



## Main changes resulting from the review

- 20 new achievement standards were developed in dual subject areas (Digital Technologies, and Hangarau Matihiko) to replace the existing 19 Digital Technologies standards at NCEA levels 2 and 3.

For a detailed description of the development of the Digital Technologies and Hangarau achievement standards, see the [Appendix](#) at the end of this report.

## Impact on existing organisations with consent to assess

Current consent for			Consent extended to		
Nature of consent	Classification or ID	Level	Nature of consent	Classification or ID	Level
Standard	91368	2	Standard	91892	2
Standard	91370	2	Standard	91893	2
Standard	91371	2	Standard	91898	2
Standard	91372	2	Standard	91896	2
Standard	91373	2	Standard	91896	2
Standard	91374	2	Standard	91894	2
Standard	91377	2	Standard	91895	2
Standard	91633	3	Standard	91902	3
Standard	91634	3	Standard	91903	3
Standard	91635	3	Standard	91903	3
Standard	91636	3	Standard	91908	3
Standard	91637	3	Standard	91906	3
Standard	91638	3	Standard	91904	3
Standard	91639	3	Standard	91904	3
Standard	91640	3	Standard	91904	3
Standard	91641	3	Standard	91905	3

## Impact of changes on [Exclusions List](#)

For transition purposes, the following exclusions will apply for new achievement standards.

Achievement standard	Excluded against each of these standards
AS91892	AS91368
AS91893	AS91370
AS91894	AS91374
AS91894	AS91375
AS91894	AS91376
AS91895	AS91377
AS91895	AS91378
AS91896	AS91372
AS91896	AS91373
AS91898	AS91371
AS91902	AS91633
AS91903	AS91634
AS91903	AS91635
AS91904	AS91638
AS91904	AS91639

Achievement standard	Excluded against each of these standards
AS91904	AS91640
AS91905	AS91641
AS91905	AS91642
AS91906	AS91637
AS91908	AS91636

### Detailed list of achievement standards – classification, title, level, and credits

The following summary shows the changes made to the standards as a result of the review. All changes are in **bold**. Where a new or a new version of an externally assessed achievement standard is registered, the following designation appears after the title **[Externally Assessed]**.

Key to review category	
<b>A</b>	Dates changed, but no other changes are made - the new version of the standard carries the same ID and a new version number
<b>B</b>	Changes made, but the overall outcome remains the same - the new version of the standard carries the same ID and a new version number
<b>C</b>	Major changes that necessitate the registration of a replacement standard with a new ID
<b>D</b>	Standard will expire and not be replaced

### Expiry Dates Level 2

<b>Externally assessed achievement standards categorised as category C or D (Level 2) expire at the end of</b>	<b>December 2019</b>
--	----------------------

<b>Internally assessed achievement standards categorised as category C or D (Level 2) expire at the end of</b>	<b>December 2019</b>
--	----------------------

### Expiry Dates Level 3

<b>Externally assessed achievement standards categorised as category C or D (Level 3) expire at the end of</b>	<b>December 2020</b>
--	----------------------

<b>Internally assessed achievement standards categorised as category C or D (Level 3) expire at the end of</b>	<b>December 2020</b>
--	----------------------

### Engineering and Technology > Technology > Digital Technologies

ID	Ref	Title	Level	Credit	Review Category
AS91368	2.41	Implement advanced procedures to produce a specified digital information outcome with dynamically linked data	2	6	C
<b>AS91892</b>	<b>2.3</b>	<b>Use advanced techniques to develop a database</b>	<b>2</b>	<b>4</b>	
AS91367	2.40	Demonstrate understanding of advanced concepts relating to managing shared information within information systems [Externally assessed]	2	3	D
AS91369	2.42	Demonstrate understanding of advanced concepts of digital media	2	4	D

ID	Ref	Title	Level	Credit	Review Category
AS91370	2.43	Implement advanced procedures to produce a specified digital media outcome	2	4	C
<b>AS91893</b>	<b>2.4</b>	<b>Use advanced techniques to develop a digital media outcome</b>	<b>2</b>	<b>4</b>	
AS91371	2.44	Demonstrate understanding of advanced concepts from computer science [Externally Assessed]	2	4	C
<b>AS91898</b>	<b>2.9</b>	<b>Demonstrate understanding of a computer science concept [Externally Assessed]</b>	<b>2</b>	<b>3</b>	
AS91372	2.45	Construct a plan for an advanced computer program for a specified task	2	3	C
AS91373	2.46	Construct an advanced computer program for a specified task	2	3	C
<b>AS91896</b>	<b>2.7</b>	<b>Use advanced programming techniques to develop a computer program</b>	<b>2</b>	<b>6</b>	
AS91374	2.47	Demonstrate understanding of advanced concepts used in the construction of electronic environments	2	3	C
AS91375	2.48	Implement advanced interfacing procedures in a specified electronic environment	2	3	C
AS91376	2.49	Implement advanced techniques in constructing a specified advanced electronic and embedded system	2	3	C
<b>AS91894</b>	<b>2.5</b>	<b>Use advanced techniques to develop an electronics outcome</b>	<b>2</b>	<b>6</b>	
AS91377	2.50	Demonstrate understanding of local area network technologies	2	3	C
AS91378	2.51	Implement procedures for administering a local area network	2	4	C
<b>AS91895</b>	<b>2.6</b>	<b>Use advanced techniques to develop a network</b>	<b>2</b>	<b>4</b>	
AS91632	3.40	Demonstrate understanding of complex concepts of information systems in an organisation [Externally Assessed]	3	4	D
AS91633	3.41	Implement complex procedures to develop a relational database embedded in a specified digital outcome	3	6	C
<b>AS91902</b>	<b>3.3</b>	<b>Use complex techniques to develop a database</b>	<b>3</b>	<b>4</b>	
AS91634	3.42	Demonstrate understanding of complex concepts of digital media	3	4	C
AS91635	3.43	Implement complex procedures to produce a specified digital media outcome	3	4	C
<b>AS91903</b>	<b>3.4</b>	<b>Use complex techniques to develop a digital media outcome</b>	<b>3</b>	<b>4</b>	

ID	Ref	Title	Level	Credit	Review Category
AS91636	3.44	Demonstrate understanding of areas of computer science [Externally Assessed]	3	4	C
<b>AS91908</b>	<b>3.9</b>	<b>Analyse an area of computer science [Externally Assessed]</b>	<b>3</b>	<b>3</b>	
AS91637	3.46	Develop a complex computer program for a specified task	3	6	C
<b>AS91906</b>	<b>3.7</b>	<b>Use complex programming techniques to develop a computer program</b>	<b>3</b>	<b>6</b>	
AS91638	3.47	Demonstrate understanding of complex concepts used in the design and construction of electronic environments [Externally Assessed]	3	4	C
AS91639	3.48	Implement complex interfacing procedures in a specified electronic environment	3	4	C
AS91640	3.49	Implement complex techniques in constructing a specified complex electronic and embedded system	3	4	C
<b>AS91904</b>	<b>3.5</b>	<b>Use complex techniques to develop an electronics outcome</b>	<b>3</b>	<b>6</b>	
AS91641	3.50	Demonstrate understanding of wide area network technologies	3	4	C
AS91642	3.51	Implement procedures for administering a wide area network	3	4	C
<b>AS91905</b>	<b>3.6</b>	<b>Use complex techniques to develop a network</b>	<b>3</b>	<b>4</b>	
<b>AS91890</b>	<b>2.1</b>	<b>Conduct an inquiry to propose a digital technologies outcome</b>	<b>2</b>	<b>6</b>	<b>New</b>
<b>AS91891</b>	<b>2.2</b>	<b>Apply conventions to develop a design for a digital technologies outcome</b>	<b>2</b>	<b>3</b>	<b>New</b>
<b>AS91897</b>	<b>2.8</b>	<b>Use advanced processes to develop a digital technologies outcome</b>	<b>2</b>	<b>6</b>	<b>New</b>
<b>AS91899</b>	<b>2.10</b>	<b>Present a summary of developing a digital outcome [Externally Assessed]</b>	<b>2</b>	<b>3</b>	<b>New</b>
<b>AS91900</b>	<b>3.1</b>	<b>Conduct a critical enquiry to propose a digital technologies outcome</b>	<b>3</b>	<b>6</b>	<b>New</b>
<b>AS91901</b>	<b>3.2</b>	<b>Apply user experience methodologies to develop a design for a digital technologies outcome</b>	<b>3</b>	<b>3</b>	<b>New</b>
<b>AS91907</b>	<b>3.8</b>	<b>Use complex processes to develop a digital technologies outcome</b>	<b>3</b>	<b>6</b>	<b>New</b>
<b>AS91909</b>	<b>3.10</b>	<b>Present a reflective analysis of developing a digital outcome [Externally Assessed]</b>	<b>3</b>	<b>3</b>	<b>New</b>

## Development of dual learning area achievement standards in Digital Technologies and Hangarau Matihiko - Level 2 and 3

### Process of aligning standards with Te Marautanga o Aotearoa (TMoA)

The standards were developed by expert writers and practitioners who have deep knowledge of both the New Zealand Curriculum (NZC) and TMoA. The standards were developed from first principles and no re-alignment was required.

### Addressing credit parity

The standards were developed by expert practitioners who understand the work required to demonstrate the learning for each standard and are familiar with expectations for other domains. The credit allocation was made in alignment with this.

### What has changed (summary)

These new achievement standards replace the existing *Digital Technologies* achievement standards.

The standards were developed in this way because of significant sector and expert feedback that the prior composition of the *Digital Technologies* achievement standards did not best credential the important learning derived from the new Digital Technologies and Hangarau Matihiko curriculum content. This militated in favour of a reconfiguration of the standards. This was also required to ensure that the achievement standards were fit for purpose for use in Māori medium environments, which was better supported by standards which were usable across the traditional sub-areas of Digital Technologies (such as programming and electronics).

### Transition

During the transition, it is strongly advised that teachers base programmes using either the new Digital Technologies and Hangarau Matihiko Achievement Standards **or** the Digital Technologies Achievement Standards that are being replaced rather than a combination of the two sets.