

An Roinn Oideachais agus Scileanna

Department of Education and Skills

**Subject Inspection of Science and Chemistry
REPORT**

**Saint Joseph's Secondary School
Stanhope Street, Dublin 7
Roll number: 60843Q**

Date of inspection: 23 March 2015



**A N R O I N N | D E P A R T M E N T O F
O I D E A C H A I S | E D U C A T I O N
A G U S S C I L E A N N A | A N D S K I L L S**

REPORT
ON
THE QUALITY OF LEARNING AND TEACHING IN SCIENCE AND CHEMISTRY

INFORMATION ON THE INSPECTION

Dates of inspection	23 March 2015
Inspection activities undertaken <ul style="list-style-type: none">• Review of relevant documents• Discussion with principal and teachers• Interaction with students	<ul style="list-style-type: none">• Observation of teaching and learning during four class periods• Examination of students' work• Feedback to principal, deputy principal and teachers

MAIN FINDINGS

- The quality of teaching and learning observed was good and all lessons had a clear aim or focus.
- Practical activities provided a hands-on experience for students which supported their learning.
- Lesson content was communicated clearly and the development of students' literacy skills was well supported in all lessons.
- Some good assessment practices were observed but there was scope for a more in-depth assessment of students' progress during lessons.
- Good support for the provision of science is reflected in the curricular provision, the facilitation of teachers' professional development and the efforts to resolve safety issues, which include the absence of a Safety Statement.
- There is scope for development of several aspects of subject planning for science.

MAIN RECOMMENDATIONS

- Greater opportunity should be given during lessons for students to demonstrate the depth of their learning or understanding.
- The school should continue to address safety issues in the laboratories and prioritise the development of a Safety Statement.
- The science department should collaboratively develop and share good practice with respect to programmes of work, systems for maintaining and improving laboratory resources, teaching methodologies, tracking of student attainment, health and safety protocols, and assessment of laboratory notebooks.

INTRODUCTION

Saint Joseph's Secondary School is a voluntary secondary school for girls with a current enrolment of 230 students. The school offers the Junior Certificate, Leaving Certificate and Leaving Certificate Applied programmes and an optional Transition Year (TY) programme. The school participates in DEIS (Delivering Equality of Opportunity in Schools), the action plan of the Department of Education and Skills for educational inclusion.

TEACHING AND LEARNING

- The quality of teaching and learning in the lessons observed was good. Lessons were well prepared in terms of the development of worksheets, notes and information and communication technology (ICT) resources.
- All lessons had a clear aim or focus. In some lessons, the sharing with the students of the intended learning outcomes facilitated a clear assessment at the end of the lesson of the progress that had been made.
- Lesson content was communicated clearly. Good use was made of the textbook as a reference document and for the setting of homework. ICT was effectively used to add a visual dimension which supported the development of students' understanding.
- All lessons contained a variety of activities. There was a good mix of teacher-led and student-centered activities.
- Students were given an opportunity to work on their own in all lessons and this allowed the teachers to circulate and provide support where needed. This was an effective way of providing differentiated support to students.
- Practical activities provided a hands-on experience for students which supported their learning. However, differing approaches have been taken to the assessment of students' practical work. It is suggested that the science department should develop a common approach to this aspect of assessment.
- Lessons were very well managed and conducted at an appropriate pace. Classroom procedures have been well established and students were attentive, engaged, and cooperative throughout.
- Good attention was given to supporting the development of students' literacy skills. This was evident in the use of keywords and the way in which scientific information was presented in diagrams and charts.
- Links with Science in the everyday world were well used to support learning. Reviewing prior or general knowledge at the start of lessons helped to set the scene for the development of new material.
- Good assessment practices were observed when questions were first directed to the whole class before individual students were asked to provide an answer, and where such questions required more than simple recall of a small item of content. However, more use could be made of these strategies in order to ensure that all students are appropriately challenged. Thus, it is recommended that students should be given a greater opportunity to demonstrate the depth of their learning or understanding during lessons.

SUBJECT PROVISION AND WHOLE SCHOOL SUPPORT

- Whole-school support for the provision of science subjects is good.
- Science is an optional subject in Junior Cycle and is chosen before entry to the school. However, an information evening is provided for parents and students to support them in making their choices.
- Chemistry and Biology are provided in senior cycle and there is a good uptake of both subjects. It is good practice that students who have not studied Junior Certificate Science are allowed take up a science subject in senior cycle. Good support is provided to students to help them make the right choice of subjects going into senior cycle.
- Though it was not possible to form a Transition Year class this year, the programme will be re-introduced next year and Science will be part of the curriculum.
- Timetabling arrangements for science subjects are appropriate. Class groups are of mixed ability and the Resource Department works closely with the science teachers to provide support for students with additional needs.
- The school is very supportive of teachers' continuing professional development. As well as facilitating teachers' attendance at external professional development events, the school has organised some whole-staff training on relevant areas. The school is very supportive of trainee teachers.
- The school has two science laboratories which are well equipped with ICT resources. However, there are some safety issues in the laboratories, including the lack of a Safety Statement. The school is aware of these deficits and is working towards resolving them: for example, funding has been sought under the emergency works scheme to upgrade the gas supply. It is recommended that the school prioritise the development of a Safety Statement as part of whole-school planning.

PLANNING AND PREPARATION

- The science department is small, consisting of three full-time teachers, one of whom is new to the school, in addition to one trainee teacher.
- Formal planning for the provision of science subjects is facilitated by regular meetings and by on-going informal collaboration among the teachers. One teacher acts as coordinator of the team.
- A good record has been maintained of subject department meetings and good work has been done on ongoing matters such as ordering of textbooks and other resources. However, in order to build on this good work, it would be worthwhile to dedicate part of the planning meetings to developing and sharing good practice with respect to teaching and learning practices. Areas such as the use of assessment for learning strategies or teaching science to students with English as a second language could be explored.
- Good practice is evident in the development of a subject plan which includes programmes of work for each year. These programmes have been developed by the individual teachers taking the particular year group and it would be useful to draw on the expertise of the whole team in deciding the content and sequence of the programmes.
- An annual review of students' attainment in certificate examinations is a worthwhile initiative promoted by school management. This will be a useful aspect of subject

planning and will allow the science department to track overall trends such as uptake of science subjects, uptake of higher and ordinary level, as well as individual students' progress.

- Requisition of resources is done for the most part by individual teachers as needs arise and a reasonable level of basic equipment and materials for small class groups was available. Good work has been undertaken with regard to the preparation of 'kits' of materials for particular topics. However, some deficiencies in equipment were noted by teachers. It is recommended that the science department should develop a more systematic procedure for maintaining and improving laboratory resources.
- As part of a whole-school initiative on safety, teachers have received some first-aid training. Basic safety equipment such as fire extinguishers and first-aid kits is available in the laboratories. However, pending the development of an overall school safety statement, it would be worthwhile for the science department to review safety provision in the laboratories in the short term and develop an agreed protocol for dealing with accidents.
- The science teachers provide a good range of extra-curricular and co-curricular science activities. Students attend workshops in third-level colleges and are encouraged to visit the Science Gallery during Science Week. Strong links have been created between the school and Dublin City University and Dublin Institute of Technology.
- In light of the findings outlined above, it is recommended that the science department should collaboratively develop and share good practice with respect to programmes of work, systems for maintaining and improving laboratory resources, teaching methodologies, tracking of student attainment, health and safety in the laboratory, and assessment of laboratory notebooks.

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