An Roinn Oideachais agus Scileanna

Department of Education and Skills

Subject Inspection of Science and Chemistry
REPORT

St Aidan’s Christian Brothers School (CBS)
Whitehall, Dublin 9
Roll number: 60481I

Date of inspection: 22 January 2014
REPORT
ON
THE QUALITY OF LEARNING AND TEACHING IN SCIENCE AND CHEMISTRY

INFORMATION ON THE INSPECTION

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<th>21 and 22 January 2014</th>
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<td><strong>Inspection activities undertaken</strong></td>
<td><strong>• Observation of teaching and learning during eight class periods</strong></td>
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<td>• Discussion with principal and teachers</td>
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MAIN FINDINGS

• The quality of teaching and learning in the lessons observed was good with features of very good practice observed in all lessons.

• Lessons were very well managed and conducted at an appropriate pace in a supportive, positive atmosphere.

• Student engagement in independent learning was supported through the good use of assessment for learning strategies such as the sharing of success criteria with students and peer and self-assessment activities.

• In some cases, there was very clear assessment of the progress made in achieving the intended learning outcomes towards the end of lessons.

• Very good whole-school support for the provision of science subjects is reflected in the range of subjects offered, and the creation of smaller class groups for practical activities.

• The science department is well established and good quality planning is evident in the development of common schemes of work and in the use of information and communication technology (ICT) to facilitate the sharing of teaching resources among teachers.

MAIN RECOMMENDATIONS

• The science department should further develop and implement good practice with respect to the assessment of learning outcomes and the correction of written work.

• The subject plan should be developed to include consideration of issues such as literacy development.
INTRODUCTION

St Aidan’s CBS is a post-primary school for boys under the patronage of the Edmund Rice Schools Trust (ERSST) and it has a current enrolment of 679 students. The school offers the Junior Certificate programme, an optional Transition Year programme, the established Leaving Certificate programme, the Leaving Certificate Vocational Programme and the Leaving Certificate Applied programme.

TEACHING AND LEARNING

• The quality of teaching and learning in the lessons observed was good with features of very good practice observed in all lessons.

• Lessons were well planned in terms of the preparation of relevant resources and the sequencing of lesson activities.

• The aims and objectives of lessons were clear and in most cases were shared with students so that they were made aware of what they should know or be able to do at the end of the lesson.

• An incremental approach to the introduction of complex concepts showed that good consideration had been given to how students would learn. Students were actively engaged in a variety of learning activities and repetition of key points at stages throughout the lessons helped to reinforce students’ learning.

• Lessons were very well managed and conducted at an appropriate pace in a supportive positive atmosphere.

• Lesson content was communicated clearly and good links were established with prior learning and other subject areas. ICT was well used to present information and to engage students in learning in an innovative way.

• An appropriate balance between teacher and student activity was observed in all lessons. Practical activities, including teacher demonstrations, were very well organised. Hands-on participation in laboratory work enhanced the learning experience for students.

• Student engagement in independent learning was supported through the good use of assessment for learning strategies such as the sharing of success criteria with students and peer and self-assessment activities.

• A differentiated approach was evident in the use of an appropriate balance of directed and global questioning. Some very good use was made of probing questions to assess students’ understanding as opposed to simple recall of the topic in question.

• In some cases, there was very clear assessment of the progress achieved with respect to the intended learning outcomes towards the end of the lesson. However, in other cases, students could have been given more in-depth opportunities to demonstrate their learning. It is recommended that the science department develop and implement good practice with respect to the assessment of learning outcomes.

• Written work, such as students’ laboratory reports, is well monitored and tracked. However, in order to support the development of students’ reporting skills, there is scope for a greater level of correction of written work. It is recommended that the subject department develop some strategies, including peer and self-assessment of reports, to further support students’ learning in this regard.
SUBJECT PROVISION AND WHOLE SCHOOL SUPPORT

- Whole-school support for the provision of science subjects is very good.
- A wide range of science subjects, including three Leaving Certificate science subjects, is provided and the uptake of Chemistry is good.
- Junior cycle classes are of mixed ability and timetabled concurrently in second and third year in order to allow the creation of smaller class groups suitable for the conduct of practical work. In first year, a second teacher is assigned to assist with practical work activities during the weekly double period for Science.
- Timetabling of science subjects is appropriate; however, laboratory access is an issue. Though collaboration among the science teachers helps to maximise access for class groups, it would be worthwhile for the school to review alternative timetabling options.
- The school’s three laboratories are well maintained and stocked. However, it was reported that the fume cupboards are not operational and this should be rectified as soon as possible.
- Good ICT facilities are available in each laboratory and the subject department is provided with an annual budget for the upkeep of materials and equipment. Work is ongoing in terms of the organisation of laboratory resources to improve accessibility.
- A health and safety statement is in place and each laboratory has relevant safety equipment including emergency cut-offs for gas and electricity. Unwanted chemicals have been disposed of.
- The school facilitates teachers’ attendance at professional development events both externally and in-school. The school is participating in the National Council for Curriculum and Assessment Junior Cycle Network and two science teachers are directly involved in this project.

PLANNING AND PREPARATION

- The quality of planning and preparation is good.
- The science department is well established and works in a collegial and collaborative manner. A good record is kept of formal planning meetings which are complemented by a significant amount of informal, on-going planning among the team of science teachers.
- Good practice is evident in the development of agreed schemes of work, in the setting of common examinations with particular year groups, and in the use of ICT to facilitate the sharing of teaching resources among teachers.
- The subject plan provides a good overview of provision for science subjects and includes relevant guidance on issues such as differentiation and assessment. However, there is scope to further develop the planning for issues such as literacy development in science.

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 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.

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Appendix

School response to the report

Submitted by the Board of Management
Area 1: Observations on the content of the inspection report

The Board of Management of St. Aidan’s C.B.S welcomes the very strong and positive findings of the inspection report issued by the D.E.S. following a Subject Inspection of Science and Chemistry which took place on 22nd January 2014.

St. Aidan’s C.B.S strives to achieve the highest possible standards in all areas of our work; therefore the Board welcomes the affirmation given to the quality of teaching and learning, particularly the development of independent learning skills. The report states ‘student engagement in independent learning was supported through the good use of assessment for learning strategies’.

It is particularly pleasing that the Inspectorate noted the student’s active engagement in their learning and acknowledged ‘some very good use was made of probing questions to assess students’ understanding’.

The report noted that the Science department ‘works in a collegial and collaborative manner’ and acknowledged the ‘supportive, positive atmosphere’ with which lessons were conducted. This recognition of the diligence and hard work of the staff is most welcome and deserving.

The Board acknowledges the professionalism and dedication of the Science and Chemistry Department for their work and commitment to the school and congratulates them on a very positive inspection.

Area 2: Follow-up actions planned or undertaken since the completion of the inspection activity to implement the findings and recommendations of the inspection

As part of this ongoing review and development, the Science and Chemistry Department will prioritise the various findings and recommendations of the report, implementing what it sees as the most important and manageable issues immediately and working its way through others in time.