Subject Inspection of Science and Biology
REPORT

Our Lady’s Secondary School,
Castleblayney, County Monaghan
Roll number: 64770M

Date of inspection: 24 October 2011
REPORT
ON
THE QUALITY OF LEARNING AND TEACHING IN SCIENCE AND BIOLOGY

INFORMATION ON THE INSPECTION

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MAIN FINDINGS

- Teaching and learning was of a very good quality.
- Classroom management was effective and students were focused and on task.
- A good range of questioning strategies was employed effectively.
- The school’s three laboratories are well resourced; they contain interactive white boards and are Internet enabled.
- Homework is regularly set and corrected and students are encouraged to note homework in their journals.
- Programmes of study are being used as working documents by the science teachers in either hard copy or electronic format.

MAIN RECOMMENDATIONS

- Best practices with regard to the development of literacy and numeracy in lessons should be discussed and shared among the science team on a formal basis.
- Within the constraints of the timetable, management should avoid classes being split between two teachers.
INTRODUCTION
Our Lady’s Secondary School is a co-educational voluntary secondary school which caters for a cohort of 683 students, of which 311 are male and 372 female. All curricular programmes are provided, including a compulsory Transition Year (TY).

TEACHING AND LEARNING
- The quality of teaching and learning observed was very good. Learning outcomes were outlined to students at the start of lessons and it is good practice that these were revisited during the lessons in order to consolidate learning.
- A good range of teaching methodologies was utilised. Classes were well managed; students were engaged with the lesson content and participated well.
- Students were encouraged to think for themselves through the use of higher order questioning. In practical work, an investigative approach was promoted.
- Lessons were well structured and appropriately paced. During group work students participated well and were focused on the task in hand. They displayed enthusiasm for the subject.
- Good practices regarding health and safety precautions were encouraged by teachers.
- Instruction was clear and concise. The atmosphere was positive in all lessons visited and a good rapport was seen to exist between students and their teachers.
- Good examples of differentiated methodologies were observed. These should be discussed at meetings of the science department, shared among the team and included in planning documentation.
- Some good practices were observed with regard to the development of literacy and numeracy in lessons. In some lessons teachers emphasised the correct pronunciation of scientific words and terms and these were noted on the white board. Units of measurement were emphasised in another lesson. Best practice with regard to literacy and numeracy development should be discussed among the science team with a view to promoting and sharing these methodologies.
- Students have hardback notebooks for practical work as well as jotters for exercises and homework. These were checked and annotated by the teacher on a regular basis. Students should be encouraged to follow up on corrections made.

SUBJECT PROVISION AND WHOLE SCHOOL SUPPORT
- Science is a core subject in the junior cycle and all three sciences are optional in the senior cycle where Biology is the most popular. It is good to note that subject choices are organised to allow students the option of taking all three science subjects in the senior cycle.
- An appropriate number of classes is allocated to Science and Biology in the school. A suitable number of double periods is provided in order to facilitate practical work. However, within the constraints of the timetable, management should avoid classes being split between two teachers.
- The school has three laboratories which are bright, clean and well resourced. All have interactive whiteboards and are internet enabled. Two of the laboratories have been recently refurbished. There is one demonstration room and a designated science classroom. The
The science team is in the process of developing a set of junior certificate apparatus in each laboratory which is encouraged. The development of kits for mandatory experiments should be considered.

- The science team also benefits from the services of a recently-appointed laboratory technician.
- Where possible, classes generally retain the same teacher from year to year through the junior and senior cycle in order to promote good continuity.
- Teachers have engaged with continuing professional development (CPD) and most recent in-service has been on the use of data loggers and the use of interactive whiteboards.
- The school has an assessment policy. Formal in-house examinations are held at Christmas and summer for non-certificate examination students. Communication between the school and home is facilitated through the student journal, parent-teacher meetings and reports which are sent home. Commendably, the school has adopted a more focused reporting system for certificate examination students where extra reports are sent home on a monthly basis.

PLANNING AND PREPARATION

- Management facilitates the planning process by the provision of time for science department meetings. Minutes are recorded and provided to management. In addition, informal meetings take place on a regular basis.
- A subject convenor has been appointed to co-ordinate the science department and this position is rotated on an annual basis which works well.
- Collaborative subject plans were observed. Programmes of study contained reference to learning outcomes for students and it is good to note that these are being used as working documents by the science teachers in either hard copy or electronic format.
- Planning documentation is also available on the school’s server. All the science teachers have access to the folder which includes resources for the teaching of Science and Biology as well as programmes of study and policy documents.
- The school has a homework and assessment policy which is integrated into the school’s policy on curriculum. Homework is regularly set and corrected and students are encouraged to note homework in their journals. This is good practice.
- Teachers keep records of students’ homework and achievement in end-of-topic tests. Attendance is monitored in every class via the e-portal system.
- An analysis of student achievement in the state examinations is carried out and included in the planning documentation. Decisions and action plans arising from these discussions should also be included in the subject department plans.

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 welcomes the Science & Biology Subject Inspection Report. The Board is delighted that the dedication & hard work of the Science Teachers has been recognised & affirmed.

The Board commends the Inspector on the professional & courteous way in which the inspection was carried out.

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

The Science teachers appreciate the importance of incorporating literacy & numeracy strategies into the teaching of science subjects & will build on the good practices already in place by implementing strategies to further improve this significant aspect of Science Education.

Management will make every effort to avoid splitting classes between two teachers.