

**An Roinn Oideachais agus Scileanna**  
**Department of Education and Skills**

**Subject Inspection in Science & Biology**

**REPORT**

<b>Ainm na scoile / School name</b>	Monaghan Collegiate School
<b>Seoladh na scoile / School address</b>	Corlatt Monaghan Co Monaghan
<b>Uimhir rolla / Roll number</b>	64830E

**Date of Inspection: 18-11-2019**



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agus Scileanna**  
Department of  
Education and Skills

## **SUBJECT INSPECTION**

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 & Biology under the following headings:

1. Teaching, learning 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; a response was not received from the board.

## **CHILD PROTECTION**

During the inspection visit, the following checks in relation to the school's child protection procedures were conducted:

1. The name of the DLP and the Child Safeguarding Statement are prominently displayed near the main entrance to the school.
2. The Child Safeguarding Statement has been ratified by the board and includes an annual review and a risk assessment.
3. All teachers visited reported that they have read the Child Safeguarding Statement and that they are aware of their responsibilities as mandated persons.

The school met the requirements in relation to each of the checks above.

## SUBJECT INSPECTION

### INSPECTION ACTIVITIES

<b>Date of inspection</b>	18-11-2019
<b>Inspection activities undertaken</b> <ul style="list-style-type: none"><li>• Review of relevant documents</li><li>• Discussion with principal and key staff</li><li>• Interaction with students</li></ul>	<ul style="list-style-type: none"><li>• Observation of teaching and learning during two lessons</li><li>• Examination of students' work</li><li>• Feedback to principal, deputy principal and relevant staff</li></ul>

### School context

Monaghan Collegiate School is a co-educational, fee-charging, post-primary school with a current enrolment of 139 boys and 124 girls. The following educational programmes are provided: the Junior Cycle, a compulsory Transition Year (TY) programme, the Leaving Certificate and the Leaving Certificate Vocational Programme (LCVP).

### SUMMARY OF MAIN FINDINGS AND RECOMMENDATIONS:

#### Findings

- The overall quality of teaching and learning was very good with instances of exemplary practice.
- Highly effective group work was observed; students worked very successfully in teams demonstrating effective collaboration and communication skills.
- The quality of learning was very good; students were encouraged to develop as autonomous learners and they asked questions confidently of their teachers.
- Assessment practices in the lessons observed were of a high standard; modes of assessment include both formative and summative and are structured to support students' learning and skill development.
- Subject provision and whole-school support for Science and Biology is very good and senior management is highly supportive of teachers' engagement with continuing professional development (CPD).
- Teachers individual planning is very good and collaborative planning is of a high standard; there are few opportunities for teachers to share teaching strategies.

#### Recommendations

- In light of the positive practices identified, it is recommended that opportunities for practice sharing be explored by the science team.

## DETAILED FINDINGS AND RECOMMENDATIONS

### 1. TEACHING, LEARNING, AND ASSESSMENT

- The overall quality of teaching and learning was very good. Individual lessons were meticulously planned and in line with the overall programme of work for the year. Learning intentions were clear and discussed with students at the outset of lessons. The class discussion was facilitated by the teacher and included a focus on success criteria to ensure all students were aware of the requirements for optimal achievement.
- Many high quality resources have been developed by the science team and were incorporated into lessons at appropriate stages. Digital learning technology was used very effectively in all lessons and included the use of the interactive white board and students' mobile devices for all assessment tasks.
- Teachers adopted a very good range of student-centred teaching and learning strategies and this supported the development of a broad range of learner skills and knowledge.
- A very good variety of questioning styles was adopted by teachers with an appropriate balance between direct recall questions and more challenging, higher-order questions. Critical thinking and the development of enquiry skills were encouraged among learners.
- Exemplary practice was observed where questioning strategies were used to incrementally build the learning challenge. This incremental approach to questioning was very effective as it ensured that all students were appropriately challenged and motivated. It is praiseworthy that students were encouraged to use appropriate scientific terminology in their responses.
- Very effective group work was observed when students worked successfully in teams and demonstrated effective collaboration and communication skills. It is very good that teachers encouraged learners to explore the topics, formulate independent hypotheses, discuss their opinions and provide supporting evidence from their learning. In one lesson the teacher ensured that the practice of reporting from the groups was particularly well-structured and very effective.
- A very good teacher-student rapport was evident in the lessons observed. Interactions between students and the teacher were positive and respectful at all times. Deliberate efforts were made to create an inclusive classroom environment. Individual support was provided by teachers to students who experienced difficulty with tasks and teachers were very supportive and affirming of students' efforts.
- The quality of learning was very good. Students demonstrated an appropriate level of knowledge and practical skills through a range of well-facilitated activities. This was observed to encourage them to develop as autonomous learners and they asked questions confidently of their teachers.
- Very good cross-curricular links were in evidence in all lessons particularly with Home Economics and Chemistry. Key words were given a particular focus, explained and reinforced during the conclusion of lessons.
- Assessment practices in the lessons observed were of a high standard. Student notebooks and copybooks observed during the evaluation indicate that teachers are monitoring students' work regularly. Modes of assessment include both formative and summative and are structured to support students' learning and skill development.

- There are few opportunities to provide the sharing of teachers' very good and exemplary practice in teaching and learning. In light of the positive practices identified, it is recommended that opportunities for practice sharing be explored.

## **2. SUBJECT PROVISION AND WHOLE SCHOOL SUPPORT**

- Subject provision and whole school support for Science and Biology is very good in the school.
- Junior Science is a core subject and Biology is an optional subject at senior cycle. It is good to note that Biology, Chemistry, Physics and Agricultural Science are offered in senior cycle. The uptake of Biology is very high among senior cycle students.
- Senior management is very supportive of teachers' engagement with continuing professional development (CPD).
- Teachers are commended for the very good range of extra and co-curricular activities which provide a very good source of additional learning and greatly assist in promoting the Sciences within the school.
- Timetabling provision is in line with the recommendations of the specifications and staff deployed to teach Science and Biology are appropriately qualified.
- The school has one laboratory which is well resourced and organised. Health and safety procedures are well established and a health and safety statement is in place.

## **4. PLANNING AND PREPARATION**

- Teachers' individual planning is very good and collaborative developed planning folders are of a high standard.
- Reflective practice is a key component of Science planning and a subject department review and action plan is in place. Planning for junior cycle Science is very good. The programme of work is based on the strands of the Junior Cycle and takes into account the junior cycle framework and the rationale of the junior cycle science specification.
- Meetings of the science team are held regularly and minutes are recorded; much informal planning also takes place.

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 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 of quality the school's provision of each area.

Level	Description	Example of descriptive terms
<b>Very Good</b>	<b>Very good</b> 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 <b>outstanding</b> 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
<b>Good</b>	<b>Good</b> 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
<b>Satisfactory</b>	<b>Satisfactory</b> applies where the quality of provision is adequate. 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
<b>Fair</b>	<b>Fair</b> 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
<b>Weak</b>	<b>Weak</b> 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;