An Roinn Oideachais agus Scileanna

Department of Education and Skills

Subject Inspection in Technology

REPORT

Ainm na scoile / School name	Mercy Secondary School
Seoladh na scoile / School address	Ballymahon Co Longford
Uimhir rolla / Roll number	63710M

Date of Inspection: 28-03-2019

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 Technology 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

Date of inspection	28 March 2019
Inspection activities undertaken • Review of relevant documents • Discussion with principal and key staff • Interaction with students	• Observation of teaching and learning during five class periods • Examination of students' work • Feedback to principal and relevant staff

School context
Mercy Secondary School is a voluntary co-educational post-primary school with a current enrolment of 678 students. The curricular programmes provided include the Junior Cycle, an optional Transition Year (TY), the Leaving Certificate and the Leaving Certificate Vocational Programme.

SUMMARY OF MAIN FINDINGS AND RECOMMENDATIONS:

Findings

- The quality of teaching and learning ranged from good to very good in the lessons observed.

- Rapport between teachers and students was good and a high level of teacher-student interaction was evident.

- The quality of assessment was good; students' response to oral feedback was a significant strength during lessons, written formative feedback on students' work was noted in a few instances.

- Planned learning activities were effectively co-ordinated, with particular attention to the learning needs of individual students observed.

- Very good use of digital technologies to support teaching and learning was observed.

- Planning and preparation for lessons was of a high quality, with scope for the department to develop action planning for improvement.

Recommendations

- Teachers should increase the provision and quality of formative feedback on students' written work, and create opportunities for students to follow-up on such advice.

- The Technology department should prioritise its planning for evidence-based improvement, by setting SMART targets and aligning them to specific classroom strategies to be implemented.

DETAILED FINDINGS AND RECOMMENDATIONS

1. TEACHING, LEARNING, AND ASSESSMENT
- The quality of teaching and learning in Technology lessons ranged from good to very good.

- Learning intentions focussed and supported student learning, lesson content and lesson structure. The level of student input during lesson introductions varied. An increased effort to amplify student input and voice during this stage in the lesson is desirable. Sufficient time for student input was afforded during the conclusion of lessons for students to review and consolidate their learning through a range of exit strategies.

- In one lesson the subject matter focused on a particular area of mechanisms. Learning progressed from concrete examples of gears to abstract mathematical gear ratios with the aid of models. Students were presented with semi-structured steps to solve the problem and were required to balance an equation based on gear ratios. This approach proved very effective for focusing student understanding on the concept of ratios, before determining the procedural steps required to balance the equation.

- Both the practical and theoretical elements of the syllabus were taught in an integrated manner during the lessons observed. This good practice was also evident in students' written work and copybooks. In order for students to further improve their learning, teachers should increase the provision and quality of formative feedback on students' written work, and create opportunities for student reflection and tasks to follow-up on this advice.

- Teacher demonstration followed by student-led activities featured prominently in observed lessons. The timing of on the spot and group demonstrations was effective and progressed new learning with good purpose.

- The duration of one demonstration would have benefited by a reduction in time and the rescheduling of a second short demonstration later during the lesson. The second demonstration could provide feedback on students' execution of the new skill, its further development and simultaneously introduce new subject matter by refocusing the remainder of the lesson.

- Digital technologies were used innovatively during lessons. Audio-visual materials containing high-quality visuals clearly explained new concepts in an incremental manner. Lesson content and homework is communicated through a virtual web-based classroom platform. Students can access this platform during lessons to create notes, retrieve project drawings, presentations or videos.

- Students were actively engaged in their learning. Their skills were developed and supported appropriately according to their specific needs affording good progress to be make during project work. Teacher circulation among students was very effective, creating time for individual interactions, affirming student endeavour and the continual in class assessment of student progress. The quality of assessment was good. The immediacy and response by students to oral feedback was a significant strength during lessons.

- Celebration of student achievement in the form of students' project work displays and subject association awards contribute to the positive and supportive learning atmosphere evident during the evaluation.

- Students created sketches to communicate their initial design solutions with some producing good quality prototypes of their final designs. High quality coloured annotated sketches were noted in student copybooks. Full scale prototypes should be utilised more frequently by students as a strategy for testing their design concepts and project functionality, by using a wide range of prototyping materials.

2. SUBJECT PROVISION AND WHOLE SCHOOL SUPPORT

- The overall quality of subject provision and of whole-school support for Technology is good.

- The current time allocation for junior certificate Technology is one single and one double class period per week for each of the three year groups. This is short of the suggested minimum class contact time as outlined in the guidelines for Junior Certificate Technology. School management should endeavour to address this matter in future timetabling arrangements.

- Technology is an optional subject in Mercy Secondary School. Good arrangements are in place for subject selection. Incoming students select Technology prior to entry in first-year. The school provides prospective students with information on subject choice during an open evening. TY and third-year students are supported in making their subject choices through subject department presentations during an options night. Technology is offered in TY to all students during two class periods for an eight week rotation.

- The active management of health and safety was evident during lessons. Students diligently used personal protective equipment where necessary. Risks-and-hazards checks are conducted annually. 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 demarcation of safe operation zones on the floor surrounding machine tools.

- Support for teachers' continuing professional development is very good with good records kept of attendance at various national events.

3. PLANNING AND PREPARATION

- Planning and preparation for lessons was of a high quality, learning activities were designed to challenge and support all abilities within the mixed ability class groups.

- Yearly schemes are well developed, subject matter is differentiated and organised clearly with particular focus on learner outcomes. Documented assessment practices provide students with a good variety of methods to demonstrate and assess their learning.

- The detailed analysis of student attainment in certificate examinations, as documented in the subject plan, could now be purposefully used to support planning for the new Applied Technology specification. This could be achieved by setting SMART targets and aligning them to specific classroom strategies for implementation.

- Subject department meetings are scheduled formally by management. The Technology department meets with the Graphics department, and records of these meetings were available. To further enrich this current good practice the agenda for future meetings should include a section for teaching, learning and assessment to encourage deeper collaboration and sharing of best practice.

- The interactive web-based classroom platform integrates lesson planning, resources and homework in one location and is accessible to all students who study Technology. Enabling the ease of student access to useful resources is commendable.

The draft findings and recommendations arising out of this evaluation were discussed with the principal and subject department 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 *very good* 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

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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.

As a Board we accept the recommendations.

We would like to point out the impossible task of allocating extra time to Junior Certificate Technology as it is in the same option bands as some of the subjects following the new JCT specifications. In view of our policy to provide a broad curriculum, our students take 10 exam subjects for the Junior Certificate which means we are constricted by the available hours. In September 2019, the First Year students will have the correct allocation for the new JCT Applied Technology subject.