

An Roinn Oideachais agus Scileanna
Department of Education and Skills

Subject Inspection in Science & Chemistry

REPORT

Ainm na scoile / School name	New Cross College
Seoladh na scoile / School address	Cappagh Finglas Dublin 11
Uimhir rolla / Roll number	68181N

Date of Inspection: 30-11-2016

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 & Chemistry under the following headings:

1. Learning, teaching 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 DURING THIS INSPECTION

Date(s) of inspection	28-11-2016, 29-11-2016 & 30-11-2016
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 seven class periods• Examination of students' work• Feedback to principal and relevant staff

SCHOOL CONTEXT

New Cross College opened in 2014 as an amalgamation of Mater Christi girls' school and Patrician College boys' school, under the joint patronage of Le Chéile Schools Trust and the Religious Sisters of Charity. The school offers the Junior Certificate School Programme (JCSP), a compulsory Transition Year (TY), the Leaving Certificate and Leaving Certificate Applied (LCA) programmes. The school participates in the Delivering Equality in Schools (DEIS) initiative, the action plan of the Department of Education and Skills for educational inclusion. Current enrolment is 242 students.

SUMMARY OF MAIN FINDINGS AND RECOMMENDATIONS:

FINDINGS

- The quality of teaching and learning was good.
- A high level of planning and preparation for lessons was evident in the range of resources used and in the structured nature of the lessons observed.
- Students benefited from effectively organised group work and practical activities.
- Students' progress was assessed well during lessons but there was scope for a more thorough consolidation of the intended learning at the end of the lessons or topic.
- The quality of whole-school support and provision is very good; the two science laboratories have been refurbished and are bright attractive learning environments.
- The quality of subject planning is satisfactory with a high level of informal collaboration among teachers; however, there is scope for development in several aspects of the subject plan.

RECOMMENDATIONS

- The science department should develop and share good classroom practice with respect to assessing and consolidating students' learning at the end of lessons or topics.
- The Science subject plan should be further developed to include more comprehensive schemes of work—including that for the new Junior Science specification—analysis and review of student outcomes, and information on subject-specific support for students with additional learning needs.

DETAILED FINDINGS AND RECOMMENDATIONS

1. TEACHING AND LEARNING

- The overall quality of teaching and learning was good.
- Very good planning for lessons was evident in the range of resources prepared in advance and in the structured sequence of activities during lessons.
- Most lessons were very well managed in a positive affirmative atmosphere. Good classroom routines with respect to recording attendance and assigning homework have been established.
- Students were generally effectively engaged with various learning activities such as writing tasks and practical work during lessons, and they were generally very cooperative and attentive. However, in one case, a lack of attention and cooperation impeded students' progress; a more active involvement on the part of students in the learning activities would have helped keep them on task.
- Lesson content was communicated clearly. Good use was made of worksheets and notes to support learning. Information and communication technology (ICT) was used very effectively: electronic presentations were simple and clear, and included a good level of visual elements such as images and video clips.
- Students of varying abilities benefited from differentiated classroom support. In some lessons, assessment was differentiated for higher or ordinary level; in other cases, worksheets had been designed to provide different levels of challenge.
- Students' progress during lessons was assessed in a variety of ways through questioning, teacher observation and written work. Very good use of formative assessment was evident in the comments provided on some written work such as students' records of coursework and class tests.
- In several lessons, group work was very effective; this was due to the structured way in which it was organised. The task had been broken down into manageable portions, students were given clear instructions and, as a result, worked well together in achieving the desired outcome.
- Development of students' literacy skills was supported in all lessons. Teachers placed a strong focus on students' knowledge and understanding of scientific terminology and their ability to interpret scientific language. Some attention was also given to non-technical language; this aspect of literacy support could be further developed in science lessons.
- Students were made aware of the specific learning intentions for each lesson. While progress during lessons was monitored, there was scope for a more thorough consolidation of learning later in the lesson. Thus, it is recommended that the science department should develop and share good classroom practice with respect to assessing and consolidating students' learning at the end of lessons or topics.

2. SUBJECT PROVISION AND WHOLE SCHOOL SUPPORT

- The quality of whole-school support and provision is very good.
- Curricular provision is very good. Though Junior Science is an optional subject, science is compulsory in TY, and a choice of two Leaving Certificate science subjects is provided.

- Timetabling arrangements are appropriate. All classes have access to a laboratory for a double lesson period per week.
- The school has two science laboratories and an associated demonstration room. The laboratories have been refurbished and are well equipped. Ongoing resource needs are budgeted for and met on a needs basis.
- The laboratories are equipped appropriately with health and safety equipment such as gas and electricity cut-off valves. Maintenance of a fume cupboard for teacher use should be prioritised for future attention.
- The school is supportive of teachers' continued professional development. Teachers have availed of a range of relevant professional development opportunities.

3. PLANNING AND PREPARATION

- The quality of subject planning is satisfactory, though there is scope for further development of the subject plan.
- The subject department is small and has been through a period of considerable change. Apart from the adjustments required from the amalgamation of two schools, there have been several changes in personnel. It was reported that formal subject planning has been restricted due to industrial action.
- A high level of informal planning and collaboration was evident. For example, teachers have worked together on the organisation of laboratory resources and students have benefited from the provision of extra-curricular science activities such as Science Week, and visiting speakers.
- Formal planning for science has been supported by the organisation of department meetings. Since the opening of the new school, the majority of formal planning time has been taken up with issues relating to laboratory organisation. It is commendable that teachers have managed the transfer to the new school effectively. It is timely now for the science department to focus on developing a more comprehensive and effective subject plan.
- The current schemes of work are mainly based on topics and suggested timeframes with some additional notes regarding methodologies and resources recorded in the subject plan. There is scope to develop more comprehensive schemes of work that support teaching and learning by linking the specific topics with methodologies, assessment strategies, and relevant resources.
- Student outcomes in state examinations are reflected on by individual teachers. It would be useful for a more formal analysis and review of student outcomes in state examinations to be recorded in the subject plan. This would support the continued implementation of strategies that have benefited students and help to identify any further actions that might be needed to support continued improvement.
- While it was evident that teachers take care to support individual students' learning needs, subject-specific support strategies for students with additional learning needs should also be shared through the subject plan.
- Planning for the implementation of the new Junior Science specification has been limited due to industrial action. At present, responsibility for implementation of the new course rests with the teacher of the current first-year group. It would be better if planning for the implementation of the new specification could be done collectively by the science department. This approach would allow the experience of all teachers inform the development of the programme plan.

- In summary, the Science subject plan should be further developed to include more comprehensive schemes of work—including one for the new Junior Science specification—analysis and review of student outcomes, and information on subject-specific support for students with additional learning needs.

The draft findings and recommendations arising out of this evaluation were discussed with the 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 New Cross College welcomes this report by the Inspectorate. Recommendations provided by the inspector will give guidance to the science teachers and will enhance the provision of this subject.

It is clear from this report that the excellent work of the science teachers and the science department is focused on improving teaching and learning and we thank them for their collective endeavour.

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 board of management, senior management and staff welcome recommendations in this report. All are committed to continuing to improve the quality of teaching and learning as experienced by our students. The school will consider how we allocate students to classes in the future.

The board has no doubt that New Cross College will continue its progressive work in order to maintain these high educational standards for future generations of students.

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 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. Overall, learners have access to a basic level of provision. 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;