

An Roinn Oideachais agus Scileanna
Department of Education and Skills

Subject Inspection in Science

REPORT

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| Ainm na scoile / School name | Mount Carmel Secondary School |
| Seoladh na scoile / School address | Kings Inn Street Dublin 1 |
| Uimhir rolla / Roll number | 60853T |

Date of Inspection: 26-01-2018



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 of the school was given an opportunity to comment on the findings and recommendations of the report; the board chose to accept the report without response.

SUBJECT INSPECTION

INSPECTION ACTIVITIES

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| Date(s) of inspection | 26-01-2018 |
| 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 class periods• Examination of students' work• Feedback to principal and relevant staff |

School context

Mount Carmel Secondary School is a voluntary secondary school under the trusteeship of the Religious Sisters of Charity and has a current enrolment of 392 female students. The school provides the Junior Certificate School Programme (JCSP), Transition Year (TY), the Leaving Certificate and the Leaving Certificate Applied (LCA). The school participates currently in the Delivering Equality of Opportunity in Schools (DEIS) initiative.

SUMMARY OF MAIN FINDINGS AND RECOMMENDATIONS:

Findings

- The quality of teaching, learning and assessment observed was of an exceptionally high standard.
- All lessons were conducted in an affirmative but appropriately challenging atmosphere.
- Very good use of assessment-for-learning strategies gave students a sense of ownership of their learning.
- Student-centred activities formed a major part of every lesson and supported students' learning effectively.
- Subject provision and whole-school support are of a very high standard.
- Very high-quality planning and preparation are evident in the work of the science department.

Recommendations

- No main recommendation at this time.

DETAILED FINDINGS AND RECOMMENDATIONS

1. TEACHING, LEARNING, AND ASSESSMENT

- The quality of teaching, learning and assessment observed was of an exceptionally high standard. There was a clear focus in all lessons on facilitating and supporting students' learning.
- All lessons were conducted in an affirmative but appropriately challenging atmosphere. High expectations were set with regard to participation; students responded well to these expectations and worked effectively with their teacher.
- Lessons were very well managed. For example, lessons began with a starter activity that captured students' interest and got them thinking about the issues which would form the basis of the rest of the lesson. Administrative matters, such as roll call, were completed while the students were engaged in the starter activity.
- Student-centred activities formed a major part of every lesson and supported students' learning effectively. These activities engaged students in analysing information, planning experiments, discussing issues, reaching and explaining their conclusions and recording their own work.
- Students' progress was very well assessed in a variety of ways such as through discussion and through written tasks. The student-centred nature of the lessons allowed a significant amount of teacher observation and interaction with individuals and groups.
- Very good use of assessment-for-learning strategies such as the sharing of the learning intentions at the start of lessons, using explicit success criteria to assess work, and peer-assessment, gave students a sense of ownership of their learning. These strategies supported the development of the students' own 'learning to learn' skills.
- The skills of working scientifically, investigating, and collaborative learning were well supported by the range of group activities that students engaged in during the observed lessons. Practical activities were very well organised and allowed students to plan and conduct investigations in an independent manner rather than simply following a pre-determined set of instructions.
- Students' written records of practical activities showed a wide range of relevant work. Development of students' literacy skills in terms of recording practical activities was supported by the teacher's formative comments on such work. A very good simple system for monitoring students' engagement with such formative comments is used to ensure that students really benefit from this type of assessment.
- Very good use was made of information and communications technology (ICT) to present information and structure the lessons. Very well-designed worksheets also helped scaffold learning appropriately for students. For example, in addition to supporting all learners, worksheets often included some extra challenge for the more-able student.

2. SUBJECT PROVISION AND WHOLE SCHOOL SUPPORT

- Subject provision and whole-school support are of a very high standard.
- Junior Science is an optional subject with one or two class groups in every year. There is good uptake of two Leaving Certificate science subjects, Chemistry and Biology, in senior cycle. A science module 'World of Science' is taken by all TY students.
- The school is very supportive of teachers' professional development.
- Overall timetabling arrangements are in line with curricular guidelines. A reduction in allocation for first-year science students to three periods per week should be kept under review in order to ensure that sufficient time is available over the three years of junior cycle for the full implementation of the new specification for Science.
- Very good facilities are available for the teaching of science subjects. The laboratory is very well maintained, and is well equipped with ICT such as a data projector and internet access.
- The school is very supportive of extra-curricular science activities such as science quizzes, and participation in science competitions. Close links with third-level institutions are used to provide new experiences and opportunities for students.

3. PLANNING AND PREPARATION

- Very high-quality planning and preparation are evident in the work of the science department. It was clear that great consideration is given to all aspects of subject planning with a view to providing students with the best experience possible.
- Laboratory resources are very well organised and facilitate the provision of practical learning activities for students. Chemicals are segregated and stored appropriately and safely.
- Schemes of work, which integrate the intended learning outcomes with relevant teaching and assessment strategies, show excellent planning for the implementation of the new specification for Junior Cycle Science. Careful thought has been given to how the new 'Nature of Science' element of the curriculum and the renewed focus on inquiry-based learning will be implemented.
- Subject planning included very good attention to how science students with special educational needs will be supported. Relevant statements associated with the Junior Certificate School Programme are used to support students' progress throughout the school year.
- Attainment is closely monitored and shows improving trends in terms of the uptake of higher-level Science and the grade profile achieved. Whole-school initiatives to support attainment include peer mentoring where senior students take on the role of academic 'all stars' in supporting younger students.

4. CHILD PROTECTION

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

1. The school principal is aware that revised child protection procedures for primary and post-primary schools came into effect on 11 December 2017 and arrangements are in place to begin the process of implementing these procedures.
2. The name of the designated liaison person for child protection matters was prominently displayed near the main door of the school.
3. The school has a child protection policy.
4. All teachers are aware that they are mandated persons and of their responsibilities in that regard.

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

The draft findings and recommendations arising out of this evaluation were discussed with the principal and subject teacher 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; |