An Roinn Oideachais agus Scileanna

Department of Education and Skills

Subject Inspection in Science

REPORT

Ainm na scoile / School name	St Laurence College
Seoladh na scoile / School address	Loughlinstown Dublin 18
Uimhir rolla / Roll number	60262T

Date of Inspection: 10-03-2020

An Roinn Oideachais
agus Scileanna
Department of
Education and Skills

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 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 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.

CHILD PROTECTION

During the inspection visit, the following checks in relation to the school's child protection procedures were conducted:

1. The name of the DLP and the Child Safeguarding Statement are prominently displayed near the main entrance to the school.
2. The Child Safeguarding Statement has been ratified by the board and includes an annual review and a risk assessment.
3. All teachers visited reported that they have read the Child Safeguarding Statement and that they are aware of their responsibilities as mandated persons.

The school met the requirements in relation to each of the checks above.

SUBJECT INSPECTION

INSPECTION ACTIVITIES

Dates of inspection	9-03-2020 and 10-03-2020
Inspection activities undertaken • Review of relevant documents • Discussion with principal, deputy principal and key staff • Interaction with students	• Observation of teaching and learning during three double lessons • Examination of students' work • Feedback to principal, deputy principal and relevant staff

School context

St Laurence College is a voluntary secondary school, which follows the Marianist tradition, under the patronage of Le Chéile Schools Trust. The school has a current mainstream enrolment of 260 male and female students. In addition to Junior Cycle, the school offers the Junior Certificate School Programme (JCSP), an optional Transition Year (TY) programme and the established Leaving Certificate. The school participates in the Delivering Equality of Opportunity in Schools (DEIS) action plan for educational inclusion.

SUMMARY OF MAIN FINDINGS AND RECOMMENDATIONS:

Findings

- The overall quality of teaching and learning is very good; practice ranged from good to very good.
- Students generally worked independently and collaboratively, engaged in meaningful inquiry-based learning activities in line with the new specification in Science and developed ownership and responsibility for their learning.
- For the most part, students were actively engaged in learning through hands-on investigations, interactive demonstrations and effective questioning strategies.
- At times, students had little opportunity to reflect on and evaluate their learning and in some cases developmental formative written feedback was not adequately provided by teachers.
- There is good curricular provision for science education in the school.
- Teachers' individual planning for lessons was of a very high standard; there is a good level of collaborative department planning.

Recommendations

- Teachers should ensure that there is sufficient time for students to reflect on and evaluate their learning in all lessons.
- Teachers should plan for and implement the extended use of developmental formative written feedback for all students.

DETAILED FINDINGS AND RECOMMENDATIONS

1. TEACHING, LEARNING, AND ASSESSMENT

- The overall quality of teaching and learning is very good. Practice ranged from good to very good. There were some instances of exemplary practice. Co-teaching provided additional support for students in one lesson.
- Teacher expertise and enthusiasm impacted positively on student learning. Teachers planned and facilitated sequences of purposeful independent and collaborative student work. Short, clear teacher inputs during lessons supported student activity and learning. There was very good incremental development of student knowledge.
- Students expected to achieve as learners and were motivated to learn. Positive classroom interactions supported a co-operative and productive learning environment. Best practice was observed when teachers ensured that there was a high level of engagement and participation with an appropriate level of challenge.
- Students actively worked on meaningful inquiry-based learning activities in line with the new specification in Science and developed ownership of and responsibility for their learning. For example students worked in small groups to effectively investigate the effect of heat on solids during one lesson.
- For the most part, students were actively engaged in learning through hands-on investigations. However, it is suggested that there should be enhanced opportunities for students to participate in some demonstrations. In addition, teachers should consider replacing some current demonstrations with a rota of student investigations. This may work particularly well during the co-teaching sessions.
- Practical work was carried out safely and efficiently and students were encouraged to think creatively and critically about their investigations and to predict and explain the outcomes of their investigations and thought processes. This worked particularly well during the lesson on the theme of water.
- The overall quality of assessment was good. Teachers used a range of questioning strategies very well, including individual questioning as a means of maximising student participation. Question and answer sessions worked well in lessons where questions were differentiated and where individual questions were used by teachers as a means of maximising participation. Through their responses, most students demonstrated a knowledge appropriate to their year group.
- Best practice was observed when developmental formative written feedback was consistently provided by teachers. In many cases, students were made aware of their strengths and areas for development as learners. Teachers should plan for and implement the extended use of developmental formative written feedback for all students.
- Appropriate lesson intentions were shared at the outset of lessons. The board was used to share lesson intentions and to collate and summarise learning. All lessons should be paced and planned so that student learning is reinforced through revisiting lesson intentions, enhanced classroom discussion, reflection and evaluation of learning. Teachers should ensure that there is sufficient time for students to provide verbal feedback and to reflect on and evaluate their learning in all lessons.
- Classroom management was very good in all lessons. Best practice was when high-quality differentiation practices supported learning, and teachers circulated the classroom supporting individual and group learning needs.

- Teachers identified and prepared in advance resources and activities suitable for the specific learning intentions. Information and communication technology was very well utilised in many cases. This technology was used successfully to present, collate and reinforce learning.
- Approaches to teaching generally matched the learning intentions and the learning needs of students. However, some teachers should plan for enhanced student group activities. In some cases, there was a need for better balance between teacher instruction and student activity.
- There was good focus on the literacy needs of students. Keywords were given appropriate attention, for example, when the JCSP word of the week was well integrated into learning.
- Best practice was observed when learning was linked to historical aspects and real-life applications of Science and when teachers highlighted careers in Science, Technology, Engineering and Mathematics (STEM) subjects into the process. For example, in a lesson on the theme of space travel, the historical aspects of spaceflight were seamlessly integrated into the learning process.

2. SUBJECT PROVISION AND WHOLE SCHOOL SUPPORT

- Science is a core subject at junior cycle and is provided as a core part of the TY programme. Biology is offered to senior cycle students.
- Time allocation for the science subjects is appropriate.
- The school has two science laboratories and access to these facilities is well managed overall.
- The principal supports a culture of collaboration and reflective practice within the science department. .
- Science teachers are aware of and are responsive to changes in science education as evidenced from minutes of science department meetings. All teachers are encouraged and supported by school management to partake in relevant continuing professional development courses as a means of improving teaching and learning and developing their own pedagogical practice.
- Student involvement in co-curricular and extra-curricular science-related activities includes an outreach science programme between a local primary school and TY students, and school involvement in a science fair in association with a local post-primary school.
- State examination results are examined and academic achievement is analysed and monitored by the attainment co-ordinator. It is suggested that science teachers provide further contextual reflection on trends and outcomes as part of overall science planning.
- Parents are informed of student progress through regular reporting following school assessments.
- The science department has established very good collaborative links with the various committees, programmes, initiatives and action plans that support students. This includes strong links with the special education needs department, the JCSP committee, DEIS committees and the student support team.

3. PLANNING AND PREPARATION

- The quality of subject planning, collaborative planning and individual teacher planning for lessons is very good overall.
- Science teachers share resources and expertise, effectively collaborate and show consistency in their approach to curricular planning.
- Science co-ordination duties are carried out very effectively. Science meetings discuss key areas including integration of DEIS strategies, organisation of junior cycle assessments and the content and delivery of TY modules. Discussion on teaching and learning should form a standing item on the meeting agenda.
- Very good collaborative science plans have been drawn up. Areas addressed include special education needs strategies, action planning for differentiation, and the integration of JCSP statements and JCSP action planning strategies that support development of literacy skills. There is an appropriate focus on student awards that encourage improved punctuality and attendance. On review, action planning should include strategic planning to include medium-term and long-term targets for the further enhanced development of science education and science learning experiences in the school. In addition, enhanced focused and documented collaborative planning for co-teaching should be further developed so that the benefit of this important resource is maximised for students.
- Curriculum plans are well developed overall and address new specification requirements, integration of JCSP statements, key skills and assessment for learning strategies.
- The TY curriculum plan for Science has been well developed overall.

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

The Board of Management of St Laurence College welcomes the findings and recommendations of the Department of Education inspectorate and will use such to further enhance learning and teaching in the College and will support the Science department in further developing collaborative planning.

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 department has already commenced collaboration on addressing the recommendations.

The Science department is committed to extending developmental formative feedback as a practice by all teachers in all classes. Enhanced collaboration within the subject department will assist this process

The Science department will continue to build on opportunities for students to reflect on and evaluate their own learning.

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;