

An Roinn Oideachais agus Scileanna
Department of Education and Skills

Subject Inspection in Science

REPORT

Ainm na scoile / School name	Mercy Secondary School
Seoladh na scoile / School address	Thomas Davis Street West Inchicore Dublin 8
Uimhir rolla / Roll number	60872A

Date of Inspection: 10-02-2020



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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 was given an opportunity to comment in writing on the findings and recommendations of the report; a response was not received from the board.

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

Date of inspection	10-02-2020
Inspection activities undertaken <ul style="list-style-type: none">• Review of relevant documents• Discussion with principal and key staff• Interaction with students	<ul style="list-style-type: none">• Observation of teaching and learning during three one-hour lessons• Examination of students' work• Feedback to principal and relevant staff

School context

Mercy Secondary School is a post-primary school in Inchicore providing the Junior Cycle (JC) Programme, a Transition Year (TY) programme, the established Leaving Certificate and the Leaving Certificate Applied (LCA) programme. Currently, there are 158 girls enrolled in the school. The school participates in the Delivering Equality of Opportunity in Schools (DEIS) action plan for inclusion.

SUMMARY OF MAIN FINDINGS AND RECOMMENDATIONS:

Findings

- Overall, the quality of teaching and learning was good; in the lessons observed, there were elements of good practice and satisfactory practice.
- Generally, learning was active with good opportunities for all learners to verbally express their understanding; good levels of learner engagement were evident in lessons.
- There was satisfactory provision of opportunities for students to consolidate their learning during lessons.
- The science subjects are well supported in the timetable and in the whole-school context, and there is strong promotion of science subjects for progression to higher education.
- Detailed and well-informed subject plans have been developed by individual teachers, but there scope to further develop collaborative subject department planning.

Recommendations

- Teachers should ensure that students have opportunities to consolidate key learning during lessons.
- Greater engagement in collaborative subject department planning should be undertaken by the science teaching team so that a shared understanding of the principles underpinning the implementation of JC Science, TY Science and the Leaving Certificate subjects is established.
- The science teaching team should develop the subject plan for JC Science to include shared plans for the incremental development of students' investigative and research skills.

DETAILED FINDINGS AND RECOMMENDATIONS

1. TEACHING, LEARNING, AND ASSESSMENT

- Overall, the quality of teaching, learning and assessment was good. In the lessons observed, there were elements of good practice and satisfactory practice.
- Students demonstrated good levels of interest and motivation and were mostly willing to contribute and participate cooperatively with all activities.
- Good levels of learner engagement were evident, especially when students were involved in timely, well-structured tasks that captured their interest and enabled them to work productively. In these tasks, students used their existing knowledge and skills to work things out, either individually or in conjunction with their peers, using the language of Science.
- Students persisted with work that was increasingly challenging and derived satisfaction from the work. In most activities, students experienced a good balance of guidance and support from teachers and this enabled each individual to succeed. Students demonstrated good subject knowledge, at a level appropriate to the curriculum.
- Differentiated activities and questions were generally used in targeted ways and this added further to the success of individual students. Students were sometimes offered a choice in the level of challenge in assignments. To build on good questioning practice, teachers should, at times, direct more questions at named students.
- In some lessons, students used well-designed worksheets to record their work and their investigation findings. This provided good structure for independent written work.
- It is suggested that when teachers give lesson notes, including those available digitally after lessons and those given in handouts, they ensure that students are directed, according to their ability and any additional educational need, toward some active note making. This would reduce the possibility for any unintentional reliance on receiving teachers' notes.
- Lessons were generally very well-prepared. Teachers put student understanding and the development of skills, including literacy, at the centre of lesson planning. Most lessons included good opportunities for students to think and to discuss their ideas on the topic before sharing these with the teacher or with the rest of the class.
- In the best instances, each student had good opportunities to verbally express their understanding. A few times, however, teacher instruction was a little protracted and it was observed that the good learning that had just taken place could have been expressed or consolidated by students at the point of learning, before moving on. It is recommended that teachers purposefully include periods of quiet time for students to make a note of the key point, with any necessary support, and that this becomes embedded in students' practice.
- Co-teaching was used to very good effect. The work of the cooperating teacher was targeted at meeting identified students' needs, as well as supporting the intended development of knowledge and skills in the scientific topic. The co-teaching observed was successful in enabling all students to take full part in the lesson, providing an inclusive environment where learners made progress together with their peers. The teachers worked very well together. The preparation that went into this lesson is commended.
- In a few instances, during phases of whole-class instruction, lesson progress was limited by the number of student questions on the topic; ways of channelling this enthusiasm ought to be sought to avoid overly detracting from the lesson plan.

2. SUBJECT PROVISION AND WHOLE SCHOOL SUPPORT

- The quality of provision and whole school support for science subjects is very good. Science is, since last year, a core subject in the school's Junior Cycle programme. Currently, both Biology and the combined Physics and Chemistry options are provided for Leaving Certificate; access is afforded to all students and the uptake of the subjects is good. Science lessons are also timetabled weekly in the TY programme.
- Timetabling for the subjects is good. Provision of two one-hour lessons in first and second year and three one-hour lessons in third, fifth and sixth year meets curricular requirements.
- The school has a good laboratory and the environment within is enhanced with modern scientific posters and displays of students' investigation assignments. It is beneficial that all lessons take place in the laboratory as this enables regularity in practical laboratory work.
- Laboratory resources for student practical work are readily accessible. As student numbers increase, the expansion of available sets of laboratory equipment may be necessary, and ways of achieving this are being considered by senior management.
- Senior management takes action to promote the science subjects, including progression to third level. Engagement in the sciences is part of the school's vision and the DEIS action plan. Involvement in the initiative entitled the Surprise of Science has helped create a culture of expectation around learning science through primary and post-primary schooling in the Inchicore area. The initiative combines the experience of teachers with that of national bodies, including Science Foundation Ireland, to foster wonder and curiosity in learning science. Through involvement with the College for Every Student programme, visits to third level colleges and the annual Careers Day, students are introduced at a very early stage to a range of educational and career pathways that support their interests and ambitions.

3. PLANNING AND PREPARATION

- The overall quality of planning and preparation is good, although there is scope to develop collaborative subject department planning. Greater engagement in collaborative subject department planning should be undertaken by the science teaching team so that a shared understanding of the principles underpinning the implementation of JC Science, TY Science and the Leaving Certificate subjects is established.
- Distinct subject plans have been created by individual teachers for the subjects. While these plans are detailed and well-informed by curriculum specifications and guidelines, there is scope within the subject plan for JC Science to include further planning for the incremental development of students' investigative and research skills.
- During the inspection, it was evident that the school is in the process of bringing greater collaboration to the work of subject department planning. The principal and deputy principal, in establishing their leadership of teaching and learning, have initiated a process of meeting with subject teachers to discuss what is working well in teaching and learning.

The draft findings and recommendations arising out of this evaluation were discussed with the principal and subject teachers at the conclusion of the evaluation.

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 <i>very good</i> 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;