



An Roinn Oideachais
Department of Education

Subject Inspection: Computer Science and digital subjects Report

REPORT

Ainm na scoile/School name	St. Mary's C.B.S.
Seoladh na scoile/School address	Borris Road Portlaoise Co. Laois
Uimhir rolla/Roll number	63430G
Dáta na cigireachta/ Date of evaluation	19-01-2023
Dáta eisiúna na tuairisce/ Date of issue of report	17/04/2023

What is a 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(s) evaluated learning and teaching in Computer Science and digital subjects under the following headings:

1. Teaching, learning and assessment
2. Subject provision and whole-school support
3. Planning and preparation

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.

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.

Actions of the school to safeguard children and prevent and tackle bullying

During the inspection visit, the following checks in relation to the school's child protection and anti-bullying procedures were conducted:	
<i>Child Protection</i>	<i>Anti-bullying</i>
<ol style="list-style-type: none">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.	<ol style="list-style-type: none">1. The school has developed an anti-bullying policy that meets the requirements of the <i>Anti-Bullying Procedures for Primary and Post-Primary Schools (2013)</i> and this policy is reviewed annually.2. The board of management minutes record that the principal provides a report to the board at least once a term on the overall number of bullying cases reported (by means of the bullying recording template provided in the <i>Procedures</i>) since the previous report to the board.3. The school's anti-bullying policy is published on its website and/or is readily accessible to board of management members, teachers, parents and pupils/students.

The school met all the requirements in relation to child protection checks.

The school met the requirements in relation to check 2 and 3 of the anti-bullying checks above. The school did not meet the requirements in relation to check 1 of the anti-bullying checks.

Subject inspection

Date of inspection	19-01-2023
Inspection activities undertaken <ul style="list-style-type: none">• Review of relevant documents• Discussion with principal and key staff• Interaction with students, including focus groups	<ul style="list-style-type: none">• Observation of teaching and learning during four lessons• Examination of students' work• Feedback to principal and relevant staff

School context

St. Mary's CBS is a post-primary school under the patronage of the Edmund Rice Schools Trust (ERST). There were 714 students enrolled at the time of the inspection. The school offered the Junior Cycle, an optional Transition Year (TY) programme, the Leaving Certificate (Established) (LCE), Leaving Certificate Applied (LCA) and the Leaving Certificate Vocational Programme (LCVP).

Summary of main findings and recommendations:

Findings

- Teaching and learning was very good; lesson structures were very clear and communicated well to students.
- Assessment was very good; students received regular feedback on their work and questioning was suitably varied.
- Teachers used the digital platform highly effectively to frame the lessons and share information.
- Provision for the subject and support from the school was very good, with teachers using the classroom resources to augment their lessons.
- The quality of planning and preparation was very good; lesson planning included differentiated activities.

Recommendations

- The board of management should review the anti-bullying policy annually.
- Teachers should encourage students to regularly add comments to their code and this should be modelled by teachers.
- Teachers should maximise opportunities for students to engage in effective structured collaborative learning.

Detailed findings and recommendations

1. Teaching, learning and assessment

- Teaching, learning and assessment was very good.
- In all lessons the structure of the lesson was very good; teachers described and shared the learning intentions on the digital platform. These were referred to during the lessons effectively and were reflected on very well in the conclusion of the lessons, when students described their learning. In some of the lessons, keywords and difficulties raised by the students were recorded onto the digital platform to inform planning for the next lesson, which is highly effective practice.
- Students were supported by a variety of teaching methods and they participated in a selection of activities such as researching, documentation, interface design, coding games and programming hardware devices.
- Teachers employed strategies of incremental learning very successfully. In many lessons, early activities focused on embedding theory and vocabulary, while later exercises focused on research and practical applications. In addition, teachers were very effective in pre-teaching topics that were going to be studied in detail in future lessons.
- Teachers were knowledgeable in their subject area and encouraged a student-centred approach to learning. Teachers provided students with opportunities to ask questions during classroom discussion, which increased engagement and interest, while also ensuring that students were very clear about the set tasks.
- Teachers created a positive learning atmosphere, with a good rapport evident in all lessons between students and the teacher. In one highly effective lesson, there was some valuable pair work. It is recommended that students are provided with further opportunities for planned collaborative learning and peer-assessment.
- Students were confident when coding and engaging in problem solving, accurately representing real-world concepts in code. It would be beneficial if teachers encouraged students to include comments more often in their code. This keeps code structured for review and makes it more accessible to others.
- Students had opportunities to experience a variety of coding software and a choice of web browsers. Students were regularly reminded of multiple software options that they could use. This is excellent practice as it broadens students' understanding of features that alternatives provide, in addition to increasing mobility and discouraging bias. There is further opportunity to link these discussions with the digital learning plan, to develop critical thinking with regard to privacy and digital footprints when using technology.
- Teachers and students engaged effectively with the school's digital platform. Students had full access to content that was being discussed by the teachers in the classes. They kept organised records of their work and shared their work easily with the teachers.
- In all lessons, teachers used questioning very effectively, with appropriate dispersion, wait time and depth of answers, differentiated to students and the situation.
- Teachers corrected student work, with considerable evidence of formative feedback in the majority of student copies and on their digital platform. In a few instances, student

work would benefit better monitoring, to ensure that students are completing their assigned tasks and that they can locate their digital feedback.

- Students who participated in the focus group stated that they valued the opportunity to study the programme, which gave direction in their career paths. They were particularly proud of the progression of their digital skillset, allowing them to create projects that could be used by other people. They found coding to be a noteworthy strength and they expressed interest in learning more about practical applications. They remarked that the explanations and digital resources provided by the teachers were excellent and a very reliable source of information in solving challenging problems.

2. Subject provision and whole school support

- Overall, the subject provision and whole school support was very good.
- The school was equipped with three computer rooms and a well-maintained information and communications technology (ICT) infrastructure. Two sets of tablets were also available to support digital learning. Twenty-three interactive screens were deployed in the classrooms and these were used highly effectively by the computer science team.
- Coding was taken by all students in TY, in addition to a module specialising in office software. Computer Science was offered as an option subject in fifth and sixth year. LCA students could avail of the module, *Introduction to ICT*.
- Timetabling for the subjects was appropriate. The school was planning to introduce Coding as a short course option to first-year students from the academic year 2023-24 and the short course in Digital Media Literacy in the future.
- Teachers had engaged in recent continuing professional development (CPD) in areas related to computer science and the board of management had provided funding to support CPD.
- The school had a digital learning plan, which was managed by the digital learning team. Specific, Measurable, Achievable, Relevant, and Time-Bound (SMART) targets were set and a statistical analysis on survey results was conducted to find emerging issues and to ensure that targets had been met. The current focuses were building digital safety and managing digital footprints, as well as increasing staff competence in designing digital learning activities and sharing of digital practices.
- The digital learning team conducted workshops to increase the digital competence of the staff in areas of differentiation, planning and use of technologies in digital learning.
- Teachers in the school ran extra-curricular activities in coding and robotics clubs, which promoted interest in the subject areas.

3. Planning and preparation

- Planning and preparation was very good.
- Individual lessons were planned exceptionally well. The digital platform was well-embedded and utilised in the culture of the department. Structuring and differentiated activities were prepared to guide each lesson on the digital platform. Management should support the computer science team to demonstrate their use of the digital platform to all teachers and students and encourage its use across all departments.

- The team was collaborative in their planning and subject specific resources were developed by the department. CPD resources were shared on the digital platform.
- The subject plans detailed the delivery of the course, policies, teaching methodologies and opportunities for collaboration with stakeholders and other subject departments.
- A scheme of work outlined the content of the course on a suitable timeframe. Each unit of learning had associated specification learning outcomes listed. These topics could be cross-referenced with the digital platform to find associated resources and lesson plans. The resources available for each lesson should be outlined in the scheme of work or linked clearly to the digital platform.

The draft findings and recommendations arising out of this evaluation were discussed with the principal/deputy principal/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	<i>Very good</i> 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 <i>outstanding</i> 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	<i>Good</i> 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	<i>Satisfactory</i> 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	<i>Fair</i> 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	<i>Weak</i> 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 welcomes the report which highlights the high quality of Teaching, Learning and Assessment in the subject area. The Board also welcomes the acknowledgement in the report that support for the subject from the school is very good.

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 annual review of the Anti-Bullying Policy took place at a Board of Management meeting on January 24th 2023.

The Board will oversee the implementation of all other recommendations.