

An Roinn Oideachais agus Scileanna
Department of Education and Skills

Subject Inspection in Metalwork and Engineering

REPORT

Ainm na scoile / School name	Maynooth Post Primary School
Seoladh na scoile / School address	Moyglare Rd Maynooth Co Kildare
Uimhir rolla / Roll number	70700A

Date of Inspection: 05-11-2019



**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

Dates of inspection	5-6 November 2019
Inspection activities undertaken <ul style="list-style-type: none">• Review of relevant documents• Discussion with principal and key staff• Interaction with students	<ul style="list-style-type: none">• Observation of teaching and learning during six lessons• Examination of students' work• Feedback to principal and relevant staff

School context

Maynooth Post Primary School is a co-educational multi-denominational school operating under the aegis of Kildare and Wicklow Education and Training Board with a current enrolment of 968 students. The school offers the junior cycle, an optional Transition year (TY), the Leaving Certificate Applied (LCA), the Leaving Certificate Vocational Programme (LCVP) and the Leaving Certificate (Established).

SUMMARY OF MAIN FINDINGS AND RECOMMENDATIONS:

Findings

- The overall quality of teaching and learning in the lessons observed was good; with teaching methodologies identified as an area for improvement.
- Lessons were conducted in a mutually respectful learning environment, interactions and classroom management were very good.
- Overall, teachers provided students with effective formative oral feedback during lessons but assessment for learning practices are underdeveloped
- Very effective peer and group work was observed in lessons.
- Provision and whole-school support by management for Metalwork and Engineering is very good there is scope to improve the uptake of the subjects in both junior cycle and senior cycle.
- Individual planning and preparation for lessons was good, however the subject plan is less than satisfactory and requires significant development.

Recommendations

- Teaching approaches that integrate practical and theoretical lesson content should be utilised more frequently during lessons.
- The subject department should implement the whole-school assessment policy, such as sharing learning intentions, assessing learning using success criteria and providing greater levels of directional formative commentary on student work.
- Teachers should update the subject planning documentation and progress their schemes to include junior cycle Engineering and ongoing action planning for evidence-based improvements.

DETAILED FINDINGS AND RECOMMENDATIONS

1. TEACHING, LEARNING, AND ASSESSMENT

- Six one-hour lessons were observed during the evaluation across junior and senior cycle. The quality of teaching was good overall, with scope for improvement identified in the area of teaching methodologies and assessment practices.
- All lessons were conducted in a mutually respectful learning environment, interactions and classroom management were very good. Good student engagement and enthusiasm was evident in the majority of lessons.
- The majority of lessons were well balanced between teacher input and active student engagement. Opportunities to learn independently and collaboratively with peers were very effectively coordinated and enriched the learning experience for students.
- Teacher demonstrations were short, focused and included good levels of student engagement when modelling best practice. The use of a completed three-dimensional model during one demonstration was very effective in establishing a standard for students' learning. This practice should be extended.
- Questioning strategies were effectively employed and used to assess prior learning, knowledge and levels of understanding. Questions requiring students to evaluate and analyse were well structured to allow varying levels of responses. Responses were affirmed openly and furthered tactfully where necessary.
- Differentiation was achieved through reactive instances of teachers' practice and through planned content during lessons. Students completed similar tasks to varying standards of outcome. Teachers' movement was very good during lessons enabling good oversight of student learning and providing individual supports for students when necessary. Teachers conscientiously assigned students to work in groups based on wide-ranging reasons. This is commendable practice.
- Observed lessons were practical in nature, students were working on assigned projects or designing solutions to design briefs. Links between practical activities and theoretical concepts were not always made explicit with some opportunities missed. Teaching strategies that best integrate practical and theory lesson content should be utilised more frequently, in order to progress and deepen students learning. This could include promoting students to freehand sketch and make notes in their copybooks to record this learning.
- Students demonstrated good quality learning in a review of summative theory assessments. The overall quality of formative assessment practices requires improvement. This should be addressed by teachers through implementing the whole-school assessment policy, such as sharing learning intentions, assessing learning using success criteria and providing greater levels of directional formative commentary on students' work.
- Although good learning was evident in lessons observed, more explicit announcement and discussion of learning intentions as the lesson progressed would have created a clearer focus when linked to student activity, success criteria and assessment. In general, a greater use of visual displays and exemplars of completed student projects would have supported learning more effectively.
- Homework was assigned regularly, the timing of this should be reviewed to allow sufficient time for students to record their assigned homework. It was noted that greater monitoring of student journals would ensure that homework is recorded.

2. SUBJECT PROVISION AND WHOLE SCHOOL SUPPORT

- Provision and whole-school support by management for Metalwork and Engineering is very good.
- All year groups have appropriate time allocation with a good spread of lessons across the week. Incoming first-year students and their parents are informed of optional subject choices during an open evening. Optional subject teachers, along with students, present their subject to prospective students during classroom visits.
- Informed decision making for senior cycle Engineering is supported through the guidance department in conjunction with subject department presentations to students in third year and TY. Senior management in collaboration with the subject department should ensure on an agreed suitable time for this presentation to maximise impact.
- The subject department has one specialist room which is fully equipped and orderly routines are well established for the storage and distribution of student work. To further advance the learners experience teachers should work towards creating a more stimulating learning environment for students, such as project displays, celebration of student success and an engineering careers and courses notice board.
- Safety signage is prominently displayed on machine tools. Students used personal protective equipment when operating equipment, however, safe operating exclusion zones surrounding machine tools are not clearly marked. The subject department should now prioritise a health and safety risk assessment using the interactive risk assessments for post-primary schools as provided by the Health and Safety Authority, and forward findings to management.

3. PLANNING AND PREPARATION

- Individual preparation for lessons was very good, materials and activities were arranged for in advance of lessons.
- The subject department plan for Engineering is less than satisfactory and requires significant development. In order to enhance and support teaching and student learning effective planning is necessary, in particular for the recently introduced junior cycle Engineering specification. Teachers working collaboratively should design, plan, teach and review learning units.
- Subject department meeting minutes were available during the evaluation: discussions at such meetings pertained mainly to organisational matters of which are shared with management. Going forward a teaching, learning and assessment section should be included on the agenda to facilitate deeper professional discussions in these areas.
- Teachers reflect on certificate examination attainment data annually. To further enrich this good practice teachers should action plan for evidence-based improvements using attainment data, class assessments, project reviews and other sources.
- Student numbers in Metalwork and Engineering classes are low relative to the number of students in the school. Transfer of junior cycle Metalwork students into senior cycle Engineering is also low and warrants investigation by the subject department.

- Action planning for evidence-based improvements should explore issues such as student number uptake, gender rebalancing and planning for the possible introduction of a TY Engineering module in the future.

The draft findings and recommendations arising out of this evaluation were discussed with the principal, deputy principals and subject teachers 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
Very Good	Very good 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 outstanding 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
Good	Good 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
Satisfactory	Satisfactory 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
Fair	Fair 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
Weak	Weak 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

- The Board of Management of Maynooth Post Primary school welcomes the Subject Inspection Report in Metalwork and Engineering as dated 10/12/19 that affirms the positive work ongoing in the school.
- The school's continued commitment to fostering high standards of Teaching and Learning is evidenced in its involvement in the ETBI's Instructional Leadership Programme, TL21, Forbairt the Droichead programme. All of these initiatives are closely aligned to the school's School Self Evaluation focus.
- The Board of Management accepts and welcomes the positive Subject Inspection Report in Metalwork and Engineering which indicates that the overall teachers provided students with effective formative oral feedback during lessons. It is noted that the Inspectorate acknowledge the commendable practice of teachers conscientiously assigning students to work in groups based on wide ranging reasons.

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

This positive assessment, in accordance with the Inspectorate's quality continuum, is welcomed and the Board and School Management are fully committed to addressing the following recommendations.

- Teaching approaches that integrate practical and theoretical lessons content will be utilised more frequently during lessons and any organisational matters addressed.
- The subject department will implement the whole school assessment policy and update the subject planning documentation and progress their schemes to include Junior Cycle Engineering and engage in ongoing action planning for evidence based improvements.
- The subject department will now prioritise a health and safety risk assessment using the interactive risk for post primary schools as provided by the Health & Safety Authority and forward their findings to management.
- The subject department will continue to use and embrace different assessment/methodologies and resources in conducive learning environments into the future.