

Assessment Report

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Standards [91908](#) [91909](#)

Part A: Commentary

No commentary was provided for these Digital Technologies standards.

Part B: Report on standards

91908: Analyse an area of computer science

Candidates who were awarded **Achievement** commonly:

- answered the questions with only a basic understanding of the computer science topic
- were able to describe and explain a key mechanism / algorithm and indicate how it was used in real-life
- were really clear about the computer science behind the area.

Candidates whose work was assessed as **Not Achieved** commonly:

- repeated the same information across multiple parts of the task
- did not appear to understand the question, or did not answer the question
- wrote long answers that did not demonstrate an understanding of the basic / key mechanisms / algorithms
- demonstrated little understanding of the computer science algorithms or techniques (e.g. they were unable to explain the algorithm and how it 'works' within the topic they selected)
- gave a description where an explanation was required (talked about the effects of the mechanisms rather than explaining what the mechanisms were)
- made factually incorrect statements
- did not understand the terminology they used
- used non-credible information sources
- did not understand what the algorithms are
- did not use subject-specific language
- described the social effects. /consequences of the topic without explicitly explaining how the computer science mechanisms were involved
- became side-tracked in philosophical discussions rather than answering the question.

Candidates who were awarded **Achievement with Merit** commonly:

- described / explained multiple algorithms / mechanisms
- were able to compare / contrast (as opposed to describe further) key concepts / mechanisms / perspectives
- compared and contrasted perspectives in some depth, but could not explain comprehensively the wider use or innovative connections
- understood the algorithms and what they can and cannot do, and could explain this in terms of how they relate to people.

Candidates who were awarded **Achievement with Excellence** commonly:

- showed a comprehensive understanding of the computer science concept, could relate it to people or situations, and then could make justified projections, or explained concerns of its use moving forward

- demonstrated a sound understanding of the computer science area they covered and were able to clearly convey that understanding
- where relevant, were able to show understanding between areas of computer science
- could compare and contrast perspectives in depth, and comprehensively explain the wider use or innovative connections.

Standard-specific comments

This standard requires candidates to understand the computer science concepts (algorithms / mechanisms) for the specified topics. It is essential that candidates show a clear understanding of the algorithms / mechanisms. This means that they can communicate clearly what the algorithms are and how they function, rather than the result of the algorithm only.

Candidates should thoroughly investigate an area of computer science and practice being able to explain / discuss using terminology that demonstrates their own understanding, rather than trying to use big words that they don't understand or use incorrectly.

Candidates should be well prepared and have trialled the assessment prior to sitting. There is not a requirement for such in-depth responses as 91636, but candidates still need to demonstrate they understand and can explain with examples the algorithms used.

91909: Present a reflective analysis of developing a digital outcome

Candidates who were awarded **Achievement** commonly:

- gave some reflection on their work
- produced limited stakeholder feedback, or demonstrated non-authentic practice, meaning stakeholder feedback had little value.

Candidates whose work was assessed as **Not Achieved** commonly:

- did not complete the report
- had little reflection on the work they had undertaken

- included stakeholder feedback limited to some simple comments about trivial aspects of design (e.g. colour or layout)
- said that feedback was beneficial without describing the feedback in detail and what aspects it influenced in their outcome
- described what was done instead of making links to the decisions made.

Candidates who were awarded **Achievement with Merit** commonly:

- presented a well-structured report
- had in-depth knowledge about which they could write
- had an authentic stakeholder who gave feedback which allowed them to make reasoned decisions
- had authentic end-user feedback that they used to enrich their understanding and practice; this gave them critical details about which to write in-depth reflections.

Candidates who were awarded **Achievement with Excellence** commonly:

- gave a detailed analysis and assessment of specific decisions they made during their practice
- used stakeholders that gave them ideas which they had not thought of themselves that were used to improve the outcome and the development process
- made insightful conclusions about their practice and the outcome.

Standard specific comments

Many candidates did not have authentic clients / stakeholders, which meant their report seldom had the opportunity explore less obvious implications and higher-level thinking.

Some work was not at Level 7 or 8 of the curriculum and was unsuitable for a Level 3 NCEA project.

Using many images without any supporting commentary does not help the report; a few well-chosen images with meaningful links to specific reflections will support the submission

Candidates should not put live links in their reports.

Where there was a mix of technologies, candidates did not refer to enough of the digital aspects of the outcome – i.e. for 3D printing, candidates should refer to the design not the created model, and for robotics they should refer to the code and not to mechanisms

Sometimes the stakeholder-feedback related to minor aspects of the outcome or its development, and not the functioning of the outcome

Candidates need to find suitable authentic stakeholders and to ask them meaningful questions.

Teachers and candidates are advised to make themselves familiar with the Assessment Specifications for 2021.

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Previous years' reports

[2019 \(PDF, 110KB\)](#)