Subject Inspection of Science
REPORT

Davitt College,
Castlebar, County Mayo
Roll number: 76060U

Date of inspection: 8 April 2011
REPORT
ON
THE QUALITY OF LEARNING AND TEACHING IN SCIENCE

INFORMATION ON THE INSPECTION

<table>
<thead>
<tr>
<th>Dates of inspection</th>
<th>7, 8 April 2011</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Inspection activities undertaken</strong></td>
<td><strong>Observation of teaching and learning during eight class periods</strong></td>
</tr>
<tr>
<td>• Review of relevant documents</td>
<td>• Examination of students’ work</td>
</tr>
<tr>
<td>• Discussion with principal and teachers</td>
<td>• Feedback to principal and teachers</td>
</tr>
<tr>
<td>• Interaction with students</td>
<td></td>
</tr>
</tbody>
</table>

MAIN FINDINGS

- Teaching and learning in each of the classes observed was good or very good. It was evident that students were learning in each lesson observed.
- Classroom management and atmosphere in all lessons was very good.
- There is excellent incorporation of ICT into teaching and learning at a whole-school level, a subject department level, and an individual class level.
- It is excellent practice that students’ mock examinations are marked by their teachers.
- Assessment of first-year and second-year students is principally through continuous assessment together with a summative examination at the end of the school year.
- There is very good teamwork and sharing of resources among the teachers of Science.

MAIN RECOMMENDATIONS

- The use of learning objectives in teaching should be increased so that teaching and learning of Science are set in the context of students’ learning.
- The good practice of assessing students’ written work regularly should be developed further to include the provision of written feedback and guidance on their work to students in all cases.
- Assessment practices need to be reviewed so that students have a summative exam in Science at Christmas.
- The school and the subject department should target increasing the proportion of students taking junior certificate Science at higher level.
INTRODUCTION

Davitt College is the largest school in the scheme of Co Mayo Vocational Educational Committee and is a participant in Developing Equality of Opportunity in Schools (DEIS). Over the past few years the school has undergone a rapid increase in its numbers, in particular of female students, to its current enrolment of 633. The school has an optional Transition Year (TY) programme that is very popular. 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.

TEACHING AND LEARNING

- Teaching and learning overall was good or very good in each of the lessons observed. It was clear that students were learning in each lesson.
- The desired learning objectives of lessons should be referred to in introducing lessons and should be displayed on the board at the beginning of each lesson.
- The excellent incorporation of ICT into teaching and learning, and clear plans for the future facilitate differentiation and meeting the learning needs of students.
- Differentiation is further supported by the very good displays of students’ work and other science material in the science teaching areas. To supplement these, the use of keywords should be routine in all lessons.
- Practical work involving students was well carried out and very good practice was seen in those cases where students were involved in planning the investigations and in discussing their outcomes.
- All lessons observed were characterised by high levels of planning and preparation.
- All lessons observed were characterised by a very good atmosphere, very good student-teacher rapport, very good classroom management and a high degree of student interest and engagement.
- To support the preparation of students for the third-year coursework B project, it is suggested that small projects for students should be included in the first-year and the second-year science programmes.
- The pace of lessons while generally satisfactorily, was too slow on occasions where there was a single lesson theme. In such cases lessons would have benefited through having a greater structure.
- The school and the science department have embarked on an ambitious project with regard to the use of ICT in the assessment of students’ knowledge of science. The project so far has been successful and in particular it is noted that some students with additional learning needs are benefiting from it.
- The school should supplement its continuous assessment programme through including formal examinations at Christmas for all students.
- The written work of students is assessed regularly. Teachers check this work and comment on it. This good practice should be developed further to include the provision of feedback and guidance on their work to students in all cases.
- The school shows excellent practice in that teachers mark the mock examinations of their students.
**SUBJECT PROVISION AND WHOLE SCHOOL SUPPORT**

- The school’s support for science is very strong. The subject is appropriately timetabled and there is a very good range of leaving certificate science subjects on the curriculum.
- The school’s roll out of a virtual learning environment for its students has increased the extent to which the potential of ICT is being exploited for its students.
- Very good support is given to the science teachers by the learning-support department in relation to students that have additional educational needs.
- The well-presented TY science programme should be developed further to include rationale, aims, and use of learning objectives. It should also have a clear sense of linkage between the study of science at junior and senior levels.
- Teachers of Science receive good support in relation informing them on the needs of students with special educational needs.
- The laboratory facilities for Science are adequate and are well maintained and organised.
- Teachers’ ongoing continuing professional development (CPD) is complemented by whole-school CPD, some of which has been delivered internally. This is very good practice.
- Students of Science benefit from a strong programme of co-curricular support that includes a science week in the first term, an open night presentation in the second term, and a science fair in the third term. Students are also encouraged to participate in Scifest and the BT Young Scientist and Technology Exhibition.
- In order to increase the proportion of students taking science at higher level in the Junior Certificate examination the strategy should be to build the confidence and expectations of students from the first year on with the setting of targets.

**PLANNING AND PREPARATION**

- Subject planning in the science department is characterised by high levels of co-operation and excellent sharing of resources, including ICT resources.
- The quality of coordination of the science department is high.
- The science plan gives guidance to teachers on addressing in their teaching the learning needs of students who have additional learning needs.
- Given the mixed-ability nature of classes, the emphasis on differentiation evident in the documentation of the subject department is noteworthy. This documentation supports teachers with regard to differentiation as and includes very good resource material to help teachers in adapting content.
- Given the size of the Department and the laboratory resources that are within its remit, the system for checking on these resources should be formalised.
- Subject department curricular planning should build further on the work done on setting out the curriculum in terms of learning objectives and broad timescales. This should include also planning for resources, for student practical work, and for assessment.
- It is noteworthy that the science department has developed a well-coordinated and consistent approach with regard to its general procedures including student assessment.
The draft findings and recommendations arising out of this evaluation were discussed with the principal and the subject teachers at the conclusion of the evaluation.