available.
- Time provision for all science subjects is in line with syllabus recommendations.
- The school has one old science laboratory. The majority of science lessons take place in this laboratory providing students with good access for experimental work. The science department undertakes a risk assessment of the laboratory annually. Chemicals are stored correctly and health-and-safety apparatus and first-aid equipment are in place. However, the fume cupboard is not functioning, many taps and sinks are broken and the wooden benches have begun to rot. Management should address these issues urgently as they are impacting on the subject department's capacity to support practical work in Science as well as being a health-and-safety concern.
- The school is supportive of teachers' continuing professional development and teachers are actively involved in the Irish Science Teachers' Association. Students are encouraged to participate in extra-curricular events such as SciFest and science week. The school also has access to a nearby wildlife sanctuary which is used for field trips in Science.
- Common assessments take place at summer where applicable. The science department provides a percentage score for students' attainment in practical work during the year as part of this process.

PLANNING AND PREPARATION

- The quality of planning and preparation is good. A co-ordinator is appointed and this position is rotated periodically. The teachers meet regularly and very good minutes of these meetings are maintained.
- The science department conducts an analysis of certificate examination results. This analysis should be extended to setting measurable targets and agreeing time-bound action plans in order to improve upon student learning, and the extended analysis should be discussed at department meetings.
- Good-quality common schemes of work are in place which include timeframes, learning intentions, available resources and a teacher review section. These schemes should now be extended to link specific teaching and learning methodologies and assessment modes to the learning intentions. This would provide the teachers with an opportunity to share teaching practices as well as informing future planning.

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 of the school was given an opportunity to comment in writing on the findings and recommendations of the report, and the response of the board will be found in the appendix of this report.

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Appendix

SCHOOL RESPONSE TO THE REPORT

Submitted by the Board of Management

Part A Observations on the content of the inspection report

The Board of Management welcomes this positive report and accepts the recommendations as part of the reflective practice existing in the school.

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

1. The Board of Management recognises the scheme of work being used by the Science Department is in keeping with the current junior cycle course and department guidelines. Linking learning intentions to specific teaching methodologies are new approaches being adopted by the New Junior Cycle. All Science teachers will avail of in-service training in this regard.
2. The Board of Management agrees that the evidence on the day of the inspection pointed to a practice of setting primarily written homework. However the Board acknowledges there is evidence of teachers assigning a variety of homework which extends the learning beyond the classroom.
3. The Board of Management acknowledges the importance of increasing the science subject choice at senior cycle. The management has raised the issue with Mayo, Sligo & Leitrim Education & Training Board and is working to improve the subject offerings in the coming years. The Board notes that the school is obliged to operate within its teacher allocation.
4. The Board of Management made an application for additional school accommodation including a new science laboratory in July 2015. A Department of Education Buildings Inspector visited the school in November 2015. The Board awaits the DES response in this regard.