An Roinn Oideachais agus Scileanna

Department of Education and Skills

Subject Inspection in Science and Chemistry

REPORT

Ainm na scoile / School name	Coláiste Na Mí
Seoladh na scoile / School address	Navan County Meath
Uimhir rolla / Roll number	76173K

Date of Inspection: 19-09-2017

AN ROINN OIDEACHAIS AGUS SCILEANNA | DEPARTMENT OF EDUCATION AND SKILLS

WHAT IS A SUBJECT INSPECTION?

Subject Inspections report on the quality of work in individual curriculum areas within a school. They affirm good practice and make recommendations, where appropriate, to aid the further development of the subject in the school.

HOW TO READ THIS REPORT

During this inspection, the inspector evaluated learning and teaching in Science and Chemistry under the following headings:

1. Teaching, learning and assessment
2. Subject provision and whole-school support
3. Planning and preparation

Inspectors describe the quality of each of these areas using the Inspectorate's quality continuum which is shown on the final page of this report. The quality continuum provides examples of the language used by inspectors when evaluating and describing the quality of the school's provision in each area.

The board of management 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.

SUBJECT INSPECTION

INSPECTION ACTIVITIES

Dates of inspection	18 & 19 September 2017
Inspection activities undertaken • Review of relevant documents • Discussion with principal and key staff • Interaction with students	• Observation of teaching and learning during ten class periods • Examination of students' work • Feedback to principal and relevant staff

School context

Coláiste na Mí was established in 2013 under the patronage of the Louth Meath Education and Training Board. Since then, the school has grown to its current enrolment of 622 boys and girls. The school provides the Junior Certificate, Transition Year (TY) and both the Leaving Certificate and Leaving Certificate Applied programmes.

SUMMARY OF MAIN FINDINGS AND RECOMMENDATIONS:

Findings

- The overall quality of teaching and learning in the lessons observed was good.
- Highly-effective learning was noted in a few lessons where the pitch and pace of the lesson sufficiently challenged and engaged students.
- A variety of very good assessment practices including self and peer assessment was used but developmental assessment of written work such as laboratory reports was not evident.
- The quality of whole-school support and subject provision is very good, and students are able to avail of a wide science curriculum.
- Subject planning is of a good standard; strategic planning is reflected in the science department's action plans for the current school year.
- The science department has initiated several means of sharing good practice and has given some initial consideration to introducing peer observation.

Recommendations

- While allowing for individual students' needs, teachers should consider the level of expectation and pace of lessons with a view to ensuring that students are challenged sufficiently.
- In order to support the development of good reporting skills over time, the science teachers should develop an agreed approach to assessing students' written work.
- As a means of further supporting the sharing of good teaching practice, the science department should develop and implement protocols to support peer observation.

DETAILED FINDINGS AND RECOMMENDATIONS

1. TEACHING, LEARNING, AND ASSESSMENT

- The overall quality of teaching and learning in the lessons observed was good.
- Teachers had prepared suitable resources such as handouts, worksheets and practical materials to support students' learning. Clear simple electronic presentations were used effectively to provide information and visual illustrations of the relevant topics.
- Good lesson planning was evident in the preparation of a sequence of learning activities designed to achieve the learning intentions for each lesson. The sharing of the learning intentions with students at the start of lessons, and references to them during lessons, was often used as a means of increasing students' awareness of the learning process.
- Lessons were generally very well managed in a supportive affirmative atmosphere. Students were confident in contributing to class and demonstrated a positive approach to their work.
- Students' individual needs were well supported, particularly at stages in the lessons where they were working independently or in groups. These situations allowed the teachers to provide one-to-one support where needed. Effective group work also allowed students to develop their skill at working collaboratively.
- Highly effective learning was noted in a few lessons where the pitch and pace of the lesson sufficiently challenged and engaged students. While allowing for individual needs, it is recommended that teachers consider the level of expectation and pace of lessons with a view to ensuring that students are challenged sufficiently. For example, teachers could reflect how much new learning had been achieved in particular lessons.
- Students' literacy skills were developed through good focus on subject-specific terminology. Correct use and understanding of terminology was also supported by the display of many posters and scientific material in the laboratories.
- The widespread use of everyday examples allowed students to make meaningful links between school-based learning and the applications of science; this served to capture students' interest in the particular topics.
- Student's use of tablet devices in most lessons enabled them to develop their research skills and enhanced their digital literacy. The use of internet-based platforms for the sharing of notes and presentations is very good practice as it allows learning to be extended beyond the classroom.
- The provision of appropriate practical activities facilitated the development of laboratory skills and enhanced students' understanding of the relevant concepts. Teachers also made good use of demonstrations to support students' learning.
- Effective assessment practices were observed. In all lessons, homework was assigned and corrected, and students' knowledge and understanding were checked by teacher questioning. Some very good use was made of self and peer-assessment strategies.
- Though monitored for completion, written work, such as laboratory reports, was not formally assessed generally. In order to support the development of good reporting skills over time, it is recommended that the science teachers develop an agreed approach to assessing students' written work. For example, constructive comments could be used to guide students on how to improve their laboratory reports.

2. SUBJECT PROVISION AND WHOLE SCHOOL SUPPORT

- The quality of whole-school support and subject provision is very good.
- Students are able to avail of a wide science curriculum. Science is a core subject in junior cycle and students have a choice of three Leaving Certificate science subjects. In addition, science features in the TY curriculum.
- The school is very supportive of students' engagement with extra-curricular science activities such as participation in the SciFest competition.
- Very good resources are provided to support teaching and learning. For example, teachers and students are able to avail of good information and communication technology (ICT) resources. The school has two fully equipped laboratories and a third laboratory is being set up currently.
- Teachers are facilitated to attend professional development events such as those provided by the Junior Cycle for Teachers (JCT).
- Timetabling arrangements for science subjects are appropriate.

3. PLANNING AND PREPARATION

- Subject planning is of a good standard.
- The subject department is well organised; the work of the department is co-ordinated by one teacher and there are regular formal meetings. In addition, there is evidence of a high level of ongoing informal collaboration in the science teachers' work.
- A high level of teamwork is evident in the development of consistent learning opportunities for students. In particular, the science department is developing and implementing agreed schemes of work which integrate relevant aspects of teaching and learning. Good use is made of electronic templates and shared folders to support this work.
- Strategic planning is reflected in the science department's action plans for the current school year. The teachers have identified several priorities, including the implementation of the new specification for junior-cycle Science, which they will achieve by specified actions. It is good practice that success criteria have also been set out so that progress in achieving these priorities can be monitored.
- A focus on enhancing student attainment is evident in the science department's reflection on student outcomes in certificate examinations and the introduction of an academic tracking system. Peer observation has been considered and it is recommended that science teachers engage with this method of professional collaboration as a further means of sharing good classroom practice.

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.

Appendix

School response to the report

Submitted by the Board of Management

Part A: Observations on the content of the inspection report

Given that Coláiste na Mí is in its fifth year we are happy that the report shows a good understanding of the school and the Board is happy to accept the recommendations in this context.

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

The Science Dept. will undertake, as part of their Dept. plans, the development of an agreed approach to written assessment.

- To develop and implement protocol to support peer observation
- Address pace of lessons and student expectations to ensure lessons are sufficiently challenging to all.

THE INSPECTORATE'S QUALITY CONTINUUM

Inspectors describe the quality of provision in the school using the Inspectorate's quality continuum which is shown below. The quality continuum provides examples of the language used by inspectors when evaluating and describing the of quality the school's provision of each area.

Level	Description	Example of descriptive terms
Very Good	***Very good*** applies where the quality of the areas evaluated is of a very high standard. The very few areas for improvement that exist do not significantly impact on the overall quality of provision. For some schools in this category the quality of what is evaluated is ***outstanding*** and provides an example for other schools of exceptionally high standards of provision.	Very good; of a very high quality; very effective practice; highly commendable; very successful; few areas for improvement; notable; of a very high standard. Excellent; outstanding; exceptionally high standard, with very significant strengths; exemplary
Good	***Good*** applies where the strengths in the areas evaluated clearly outweigh the areas in need of improvement. The areas requiring improvement impact on the quality of pupils' learning. The school needs to build on its strengths and take action to address the areas identified as requiring improvement in order to achieve a *very good* standard.	Good; good quality; valuable; effective practice; competent; useful; commendable; good standard; some areas for improvement
Satisfactory	***Satisfactory*** applies where the quality of provision is adequate. The strengths in what is being evaluated just outweigh the shortcomings. While the shortcomings do not have a significant negative impact they constrain the quality of the learning experiences and should be addressed in order to achieve a better standard.	Satisfactory; adequate; appropriate provision although some possibilities for improvement exist; acceptable level of quality; improvement needed in some areas
Fair	***Fair*** applies where, although there are some strengths in the areas evaluated, deficiencies or shortcomings that outweigh those strengths also exist. The school will have to address certain deficiencies without delay in order to ensure that provision is satisfactory or better.	Fair; evident weaknesses that are impacting on pupils' learning; less than satisfactory; experiencing difficulty; must improve in specified areas; action required to improve
Weak	***Weak*** applies where there are serious deficiencies in the areas evaluated. Immediate and coordinated whole-school action is required to address the areas of concern. In some cases, the intervention of other agencies may be required to support improvements.	Weak; unsatisfactory; insufficient; ineffective; poor; requiring significant change, development or improvement; experiencing significant difficulties;