

An Roinn Oideachais agus Scileanna
Department of Education and Skills

Subject Inspection in Metalwork and Engineering

REPORT

Ainm na scoile / School name	Kildare Town Community School
Seoladh na scoile / School address	Dunmurry Road Kildare Town Co Kildare
Uimhir rolla / Roll number	91530S

Date of Inspection: 03-03-2020



**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.

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.

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	02-03 March 2020
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

Kildare Town Community School a co-educational post-primary school with a current enrolment of 937 students. The school operates under the aegis of Kildare Wicklow Education and Training Board and the Diocese of Kildare and Leighlin. The school offers the junior cycle, the Junior Certificate, the Leaving Certificate Vocational Programme, the Leaving Certificate Applied (LCA), the Leaving Certificate and an optional Transition Year (TY).

SUMMARY OF MAIN FINDINGS AND RECOMMENDATIONS:

Findings

- The overall quality of teaching and learning was good.
- Teachers established high expectations for student achievement in the lessons observed, where strategies that enable high quality project work were deployed, they were effective, however these strategies were not universally deployed.
- There were inconsistencies among teachers in the assignment of homework and in the monitoring of students' work.
- Assessment was of good quality, with areas for development noted.
- The quality of provision and whole-school support for Engineering was very good, an Engineering module in TY was introduced this academic year.
- Planning and preparation for the lessons observed was of good quality, sections of the subject plan needs reordering and strategic planning is under developed.

Recommendations

- Teachers should develop success criterion with students that promote practical skill development, project realisation and good quality copybook work.
- Teachers should assign, monitor and affirm students' work with greater frequency, and provide written formative feedback on students' work.
- The fifth-year engineering scheme should be reordered to reflect the syllabus aims of integrating knowledge, skills, problem solving and design in the development and realisation of project work.
- The subject department should advance a strategic plan for Engineering by setting medium and long-term goals to include uptake by girls, attainment and higher level uptake.

DETAILED FINDINGS AND RECOMMENDATIONS

1. TEACHING, LEARNING, AND ASSESSMENT

- Six lessons were observed during the evaluation across junior and senior cycle. The quality of teaching and learning was good overall with examples of very good practice also noted.
- All lessons were conducted in a mutually respectful learning environment. Classroom management was very good with positive interactions. Student engagement and enthusiasm for their learning during lessons was a significant strength.
- Teachers set high expectations for student learning during lessons. Effective strategies that enable high quality project work were deployed, however, these strategies were not universally deployed and should be more explicit. Learning intentions should be linked to success criterion, focusing students on what success in their learning looks like and empowering students to take greater ownership of their learning in particular during practical skill development, project realisation and written work.
- Lessons were well structured with a variety of tasks and student-led project work. An imbalance between student input and teacher exposition during the introductory period of some lessons resulted in increased student passivity. Methods to increase meaningful student input during this phase in lessons should be explored.
- Teacher-led demonstrations and group discussions were very effective and featured in the majority of lessons. A minority of lessons would have benefited from a greater frequency of short focused demonstrations. Opportunities to model best practice and reinforce specific skills to scaffold and support student learning should be integrated more regularly during lessons. Students should be encouraged to demonstrate new learning following such activities.
- The assignment and monitoring of homework was irregular. The quality of students' written work varied. Teachers should assign written work that relates to class work with greater frequency to consolidate student learning. Written formative feedback was not evident on students work. Teachers should commence the provision of good quality feedback on students' work which is designed to promote improvement.
- Teachers adopted a good variety of questioning techniques, with an appropriate balance between recall type questions and more challenging, higher-order questions. Questions encouraged the development of an engineering mind-set of problem solving and design among students.
- The engineering design process was developed to good effect in practical project work during lessons. Students presented good-quality prototypes manufactured from card. In order to achieve greater utilisation of prototyping, students should be encouraged to advance their models in order to demonstrate design development and modification. Students should be provided with a greater range of physical modelling materials and appropriate joining processes to promote deeper engagement.
- In all lessons observed learning was differentiated through either activity or learning outcome. This allowed each student to work at a pace that suited their ability. In addition, students with identified needs were assisted on an individual basis.
- Good levels of learner autonomy was particularly evident during senior cycle lessons. The junior cycle key skills of working with others and managing information were discussed and developed in the context of project work and submission deadlines. Students worked diligently on assigned tasks.

2. SUBJECT PROVISION AND WHOLE SCHOOL SUPPORT

- The school offers Engineering as an option subject in all its curricular programmes. The timetabling arrangements are very good, all class groups are timetabled for at least one double lesson per week. Good continuity of teachers across class groups is achieved.
- Prospective first-year students attend an open evening where all option subjects are presented, the specialist rooms are opened and operational during the open evening. Option bands are created based on student option subject selection. A similar arrangement including subject department presentations are in place for entry into senior cycle.
- All students in TY experience an eight week rotating module in Engineering. Planning for this module is newly developed. Plans to integrate this module with other subject areas within the TY programme should be explored with the aim of enhancing the student learning experience within the subject areas.
- The active management of health and safety was evident during lessons. Students used personal protective equipment where necessary. It is recommended that the subject department use the interactive risk assessments for post-primary schools as provided by the Health and Safety Authority. Further to this, priority should be given to the repair and amendment of demarcation of safe operation zones on the floor surrounding machine tools.
- Displays of student work helps to create an interesting learning environment in the specialist rooms. Exemplars of student work displayed in the corridor outside the rooms help to raise the profile of the subjects amongst the whole-school cohort.
- Teachers engage actively in subject-specific continuous professional development with good records maintained.

3. PLANNING AND PREPARATION

- Planning and preparation for the lessons observed was of good quality. Specialist equipment and various resources were prepared in advance, enabling the smooth flow of lesson transitions. The subject department benefits from a project storage room in close proximity to both specialist rooms.
- Subject department meetings are scheduled by management. Department meetings contain evidence of collaborative discussions on planning, teaching, student learning and assessment modes.
- The current fifth-year engineering scheme focuses primarily on the theoretical elements of the syllabus and practical skill refinement. The scheme should be reordered to reflect the syllabus aims of integrating knowledge, skills, problem solving and design in the development and realisation of project work. This will necessitate an earlier introduction of design based project work in fifth-year.
- The performance of student outcomes in certificate examinations is presented and analysed annually by teachers. Fluctuations and adverse trends in higher level uptake and outcomes require deeper discussion and reflection at department team level to ensure that students are encouraged to study the subject at the most appropriate level.
- To further develop planning within the subject department, consideration should be given to identifying medium to long-term strategic goals for the further development of Engineering within the school. Possible areas to include could be uptake by girls, uptake and attainment at higher level or standard setting for practical and written work.

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 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 notes and accepts this report. The Board notes the inspectorate's comment that the overall quality of provision and whole school support for Engineering is very good. The Board is committed to supporting the staff in implementing the recommendations contained in the report in order to deliver the highest possible outcomes for students.

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 school is currently reviewing our approaches to formative feedback and the Engineering Department is committed to engaging with this process. Senior Management has begun working with the Engineering Department to formulate an action plan to implement all the recommendations in this report.