

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

**Subject Inspection in Metalwork and Engineering**

**REPORT**

<b>Ainm na scoile / School name</b>	Inver College
<b>Seoladh na scoile / School address</b>	Carrickmacross Co Monaghan
<b>Uimhir rolla / Roll number</b>	72180K

**Date of Inspection: 11-02-2019**



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An Roinn Oideachais  
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 Metalwork and Engineering 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.

## **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>	11-02-2019
<b>Inspection activities undertaken</b> <ul style="list-style-type: none"><li>• Review of relevant documents</li><li>• Discussion with acting principal and key staff</li><li>• Interaction with students</li></ul>	<ul style="list-style-type: none"><li>• Observation of teaching and learning during four class periods</li><li>• Examination of students' work</li><li>• Feedback to acting principal and teacher</li></ul>

### School context

Inver College is a co-educational post-primary school operating under the auspices of Cavan Monaghan Education and Training Board with a current enrolment of 317 students. The school offers: the Junior Cycle programme, the Junior Certificate School Programme, an optional Transition Year programme, the Leaving Certificate, the Leaving Certificate Vocational Programme and the Leaving Certificate Applied (LCA). The school participates in Delivering Equality of Opportunity in Schools (DEIS), the action plan of the Department of Education and Skills for educational inclusion.

### SUMMARY OF MAIN FINDINGS AND RECOMMENDATIONS:

#### Findings

- High quality teaching and learning was observed in all lessons during the evaluation.
- Assessment was of good quality, with some aspects for development noted.
- Project work was managed and co-ordinated in an efficient manner, with an emphasis on safety and student self-direction.
- Whole-school support and provision for Metalwork and Engineering is very good.
- The school has two well-resourced specialist rooms, currently one is in use.
- Very good and detailed subject planning has been recently developed.

#### Recommendations

- Clearer and more specific learning intentions and associated learning activities should be shared and discussed in greater detail with students at the start of lessons or topics.
- The use of written formative comments on students' work should be further embedded within the department.

## DETAILED FINDINGS AND RECOMMENDATIONS

### 1. TEACHING, LEARNING, AND ASSESSMENT

- High quality teaching and learning was observed in all lessons during the evaluation.
- All lessons commenced with the teacher orally reviewing prior learning. Following this students developed learning intentions, through teacher questioning and student input. In order to expand students' engagement, strategies that activate students' prior knowledge should be utilised during lesson introductions. Further to this, clearer and more specific learning intentions should be shared and discussed in greater detail, and linked to learning activities and assessment.
- Lessons were coherent and well-paced. The structure of student activity provided continuity and progression between lessons. An orderly learning environment focused student engagement on tasks, students were challenged and motivated by these tasks. Subject matter was appropriate and challenged students according to their abilities.
- Questions were differentiated appropriately enabling all students to respond and achieve success. Student responses were detailed with good levels of knowledge and understanding of the subject topics. In some instances, where the response was inadequate or incorrect, good practice was evident in the way the teacher probed further, hinted or sensitively redirected the student.
- Competent teacher-led demonstrations featured in the lessons observed. Demonstrations were conducted with full classes, small groups and individuals. Students engaged by answering questions, observing procedures and modelling best practice to peers. During a small group demonstration the teacher very effectively exploited a sporting analogy, sequencing the order for soldering electronic components, the analogy guided students procedural knowledge required for the task.
- Lessons were conducted in a very positive atmosphere. Teacher-student interactions were respectful and affirming. Teacher movement throughout the classroom enabled individual student support effectively and the active monitoring of task progression.
- A variety of teaching methodologies were employed during the evaluation. Lessons focused on theoretical and practical elements of the syllabus. The approach of integrating and communicating both theory and practical elements together is commendable and purposefully contextualised the topics. The effective use of these methodologies provided students with deeper engagement in the learning activities.
- Good literacy strategies were observed in copybooks, students are encouraged to self-assess their written work with the aid of a literacy wheel. This good practice provides the student with guidance for improvement while also increasing learner autonomy. Students used technical terminology proficiently when interacting with their teacher and peers during the evaluation, demonstrating a good understanding of the meaning and context of the relevant terminology.
- Student project work was of a high standard. The teachers' high expectations coupled with the advance use of success criteria had a positive cumulative effect on student outcomes. Project work was managed and co-ordinated in an efficient manner, with an emphasis on personal safety and student self-direction in planning and execution of tasks.

- The subject department has developed a detailed homework workbook, which requires written answers and freehand sketched solutions. Homework is assigned regularly and on occasion written formative feedback for improvement is provided. A method for providing all students with a greater level of formative feedback should now be developed.
- Digital technologies were employed very effectively to scaffold new learning and support extension activities for students.

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

- Subject provision and whole-school support for Metalwork and Engineering is very good.
- Timetabling provision for the subjects is very good with class periods evenly distributed across the week. Single and double classes are also provided, facilitating project work and regular access to the subject.
- Currently there are two metalwork class groups in first-year and one class group per year thereafter. The subject department is involved in the provision of a junior cycle short course. These recent developments and an increase in students studying Metalwork is positive.
- Prospective students preselect their choice of optional subjects prior to entry in first-year: informed decision making is supported by an options information evening. In senior cycle, students rank the optional subjects in order of preference and option bands are generated which best accommodate subject choices.
- Safety signage is prominently displayed on machine tools, students used personal protective equipment when operating equipment and safe operating exclusion zones are clearly marked, this is good practice. During the evaluation a health and safety risk assessment was in progress, the findings of which are to be forwarded for the attention of school management.
- In order to widen the range of curricular choices, as part of the LCA programme review, school management and the subject department should consider the inclusion of Engineering as an optional subject.
- Currently one specialist room is in timetabled use. The school has two specialist rooms, both are very well-resourced, digitally enabled and provide students with an excellent learning environment. School management submitted that the second room will be utilised in due course as student numbers studying Metalwork and Engineering increase.
- Continuing professional development is facilitated by management and records of attendance were available.

## **3. PLANNING AND PREPARATION**

- Very good and detailed subject planning has been developed recently. Lesson resources and activities, prepared in advance, supported learning and in some cases fostered students' independence.
- Commendably the schemes of work support teaching and learning by integrating detailed learning outcomes with relevant teaching strategies, prerequisite knowledge, homework assignments and focused assessment modes. The annotation of the schemes with ongoing observations and comments on learner outcomes and areas for improvement is an effective means of informing future planning.

- Regular subject planning meetings are scheduled by management. The arrangement of meetings with other technology education subject departments in the school is a worthwhile initiative. To date, subject meetings have primarily focused on matters of an organisational nature. To build on this good work, it is recommended that meetings should also include a discussion on teaching, learning and assessment, with an aim to further developing and sharing good practice.
- Analysed certificate examination data is prepared for each subject department annually. Uptake of higher level in certificate examinations is very good. However, there is a need to further review the relevant data in order to identify trends in attainment and to prepare an improvement plan to target any issues identified.

The draft findings and recommendations arising out of this evaluation were discussed with the acting principal and subject teacher at the conclusion of the evaluation.

The board of management of the school 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.

## 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 quality of 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;

# **Appendix**

**SCHOOL RESPONSE TO THE REPORT**

**Submitted by the Board of Management**

## **Area 1 Observations on the content of the inspection report**

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## **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 Board of Management of Inver College is delighted to have the excellent practice in its Metalwork/Engineering Department recognised in this subject report. The Board will support the staff in further developing student learning aims and formative assessment, enhancing and progressing the quality of students learning.