



An Roinn Oideachais
Department of Education

Subject Inspection: Science Report

REPORT

Ainm na scoile/School name	Our Lady's Secondary School
Seoladh na scoile/School address	Castleblayney Co. Monaghan
Uimhir rolla/Roll number	64770M
Dáta na cigireachta/ Date of evaluation	25-04-2023
Dáta eisiúna na tuairisce/ Date of issue of report	

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 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.

Actions of the school to safeguard children and prevent and tackle bullying

During the inspection visit, the following checks in relation to the school's child protection and anti-bullying procedures were conducted:	
<i>Child Protection</i>	<i>Anti-bullying</i>
<ol style="list-style-type: none">1. The name of the DLP and the Child Safeguarding Statement were prominently displayed near the main entrance to the school.2. The Child Safeguarding Statement had been ratified by the board and includes an annual review and a risk assessment.3. All teachers visited reported that they had read the Child Safeguarding Statement and that they were aware of their responsibilities as mandated persons.	<ol style="list-style-type: none">1. The school had developed an anti-bullying policy that met the requirements of the <i>Anti-Bullying Procedures for Primary and Post-Primary Schools (2013)</i> and this policy was reviewed annually.2. The board of management minutes recorded that the principal provided a report to the board at least once a term on the overall number of bullying cases reported (by means of the bullying recording template provided in the <i>Procedures</i>) since the previous report to the board.3. The school's anti-bullying policy was published on its website and/or was readily accessible to board of management members, teachers, parents and pupils/students.

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

Subject inspection

Date of inspection	25-04-2023
Inspection activities undertaken <ul style="list-style-type: none">• Review of relevant documents• Discussion with principal and key staff• Interaction with students, including focus group.	<ul style="list-style-type: none">• Observation of teaching and learning during 7 lessons• Examination of students' work• Feedback to principal and relevant staff

The focus of this subject inspection was on Junior Cycle Science only.

School context

Our Lady's Secondary School is a co-educational secondary school which operates under the trusteeship of CEIST. There is an enrolment of 801 students. The school offers all curricular programmes.

Summary of main findings and recommendations:

Findings

- The overall quality of teaching and learning observed was very good.
- A positive and affirming learning environment was apparent in all lessons.
- Students were engaged in inquiry-based activities which allowed them to take ownership of their learning.
- Overall, the quality of subject provision and whole-school support for Junior Cycle Science was very good.
- The science department worked in a collaborative and collegial manner and meetings were held regularly.
- Overall, the quality of planning and preparation for Junior Cycle Science was very good

Recommendations

- Teachers should explore strategies to engage students in using the feedback provided to them. This will support them in setting targets and taking ownership of their own work.
- This overall structure and approach to planning for junior cycle science was very collaborative and the subject department should build on existing good practice to further refine the scheme of work incorporating reflections and a timeframe.

Detailed findings and recommendations

1. Teaching, learning and assessment

- The overall quality of teaching and learning was very good.
- Very positive and respectful interactions were observed between students and teachers. Generally, in lessons there was a high level of student focus and motivation to learn. An affirming learning environment was apparent in all lessons. During discussion in a focus group, students were complimentary about their experience of science lessons. They talked about the respectful atmosphere in lessons and appreciated the range of interventions in place to support their wellbeing.

- In all lessons observed, teachers possessed very good subject knowledge and displayed enthusiasm for their subject and this served to further engage learners.
- Very clear learning intentions were shared with students outlining what students will know, understand and be able to do as a result of the teaching and learning activities in the lesson. Lessons were well prepared and entailed a good balance between teacher and learner inputs. Students displayed very good knowledge, skills and understanding in science. They answered questions confidently and worked purposefully,
- Students were provided with opportunities to work independently and collaboratively in lessons. Group work and pair work included activities such as learning games, model making and use of mini white boards, energy conversion activities and revision games.
- Highly effective group work was evident where students were assigned clear tasks and had opportunities to discuss the activity with their peers. In one highly effective lesson, student creativity was encouraged through model-making.
- Digital technology was used in all classrooms to support teaching and learning and was most effective when used for short inputs such as presentations, images, animations, video clips and simulations. In the student focus group, students spoke very positively regarding the use of the school's digital platform to share notes and homework tasks which supported their learning. Science classes also had access to a set of digital tablets.
- Teacher questioning as a means of assessment was generally very effective. In most instances, questions were directed and open-ended, and best practice was observed when questions were used to promote higher-order thinking. Very effective practice was observed where teachers encouraged students to develop their answers and utilised questions to provide students with opportunities to make co-curricular links. This was most effectively used in some of the comprehensive revision lessons observed.
- A valuable focus on developing students' literacy skills was evident through good use of subject specific language and numeracy skills were developed through calculations and the use of estimating. Summary sheets were used very effectively in one lesson which provided learners with a structure where they could make their own revision notes and this is highly commendable practice.
- In preparation for Classroom Based Assessments, very effective use of success criteria was observed where students were encouraged to think creatively and critically about a successful outcome to a sample of investigations. This activity included good discussions around key areas such as hypothesis formation and fair testing.
- The quality of students' learning was good in the lessons observed. Highly effective practice was observed where students were engaged in meaningful inquiry-based learning activities. When questioned, students could draw on knowledge and apply it to different contexts which encouraged them to think critically and to draw conclusions.
- Very good differentiated teaching was observed through one-to-one supports, differentiated worksheets, set groups and the setting of additional challenges for students who progressed work at different paces during the lesson.
- Highly effective assessment strategies were in evidence, Students' work was regularly corrected and, from time to time, constructive and encouraging comments were documented which focused on progress and improvement. The science team should explore a common approach to assessment of student work and encourage students to follow up on teacher advice and feedback.
- Highly successful plenary sessions were planned to assess students' achievement of the intended learning. Some of the plenary sessions lacked sufficient time to ensure students can fully demonstrate their learning. Teachers should plan for a comprehensive consolidation of learning, particularly at the conclusion to lessons.
- Classrooms visited had print-rich environments with good displays of posters, key words and student-generated work. Some sharing of practice in teaching and learning had taken place in the form of peer observation between members of the subject team. This very good practice is encouraged.

2. Subject provision and whole school support

- The overall quality of subject provision and whole-school support was very good.

- Appropriate timetabled provision was in place for junior cycle science, and students had very good access to the subject.
- Science teachers were fully qualified and all had attended a wide range of continuing professional development (CDP) activities.
- At the time of the evaluation, there were three science laboratories. It was good to note that the school was nearing the completion of a thirteen-classroom extension, which includes two additional laboratories.

3. Planning and preparation

- The overall quality of planning and preparation was of a very high quality. Individual lessons were very effectively planned and the use of the school's online platform to share plans and resources was highly successful.
- The science department had carried out extensive work on the junior cycle science plan. The key learning for each unit of learning had been clearly identified. Learning outcomes were linked to statements of learning and wellbeing indicators. There was a clear indication of what students should be able to do which was hyperlinked to appropriate resources. This practice was ongoing.
- A range of resources were developed and included worksheets, videoclips, animations, activities and differentiated tasks. This very good practice was further supplemented by agreed assessment checks. The plan explicitly linked learning outcomes from the *Nature of Science* and the contextual strands, which facilitated a highly effective integrated approach.
- The subject department was highly collaborative and demonstrated a very good level of informal and formal communication. Meetings were held regularly and included reflection on the effectiveness of the science department plan; amendments have been made following discussions at the meeting. This overall structure and approach to planning was very collaborative and the science department should build on existing good practice to further refine the scheme of work incorporating reflections and a timeframe.

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, Senior Management Team and Science Department are delighted that the report acknowledges the very good quality of teaching and learning within our Science Department. We are pleased to note that the collaborative approach to planning and preparation was also recognised in the report. Furthermore, we are pleased to receive recognition for the positive learning environment and the positive interactions between our staff and students. We believe that a nurturing atmosphere is crucial for student growth and achievement. Our teachers and support staff work tirelessly to create a supportive environment that fosters curiosity, engagement, and mutual respect. It is gratifying to see this reflected in the report. We greatly value the recommendations made in the report as they provide us with valuable insights and opportunities for further improvement. The Senior Management Team will liaise with the Science Department in reflecting on the recommendations made in this report.

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

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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 quality of the school's provision of each area.

Level	Description	Example of descriptive terms
Very Good	<i>Very good</i> 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 <i>outstanding</i> 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	<i>Good</i> 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 <i>very good</i> standard.	Good; good quality; valuable; effective practice; competent; useful; commendable; good standard; some areas for improvement
Satisfactory	<i>Satisfactory</i> 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	<i>Fair</i> 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	<i>Weak</i> 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;