



Briefing Note: Technical Report - Final NCEA Level 2 and 3 Subject List for the NZC; and approach to Technical Report for NCEA Levels 1-3 Subjects for TMoA

To:	Hon Chris Hipkins, Minister of Education		
Date:	5 November 2021	Priority:	Low
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Purpose of Report

The purpose of this paper is for you to note:

- the updated Technical Report *Final NCEA Level 2 and 3 Subject List for the New Zealand Curriculum (NZC)*
- the Ministry's decision not to update the Technical Report for *Te Marautanga o Aotearoa (TMoA)*; and
- the changes to NCEA subject names for Mandarin, Health Education (with Home Economics), Cook Islands Māori, Tongan, and Samoan.

Summary

- In June 2021, the Ministry provided you with a technical report which documented the decision-making process and rationale for the provisional NZC subject lists for NCEA Levels 2 and 3.
- The attached NZC report (at Annex 1) updates, and supersedes, the June technical report, to take into account what we heard during public engagement, and the final subject decisions that followed. Updating the report allows us to proactively release this information, which will in turn provide an enduring record of our rationale.
- We are also taking the opportunity to confirm subject name changes, in the main for Learning Languages subjects. It was noted in our recent Education Report, which detailed the Ministry's recommendations for the final subject lists [METIS 1266949 refers], that some subject names would need to be finalised, including those for Level 1 subjects, and that the vehicle for this finalisation would be the technical report.

Recommended Actions

The Ministry of Education recommends you:

- **note** the updated Technical Report *Final NCEA Level 2 and 3 Subject List for the NZC*

Noted

- **note** that we will not be updating the technical report for TMoA Level 1-3 NCEA Subjects at this time. Instead, Annex 3 - Rationale [METIS 1266949] supersedes the provisional subject list technical report for TMoA.

Noted

- **note** the changes to the following NCEA subject names:
 - Mandarin becomes Chinese (Mandarin)
 - Health Education (with Home Economics) becomes Health Studies (Level 1 only)
 - Cook Islands Māori becomes Te Reo Māori Kūki 'Āirani
 - Tongan becomes Lea Faka-Tonga
 - Samoan becomes Gagana Sāmoa

Agree / Disagree

- **note** that we are also making minor adjustments to the Technical Report *Determining the Final Subject List for NCEA Level 1* to reflect the above changes to subject names and incorporate the new descriptions for each Level 1 subject

Noted

- **agree** to the Ministry proactively releasing the updated Technical Report *Final NCEA Level 2 and 3 Subject List for the NZC*

Agree / Disagree

Proactive Release

The Ministry of Education recommends you:

- **agree** to release this briefing in full once it has been considered by you.

Agree / Disagree



Jackie Talbot
Group Manager
Te Poutāhū | Curriculum Centre

05/11/2021



Hon Chris Hipkins
Minister of Education

10/2/2022

__/__/__

Background

1. In June this year, we provided you with a technical report that detailed the rationale behind the 62 NZC subjects included on the Provisional NCEA Levels 2 and 3 Subject Lists for public engagement. We noted at the time that this technical report would be updated, following engagement on the provisional lists, and decisions on the final list.
2. Following the close of public engagement on the provisional subject lists, we provided you with advice on which subjects to include on the final subject list [METIS 1266949 refers]. In that education report, we also reiterated our commitment to updating the technical report.
3. Annex 1 updates, and supersedes, the June technical report, to take into account what we heard during public engagement, and the final subject decisions which followed.
4. Following your consideration of it, we propose to proactively release the updated NZC Technical Report, alongside the updated *Determining the Final Subject List for NCEA Level 1* Technical Report, to provide an enduring and accessible record of our NCEA subject list decision-making process and rationale. The rationale for TMoA subject list decisions is already in the public domain on the [ncea.education](http://ncea.education.govt.nz) website.

TMoA Technical Report

5. We have decided not to update the technical report for TMoA Level 1-3 NCEA Subjects. Instead, Annex 3 - Rationale [METIS 1266949] is intended to supersede the provisional subject list technical report for TMoA, as it provides coverage of the issues that an updated technical report would address, including final subject decisions and rationale. We will reconsider updating the technical report, subsequent to further engagement with the sector regarding what new subjects they want to see, and which they have the capacity to support.

Subject name changes

6. Public engagement on the draft content for Level 1 subjects developed through the Review of Achievement Standards included questions on the appropriateness of subject names for Level 1 Social Studies, Chemistry and Biology, Science, Materials and Processing Technology, Cook Islands Māori, Samoan, Tongan, Health Education (with Home Economics), Commerce, and Physics, Earth, and Space Science.
7. At this time, we are confirming new names for Mandarin, Cook Islands Māori, Samoan, Tongan, and Health Education (with Home Economics).

Mandarin

8. Mandarin is the accepted English term for the common language of mainland and greater China, and remains the most accurate English-language description for the spoken language that is taught in the NCEA subject. It is important also to maintain a clear distinction between Mandarin and Chinese, since there is no single 'Chinese' language. Linguists commonly refer to Chinese languages, which would include for example both Mandarin and Cantonese.
9. Nevertheless, recent public engagement on the draft NCEA Level 1 subject content, which ran in parallel to the engagement on the provisional subject list for Levels 2 and 3, demonstrated that there is strong opposition to the subject title 'Mandarin'.

Arguments against the provisional title included that no 'standard' form of Mandarin is taught across Aotearoa New Zealand's secondary schools. In reaching its decision, the Ministry has also considered alignment to tertiary study of Chinese languages, and internal advice from Ministry subject experts. On the other hand, it is important to note that teaching and learning in the NCEA Chinese-language subject still does not encompass Cantonese. Yet, if we were to name the subject based on the script alone, it could be Simplified, Standard, or Modern Chinese. Perhaps the real issue here is that there is no perfect English-language term to describe this complex language (or languages).

10. With this in mind, we decided to rename the subject Chinese (Mandarin), which tries to incorporate both aspects of the language learning that take place in the subject. This is justified by the fact that a significant part of the learning in the subject is focused on developing competency in the Chinese script, which is common to modern Chinese languages.

Pacific Languages – Cook Islands Māori, Samoan, and Tongan

11. Earlier this year, the Pacific Languages SEG recommended amending the titles of the three existing Pacific language subjects to reflect the language-learning that takes place in each of these. The name changes also reflect the special place these languages occupy in Aotearoa New Zealand and the Pacific.
12. The SEG's suggestion was put to the sector and public for feedback in a survey in August 2021, but no feedback on the proposed changes was received.
13. On balance, we decided to give all Pacific language subjects names in their respective languages to align with the SEG's recommendations and the names given to new Pacific language subjects Gagana Tokelau and Vagahau Niue. This means Cook Islands Māori becomes Te Reo Māori Kūki 'Āirani; Tongan becomes Lea Faka-Tonga; and Samoan becomes Gagana Sāmoa.

Health Education (with Home Economics)

14. The subject Health Education (with Home Economics) is a consolidation of the subjects 'Health' and 'Home Economics'. This subject was included in the final Level 1 subject list, which you confirmed in December 2020.
15. However, on the provisional Levels 2 and 3 subject lists, we recommended that Home Economics at Levels 2 and 3 be refocused, and renamed, as Food and Nutrition.
16. Feedback on the Levels 2 and 3 Provisional Subject List was very supportive of the proposal to refocus the subject, with 76.4% of the 546 respondents to the refocus survey question selecting agree or strongly agree.
17. Since you have subsequently approved this change to the Level 2 and 3 subject's name and scope, it is no longer appropriate to include 'Home Economics' in the Level 1 subject title. The NCEA Level 1 Subject Expert Group (SEG) for Health Education (with Home Economics) has recommended calling the consolidated subject 'Health Studies'.
18. The SEG believe that 'Health Studies' encapsulates the significant learning they have crafted during the RAS development of draft content for the subject at Level 1. The title is also familiar to the sector, while including a more holistic and foundational element. Through the generalising 'Studies', this proposed title has fewer limiting connotations than 'Health', which is the title for the subject at NCEA Levels 2 and 3. Whilst this

subject title change may be confronting to some Home Economics teachers, the recommendation to refocus Home Economics as Food and Nutrition at NCEA Levels 2 and 3 has been well-received by the sector.

Key Risks and Benefits

19. As we did not consult on the option to rename Mandarin as Chinese (Mandarin), there is a risk that the sector will be dissatisfied with this decision. The Ministry is managing this risk through the creation of a subject description and clear communications to stakeholders, including the New Zealand Chinese Language Teachers' Association (NZCLTA) and the Asian Languages Subject Expert Group.

Next Steps

20. The Ministry will proactively release the NZC Technical Report (Annex 1) and action the changes to the subject names described in this report across all platforms and products.

Annexes

Annex 1: Technical Report - Final NCEA Level 2 and 3 Subject List for the NZC

Proactively Released



Final NCEA Level 2 and 3 Subject List for the *New Zealand Curriculum*

Technical Report

Proactively Released

Document Control

Document Information

Project name:	Review of Achievement Standards
Owned by:	Simon Laube, Senior Manager
Lead Author:	Leah James-Lynch, Senior Adviser
Document Title:	Revised, 2.0

Input From

Name	Version	Role	Group
Simon Reeds	0.1	Technical Writer	Secondary Tertiary
Simon Laube	0.1	Senior Manager	Secondary Tertiary
Monique Anderson	0.1	Lead Secondary Advisor	Secondary Tertiary
Terry Fenn	0.2	Manager	Secondary Tertiary
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Formal Review

Version	Date	Reviewers	Description of changes
0.1	1 February 2021	Simon Laube, Senior Manager	Initial feedback on first draft
0.3	20 April 2021	Rebecca Frankum, Lead Adviser	Commentary by learning area on draft
1.0	7 May 2021	Simon Laube, Senior Manager	Full review of working draft
1.0	4 June 2021	Richard D'Ath Senior Manager	Full review of working draft
2.0	24 September 2021	Simon Laube, Senior Manager	Full review of revisions to provisional subject list report.

Project Management Endorsement

Version	Name	Role	Team	Date approved
1.0	Programme Management Group	Delivery implications re: number of subjects	N/A	May 2021
2.0	Programme Management Group	Delivery implications re: number of subjects	N/A	4 November 2021

Owner Approval

Name	Role	Team	Date approved
Simon Laube	Senior Manager	Production House	29 September 2021

Other

Informed	Draft date
NCEA Professional Advisory Group	7 May 2021
NZQA (through New Subjects process)	-
Pathways & Progress	7 May 2021

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Overview

Executive Summary

This paper is a Technical Report to confirm the NCEA Level 2 and 3 subjects derived from the *New Zealand Curriculum (NZC)* to be developed during the Review of Achievement Standards (RAS). It covers the Final NZC subject list for NCEA Levels 2 and 3, and summarises the decision-making process and rationale behind this, including the feedback received on the Provisional Subject List through public engagement. The final subject list reflects a policy intent of the NCEA Change Package to provide opportunities for further specialisation at NCEA Levels 2 and 3. This will be implemented through the expansion of subject offerings at Levels 2 and 3, particularly through additional subjects, which support vocational learning, mātauranga Māori, and Pacific knowledges.

Recommendations

See accompanying Briefing Note.

Purpose

1. This paper updates and supersedes the technical report on the provisional subject lists for NCEA Levels 2 and 3 that we proactively released in June 2021.
2. Following an eight-week public engagement process, the Ministry of Education (supported by NZQA) provided advice to the Government so the NZC Level 2 and 3 subject list could be finalised. This allowed development work for any new subjects included on the final list to commence from the end of September 2021. The Achievement Standards for any subject not included on the final list will be allowed to remain and expire as per current rules.
 - Part 1 of this report outlines the policy context for the final NZC subject list at NCEA Levels 2 and 3 in more detail.
 - Part 2 presents the final subject list, and discusses the relevant data, public engagement feedback, and other information for each NZC subject on the provisional and final lists, which informed our decision-making.

Introduction

1. In June 2021 the Ministry proactively released a technical report to support public engagement on the provisional NZC subject lists for NCEA Levels 2 and 3. The provisional lists included 62 subjects, however we noted at the time that not all subjects engaged on would be developed as part of the RAS. We have developed the final subject list, which includes 56 subjects, by considering both public engagement feedback, and how subjects align with our policy intent of increasing specialisation at NCEA Levels 2 and 3.
2. Through the final list we aim to provide a comprehensive suite of learning across NCEA Levels 2 and 3. The subjects included on build on and complement the broad, foundational learning offered at NCEA Level 1, while offering further opportunities for ākonga to specialise and deepen their knowledge and skills in the Senior Secondary curriculum.
3. The present report updates, and supersedes, the June technical report, to take into account what we heard during public engagement, and the final subject decisions which followed.
4. Two learning areas accounted for the bulk of the feedback received during engagement with the sector and wider public.¹ These were the Arts and Technology. This interest, and the quantity and depth of the feedback provided, has led the Ministry to reconsider some of its provisional recommendations in these areas. Other Learning Areas have few or no substantive changes to report, either because they generated little public interest, or were received positively.
5. The subjects which are not included on the final list have been deferred and may be progressed once we are confident that sector and agency capacity and resourcing is available to support this work. This would in any case be after the completion of the current RAS.
6. The decision to determine subjects formally² does not signal any change to how teachers and schools use the Achievement Standards available to design courses for their local school curricula. A senior secondary course may, for example, continue to include unit standards, as well as using the new Achievement Standards that will be developed through the RAS, both of which count towards NCEA.
7. Nevertheless, each subject matrix developed will have 4 Standards. These will be larger, with a focus on the 'not-to-be-missed' learning, and of a more consistent size. We expect these Standards to be significantly broader than many of the existing Standards, and that this will mitigate the building of courses from fragmented and overly narrow Standards. Further, the new Standards will be written to deliberately reflect the curriculum entitlement of important learning ('Significant Learning') in each subject within each NZC Learning Area. While it is not compulsory for learners to engage across the Curriculum from year 11, we believe it is valuable to support them to have opportunities to do so, and to ensure that the learning within each subject covers the important aspects of its Learning Area.
8. We are also taking the opportunity to confirm subject name changes, mostly for Learning Languages subjects. It was noted in our Education Report to the Minister, which detailed the Ministry's recommendations for the final subject lists [METIS 1266949 refers], that some subject names would need to be finalised, and that the vehicle for this finalisation would be the technical report.

¹ In finalising this list, we have considered the feedback we received through an online survey, which was available in English and te reo Māori; through face-to-face engagements with kura, subject associations, peak bodies, RAS Subject Expert Groups, NCEA Panels and Advisory Groups, partner agencies (NZQA); and in the form of written submissions from individuals and organisations via email channels.

² NZQA lists 67 subjects on its [NCEA subject page](#). Yet, some of these are not taught in senior secondary environments, for example 'Adult Education.' Further, some of these subjects are derived uniquely from *TMoA* — e.g., Pāngarau.

Part 1: Criteria for determining subjects at NCEA Levels 2 and 3

Specialisation

1. The make-up of the final subject list is dependent on the meaning of 'specialisation' as it relates to NCEA Levels 2 and 3.
2. In April 2019, through the Cabinet Paper *Changes to Strengthen NCEA*, we articulated our policy position for NCEA Levels 2 and 3 as qualifications which promote 'more specialisation' and provide opportunities for ākonga to 'deepen disciplinary knowledge and skills'. They must be 'underpinned by increasingly sophisticated social and emotional skills and capabilities, and [cultivate a] readiness to transition to further education or the world of work'. This entails the need for subjects to be fit for purpose for 21st-century learners, and to reflect emerging developments in education and the world of work.
3. We have also committed to the 'explicit valuing of te ao Māori and mātauranga Māori' and to achieving equitable outcomes through 'mana ōrite mō te mātauranga Māori', which has a significant impact on what is meant, in practice, by specialisation.

Principles

4. To guide the development of the subject list, and to clarify the meaning of specialisation at NCEA Levels 2 and 3, we have created a list of principles. These principles form the criteria for a specialised, and therefore viable, subject at NCEA Levels 2 and 3. The principles are:
 - that the subject represents a discrete and coherent body of knowledge, derived from the *NZC* or *Te Marautanga o Aotearoa (TMOA)*, which does not overlap significantly with that of an existing *NZC* or *TMOA* subject, and can be taught independently of any other subjects;
 - that there is public interest in the subject being available through NCEA;
 - that the subject supports access to deeper learning, derived from the *NZC* or *TMOA*, and allows for the progression of previously attained curriculum-derived learning at Level 1 and earlier;
 - that the subject increases support for student pathways into further education, training, or employment (i.e., does not represent a dead-end);
 - that there is material interest from ākonga;
 - that the subject will have support from a significant body of practitioners, including sufficient commitment to supporting the creation of Achievement Standards and resources, and setting and moderating exams;
 - that there be consideration of the subject in terms of the teaching workforce's current capacity and capability to deliver it in a wide range of schools across Aotearoa New Zealand, now and in the future;
 - that the subject, when accompanied by comprehensive support and implementation, supports schools to develop coherent and rich local curricula
 - that the subject supports the goal of mana ōrite mō te mātauranga Māori and meets the Crown's commitments to Te Tiriti.
5. These principles align with those of the NCEA Review, and accommodate the criteria for new subjects, operationalised through the new subjects workstream.

Analysis

6. This section provides the background analysis for the principles described above.
7. In order to respond to the overarching question, 'what does specialisation mean for the NCEA Level 2 and 3 subject list?', we must answer two related questions:
 - What is a subject?
 - What are the characteristics of an ideal subject list?

What is a subject?

8. The simplification of NCEA's structure and the shift to fewer, larger Achievement Standards means that every subject developed through the RAS will have four Achievement Standards worth a total of 20 credits. Two of these Achievement Standards will be assessed internally, while the remaining two will be assessed externally. This means that the subject list developed must match the level of subject specialisation desired.
9. Currently there is no official 'NCEA subject list'. However, we have identified that there are approximately 50 *NZC* groups of Achievement Standards and 10 *TMOA* groups of Achievement Standards to which we commonly refer as 'subjects'. These groupings are based on divisions within the current Achievement Standard matrices, and on the division of Achievement Standards for the purposes of NZQA-run examinations.
10. In many cases these subject groupings represent the current level of specialisation available in practice through NCEA. However, within some large matrices, for instance Level 2 Mathematics and Statistics, there is more than one discrete body of knowledge covered. Schools often translate these matrices into multiple subject lines by using different parts of the matrix that correspond to an additional level of specialisation, rather than ability-streamed classes or any other form of differentiation.
11. International trends in senior secondary education indicate that there are emerging bodies of knowledge, which are appropriately levelled and may be aligned to the senior secondary end of the *NZC*. For example, some Australian and UK jurisdictions offer 'Government and Politics' subjects. Often these emerging bodies of knowledge are derived from subjects taught at the tertiary level, and reflect the level of specialisation which is present in university programmes. Introducing new subjects based on such bodies of knowledge is one form of specialisation, and could be appropriate in NCEA, if aligned to the National Curriculum. On the other hand, this approach to specialisation could re-introduce the curriculum fragmentation and lack of coherence which the NCEA Change Package sets out to fix.
12. For our purposes, a subject in NCEA is constrained by the parameters set by Change 3, have fewer, larger Achievement Standards; by the practicalities of course delivery in schools; and by the requirement that the subject must be derived from the National Curriculum. This means:
 - the learning in the subject must be able to be fairly credentialled with exactly 20 credits;
 - the entire subject should be able to be taught through one timetable line in a secondary school over the course of a year;
 - the subject should be separate and distinct from other subjects, to avoid overlap, and at worst, a need for standard exclusions mandated by NZQA;
 - the learning in the subject must be derived from either the *NZC* or *TMOA*, noting that the Achievement Objectives in the back half of the *NZC* do not encompass all the significant learning in each Learning Area.

13. This definition of a subject equally may be tempered by the interactions between and amongst subjects, particularly those derived from the same Learning Area or Wāhanga Ako. For subjects to be separate and distinct:

- any two subjects would not have a significant overlap in content. There may be some necessary overlap due to the interdependencies of different subjects, e.g., Physics and Economics often rely on an understanding of advanced algebra/pre-calculus at higher levels, but a young person taking both subjects would not have to learn the same thing twice.
- any two subjects should not be functionally co-requisites—a young person should not need to take two subjects together to access learning, although it still may be useful for their pathway. The complementary relationships between and amongst subjects should be considered, however, where these relationships may foster more coherent (less fragmented) learning for ākonga (for example, the relationship between Science and Biology, or between History and Social Studies)
- the credentialling of a subject should not be able to be substituted by considering that subject as a context within another subject. If context is the main driver for separating a body of knowledge, the context needs to be so important that most of the Significant Learning in the subject is dependent on the specifics of that context and so can be considered part of a separate and distinct discipline or body of knowledge. Classical Studies is an example of a subject where context significantly differentiates it from similar subjects like History.
- a subject should be a separate and distinct body of knowledge rather than a collection of topics or contexts of another subject. In practice, this means that Achievement Standards from two subjects could not be combined to functionally act as one larger matrix for a subject.

What are the characteristics of an ideal subject list?

14. An ideal subject list should holistically give effect to the NCEA Change Package and the desired system shifts. It should also be consistent with the principles outlined in the NZC. The following table considers the three most relevant changes to the Level 2 and 3 subject list, and what each means for specialisation in the subject list:

Change	Analysis
Change 2 — Mana ōrite mo te mātauranga Māori	<ul style="list-style-type: none"> • Mātauranga Māori is currently being woven into NZC subjects in development through RAS. • However, further specialised learning in mātauranga Māori that cannot be learned through currently available subjects in significant detail may need its own subject. • Parity of esteem for larger bodies of mātauranga Māori will require separate subjects which are equivalent to similar Pākehā bodies of knowledge • Care should be taken to avoid allowing subjects to evade inclusion of Mātauranga Māori by creating parallel Māori subjects.
Change 3 — Have fewer, larger standards	<ul style="list-style-type: none"> • NZC-derived subjects need to be specialised enough that all the learning described in the NZC can be taught properly in a classroom setting and credentialed credibly. • The subject list should not undermine fewer, larger Achievement Standards by creating new 'subjects' which are functionally larger subject matrices for schools to pick and choose from. This means that subjects should reflect separate bodies of knowledge rather than topics or contexts within larger bodies of knowledge. • Larger current 'subjects' may be able to be divided into multiple separable subjects, which reflect separate bodies of knowledge.

	<ul style="list-style-type: none"> Currently there are very few TMOA subjects, so specialisation will mean ensuring that more of the learning in each of the Wāhanga Ako can be explicitly credentialed.
Change 6 — Show clearer pathways to further education and employment.	<ul style="list-style-type: none"> There should be more opportunities for young people to engage in more specialised learning that prepares them for successful transitions into further education, training, or employment. Larger bodies of industry-derived knowledge with significant curriculum overlaps may be best supported by the creation of an Achievement Standard subject to ensure curriculum coherence and to better signal pathways for all learners. Where subjects do not show clear pathways as a result of how they are formulated, or are otherwise underutilised, there is an opportunity to repackage important learning from them into subjects which are more coherent and show stronger connections to further education or employment.

15. The subject list also has several practical implications for schools:

- Smaller- and medium-sized schools may not be able to adequately cater to a subject list that is too large, meaning that many students may not have the opportunities to access new subjects.
- Subjects that do not have identifiable demand or teacher supply are unlikely to be supported by schools.
- The number of subjects in a particular Learning Area has impacts on the viability and student numbers in individual subjects.
- Too many subjects can lead to increased curriculum fragmentation where schools have to make choices between offering different subjects, or have the ability to create incoherent courses from subjects which are too similar.

16. Overall, this means the subject list should:

- As a starting point, mirror the 'real' subject list i.e., the bodies of knowledge currently identified as subjects.
- Where the current suite of subjects in a Learning Area does not show clear pathways or support the inclusion of mātauranga Māori, repackage the learning into subjects which better reflect those policy goals.
- Only reduce student choice where a current subject is unfit for purpose, or does not meet the definition of a subject.
- Add new subjects to support better pathways or improved access to mātauranga Māori, while balancing this against practical considerations and whether that support is better served through more strongly weaving knowledge into existing subjects.
- Show how specialist subjects at NCEA Levels 2 and 3 align with the new, broad and foundational Level 1.

Part 2: Final Subject List

We recommend developing the following subjects, derived from the *NZC*, at NCEA Levels 2 and 3 (noting that Te Reo Māori has been placed outside of Learning Languages to reflect its equal status with English, as per our obligations under the Treaty of Waitangi).

Learning Area	Current Level 2/3 Subjects	Provisional Level 2/3 Subjects	Final Level 2/3 Subjects
Te Reo Māori	Te Reo Māori	Te Reo Māori	Te Reo Māori
English	English	English	English
The Arts	Art History	Art History	Art History
	Dance	Dance	Dance
	Drama	Drama	Drama
	Music	Music Creation [^]	Making Music ³
		Music Representation [^]	Music Studies ⁴
	Te Ao Haka	Te Ao Haka	Te Ao Haka
	Design	Design	Design
	Photography	Photography and Film [^]	Photography and Moving Image ⁵
	Printmaking	Visual Arts [^]	Visual Arts
	Sculpture		
	Painting		Painting
	<i>New subjects</i>	Mau Rākau [^]	Mau Rākau
		Raranga [^]	<i>Deferred</i>
		Whakairo [^]	<i>Deferred</i>
Health and Physical Education	Health	Health	Health
	Home Economics	Food and Nutrition [^]	Food and Nutrition
	Physical Education	Physical Education	Physical Education
	<i>New subjects</i>	Outdoor Education	Outdoor Education
		Whaiora [^]	Whaiora
Learning Languages	Bahasa Indonesia	--	<i>Discontinued</i>
	Cook Islands Māori	Cook Islands Māori	Te Reo Māori Kūki 'Āirani ⁶

³ Reverting to current name for now. Little support for a new name, and some confusion about what the subject would entail.

⁴ Reverting to current name for now. Little support for a new name, and some confusion about what the subject would entail.

⁵ New name to reflect actual subject content. Film caused a lot of confusion in the sector, including negative feedback from Media Studies teachers who are concerned that the subject would encroach on Media Studies.

⁶ Name-change following recommendation from Pacific Languages Subject Expert Group and to bring into alignment with naming convention for confirmed new Pacific Language subjects Gagana Tokelau and Vagahau Niue.

	French		French	French
	Samoan		Gagana Sāmoa	Gagana Sāmoa ⁷
	German		German	German
	Japanese		Japanese	Japanese
	Korean		Korean	Korean
	Latin		--	<i>Discontinued</i>
	Tongan		Tongan	Lea Faka-Tonga ⁸
	Mandarin		Mandarin [^]	Chinese (Mandarin) ⁹
	New Zealand Sign Language		New Zealand Sign Language	New Zealand Sign Language
	Spanish		Spanish	Spanish
	Confirmed new subjects		Gagana Tokelau	Gagana Tokelau
			Vagahau Niue	Vagahau Niue
	New subjects		Comparative Language [^]	<i>Deferred</i>
			English as a Second Language [^]	<i>Deferred</i>
Mathematics and Statistics	Mathematics and Statistics (L2)	Calculus (L3)	Mathematics	Mathematics
		Statistics (L3)	Statistics	Statistics
	New Subject (L3)		Applied Mathematics (L3) [^]	<i>Deferred</i>
Science	Agricultural and Horticultural Science		Agricultural and Horticultural Science	Agricultural and Horticultural Science
	Biology		Biology	Biology
	Chemistry		Chemistry	Chemistry
	Earth and Space Science		Earth and Space Science	Earth and Space Science
	Physics		Physics	Physics
	New subject		Science [^]	<i>Deferred</i>
Social Sciences	Accounting		Accounting	Accounting
	Business Studies (including Agribusiness)		Agribusiness	Agribusiness
			Business Studies	Business Studies
	Classical Studies		Classical Studies	Classical Studies
	Economics		Economics	Economics

⁷ Name-change following recommendation from Pacific Languages Subject Expert Group and to bring into alignment with naming convention for confirmed new Pacific Language subjects Gagana Tokelau and Vagahau Niue.

⁸ Name-change following recommendation from Pacific Languages Subject Expert Group and to bring into alignment with naming convention for confirmed new Pacific Language subjects Gagana Tokelau and Vagahau Niue.

⁹ Name-change following feedback from public engagement.

	Education for Sustainability	Environment and Societies [^]	Environment and Societies ¹⁰
	Geography	Geography	Geography
	History	History	History
	Media Studies	Media Studies	Media Studies
	Psychology	Psychology	Psychology
	Religious Studies	Religious Studies	Religious Studies
	Social Studies	People and Societies [^]	Social Studies ^{^ 11}
	New subjects	Māori Studies [^]	Deferred
		Pacific Studies [^]	Pacific Studies
		Tourism	Tourism
Technology	Design and Visual Communication	Design and Visual Communication	Design and Visual Communication
	Digital Technologies	Designing and Developing Digital Outcomes	Digital Technologies
		Computational Thinking [^]	Computer Science ¹²
	Construction and Mechanical Technologies	Materials Technology	Materials Technologies
	Processing Technology	Processing Technology	Processing and Systems Technologies
	Generic Technology	--	Discontinued
Totals	50	62	56

Table 1: Comparison between Current, Provisional, and Final Level 2 and 3 Subject

NCEA Level 2	External Credits (AS)	Internal Credits (AS)	Total Credits (AS)
Support currently available	472 (99)	921 (218)	1393 (317)
Provisional subject list (@61 subjects)	610 (122)	610 (122)	1220 (244)
Change	+138 (+23)	-311 (-96)	-173 (-73)
Final subject list (@56 subjects)	560 (112)	560 (112)	1120 (224)
Change	+88 (+12)	-361 (-106)	-273 (-95)

NCEA Level 3	External Credits (AS)	Internal Credits (AS)	Total Credits (AS)
Support currently available	509 (101)	915 (204)	1424 (305)
Provisional subject list (@62 subjects)	620 (124)	620 (124)	1240 (248)

¹⁰ Keeping provisional name for now as subject requires refocusing and rebranding. Final name to be determined by Subject Expert Group during subject development.

¹¹ Reverting to current name for now. Little support for a new name, and some confusion about what the subject would entail.

¹² The name Computer Science shows a clearer pathway to further education and employment and is a clearer articulation of the subject's intent. This also aligns with subject names in international qualifications.

Change	+111 (+23)	-295 (-80)	-184 (-57)
Final subject list (@56 subjects)	560 (112)	560 (112)	1120 (224)
Change	+51 (+11)	-355 (-92)	-304 (-81)

Table 2: Comparison between current totals for Credit and Achievement Standard support at Levels 2 and 3, and how these totals will change with the implementation and full support of 56 subjects at Levels 2 and 3

<u>Learning Area</u>	<u>Final Level 1 Subjects</u>	<u>Final Level 2 and 3 Subjects</u>
Te Reo Māori	Te Reo Māori	Te Reo Māori
English	English	English
The Arts	--	Art History
	Dance	Dance
	Drama	Drama
	Music	Making Music
		Music Studies
	Te Ao Haka	Mau Rākau
		Te Ao Haka
	Visual Arts	Design
		Painting
		Photography and Moving Image
		Visual Arts
Health and Physical Education	Health Studies	Food and Nutrition
		Health
		Whaiora
	Physical Education	Outdoor Education
		Physical Education
Learning Languages	Chinese (Mandarin)	Chinese (Mandarin)
	French	French
	Samoan	Gagana Sāmoa
	Gagana Tokelau	Gagana Tokelau
	German	German
	Japanese	Japanese
	Korean	Korean
	Tongan	Lea Faka-Tonga
	Spanish	Spanish
	New Zealand Sign Language	New Zealand Sign Language
	Te Reo Māori Kūki 'Āirani	Te Reo Māori Kūki 'Āirani

	Vagahau Niue	Vagahau Niue
Mathematics and Statistics	Mathematics and Statistics	Mathematics
		Statistics
Science	Agricultural and Horticultural Science	Agricultural and Horticultural Science
	Chemistry and Biology	Biology
		Chemistry
	Physics, Earth, and Space Science	Earth and Space Science
		Physics
	Science	--
Social Sciences	--	Classical Studies
	Commerce	Accounting
		Agribusiness
		Business Studies
		Economics
	Geography	Environment and Societies
		Geography
		Tourism
	History	History
	--	Psychology
	Religious Studies	Religious Studies
	Social Studies	Media Studies
		Pacific Studies
Technology	Materials and Processing Technologies	Materials Technologies
		Processing and Systems Technologies
	Digital Technologies	Digital Technologies
		Computer Science
	Design and Visual Communication	Design and Visual Communication
Totals	34	56

Table 3: Comparison between Final Level 1 Subjects, and Final Level 2 and 3 Subjects, showing further opportunities to specialise and deepen knowledge and skills at these higher levels.

Current, Provisional, and Final Level 2 and 3 Subjects by Learning Area with Credit Allocations

Te Reo Māori

Te Reo Māori, the indigenous language of Aotearoa New Zealand, is a taonga and is guaranteed protection under the Treaty of Waitangi. It was declared an official language of Aotearoa New Zealand in 1987. As students learn te reo Māori, they also deepen their knowledge and understanding of tikanga Māori and develop their own personal, group, and national identities. The Ministry places Te Reo Māori outside the Learning Languages Learning Area in order to align with parity objectives for this language.

Final recommendations – no change from Provisional subject list

The Ministry's final advice is to include Te Reo Māori on the NCEA Level 2 and 3 Subject List.

Te Reo Māori - Level 2	External Credits	Internal Credits	Total Credits
Support currently available	12 (2)	16 (3)	28 (5)
How support changes (Final subject list)	10 (2)	10 (2)	20 (4)

Te Reo Māori - Level 3	External Credits	Internal Credits	Total Credits
Support currently available	12 (2)	16 (3)	28 (5)
How support changes (Final subject list)	10 (2)	10 (2)	20 (4)

We do not recommend any substantive changes to Te Reo Māori at NCEA Levels 2 and 3, apart from those outlined in the NCEA Change Package (fewer, larger standards [four]; 50 per cent of the standards to be externally assessed). Foundational learning for this subject is provided at NCEA Level 1 by Te Reo Māori.

During public engagement, we heard from a small number of respondents who felt that the subject should be made compulsory and given its own Learning Area, to reflect its equal status with English. A difficulty here is that in NZC Te Reo Māori is designed to meet the unique needs of second-language learners, and its relationship to Te Reo Rangatira, the parallel *TMoA* subject, which serves heritage and first-language speakers, means a delicate balancing act is required.

The Ministry will develop Te Reo Māori using a more specialised approach compared to other NZC subjects. Specifically, our Ākonga Maori team is developing this subject alongside Te Reo Rangatira (the parallel subject within *TMoA*). This will enable alignment between the two subjects and ensure te ao Maori is reflected consistently in the new subject supports developed. Te Reo Rangatira is regarded as more difficult than Te Reo Māori, which aligns with the former's position within *TMoA* as a first-language subject for heritage and/or immersion learners of Te Reo Māori. At this time, the Ministry recommends maintaining the differentiation between these subjects as vehicles for first- and second-language learners to engage with te reo Māori.

English

The Ministry's recommendations for the final subject list do not include any changes to the provisional subject(s) that we proposed in the English Learning Area.

English is the study, use, and enjoyment of the English language and its literature, communicated orally, visually, and in writing, for a range of purposes and audiences and in a variety of forms. By understanding how language works, students are equipped to make appropriate language choices and to apply these in a range of contexts. Students learn to deconstruct and critically interrogate texts in order to understand the power that language has to enrich and shape their own and others' lives.

Final subject list – no change from provisional subject list

The Ministry's final advice is to include a single English subject on the NCEA Level 2 and 3 Subject List.

English — Level 2	External Credits	Internal Credits	Total Credits
Support currently available	12 (3)	27 (7)	39 (10)
How support changes (Final subject list)	10 (2)	10 (2)	20 (4)

English — Level 3	External Credits	Internal Credits	Total Credits
Support currently available	12 (3)	23 (6)	35 (9)
How support changes (Final subject list)	10 (2)	10 (2)	20 (4)

The English Learning Area currently contains only one subject, and the Ministry's final advice is to maintain this status quo: we will not pursue any changes to English, apart from those already outlined in the NCEA Change Package (fewer, larger Standards, even distribution of credits). Foundational learning for this single subject is provided at NCEA Level 1 by English.

The Ministry believes a single English subject best supports literacy, with other relevant aspects of literacy woven throughout NCEA subjects. The new corequisite literacy unit standards will further support teaching and learning. Other considerations included the risk that a standalone literacy or professional writing subject would duplicate the significant learning of the proposed English as a Second Language subject, which has now been deferred, and increase the risk of unofficial streaming practices in schools.

The analysis from our English SEG (Subject Expert Group) showed that keeping one subject is both possible (in terms of the NCEA Change Package) and desirable (for equity, coherence, and pathways). They are currently working to ensure that the design of English Achievement Standards across all NCEA Levels will accommodate a diverse range of texts, modes, and media. They are confident that these Achievement Standards can cover all the Significant Learning available through the current Achievement Standards. While literature in English can be taught and assessed using these new Achievement Standards, further opportunities to specialise and deepen knowledge and skills in the subject will not require a narrowing of genre, media, or a particular focus on literature. Rather, decisions on genre and the degree of focus on literature, will be left to schools and kura to decide at the local curriculum level.

Pre-engagement — we also considered developing an additional English subject

Building one coherent matrix of four Achievement Standards for English (at Levels 2 and 3 respectively) may risk squeezing out either the communications or literary side of English. The subject is currently supported by a particularly wide range of Achievement Standards at Levels 2 and 3. Further, a number of these Achievement Standards are clearly focused on the study of literature, and often on Anglo-American works, which do not always serve ākonga with non-literary aspirations, or those from non-Pākehā backgrounds well. Offering a non-literature focussed English subject could allow students to

improve their literacy and communication skills without constraining them to a particular context or genre, while also ensuring that the literary strands of English are supported for ākonga who wish to specialise in these. Waiting until Level 3 to split the subject was also a possibility, but the situation is complicated by the likelihood that a non-literature focussed English subject may be of particular benefit to students who leave school at the end of Year 12 (NCEA Level 2).

International precedent exists for this approach. Some jurisdictions treat English literature and English communications skills at equivalent curriculum levels separately, and similar jurisdictions to Aotearoa New Zealand's offer at least two English subjects at the senior secondary level.¹³

Many local curricula in Aotearoa New Zealand schools mirror these splits through streaming and the creation of multiple parallel English courses, with about 30-40 per cent of students taking English courses which draw heavily from internally assessed Achievement Standards and unit standards. Unfortunately, these practices often lead to less coherent course structures and a lack of participation in external assessments. Reorganising the English Learning Area as two subjects could risk concretising these practices, which would run counter to the NCEA Change Package policy objectives, unless mitigated through blunt mechanisms such as exclusions between standards.

During public engagement we heard that some of the sector and wider public favoured a two-subject approach to the English Learning Area. Respondents who commented about the study of language wanted ākonga to have the opportunity to develop their writing skills to a professional level. Parents were particularly likely to raise this. Several respondents in favour of two English subjects drew comparisons with other Learning Areas or subjects, noting for example that Mathematics and Statistics will have three subjects at Level 3, while English will only have one. The reduction in credits and Achievement Standards available elicited similar comments. All these factors were considered, and the recommended approach was selected as most appropriate.

On balance, the Ministry recommends keeping one subject, as this is both possible (in terms of the NCEA Change Package) and desirable (for equity, coherence, and pathways). The English Subject Expert Group (SEG) is working to ensure that the design of English Achievement Standards across all NCEA levels will accommodate a diverse range of texts, modes, and media. Decisions on genre, and the degree of focus on literature, will be left to schools and kura to decide at the local curriculum level, as is currently the case.

¹³ In Australia, VCE (Victorian Certificate of Education) has English Language, English Literature, a combined English and English as an Additional Language, and Foundation English subjects. The HSC (Higher School Certificate) offered in NSW has English Standard, English Advanced, English Extension, and English Studies, along with several second-language English subjects. In England, at least three English subjects are supported at AS and A Levels (equivalent to NCEA Levels 2 and 3). These are: English Language, English Literature, and English Language and Literature.

The Arts

The Ministry's recommendations for the final subject list include the following changes to the Arts Learning Area:

1. Painting is reintroduced as a standalone subject
2. Proposed new subjects Raranga and Whakairo are deferred
3. The names of the two music subjects revert to the names of the curriculum strands, Making Music and Music Studies.
4. Reimagined subject Photography and Film becomes Photography and Moving Image

Art History - no change from provisional subject list

The Ministry's final advice is to include existing subject Art History on the NCEA Level 2 and 3 Subject List.

Art History — Level 2	External Credits	Internal Credits	Total Credits
Support currently available	12 (3)	20 (5)	32 (8)
How support changes (Final subject list)	10 (2)	10 (2)	20 (4)

Art History - Level 3	External Credits	Internal Credits	Total Credits
Support currently available	12 (3)	16 (4)	28 (7)
How support changes (Final subject list)	10 (2)	10 (2)	20 (4)

Art History is for students who want to develop skills in analysis and in appreciation of art and aesthetics. They learn to apply historical understandings and knowledge to their contemporary and dynamic visual world. Art History was removed from the Level 1 subject list on the basis that it offers specialised learning more appropriate to NCEA Levels 2 and 3, and that foundational learning for this subject is provided across NCEA Level 1 History, Religious Studies, English, Visual Arts, and Social Studies.

On the provisional subject list, we did not propose any changes to Art History at NCEA Levels 2 and 3, apart from those outlined in the NCEA Change Package (fewer, larger standards [four]; 50 per cent of the standards to be externally assessed). No significant feedback was received on the proposal to keep Art History at NCEA Levels 2 and 3, but we know from prior public engagements and NZQA data that there is a strong demand, and support, for this subject.

Pre-engagement – we also considered

Feedback during the Level 1 subject list feedback process confirmed that Art History draws on a range of Learning Areas, particularly the Social Sciences. Indeed, because the majority of the subjects Art History draws on are located in the Social Sciences Learning Area, we have considered whether it should be relocated from the Arts Learning Area to the Social Sciences Learning Area. However, as no benefits have been put forward, and anecdotal evidence suggests that this subject is often taught by Fine Arts teachers and kaiako, we did not propose moving it from The Arts Learning Area.

Performing Arts

Dance - no change from provisional subject list

The Ministry's final advice is to include existing subject Dance on the NCEA Level 2 and 3 Subject List.

Dance — Level 2	External Credits	Internal Credits	Total Credits
Support currently available	8 (2)	26 (6)	34 (8)
How support changes (Final subject list)	10 (2)	10 (2)	20 (4)

Dance — Level 3	External Credits	Internal Credits	Total Credits
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Support currently available	8 (2)	30 (6)	38 (8)
How support changes (Final subject list)	10 (2)	10 (2)	20 (4)

Dance is an embodied language. Students develop literacy in dance as they learn about, and develop skills in, movement, performance, and choreography. They learn to understand and respond to a variety of dance genres, styles, and forms from a range of contexts, past and present.

Drama - no change from provisional subject list

The Ministry's final advice is to include existing subject Drama on the NCEA Level 2 and 3 Subject List.

Drama — Level 2	External Credits	Internal Credits	Total Credits
Support currently available	8 (2)	30 (7)	29 (9)
How support changes (Final subject list)	10 (2)	10 (2)	20 (4)

Drama — Level 3	External Credits	Internal Credits	Total Credits
Support currently available	8 (2)	32 (7)	40 (9)
How support changes (Final subject list)	10 (2)	10 (2)	20 (4)

Drama is a collaborative art form. Through the practice of ako (reciprocal teaching and learning), learners in and teachers of this subject support and develop each other's ideas and practice. In Drama, learners tell stories, express their identity, and challenge the status quo. They explore and manipulate ideas and take creative risks. They share, rework, construct, and deconstruct work that is dynamic and evolving.

Mau Rākau – no change from provisional subject list

The Ministry's final advice is to include new subject Mau Rākau on the NCEA Level 2 and 3 Subject List.

Mau Rākau - Level 2	External Credits	Internal Credits	Total Credits
Support currently available	0 (0)	0 (0)	0 (0)
How support changes (Final subject list)	10 (2)	10 (2)	20 (4)

Mau Rākau - Level 3	External Credits	Internal Credits	Total Credits
Support currently available	0 (0)	0 (0)	0 (0)
How support changes (Final subject list)	10 (2)	10 (2)	20 (4)

Mau Rākau is a traditional Māori performing art. In this subject, ākonga will learn about the history, art, and practice of Māori and other indigenous peoples' weaponry, gaining skills of discipline and leadership, and growing their understanding of the human and spiritual dynamics of challenges. Currently, ākonga can access, and have their learning in this discipline credentialed through Field Māori unit standards. This status quo does not however open up the possibility of using this learning to gain University Entrance (UE), nor does it allow for subject or certificate endorsement to recognise exceptional performance and demonstration of skill.

The proposal on the provisional subject list to offer Mau Rākau new Achievement Standard subject at NCEA Levels 2 and 3 aims to give ākonga the opportunity to study and engage with the ancestral practices, values, and protocols of the warrior. In this subject, they will gain specialisation in Māori culture and traditions, gain new skills, and participate in embodied learning. Mau Rākau also provides a specialisation option for ākonga who have taken Te Ao Haka at NCEA Level 1.

Following engagement and Mau Rākau's confirmation on the final subject list, we are exploring joint development of the subject at both Levels 2 and 3 to ensure that appropriate scoping can occur regarding the current Mau Rākau unit standards and that an appropriate te ao Māori approach is taken the assessment of the learning within this subject.

Music – Final subject list recommendations

The Ministry's final advice is to include two music subjects on the NCEA Level 2 and 3 Subject List.

Making Music — Level 2	External Credits	Internal Credits	Total Credits
Support currently available	4 (1)	23 (5)	27 (6)
How support changes (Final subject list)	10 (2)	10 (2)	20 (4)
Making Music - Level 3	External Credits	Internal Credits	Total Credits
Support currently available	4 (1)	32 (5)	36 (6)
How support changes (Final subject list)	10 (2)	10 (2)	20 (4)
Music Studies — Level 2	External Credits	Internal Credits	Total Credits
Support currently available	10 (2)	4 (1)	14 (3)
How support changes (Final subject list)	10 (2)	10 (2)	20 (4)
Music Studies - Level 3	External Credits	Internal Credits	Total Credits
Support currently available	8 (2)	14 (3)	22 (5)
How support changes (Final subject list)	10 (2)	10 (2)	20 (4)

Students of music connect their musical worlds with the vocabularies, practices, and technologies of music. This enables them to appreciate the relevance and universal application of the unique language of music. They will also learn and manipulate symbols and systems for representing sound in order to develop musical literacies.

On the provisional subject list, the Ministry recommended offering two music subjects in the Arts Learning Area, Music Creation and Music Representation, to allow for a broad range of pathways for ākonga through NCEA and an appropriate level of specialisation. We noted that the most underused existing Achievement Standards relate to Musicology, and that the Music SEG had advised us that while there is insufficient demand for a Musicology subject at NCEA Levels 2 and 3, expanding offerings in Performance and Composition would be well received.

The Ministry's recommendation to include two music subjects on the final subject list for NCEA Levels 2 and 3 is consistent with the approach taken in the provisional subject list. We do however recommend slight adjustments to the name and scope of each music subject. While we heard strong support from the sector and wider public during engagement for two music subjects, respondents raised concerns that Music Creation and Music Representation¹⁴ would not be coherent subjects. Feedback also

¹⁴ The provisional subjects were described thus: 'In Music Creation, students will focus on the development of music ideas, including the creation and composition of original music and the arrangement and continued development of existing music. Students will develop their understanding of concepts and theory relevant to the related musical disciplines e.g., notation conventions. Students may work in groups

indicated that teachers, in particular, prefer the current 'split' in the music strands between Making Music and Music Studies, over the proposed Music Creation and Music Representation subjects. For now, therefore, we have reverted to the current strand titles Making Music and Music Studies, with further refinement of the two subjects to be built into the development phase of the RAS.

This approach will allow us to develop two complementary and coherent music subjects in tandem and ensure adequate curriculum coverage. Each will contain aspects of the other, but the emphasis will be different. We anticipate this may lead to new names for these subjects, as NZQA data on Achievement Standard usage indicates that a split between a performance and composition subject (Making Music), and a theory and musicology subject (Music Studies), is unlikely to cater to ākonga needs and pathways. We acknowledge however that having two closely aligned music assessment matrices from which to draw will open up the possibility for schools to default to internal-only assessment. This would run counter to the aims of the NCEA Change Package, but may be an unavoidable risk.

Te Ao Haka - no change from provisional subject list

The Ministry's final advice is to continue to include Te Ao Haka on the NCEA Level 2 and 3 Subject List.

Te Ao Haka - Level 2	External Credits	Internal Credits	Total Credits
Support currently available	0 (0)	0 (0)	0 (0)
How support changes (Final subject list)	10 (2)	10 (2)	20 (4)

Te Ao Haka - Level 3	External Credits	Internal Credits	Total Credits
Support currently available	0 (0)	0 (0)	0 (0)
How support changes (Final subject list)	10 (2)	10 (2)	20 (4)

Te Ao Haka is a culturally responsive art form, providing opportunities for all ākonga to engage in Māori culture, language, and traditional practice. Te Ao Haka is founded on traditional knowledge but is progressive in the development and evolution of the art form.

To align with Change 2: Mana ōrite mō te mātauranga Māori, Te Ao Haka was included in the NCEA Level 1 subject list last year (2020) to address current inequities in English-medium settings and to ensure accessibility to ākonga Māori in all settings, including kura Māori. Development has been fast-tracked and the subject is being trialled in schools and kura this year, across NCEA Levels 1-3.

Visual Arts

The visual arts provide forms of communication that reflect where we have come from and how this has shaped our current place in the world. By engaging in the visual arts, students assimilate, create, produce, and respond critically through visual communication (in all its forms) and contribute to the process of social and cultural development.

Through the RAS, all five visual arts subjects have been combined into one Visual Arts matrix at NCEA Level 1, in line with the broad, foundational learning objectives of this qualification. This change was made with the understanding that the Visual Arts subject would split into five discrete subjects at Levels 2 and 3. Improving specialisation through subject choices at NCEA Levels 2 and 3 would fit with the policy aims of the NCEA Change Package. On balance, our final advice is to support four visual arts subjects: Design, Painting, Photography and Moving Image, and Visual Arts.

or individually and will develop their creative, digital, and collaborative skills. In Music Representation, on the other hand, students will focus on presenting music, through performance or other contexts. Students will develop their performance and presentation skills, in groups or individually, in accordance with the relevant musical discipline and will also develop skills associated with performance and representation, such as practice skills and techniques, setting up/packing down, and understanding and applying customs and tikanga for music performance and representation.'

Design – no change from provisional subject list

The Ministry's final advice is to include existing subject Design on the NCEA Level 2 and 3 Subject List.

Design - Level 2	External Credits	Internal Credits	Total Credits
Support currently available	12 (1)	16 (4)	28 (5)
How support changes (Final subject list)	10 (2)	10 (2)	20 (4)

Design — Level 3	External Credits	Internal Credits	Total Credits
Support currently available	14 (1)	16 (4)	30 (5)
How support changes (Final subject list)	10 (2)	10 (2)	20 (4)

During public engagement, several respondents wondered whether Design and Design and Visual Communication (from Technology) were sufficiently different to exist as standalone subjects. We believe that they are: In Design, ākonga explore, refine, and communicate their own artistic ideas, while the design aspect of Design and Visual Communication entails creating workable solutions to a problem or opportunity, using product and spatial design processes. These established subjects complement one another; they remain distinct in terms of their objectives, significant learning, and foci.

Painting – reintroduced in final subject list

The Ministry's final advice is to reintroduce existing subject Painting on the NCEA Level 2 and 3 Subject List.

Painting - Level 2	External Credits	Internal Credits	Total Credits
Support currently available	12 (1)	16 (4)	28 (5)
How support changes (Final subject list)	10 (2)	10 (2)	20 (4)

Painting — Level 3	External Credits	Internal Credits	Total Credits
Support currently available	14 (1)	16 (4)	30 (5)
How support changes (Final subject list)	10 (2)	10 (2)	20 (4)

This recommendation to support Painting and Visual Arts subjects balances the need to future-proof the visual arts, to develop subjects with sustainable student numbers, to ensure equity for ākonga in low-decile environments, and to support the integrity of Painting as an art form.

Photography and Moving Image (Photography and Film) – final recommendations

The Ministry's final advice is to include reimaged subject Photography and Moving Image on the NCEA Level 2 and 3 Subject List.

Photography and Moving Image - Level 2	External Credits	Internal Credits	Total Credits
Support currently available	12 (1)	16 (4)	28 (5)
How support changes (Final subject list)	10 (2)	10 (2)	20 (4)

Photography and Moving Image - Level 3	External Credits	Internal Credits	Total Credits
Support currently available	14 (1)	16 (4)	30 (5)
How support changes (Final subject list)	10 (2)	10 (2)	20 (4)

We recommend a new provisional name Photography and Moving Image. Moving image is already an important part of NCEA Photography courses, and there is still a need to ensure that students who present portfolios which use moving images or short film can be credentialed. This name-change addresses feedback received during public engagement that having 'film' in the subject title could lead to confusion over how it differs from Media Studies which includes a film-making component.

Photography and Moving Image, as a subject derived from the Arts Learning Area, invites students to develop their own artistic practice, learning to present, represent, and make meaning via the media of photography and film with increasing conceptual and technical sophistication. Through this subject, students are introduced to photographic and cinematographic principles, and explore photography and film as devices for communicating information, ideas, and personal insights. Engagement and experimentation with the materials, processes, and conventions of film and photographic media empower students to develop their visual literacy and aesthetic awareness.

Visual Arts – final recommendations

The Ministry's final advice is to include reimagined subject Visual Arts the NCEA Level 2 and 3 Subject List.

Visual Arts - Level 2	External Credits	Internal Credits	Total Credits
Support currently available (Printmaking and Sculpture)	24 (2)	32 (8)	56 (10)
How support changes (Final subject list)	10 (2)	10 (2)	20 (4)

Visual Arts - Level 3	External Credits	Internal Credits	Total Credits
Support currently available (Printmaking and Sculpture)	28 (2)	22 (8)	60 (10)
How support changes (Final subject list)	10 (2)	10 (2)	20 (4)

On the provisional subject list, we proposed a single Visual Arts subject to foster opportunities for ākonga to explore, refine and communicate artistic ideas through a single art form or a combination of art forms. The proposal was intended to support Painting (a flourishing subject) while also bolstering Printmaking and Sculpture which are not feasible as standalone subjects due to low student numbers. In addition, we wanted to future proof the visual arts in schools by offering a subject that is flexible enough to cater to new and emerging art forms.

During engagement, however, the Ministry received strongly negative feedback to this proposal. Feedback highlighted the importance of Painting as an entry point to, and pathway, through the arts for students in low-decile environments, the importance of Printmaking to Pacific students, who use this medium to explore cultural artforms and knowledge, and concerns about the possible implications for visual arts staffing and specialist capability.

In response to this feedback, we have decided to implement both the proposed Visual Arts subject and a standalone Painting subject. This recommendation balances the need to future-proof the visual arts, to develop subjects with sustainable student numbers, to ensure equity for ākonga in low-decile environments, and to support the integrity of Painting as an art form. Schools will not have to teach both art forms (sculpture and printmaking) within the single Visual Arts subject; there will be flexibility for

schools to structure the subject to reflect ākonga interest and teacher capability. To maintain the integrity of the qualification, ākonga will not be able to use the same Painting portfolio to receive credits in both subjects.

Raranga – deferred

The Ministry's final advice is to not include new subject Raranga on the NCEA Level 2 and 3 Subject List.

On the provisional subject list, we proposed the development of the new mātauranga Māori subject, Raranga. In Raranga, ākonga would learn the history and art of Māori and other indigenous weaving practices, exploring the customs and whakapapa of the artform and how patterns can be used to tell stories. Feedback on the provisional list has led us to recognise that introducing Raranga will require resourcing and time that are not currently available. Decisions on possible future development of a Raranga subject will take place on a different timeline, following the current RAS.

Whakairo – deferred

The Ministry's final advice is to not include new subject Whakairo on the NCEA Level 2 and 3 Subject List.

On the provisional subject list, we proposed the development of the new mātauranga Māori subject, Whakairo. In Whakairo, ākonga would learn about the history and art of Māori and other indigenous carving practices, gaining appreciation for the rich tikanga and whakapapa of this discipline.

Feedback on the provisional list has led us to recognise that introducing Whakairo will require resourcing and time that are not currently available.

Parallel feedback on proposed *TMoA* subjects noted that Whakairo was not on the provisional Level 2 and 3 subject list for this curriculum. Sector readiness and enthusiasm for Toi Whakairo (*TMoA*) has led the Ministry to recommend a developing Whakairo within *TMoA* first, during the RAS, with decisions on possible future development of an NZC Raranga subject to take place on a different timeline, meaning that the NZC subject is outside the scope of the RAS.

Health and Physical Education

The Ministry's recommendations for the final subject list do not entail any changes to the provisional subjects that we proposed in the Health and Physical Education Learning Area.

At NCEA Levels 2 and 3, three subjects in this Learning Area are currently supported by Achievement Standards: Physical Education, Health, and Home Economics. Each of these builds upon its respective Level 1 subject. However, following the consolidation of Health and Home Economics through the RAS at Level 1, it is timely to reconsider the arrangement of these subjects at higher levels. To complement the changes outlined in the NCEA Change Package (fewer, larger Standards, even distribution of credits), we proposed two additions to the Health and Physical Education Learning Area on the provisional subject list: Outdoor Education and Whaiora. Feedback from public engagement was strongly in favour of these new subjects, leading us to recommend development of these through the final subject list.

Health - no change from provisional subject list

The Ministry's final advice is to include existing subject Health on the NCEA Level 2 and 3 Subject List.

Health — Level 2	External Credits	Internal Credits	Total Credits
Support currently available	9 (2)	15 (3)	24 (5)
How support changes (Final subject list)	10 (2)	10 (2)	20 (4)

Health — Level 3	External Credits	Internal Credits	Total Credits
Support currently available	10 (2)	14 (3)	24 (5)
How support changes (Final subject list)	10 (2)	10 (2)	20 (4)

In Health, students develop their understanding of the factors that influence the health of individuals, groups, and society: lifestyle, economic, social, cultural, political, and environmental factors. Foundational learning for this subject is provided at NCEA Level 1 by Health Studies, Physical Education, Geography, Social Studies, Science, and Chemistry and Biology. At Levels 2 and 3, Health offers specialist learning and complements the study of Biology, Chemistry, Science, Mathematics with Statistics, Psychology, Economics, History, Physical Education, and Food and Nutrition.

Food and Nutrition (Home Economics) - no change from provisional subject list

The Ministry's final advice is to include reimagined subject Food and Nutrition on the NCEA Level 2 and 3 Subject List.

Food and Nutrition — Level 2	External Credits	Internal Credits	Total Credits
Support currently available	8 (2)	20 (4)	28 (6)
How support changes (Final subject list)	10 (2)	10 (2)	20 (4)

Food and Nutrition — Level 3	External Credits	Internal Credits	Total Credits
Support currently available	8 (2)	20 (4)	28 (6)
How support changes (Final subject list)	10 (2)	10 (2)	20 (4)

In this subject, students develop an understanding of the factors that influence the wellbeing of individuals and families within the home and community and of the actions people take to enhance and sustain those environments. Foundational learning for this subject is provided at NCEA Level 1 by the consolidated subject Health Studies.

The traditional 'Home Economics' subject is not reflected in current day schooling and is outdated. Schools have adapted by offering distinct subjects that serve a range of purposes. This includes Food

Technology as a technology subject (although sometimes this is treated as a ‘cooking’ subject), Hospitality as a vocational pathways subject (typically using Hospitality industry unit standards), and also variations on ‘Food and Nutrition’.

On the provisional subject list, the Ministry recommended changing the title of this subject and refocusing its content and scope through the RAS. Short of consolidating Home Economics with Health, as was done at Level 1, but would clash with our policy settings at Levels 2 and 3, our recommendation was to redevelop a subject that focuses on current issues and theories of nutrition, in which students identify and reflect on factors that influence people’s choices and behaviours, and use this knowledge to make informed decisions. As feedback from public engagement was broadly in favour of these proposed changes,¹⁵ the Ministry recommended the inclusion of the refocused Food and Nutrition subject on the final subject list.

This decision is supported by our analysis of the subject’s unique key concepts, critical learning, and Big Ideas from the NZC, found that the only key concept from Home Economics that is not covered elsewhere is ‘Food and Nutrition’. The current Achievement Standards for the subject at Level 2 also support this — 5 out of 6 include ‘food’ and/or ‘nutrition’ in their titles, while the remaining Achievement Standard mentions well-being (covered in Health). At Level 3, all Achievement Standard titles mention ‘food’ and/or ‘nutrition’. Short of consolidating Home Economics with Health, as was done at Level 1, but would clash with our policy settings at Levels 2 and 3, our recommendation is to redevelop a subject that focuses on current issues and theories of nutrition, in which students identify and reflect on factors that influence people’s choices and behaviours, and use this knowledge to make informed decisions. The refocused subject Food and Nutrition should provide stronger links to both the Science and Technology Learning Areas, but also a reduced emphasis on food preparation, which we believe is better supported by industry skills standards.

Physical Education - no change from provisional subject list

The Ministry’s final advice is to include existing subject Physical Education on the NCEA Level 2 and 3 Subject List.

Physical Education — Level 2	External Credits	Internal Credits	Total Credits
Support currently available	0 (0)	36 (10)	36 (10)
How support changes (Final subject list)	10 (2)	10 (2)	20 (4)

Physical Education — Level 3	External Credits	Internal Credits	Total Credits
Support currently available	0 (0)	35 (9)	35 (9)
How support changes (Final subject list)	10 (2)	10 (2)	20 (4)

Through their learning journey in this subject, ākonga will develop and refine their understanding of what it means to be physically educated and promote physical education throughout their lives. Foundational learning for this subject is provided at NCEA Level 1 by Physical Education, and Health Studies, as well as Chemistry and Biology, and Science.

Analysis conducted by the Ministry prior to public engagement on the provisional subject list showed many students experiencing socioeconomic hardship, particularly Māori and Pacific boys, were overrepresented in Achievement Standards derived from the Health and Physical Education Learning Area. Given this subject usage, it is critically important that the subjects therein (Physical Education in particular) are developed through the RAS in a coherent way, which supports foundational learning and

¹⁵ Those against the proposal to rename and refocus Home Economics as Food and Nutrition were in the minority (9.1% of survey respondents) and appeared to support a more traditional subject focus.

supports a wide range of pathways. Of note is the intended development of external assessment for Physical Education — which may be a challenge for the SEG and teachers, as external assessment has not historically been available for this subject. At Levels 2 and 3, Physical Education complements the study of Outdoor Education, Chemistry, and Science and Biology.

Outdoor Education - no change from provisional subject list

The Ministry's final advice is to include new subject Outdoor Education on the NCEA Level 2 and 3 Subject List.

Outdoor Education — Level 2	External Credits	Internal Credits	Total Credits
Support currently available	0 (0)	0 (0)	0 (0)
How support changes (Final subject list)	10 (2)	10 (2)	20 (4)

Outdoor Education — Level 3	External Credits	Internal Credits	Total Credits
Support currently available	0 (0)	0 (0)	0 (0)
How support changes (Final subject list)	10 (2)	10 (2)	20 (4)

According to the NZC, Outdoor Education is a subject in which ākonga 'develop personal and social skills, to become active, safe, and skilled in the outdoors, and to protect and care for the environment'. The subject introduces ākonga to a range of skilled outdoor activities, each with its own equipment, skill sets and points of intersection with core curriculum knowledge. A further aspect of the subject is its focus on the environment and sustainability; the embodied experiences of the outdoors that it offers foster connections between ākonga and whenua.

Outdoor Education builds on foundational knowledge from NCEA Level 1 Physical Education, and Health Studies. At Levels 2 and 3, it fosters in-depth knowledge and opens multiple pathways post-secondary school (Sports Science, Medicine, Physiotherapy). As unit standards already exist for Outdoor Education, it may be possible to fast-track the development of Achievement Standards for this subject.

The number of schools offering this as full subject at Levels 1-3 has steadily grown. A 2019 survey by EONZ identified 177 secondary schools offering Outdoor Education as a subject across NCEA Levels 1-3. That the subject entails taking students into outdoor environments for embodied learning experiences distinguishes it from Physical Education. At present, delivery of this subject draws on a small number of Physical Education Achievement Standards that can be adapted to an outdoor context, often used in combination with Skills Active Aotearoa unit standards. With the reduction of Physical Education Achievement Standards at each level to four Achievement Standards, it is unlikely that Outdoor Education courses will be in a position to utilise these new Achievement Standards for the purposes of teaching, learning, and assessment. If the subject is forced to rely on unit standards alone, we have notes sector concerns that this will cut off pathways to further study for ākonga, and this may in turn decrease participation in the subject.

Adding Achievement Standard support for Outdoor Education will require a clarification of Physical Education's scope to ensure that the subject covers anatomy and physiology, as well as fostering enjoyment of physical activity. We believe this will serve learners well, especially those who choose to take both subjects.

Whaiaora - no change from provisional subject list

The Ministry's final advice is to include new subject Whaiaora on the NCEA Level 2 and 3 Subject List.

Whaiaora — Level 2	External Credits	Internal Credits	Total Credits
Support currently available	0 (0)	0 (0)	0 (0)

How support changes (Final subject list)	10 (2)	10 (2)	20 (4)
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Whaiora — Level 3	External Credits	Internal Credits	Total Credits
Support currently available	0 (0)	0 (0)	0 (0)
How support changes (Final subject list)	10 (2)	10 (2)	20 (4)

In this subject, ākonga will learn about te ao Māori and other indigenous models of health and wellbeing. They will build skills to grow and preserve personal and community wellbeing and expand their understanding of the diverse and intersecting social, economic, and political factors which can impact on wellness, through an explicitly te ao Māori lens.

The proposal to develop Whaiora did not receive much feedback but gained general approval from those who responded to online survey questions about the Health and Physical Education Learning Area. Some of these respondents noted that the description of the proposed subject, as outlined in the NZC Discussion Document and provisional subject list technical report, did not allow them to fully understand its scope and coverage.

On balance, we recommended developing Whaiora through the final subject list, while acknowledging the need for further scoping and design work to ensure the subject is grounded in a coherent body of knowledge distinct from Health.

Learning Languages

The Ministry's recommendations for the final subject list include the following changes to the Learning Languages Learning Area:

1. Comparative Language is deferred
2. English as a Second Language is deferred
3. All Pacific Language subjects are given names in their respective languages, to align with the Pacific Language SEG's recommendations and to ensure consistency with Level 1 subject name-changes.
4. Mandarin is renamed Chinese (Mandarin)

At NCEA Levels 2 and 3, nine modern international languages are currently supported through Achievement Standards (these include Pacific languages, and languages spoken within the Realm Countries of Aotearoa New Zealand). Each of these builds upon its respective Level 1 subject. On the provisional subject list, we recommended adding support for English as a Second Language and Comparative Language as new subjects.

As announced in 2020, Latin will no longer be offered as a separate subject at any Level. Likewise, Bahasa Indonesia, which has been available as a subject, is not actively supported or used in schools, and will not be redeveloped as part of the RAS

A further issue we considered is the unique needs of heritage speakers and second-language learners. The Achievement Standards in the Learning Languages Learning Area are designed for second language learners, and levelled accordingly. Yet, heritage speakers are not prohibited from studying and gaining credits in these subjects. This differs from many overseas jurisdictions where separate subjects exist, and declarations and/or assessments of competence prior to enrolment co-exist.¹⁶ With regard to equity for all ākonga, and the robustness of NCEA language subjects more broadly, the Aotearoa New Zealand status quo is problematic. It also disincentivises second-language learners since many know in advance that they will not be able to compete with their heritage-language peers. This becomes particularly acute at Levels 2 and 3, where questions of endorsement, UE, and Scholarship examinations arise.

Unfortunately, the low student numbers in the Learning Languages' subjects overall preclude development of separate first and second-language subjects at this time.¹⁷ Building sector capability, and clearly signalling that the current subjects are for second-language learners, may however engender the possibility of splitting subjects in the future.¹⁸ For example, including the wording 'second language' after each language subject on a learner's NCEA, and next to any course endorsements they may receive in that language, should make heritage speakers less inclined to take the subject. Assessing a student's eligibility to credential their learning in first- and second-language subjects will

¹⁶ See especially Australia.

¹⁷ Statistics for 2018 show that less than 11 per cent of the total student population is engaged in study of an international language at Year 11. This figure decreases to just over 5 per cent in Year 13. As a point of comparison, the figure for students at the equivalent curriculum level in New South Wales (Australia) was 9 per cent in 2019. Only Mandarin and Korean have higher participation rates at Year 13 than at Year 11, which probably reflects an influx of international students or heritage speakers at that level. It is important to contextualise these figures: Language learning for those without some prior background is often regarded as difficult and non-essential for an English-language speaker. For students aiming at limited entry University level courses, language study is also often squeezed out by the perceived necessity of taking multiple science and mathematics courses in Years 12 and 13. Additionally, many schools cannot rationalise the staffing of very small classes at Years 12 and 13, which often results in either combined level classes or study via Te Kura: The Correspondence School as the only option for interested students. Neither of these options assist in the attraction and retention of languages students at these levels.

¹⁸ England offers one example with its GCE AS and A level languages with smaller cohort subjects (https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/596067/MFL_smaller_cohorts_AS_Alevel.pdf)

continue to pose a significant challenge; however, we will work closely with NZQA to ensure that these changes are implemented.

French, German, Korean, Japanese, and Spanish – no changes from the provisional subject list

The Ministry's final advice is to include existing subjects French, German, Korean, Japanese, and Spanish on the NCEA Level 2 and 3 Subject List.

French — Level 2	External Credits	Internal Credits	Total Credits
Support currently available	10 (2)	14 (3)	24 (5)
How support changes (Final subject list)	10 (2)	10 (2)	20 (4)
French — Level 3	External Credits	Internal Credits	Total Credits
Support currently available	10 (2)	14 (3)	24 (5)
How support changes (Final subject list)	10 (2)	10 (2)	20 (4)
German — Level 2	External Credits	Internal Credits	Total Credits
Support currently available	10 (2)	14 (3)	24 (5)
How support changes (Final subject list)	10 (2)	10 (2)	20 (4)
German	External Credits	Internal Credits	Total Credits
Support currently available	10 (2)	14 (3)	24 (5)
How support changes (Final subject list)	10 (2)	10 (2)	20 (4)
Japanese — Level 2	External Credits	Internal Credits	Total Credits
Support currently available	10 (2)	14 (3)	24 (5)
How support changes (Final subject list)	10 (2)	10 (2)	20 (4)
Japanese — Level 3	External Credits	Internal Credits	Total Credits
Support currently available	10 (2)	14 (3)	24 (5)
How support changes (Final subject list)	10 (2)	10 (2)	20 (4)
Korean — Level 2	External Credits	Internal Credits	Total Credits
Support currently available	10 (2)	14 (3)	24 (5)
How support changes (Final subject list)	10 (2)	10 (2)	20 (4)
Korean — Level 3	External Credits	Internal Credits	Total Credits
Support currently available	10 (2)	14 (3)	24 (5)
How support changes (Final subject list)	10 (2)	10 (2)	20 (4)
Spanish — Level 2	External Credits	Internal Credits	Total Credits
Support currently available	10 (2)	14 (3)	24 (5)
How support changes (Final subject list)	10 (2)	10 (2)	20 (4)

Spanish — Level 3	External Credits	Internal Credits	Total Credits
Support currently available	10 (2)	14 (3)	24 (5)
How support changes (Final subject list)	10 (2)	10 (2)	20 (4)

Chinese (Mandarin) – final recommendations

The Ministry's final advice is to include existing subject Mandarin on the NCEA Level 2 and 3 Subject List. The only change from the provisional subject list is to rename the subject Chinese (Mandarin).

Mandarin is the accepted English term for the common language of mainland and greater China, and remains the most accurate English-language description for the spoken language that is taught in the NCEA subject. It is important also to maintain a clear distinction between Mandarin and Chinese, since there is no single 'Chinese' language. Linguists commonly refer to Chinese languages, which would include for example both Mandarin and Cantonese.

Nevertheless, recent public engagement on the draft NCEA Level 1 subject content, which ran in parallel to the engagement on the provisional subject list for Levels 2 and 3, demonstrated that there is strong opposition to the subject title 'Mandarin'. Arguments against the provisional title included that no 'standard' form of Mandarin is taught across Aotearoa New Zealand's secondary schools. In reaching its decision, the Ministry has also considered alignment to tertiary study of Chinese languages, and internal advice from Ministry subject experts. On the other hand, it is important to note that teaching and learning in the NCEA Chinese-language subject still does not encompass Cantonese. Yet, if we were to name the subject based on the script alone, it could be Simplified, Standard, or Modern Chinese. Perhaps the real issue here is that there is no perfect English-language term to describe this complex language (or languages).

With this in mind, we recommend a title, Chinese (Mandarin) which tries to incorporate both aspects of the language learning that take place in the subject. This is justified by the fact that a significant part of the learning in the subject is focused on developing competency in the Chinese script, which is common to modern Chinese languages.

Chinese (Mandarin) — Level 2	External Credits	Internal Credits	Total Credits
Support currently available	10 (2)	14 (3)	24 (5)
How support changes (Final subject list)	10 (2)	10 (2)	20 (4)

Chinese (Mandarin) — Level 3	External Credits	Internal Credits	Total Credits
Support currently available	10 (2)	14 (3)	24 (5)
How support changes (Final subject list)	10 (2)	10 (2)	20 (4)

New Zealand Sign Language (NZSL)¹⁹ – no change from provisional subject list

The Ministry's final advice is to include existing subjects NZSL on the NCEA Level 2 and 3 Subject List.

As an official language of Aotearoa New Zealand, NZSL will be maintained as a Level 2 and 3 subject. However, we know that the existing Achievement Standards for this subject were modelled on those of the other modern international languages, and this has meant they are not fit for purpose. RAS provides the opportunity to design assessment for NZSL which is more tailored to the unique demands of teaching and learning a visual language. Therefore, NZSL will undergo a bespoke process, and follow

¹⁹ As an Official Language of Aotearoa New Zealand, it is unclear whether NZSL should sit within the Learning Languages Learning Area, which is mostly understood to be the Learning Area for second-language subjects.

a bespoke timeline, to develop Levels 1-3. Its process and timeline will still allow NZSL to be piloted at each level (1, 2, and 3) alongside other Achievement Standard subjects.

New Zealand Sign Language - Level 2	External Credits	Internal Credits	Total Credits
Support currently available	0 (0)	19 (4)	19 (4)
How support changes (Final subject list)	10 (2)	10 (2)	20 (4)

New Zealand Sign Language - Level 3	External Credits	Internal Credits	Total Credits
Support currently available	0 (0)	20 (4)	20 (4)
How support changes (Final subject list)	10 (2)	10 (2)	20 (4)

Cook Islands Māori, Gagana Sāmoa, Lea Faka-Tonga - final recommendations

The Ministry's final advice is to include existing subjects Cook Islands Māori, Tongan, and Sāmoan on the NCEA Level 2 and 3 Subject List. The only change to these subjects from our recommendations on the provisional list is to rename each language-learning subject in its respective language.

This is following advice from the Pacific Languages Subject Expert Group. The SEG suggested amending the titles of the three existing subjects that make up Pacific Languages to reflect the language-learning of the subjects: for Cook Islands Māori to become Te Reo Māori Kūki 'Āirani; Tongan to become Lea Faka-Tonga, and Samoan to become Gagana Sāmoa. This suggestion was put to the sector for feedback in a survey in August 2021. No feedback was received on the proposed subject title change for each of the Pacific Language subjects.

Te Reo Māori Kūki 'Āirani — Level 2	External Credits	Internal Credits	Total Credits
Support currently available	10 (2)	14 (3)	24 (5)
How support changes (Final subject list)	10 (2)	10 (2)	20 (4)

Te Reo Māori Kūki 'Āirani — Level 3	External Credits	Internal Credits	Total Credits
Support currently available	10 (2)	14 (3)	24 (5)
How support changes (Final subject list)	10 (2)	10 (2)	20 (4)

Gagana Sāmoa — Level 2	External Credits	Internal Credits	Total Credits
Support currently available	10 (2)	14 (3)	24 (5)
How support changes (Final subject list)	10 (2)	10 (2)	20 (4)

Gagana Sāmoa — Level 3	External Credits	Internal Credits	Total Credits
Support currently available	10 (2)	14 (3)	24 (5)
How support changes (Final subject list)	10 (2)	10 (2)	20 (4)

Lea Faka-Tonga — Level 2	External Credits	Internal Credits	Total Credits
Support currently available	10 (2)	14 (3)	24 (5)
How support changes (Final subject list)	10 (2)	10 (2)	20 (4)

Lea Faka-Tonga — Level 3	External Credits	Internal Credits	Total Credits
Support currently available	10 (2)	14 (3)	24 (5)

How support changes (Final subject list)	10 (2)	10 (2)	20 (4)
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Gagana Tokelau and Vagahau Niue— no change from provisional subject list

The Ministry's final advice is to include new subjects Gagana Tokelau and Vagahau Niue on the NCEA Level 2 and 3 Subject List.

Gagana Tokelau — Level 2	External Credits	Internal Credits	Total Credits
Support currently available	0 (0)	0 (0)	0 (0)
How support changes (Final subject list)	10 (2)	10 (2)	20 (4)

Gagana Tokelau — Level 3	External Credits	Internal Credits	Total Credits
Support currently available	0 (0)	0 (0)	0 (0)
How support changes (Final subject list)	10 (2)	10 (2)	20 (4)

Vagahau Niue — Level 2	External Credits	Internal Credits	Total Credits
Support currently available	0 (0)	0 (0)	0 (0)
How support changes (Final subject list)	10 (2)	10 (2)	20 (4)

Vagahau Niue — Level 3	External Credits	Internal Credits	Total Credits
Support currently available	0 (0)	0 (0)	0 (0)
How support changes (Final subject list)	10 (2)	10 (2)	20 (4)

The Government has included the development of these subjects as part of the NCEA Change Programme. The objective is to support the delivery of the languages including ensuring there is teacher capability, curriculum resources and NCEA support. The initiative is not limited to NCEA support alone.

Given that Pacific students are not as well-served by the education system as they should be, providing the opportunity to learn the language of one's heritage and to have that learning recognised in a national qualification will be a significant step towards translating the 'Inclusion and equity' principle of the NCEA Change Programme into concrete action. The Ministry is establishing a Readiness Expert Group to scope the delivery of the full range of supports required.

Comparative Language - deferred

The Ministry's final advice is not to include new subject Comparative Language on the NCEA Level 2 and 3 Subject List.

This proposed new subject would focus on the intersection between languages, cultures, and societies, to strengthen students' intercultural competencies. Study of the intersection between English and/or Te Reo Māori, and an additional language could connect ākonga to several different life and study pathways beyond secondary school. For heritage and/or advanced speakers of a language other than Te Reo Māori or English, this subject would also support advanced linguistic development and avoid the current reliance on second-language subjects for these ākonga. They would have the opportunity to consider key concepts from linguistics, and to develop skills relating to translation and interpretation across languages.

The development of both linguistic skills and intercultural competencies opens up a wide variety of educational and career pathways for ākonga. Oral interpretation and translation in particular are valuable in many domestic fields including the health sector, police, social services, public service, hospitality, and tourism industries.

While the inclusion of Comparative Language on the provisional subject list drew broadly positive feedback from the sector and wider public, even supportive respondents suggested that the subject needed more scoping prior to being confirmed for development. This is compounded by the fact that the new subject has no international precedent at the secondary school level, and no existing unit standards. For these reasons, Comparative Language is outside the scope of the Review of Achievement Standards.

English as a Second Language - deferred

The Ministry's final advice is not to include new subject English as a Second Language on the NCEA Level 2 and 3 Subject List.

As a proposed new subject, English as a Second Language was intended to support students from a variety of non-English speaking backgrounds in the development of academic writing skills and vocabulary. It was conceived as an explicitly second-language subject, delivered in English, through which ākonga in English-medium settings gain the skills required to participate and achieve success in their other subjects, which are also instructed in English. It could also bridge the gap between secondary education, and tertiary and career pathways, which often require academic and professional communication skills. Unlike Te Reo Pākehā (*TMoA*), it aimed to be context-neutral and would not indigenise the study of English.

Under the status quo, existing English Language and English for Academic Purposes unit standards are used to support pathways to further education and employment (the EAP standards particularly are used as preparation for further degree study). Supporting this learning through the addition of Achievement Standards, including external assessment of approximately 50 per cent of these, would allow us to consider, alongside NZQA, whether ESOL could count towards UE. This could in turn increase the robustness and perceived value of second-language learner pathways. Of course, if the subject is confirmed in the future, its interaction with the new literacy requirements for NCEA would also need to be taken into account (for instance, would learners take this subject in order to prepare for sitting the literacy unit standards, or would they need to pass the unit standards first).

While the proposed English as a Second Language subject received strongly positive feedback during public engagement, considerable scoping work is required prior to confirming the subject for future development. In particular, we will need to account for the relationship between the proposed new subject and existing ESOL unit standards. For now, this means that English as a Second Language will be deferred and sits outside the scope of the Review of Achievement Standards.

Mathematics and Statistics

The Ministry's recommendations for the final subject list include the following change to the Mathematics and Statistics Learning Area:

1. Applied Mathematics is deferred.

Mathematics is the exploration and use of patterns and relationships in quantities, space, and time. Statistics is the exploration and use of patterns and relationships in data. These two disciplines are related but use different ways of thinking and solving problems. Both equip students with effective means to investigate, interpret, explain, and make sense of the world.

Background

During consultation on the NCEA Level 1 subject list in 2020, many respondents raised the idea that Mathematics and Statistics should be separate subjects. On balance, we chose to keep these as one subject at Level 1, in line with the broad, foundational objectives that applied to Level 1 only. However, we noted that further consideration would be given to this suggestion at NCEA Levels 2 and 3, in line with the objective for more specialisation at these higher levels. We know that many senior secondary schools and kura already teach Mathematics and Statistics as separate subjects at Levels 2 and 3. Moreover, at Level 3, this split is formalised by NZQA with the recognition of Mathematics and Statistics as two possible UE (and Scholarship) subjects. As they stand, both Mathematics and Statistics have an almost complete suite of credits. These factors led the Ministry to recommend two standalone subjects at Levels 2 and 3, via the provisional subject list, called 'Mathematics' and 'Statistics' respectively.

Mathematics – no change from provisional subject list

The Ministry's final advice is to include a standalone Mathematics subject on the NCEA Level 2 and 3 Subject List.

Mathematics — Level 2	External Credits	Internal Credits	Total Credits
Support currently available	9 (2)	15 (6)	24 (8)
How support changes (Final subject list)	10 (2)	10 (2)	20 (4)

Mathematics — Level 3	External Credits	Internal Credits	Total Credits
Support currently available	17 (3)	15 (5)	32 (8)
How support changes (Final subject list)	10 (2)	10 (2)	20 (4)

During public engagement, some respondents worried that the proposed Mathematics subject at Level 3 would no longer include Calculus. This was not the intention of renaming the subject, which will continue to include a strong Calculus component. We recognise that Calculus is important for many tertiary pathways including engineering, medicine, and pure mathematics courses.

Statistics – no changes from Provisional subject list

The Ministry's recommendation is to include a standalone Statistics subject on the NCEA Level 2 and 3 Subject List.

Statistics — Level 2	External Credits	Internal Credits	Total Credits
Support currently available	4 (1)	14 (5)	18 (6)
How support changes (Final subject list)	10 (2)	10 (2)	20 (4)

Statistics — Level 3	External Credits	Internal Credits	Total Credits
Support currently available	12 (3)	16 (4)	28 (7)

During public engagement, those who disagreed with the proposal to split Mathematics and Statistics at Level 2 were mostly concerned that separating out Statistics from Mathematics at this level could mean ākonga miss important foundational learning, particularly those ākonga choosing to study Statistics alone. This suggestion appears to arise from the fact that current Level 2 Statistics courses, built using existing Achievement Standards, typically offer little algebraic content, which is essential to further study in statistics at a tertiary level.

A further issue raised was the risk of ākonga choosing one mathematics subject at Level 2, only to discover that they need both – or the subject they did not choose - at Level 3. Respondents felt the likelihood of this arising relates to the limited number of subjects a student can fit in their timetable.

To ensure that a standalone Statistics subject is coherent, and leads to further study and employment, we will ensure that algebraic thinking, and other key aspects of mathematics required for further study in statistics and mathematics are reflected in the subject's significant learning. While overlap in learning, especially theoretical learning is possible, we envisage Mathematics and Statistics will assess different learning in similar ways, or the same learning in different ways. Further design work, and close alignment of subject development, will be required to ensure that the two subjects, Mathematics and Statistics, do not overlap in terms of Achievement Standards and assessment.

Applied Mathematics - deferred

The Ministry's final advice is not to include new subject, tentatively called Applied Mathematics, on the NCEA Level 2 and 3 Subject List.

On the provisional subject list, we proposed a third mathematics subject from NCEA Level 3, Applied Mathematics. At Level 3, students studying a Mathematics subject are often doing so to support a tertiary pathway so increased specialisation is more appropriate in domains outside the focus of the Level 3 Mathematics and Statistics subjects, which include computer science, engineering, economics.

The subject's suggested scope included the study of synthetic languages, truth tables, logic, algebra, and more. It was intended that Applied Mathematics provide an equal academic challenge for students as the Mathematics and Statistics subjects. However, we also noted in the June technical report that we were less confident in our recommendation to include Applied Mathematics and would consider feedback closely before forming our final advice.

While feedback on the proposed subject was mostly positive, comments from respondents suggested a lack of clarity as to what the subject should cover, and whether it was in fact needed. A number of respondents also hoped the proposed subject would provide a streaming option, which runs counter to our intention. Taken together, these factors have led us to defer the subject.

Science

The Ministry's recommendations for the final subject list include the following change to the Science Learning Area:

1. Science is deferred.

Agricultural and Horticultural Science - no change from provisional subject list

The Ministry's final advice is to include a single Agricultural and Horticultural Science subject on the NCEA Level 2 and 3 Subject List.

Agricultural and Horticultural Science — Level 2	External Credits	Internal Credits	Total Credits
Support currently available	12 (3)	28 (7)	40 (10)
How support changes (Final subject list)	10 (2)	10 (2)	20 (4)

Agricultural and Horticultural Science — Level 3	External Credits	Internal Credits	Total Credits
Support currently available	14 (3)	10 (2)	24 (5)
How support changes (Final subject list)	10 (2)	10 (2)	20 (4)

In Agricultural and Horticultural Science, students learn about the interconnectedness of people, soils, plants, and animals. Students develop an understanding of the ways in which agricultural and horticultural practices impact the environment, and how good practices sustain or enhance the environment. They use their knowledge to understand how people working in primary industries produce primary products using methods that care for our environment. Agricultural and horticultural science adopts a practical, production-focused approach, involving students in problem solving and the use of appropriate management practices. Programmes are based around realistic and practical contexts. Thanks to Achievement Standard support, this course of learning also caters those who want to be involved in the supporting roles of agriculture, such as genetic development, veterinary services, sustainability, and environmental monitoring.

Foundational learning for this subject is provided at NCEA Level 1 by Agricultural and Horticultural Science, Chemistry and Biology, and Science. At NCEA Levels 2 and 3, Agricultural and Horticultural Science currently is supported as one subject, and we recommend maintaining this status quo and redeveloping the Achievement Standards for this single subject in line with the settings of the NCEA Change Package. This does not represent a significant departure from the status quo for Agricultural and Horticultural Science at Level 3, where only 5 Achievement Standards, totalling 24 credits, are available. On the other hand, there is a risk that reducing the large number of existing Achievement Standards and credits available at Level 2 for Agricultural and Horticultural Science, which attempt to cover the subject's two distinct and diverging bodies of knowledge - Agricultural Science, and Horticultural Science — may lead to the loss of valuable learning. If this is the case, providing support for only one Agricultural and Horticultural Science subject at Level 2 may not easily align with the stated policy aim of ensuring ākonga have further opportunities to specialise and deepen knowledge and skills at NCEA Levels 2 and 3.

The recommendation not to support two standalone subjects for Agricultural and Horticultural Science at Levels 2 and 3 hinges, though, on the low uptake of the existing standards for this subject. Agricultural and Horticultural Science Achievement Standards at Level 1 attract as many as 2000 entries each year. However, at Level 2, the largest uptake of a standard hovers around 800 students, and at Level 3, around 750. Several standards record fewer than 300 entries each year. Numbers are particularly low in decile 1-3 schools and among Māori and Pacific students. These numbers do not endorse the division of the subject at Levels 2 and 3, since they raise questions about its sustainability.

Pre-engagement — we also considered creating two dedicated subjects

Agricultural and Horticultural Science has a large matrix, which attempts to cover its two distinct and diverging bodies of knowledge: Agricultural Science, and Horticultural Science. Though these bodies of knowledge are complementary, we know that schools often split Agricultural and Horticultural Science into two separate courses as early as Level 1. To do this, they use the breadth of the current Level 1 matrix, which caters to two distinctly different pathways. This practice of splitting the subject may better support rural teaching and learning programmes, and therefore speaks to equity issues between urban and rural educational settings. On the other hand, it raises questions about pathways and ‘dead ends’ — is this too much specialisation for senior secondary learning? Agricultural Science and Horticultural Science at Level 2 each have an almost complete suite of credits, which tends to concretise this splitting of the subject, yet at Level 3 the matrix is much smaller and narrower. If Agricultural Science and Horticultural Science represent coherent, discrete bodies of knowledge, this current pathway appears to be unfit for purpose.

In addition, anecdotal evidence suggested that if we support only one subject at Levels 2 and 3, schools and kura that wish to deliver specialised Agricultural or Horticultural Science programmes may default to unit standards. Under the status quo this practice has sometimes resulted in over-specialisation and fragmented learning for ākonga. However, we believe that the situation is changing: the new Muka Tangata (People, Food and Fibre) Workforce Development Council (WDC) will be well placed to strengthen the unit standards commonly used by schools to complement Agricultural and Horticultural Science Achievement Standards. As the WDC transforms these unit standards into new skills standards, we expect to see schools empowered to use the resulting products to build innovative programmes of agricultural and horticultural science learning, which combine both Achievement and Skills Standards.

During public engagement the recommendation to keep Agricultural and Horticultural Science as a single subject drew only minor opposition. Respondents who believed the subject should be split provided rationales we have previously explored, such as the importance of agriculture and horticulture to Aotearoa New Zealand’s economy. But, as noted above, the recommendation not to support two standalone subjects for Agricultural and Horticultural Science at Levels 2 and 3 hinges on the low uptake of the existing standards for this subject.

Biology – no change from provisional subject list

The Ministry’s final advice is to include existing subject Biology on the NCEA Level 2 and 3 Subject List.

Biology — Level 2	External Credits	Internal Credits	Total Credits
Support currently available	12 (3)	17 (5)	29 (8)
How support changes (Final subject list)	10 (2)	10 (2)	20 (4)

Biology — Level 3	External Credits	Internal Credits	Total Credits
Support currently available	13 (3)	13 (4)	26 (7)
How support changes (Final subject list)	10 (2)	10 (2)	20 (4)

In Biology, students learn about living things, the interconnectedness of living systems, and the factors (internal and external) which impact living systems. Students develop an understanding of the diversity of life and life processes, of where and how life has evolved, and of evolution as the link between life processes and ecology. They use their knowledge to understand how biologists explore and explain everyday observations of the living world and find solutions to biological issues. Foundational learning for this subject is provided at NCEA Level 1 by Chemistry and Biology, and Science. At NCEA Levels 2 and 3, Biology offers further opportunities to specialise and deepen knowledge and skills, and

complements learning in Agricultural and Horticultural Science, Chemistry, Environment and Societies, and Statistics, to impart in learners an in-depth knowledge of biology's most important themes and skills.

Chemistry - no change from provisional subject list

The Ministry's final advice is to include existing subject Chemistry on the NCEA Level 2 and 3 Subject List.

Chemistry — Level 2	External Credits	Internal Credits	Total Credits
Support currently available	13 (3)	13 (4)	26 (7)
How support changes (Final subject list)	10 (2)	10 (2)	20 (4)

Chemistry — Level 3	External Credits	Internal Credits	Total Credits
Support currently available	15 (3)	13 (4)	28 (7)
How support changes (Final subject list)	10 (2)	10 (2)	20 (4)

In Chemistry, students learn about the study of materials and substances. They develop understandings of the composition and properties of matter and the changes it undergoes through interactions and the transfer of energy. They use their knowledge of chemical structures and processes to understand how chemists adapt, control, and manipulate systems to meet particular economic, environmental and social needs. Foundational learning for this subject is provided at NCEA Level 1 by Chemistry and Biology, and Science. At NCEA Levels 2 and 3, Chemistry offers further opportunities to specialise and deepen knowledge and skills, and complements learning in Biology, Physics, Statistics, and Mathematics, to impart learners with an in-depth knowledge of chemistry's most important themes and skills.

Earth and Space Science - no change from provisional subject list

The Ministry's final advice is to include existing subject Earth and Space Science on the NCEA Level 2 and 3 Subject List.

Earth and Space Science — Level 2	External Credits	Internal Credits	Total Credits
Support currently available	12 (3)	16 (4)	28 (7)
How support changes (Final subject list)	10 (2)	10 (2)	20 (4)

Earth and Space Science — Level 3	External Credits	Internal Credits	Total Credits
Support currently available	8 (2)	16 (4)	24 (6)
How support changes (Final subject list)	10 (2)	10 (2)	20 (4)

In Earth and Space Science, students learn about the interconnecting systems and processes of Earth, the solar system, and the universe beyond. Students develop an understanding of the interactions between the land, water, air, and living organisms, and of the dynamic, interdependent relationships that exist between these systems. They use this knowledge to understand how scientists have explored Earth and beyond, both historically and currently, and how this informs predictions and decisions for the future. Foundational learning for this subject is provided at NCEA Level 1 by Science, and Physics, Earth, and Space Science. At NCEA Levels 2 and 3, Earth and Space Science builds on this learning

and complements the study of other specialist subjects (Statistics, Mathematics, and Physics) to impart learners with an in-depth knowledge of Earth and Space Science's most important themes and skills.

Physics - no change from provisional subject list

The Ministry's final advice is to include existing subject Physics on the NCEA Level 2 and 3 Subject List.

Physics — Level 2	External Credits	Internal Credits	Total Credits
Support currently available	16 (3)	10 (3)	26 (6)
How support changes (Final subject list)	10 (2)	10 (2)	20 (4)

Physics — Level 3	External Credits	Internal Credits	Total Credits
Support currently available	16 (3)	13 (4)	29 (7)
How support changes (Final subject list)	10 (2)	10 (2)	20 (4)

In Physics, students learn how to describe, explain, and predict physical phenomena. Students develop an understanding of important models, laws and theories of physics, including the kinetic particle model, the atomic model, electromagnetic theory, the laws of classical mechanics, and the unifying concept of energy. They use their knowledge to understand how physicists explain diverse phenomena, identify a range of contemporary issues and challenges, and generate potential technological solutions. Foundational learning for this subject is provided at NCEA Level 1 by Science, and Physics, Earth, and Space Science. At NCEA Levels 2 and 3, Physics builds on this learning and complements the study of other specialist subjects (Biology, Chemistry, Statistics, Mathematics, and Earth and Space Science) to impart learners with an in-depth knowledge of physics' most important themes and skills.

Science - deferred

The Ministry's final advice is not to include new subject Science on the NCEA Level 2 and 3 Subject List.

On the provisional subject list, we recommended developing a standalone Science subject to support general science teaching and learning at Levels 2 and 3. The subject's four big ideas were to include: Investigating in Science, Using Science to engage with real world issues, Science as a human endeavour, and Communicating in Science. Because these are process ideas, as opposed to knowledge ideas, it was suggested that they need not be tied to any specific discipline (Chemistry, Biology etc) and the resulting subject could have an epistemic focus. This would be useful to a wider range of students, by complementing specialist science learning; and building the scientific literacy of all students. Such science 'citizenship' would support a wide range of pathways that benefit from a base level of science.

However, we also noted that there were risks entailed by providing a general Science suite of Achievement Standards at Levels 2 and 3. First, it would allow more flexibility in terms of science-related course design, potentially enabling schools to increase the burden on internal assessment (compared to external assessment). More subjects within the Science Learning Area mean that schools can 'mix-and-match' and potentially emphasise internal assessment over external assessment, as has been the case in NCEA up until now. Second, and relatedly, the general Science subject could be misused by schools to stream students.

During engagement, these and similar concerns were raised. While there was support in principle for a new subject, existing science subject associations, for example, were concerned that the development of Science would lead to a loss of 'nature of science' learning from specialist subjects such as Biology and Physics,, in order to create a coherent body of knowledge for the new subject to cover and leading to fragmented or diminished learning outcomes for ākonga on different pathways. Some respondents suggested that the

new subject would be promoted to lower-ability students, irrespective of the Ministry's intent, echoing our concern about the subject being perceived as a protentional streaming option. For these reasons, the Ministry has recommended deferring this subject.

Social Sciences

The Ministry's recommendations for the final subject list include the following change to the Social Sciences Learning Area:

1. Māori Studies is deferred
2. People and Societies reverts to Social Studies

The Social Sciences Learning Area explores how societies work and how people can participate as critical, active, informed, and responsible citizens. Contexts are drawn from the past, present, and future and from places within and beyond Aotearoa New Zealand.

Agribusiness - no change from provisional subject list

The Ministry's final advice is to include a standalone Agribusiness subject on the NCEA Level 2 and 3 Subject List.

Agribusiness — Level 2	External Credits	Internal Credits	Total Credits
Support currently available	0 (0)	15 (4)	15 (4)
How support changes (Final subject list)	10 (2)	10 (2)	20 (4)

Agribusiness — Level 3	External Credits	Internal Credits	Total Credits
Support currently available	0 (0)	12 (3)	12 (3)
How support changes (Final subject list)	10 (2)	10 (2)	20 (4)

Agribusiness is defined as a course of study that integrates all the primary industries and businesses that comprise primary production. This subject builds upon foundational learning at Level 1 in Commerce, Agricultural and Horticultural Science, and Mathematics and Statistics. At Levels 2 and 3, it offers specialisation and complements learning in Agricultural and Horticultural Science, Accounting, Economics, Statistics, Tourism, and Social Studies.

On the provisional subject list, the Ministry recommended developing Business Studies and Agribusiness as two separate subjects. In line with the NCEA Change Package aim of further opportunities to specialise and deepen knowledge and skills at Levels 2 and 3, redeveloping Business Studies and Agribusiness as two separate subjects appeared appropriate. NZQA already recognises them as such, however Agribusiness currently lacks a complete suite of Achievement Standards: at Levels 2 and 3 it only has internal assessments, which means schools have to use external Achievement Standards from Business Studies to build their course offerings. We believe the NCEA Change Package requirement of a 50:50 split between external and internal assessment will add to the robustness of Agribusiness. This specialist subject may prove particularly important for rural schools and kura.

During public engagement, the proposal to support a standalone Agribusiness subject drew little feedback. However, this is somewhat expected, given that we did not ask questions about this subject specifically.

Accounting - no change from provisional subject list

The Ministry's final advice is to include existing subject Accounting on the NCEA Level 2 and 3 Subject List.

Accounting — Level 2	External Credits	Internal Credits	Total Credits
Support currently available	14 (3)	14 (4)	28 (7)
How support changes (Final subject list)	10 (2)	10 (2)	20 (4)

Accounting — Level 3	External Credits	Internal Credits	Total Credits
Support currently available	13 (3)	13 (3)	26 (6)
How support changes (Final subject list)	10 (2)	10 (2)	20 (4)

Accounting enables students to develop the knowledge and skills to manage the financial affairs of individuals, communities, and businesses.

On the provisional subject list, we recommended continuing to support Accounting at NCEA Levels 2 and 3. While the subject has declining student numbers, particularly at Level 3, the subject does offer further opportunities to specialise and deepen knowledge and skills and builds upon foundational learning at Level 1 in Commerce, and Mathematics and Statistics. At Levels 2 and 3 it complements Agribusiness, Business Studies, Economics, and Tourism. If enrolments in Accounting continue to decline, support for the subject may require further consideration as part of the next NCEA Review.

Through the RAS, though, there is an opportunity to refine the subject's 'real world' applicability, and to make it an attractive and practical area of learning for a wider range of students.²⁰ In these regards, it may be desirable to reorient its focus towards Financial Literacy, drawing significant learning from Accounting and Mathematics where appropriate. This would align with the feedback received during public engagement on the provisional subject list, where respondents across all Learning Areas raised concerns about students understanding of financial literacy and the importance of increasing this understanding.

Business Studies - no change from provisional subject list

The Ministry's final advice is to include existing subject Business Studies on the NCEA Level 2 and 3 Subject List.

Business Studies — Level 2	External Credits	Internal Credits	Total Credits
Support currently available	12 (3)	15 (3)	27 (6)
How support changes (Final subject list)	10 (2)	10 (2)	20 (4)

Business Studies — Level 3	External Credits	Internal Credits	Total Credits
Support currently available	12 (3)	21 (7)	33 (7)
How support changes (Final subject list)	10 (2)	10 (2)	20 (4)

In this subject, students consider the issues that challenge businesses and stakeholders. In a rapidly changing world, it is important that citizens are able to make informed and rational decisions about business matters. This subject builds upon foundational learning at Level 1 in Commerce, Agricultural and Horticultural Science, and Mathematics and Statistics. At Levels 2 and 3, it offers specialisation and complements learning in Agricultural and Horticultural Science, Accounting, Economics, Statistics, Tourism, and Social Studies.

Classical Studies - no change from provisional subject list

The Ministry's final advice is to include existing subject Classical Studies on the NCEA Level 2 and 3 Subject List.

Classical Studies — Level 2	External Credits	Internal Credits	Total Credits
Support currently available	14 (3)	10 (2)	24 (5)

²⁰ As Accounting is offered as a degree at most universities and tertiary institutes, there is no need for the NCEA Subject to replicate the learning which takes place in these higher education institutes. First-year courses, at least in New Zealand, assume no prior knowledge of Accounting.

How support changes (Final subject list)	10 (2)	10 (2)	20 (4)
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Classical Studies — Level 3	External Credits	Internal Credits	Total Credits
Support currently available	14 (3)	12 (2)	26 (5)
How support changes (Final subject list)	10 (2)	10 (2)	20 (4)

By understanding the political, military, religious, philosophical, technological, artistic, and aesthetic developments of the ancient Greeks and Romans, students of Classical Studies learn how the past continues to inform the present.

Foundational learning for this subject is provided across NCEA Level 1 History, Religious Studies, English, and Social Studies. Study of this subject at Level 2 and 3 complements learning in English, History, Geography, Religious Studies and Social Studies.

Economics - no change from provisional subject list

The Ministry's final advice is to include existing subject Economics on the NCEA Level 2 and 3 Subject List.

Economics — Level 2	External Credits	Internal Credits	Total Credits
Support currently available	12 (3)	18 (4)	27 (7)
How support changes (Final subject list)	10 (2)	10 (2)	20 (4)

Economics — Level 3	External Credits	Internal Credits	Total Credits
Support currently available	14 (3)	10 (2)	24 (5)
How support changes (Final subject list)	10 (2)	10 (2)	20 (4)

By studying economics, students will consider how New Zealanders are affected by the economics of decision-making as these affect individuals, communities, businesses, and government agencies in Aotearoa New Zealand and overseas.

Foundational learning for this subject is provided at NCEA Level 1 by Commerce, Mathematics and Statistics, and Social Studies. Further opportunities to specialise and deepen knowledge and skills begins at Level 2 and complements learning in Accounting, Agribusiness, Business Studies, Geography, History, Psychology, Statistics, and Mathematics.

Environment and Societies (Education for Sustainability) - no change from provisional subject list

The Ministry's final advice is to include reimagined subject Environment and Societies on the NCEA Level 2 and 3 Subject List.

Environment and Societies — Level 2	External Credits	Internal Credits	Total Credits
Support currently available	8 (2)	19 (4)	27 (6)
How support changes (Final subject list)	10 (2)	10 (2)	20 (4)

Environmental and Societies - Level 3	External Credits	Internal Credits	Total Credits
Support currently available	9 (2)	15 (3)	24 (5)
How support changes (Final subject list)	10 (2)	10 (2)	20 (4)

In this subject, students explore the relationship between people and the environment. They learn about the environmental, social, cultural, and economic aspects of sustainability. The subject provides opportunities for ākonga to show leadership by example and to contribute to collective decisions that lead to actions for a sustainable future. As a recent addition to NCEA, the existing Education for Sustainability subject unfortunately suffers from both low numbers and an ill-defined body of knowledge. In 2018, for example, only 72 ākonga undertook 14 or more credits in the subject at Level 2. As some Education for Sustainability Achievement Standards were used by upwards of 400 ākonga, we have a pattern of usage where the existing subject's Achievement Standards are not being used as part of a dedicated course, even if some are possibly being included more frequently in integrated courses.

On the provisional subject list, these factors led us to recommend refocusing the subject and changing its name to Environment and Societies. This proposal was intended to bring it into alignment with other Social Sciences subjects and clarify its purpose as a subject that supports knowledge of environmental issues from a range of perspectives: for example, the scientific, social, and economic views on climate change. Such learning aligns with tertiary and UNESCO goals, and offers clear links into learning required for all future workplaces. We recommended testing this rebrand with the existing SEG and subject association.

During public engagement, we received some negative feedback on this proposal. Respondents worried that the removal of 'sustainability' from the subject's title would result in a loss of focus on sustainable futures and activism. However, the need to refocus the subject outweighs these concerns, and changing the subject's name is an important way to signal this shift in direction to the sector and wider public. The subject we will develop, irrespective of its name, will still include a strong focus on sustainability, while also encouraging broader enquiries into the environment, resource usage, and the geopolitics of the environment, including international relations. Environment and Societies will offer specialist education which builds on NCEA Level 1 Geography, Science, Social Studies, and Mathematics and Statistics. Such a subject would complement NCEA Level 2 Agribusiness, Business Studies, Biology, Chemistry, Economics, Geography, Statistics, and Social Studies.

Pre-engagement — we also considered discontinuing support for this subject

Given the concerns noted above that the existing subject has declining student numbers, and may not contain a separate, well-defined body of knowledge, one approach we considered was discontinuing support Education for Sustainability as a bespoke subject. Significant learning from the subject could still be covered across subjects, for example: Biology, Geography, Economics, and Social Studies, since the subject is in many ways a hybrid of science and social science teaching and learning. While there is a case for a change, especially in terms of the NCEA Change Package policy settings — such as coherence, clear pathways, and further opportunities for specialisation — we decided that it was not be tenable to remove this subject. Public and sector interest in sustainability does not align with the removal of the only NCEA subject with 'environmental' in its title or with Aotearoa New Zealand's commitment to UNESCO sustainability goals.

Geography - no change from provisional subject list

The Ministry's final advice is to include existing subject Geography on the NCEA Level 2 and 3 Subject List.

Geography — Level 2	External Credits	Internal Credits	Total Credits
Support currently available	12 (3)	17 (5)	29 (8)
How support changes (Final subject list)	10 (2)	10 (2)	20 (4)

Geography — Level 3	External Credits	Internal Credits	Total Credits
Support currently available	12 (3)	17 (5)	29 (8)
How support changes (Final subject list)	10 (2)	10 (2)	20 (4)

Geography is the study of the environment as the home of people. It seeks to interpret the world and how it changes over time — past, present, and future. In geography, time, space, and place are interrelated. Geography investigates the ways in which features are arranged on the Earth's surface. It describes and explains the patterns and processes that create these features.

Foundational learning for this subject is provided at NCEA Level 1 by Geography. Further opportunities to specialise and deepen knowledge and skills begins at Levels 2 and 3, and is complemented by learning in English, Environment and Societies, Economics, History, Tourism, and Social Studies.

History - no change from provisional subject list

The Ministry's final advice is to include existing subject History on the NCEA Level 2 and 3 Subject List.

History — Level 2	External Credits	Internal Credits	Total Credits
Support currently available	14 (3)	14 (3)	28 (6)
How support changes (Final subject list)	10 (2)	10 (2)	20 (4)

History — Level 3	External Credits	Internal Credits	Total Credits
Support currently available	16 (3)	15 (3)	31 (6)
How support changes (Final subject list)	10 (2)	10 (2)	20 (4)

History invites ākonga to explore the past, present, and future through a variety of sources and perspectives. It nurtures the skills of inquiry and interpretation, and encourages ākonga to think critically. As a research-led discipline, History supports ākonga to grow an informed understanding of the origins of our diverse society in Aotearoa. Central to this understanding is an awareness of the history of Te Tiriti o Waitangi and its principles, values, and ongoing relevance.

Foundational learning for this subject is provided at NCEA Level 1 by History. Further opportunities to specialise and deepen knowledge and skills begins at Levels 2 and 3, and is complemented by learning in English, Classical Studies, Pacific Studies, Media Studies, Economics, History, Social Studies, and second-language subjects.

Pre-engagement — we also considered developing a standalone ANZH subject

Development of draft materials for NCEA Level 1 History has recently concluded. During this process, we considered the appropriateness of having a separate subject to support specialisation in Aotearoa New Zealand's histories (ANZH) at Levels 2 and 3. Internal subject experts suggested that this approach might lead to a segregation and fragmentation of knowledge, since ANZH should form a part of any rich and robust senior secondary History Course. They do not want a standalone subject that allows teachers to avoid engagement with ANZH in their History programmes. The SEG also thought that it was important to recognise the impact of the compulsory ANZH curriculum, which ākonga will engage with across Levels 1-5 of the Curriculum. At senior secondary, it is important for ākonga to expand their horizons.

Nevertheless, the Significant Learning that the SEG is proposing explicitly incorporates mātauranga Māori concepts, which have direct relevance and applicability to students of History. These proposed mātauranga Māori concepts provide access to important indigenous knowledge systems for understanding history and analysing the past, and do not merely replicate normative historical concepts. Teachers and students of history at all levels will be encouraged to learn about these concepts from within an indigenous context but, once they gain an understanding of them, will be empowered to apply these concepts to other historical contexts - local, national, or global. By explicitly engaging with

mātauranga Māori concepts in history, we are valuing indigenous knowledge systems, enriching all senior secondary History students' understanding of the subject, and providing greater opportunities for ākonga Māori to access and achieve within the NZC.

Media Studies - no change from provisional subject list

The Ministry's final advice is to include existing subject Media Studies on the NCEA Level 2 and 3 Subject List.

Media Studies — Level 2	External Credits	Internal Credits	Total Credits
Support currently available	7 (2)	23 (6)	30 (8)
How support changes (Final subject list)	10 (2)	10 (2)	20 (4)

Media Studies — Level 3	External Credits	Internal Credits	Total Credits
Support currently available	8 (2)	22 (6)	30 (8)
How support changes (Final subject list)	10 (2)	10 (2)	20 (4)

Students of this subject will learn to critique and analyse mediated information - which is to say all information - including representations of society through film and photography. They will explore how media products construct and communicate meanings, and gain technical knowledge, such as an understanding of production processes, and the languages of film and photography. However, the overarching emphasis of Media Studies remains the critiquing and analysis of media and the many roles media play in society. In this, the subject bears out more similarities with English than it does with Photography and Moving Image, and in contradistinction to Photography and Moving Image, Media Studies sits within the Social Sciences Learning Area. This subject involves critical thinking about, and engagement with, a variety of media.

Foundational learning for Media Studies is provided at NCEA Level 1 by English, Visual Arts, History, Geography, and Social Studies. At Levels 2 and 3, learning in this subject is complemented by English, Media Studies, History, Geography, and Social Studies.

Pacific Studies - no change from provisional subject list

The Ministry's final advice is to include new subject Pacific Studies on the NCEA Level 2 and 3 Subject List.

Pacific Studies - Level 2	External Credits	Internal Credits	Total Credits
Support currently available	0 (0)	0 (0)	0 (0)
How support changes (Final subject list)	10 (2)	10 (2)	20 (4)

Pacific Studies - Level 3	External Credits	Internal Credits	Total Credits
Support currently available	0 (0)	0 (0)	0 (0)
How support changes (Final subject list)	10 (2)	10 (2)	20 (4)

Aotearoa New Zealand-based Pacific communities have expressed strong interest in Pacific Studies and increasing recognition of the subject in curriculum and assessment, including having this learning recognised in NCEA, to ensure that there is responsive, meaningful education on offer for their learners.

In this subject, students develop an understanding of the Pacific region across academic disciplines, using Pacific methods and ways of making meaning, within the broader context of the Social Sciences Learning Area. Pacific Studies is currently supported by unit standards. The Ministry recommends supporting the subject with Achievement Standards. This is necessary for alignment with other NCEA

subjects, and to ensure that learners who study this subject can credential their learning towards a variety of pathways, including UE.

This subject will offer essential indigenous learning not available in other *NZC* subjects, and represents a distinct, coherent body of knowledge. Achievement Standards in this subject at Levels 2 and 3 will build on learning at NCEA Level 1 in History, English, Geography, and Pacific Language subjects.

During engagement, we heard overwhelming support for the proposal to develop Pacific Studies as a new subject. Respondents also hoped that the development of Achievement Standards for Pacific Studies will lead to its recognition as a UE subject. Feedback gathered during face-to-face, Ministry led engagements tended to emphasise the need for careful development and implementation of this subject, with meaningful and respectful engagement of and input from Pacific communities.

Psychology - no change from provisional subject list

The Ministry's final advice is to include existing subject Psychology on the NCEA Level 2 and 3 Subject List.

Psychology — Level 2	External Credits	Internal Credits	Total Credits
Support currently available	0 (0)	21 (5)	21 (5)
How support changes (Final subject list)	10 (2)	10 (2)	20 (4)

Psychology - Level 3	External Credits	Internal Credits	Total Credits
Support currently available	3 (1)	19 (4)	22 (5)
How support changes (Final subject list)	10 (2)	10 (2)	20 (4)

Psychology is the scientific study of human thought, emotions, and actions. Psychology helps us to understand human behaviour. It attempts to explain why we behave in the way that we do.

At present, Psychology at Level 2 only has internal assessments, while Level 3 has one small external Achievement Standard. The NCEA Change Package requirement of a 50:50 split between external and internal assessment therefore will add to the robustness of this subject. Psychology at Levels 2 and 3 builds on foundational learning in Level 1 Science, Chemistry and Biology, Mathematics and Statistics, and Social Studies.

Religious Studies - no change from provisional subject list

The Ministry's final advice is to include existing subject Religious Studies on the NCEA Level 2 and 3 Subject List.

Religious Studies — Level 2	External Credits	Internal Credits	Total Credits
Support currently available	0 (0)	24 (4)	24 (4)
How support changes (Final subject list)	10 (2)	10 (2)	20 (4)

Religious Studies — Level 3	External Credits	Internal Credits	Total Credits
Support currently available	0 (0)	24 (4)	24 (4)
How support changes (Final subject list)	10 (2)	10 (2)	20 (4)

Religious Studies uses social scientific methods to understand the systems of religious beliefs, rituals, narratives, ethical regulations, identities, communities, and institutions (religious systems). Social scientific methods have proven especially useful for clarifying questions about the functions of religious culture for enabling cooperative communities, at small and large scales.

Foundational learning for this subject is provided across NCEA Level 1 Religious Studies, English, History, and Social Studies. Study of this subject at Level 2 and 3 complements learning in Classical Studies, English, History, and Social Studies. At present, Religious Studies at Levels 2 and 3 only has internal assessments. The NCEA Change Package requirement of a 50:50 split between external and internal assessment will add to the robustness of this subject.

Social Studies (People and Societies) - no change from provisional subject list

The Ministry's final advice is to include reimagined subject Social Studies on the NCEA Level 2 and 3 Subject List.

Social Studies — Level 2	External Credits	Internal Credits	Total Credits
Support currently available	8 (2)	14 (3)	22 (5)
How support changes (Final subject list)	10 (2)	10 (2)	20 (4)

Social Studies — Level 3	External Credits	Internal Credits	Total Credits
Support currently available	8 (2)	14 (3)	22 (5)
How support changes (Final subject list)	10 (2)	10 (2)	20 (4)

Social Studies is about people - who they are, what they do, how they change, and what happens to them. Students learn how they can take part in society as informed, critical, and active citizens. Social Studies adopts a flexible and inclusive understanding of the concept of 'citizen', which recognises the multiplicity and diversity of identities, cultures, and experiences in Aotearoa New Zealand and our connectedness with the wider world. Foundational learning for this subject is provided at NCEA Level 1 by Social Studies. Further opportunities to specialise and deepen knowledge and skills begins at Levels 2 and 3, and is complemented by learning in English, Classical Studies, Pacific Studies, Media Studies, Economics, History, Health, Food and Nutrition, Environment and Societies, and second-language subjects.

There is a feeling within the sector that Social Studies suffers from a lack of esteem. In discussion with the Social Studies SEG, who have completed drafting Level 1 materials for the subject, the Ministry decided to consult on a name change for the subject. This provisional name was People and Societies.

No significant changes to the subject content are envisaged, however there will be an opportunity to strengthen its focus on and incorporation of civics. In this way, People and Societies will reposition the existing Senior Social Studies subject as more explicitly focused on significant learning relating to sociology, citizenship, and political action. During public engagement, we heard strong disapproval in response to the proposed name change for Social Studies. While some respondents acknowledged that the current name lacks parity of esteem with other social science subjects, they suggested that we should prioritise developing and resourcing the existing subject, rather than changing its name to People and Societies. A few respondents also suggested renaming the subject Sociology to align with tertiary and international subject naming conventions. We appreciate this desire for sector and international alignment but note that the content of both the current and proposed subjects remains distinct from sociology. The proposed subject will focus more explicitly on significant learning relating to culture, politics, citizenship, and social and political action, but it will not be a pure sociology course. Our final advice to Minister was to keep the subject name provisional until development work has progressed.

Tourism - no change from provisional subject list

The Ministry's final advice is to include new subject Tourism on the NCEA Level 2 and 3 Subject List.

Tourism — Level 2	External Credits	Internal Credits	Total Credits
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Support currently available	0 (0)	0 (0)	0 (0)
How support changes (Final subject list)	10 (2)	10 (2)	20 (4)

Tourism — Level 3	External Credits	Internal Credits	Total Credits
Support currently available	0 (0)	0 (0)	0 (0)
How support changes (Final subject list)	10 (2)	10 (2)	20 (4)

This subject is designed to help meet the need for skilled and knowledgeable individuals in our rapidly diversifying tourism industry. Tourism helps ākonga to develop practical skills across a range of working roles, as well as providing local and global perspectives on travel and tourism. Students gain both an overview of the travel and tourism industries, and an understanding of the concepts, models and theories used within these industries.

Currently, Tourism at NCEA Levels 2 and 3 is supported by unit standards only. It is an incredibly popular course of study²¹ for senior secondary learners, but without Achievement Standards it has neither academic recognition, nor can it be counted towards UE. Unit standards may be used by schools to stream students, and while many learners who take this subject may choose not to pursue a university pathway, there is no reason to foreclose on this option for them — as the status quo does. Although it may be challenging to redefine the subject as one which does not favour vocational learning, and which is levelled correctly to sit alongside other Achievement Standard subjects, the subject we proposed on the provisional subject list will certainly offer further opportunities to specialise and deepen knowledge and skills for students who have previously engaged in Level 1 Social Studies, Geography, and Commerce. It will complement Level 2 and 3 Social Studies, Geography, Environment and Societies, Economics, Business Studies, Outdoor Education, Accounting, and second-language learning subjects.

During public engagement, we heard strong approval for the proposal to offer Tourism as a new Achievement Standard subject. Most respondents, including Tourism Educators Forum Aotearoa (TEFA), and Tourism Industry Aotearoa (TIA), see Achievement Standards for Tourism as supporting better tertiary pathways for ākonga. They noted that the proposal to develop a Tourism subject is a unique opportunity to increase the mana of Tourism, which often faces perception issues, and is not seen as a worthwhile or viable pathway, particularly for high-achieving students. Respondents also hoped that the development of Achievement Standards for Tourism will lead to its recognition as a UE subject. Such resounding approval and enthusiasm for what TIA describe as ‘a quality and aspirational subject’ is unsurprising, since we have heard sustained and consistent support for this subject over the last few years. One respondent noted the central importance of tourism to the Aotearoa New Zealand economy, despite COVID-19 disruptions.

Some concerns were raised about the switch from unit standards to Achievement Standards, perhaps reflecting a view that unit standards are easier and more suited to some ākonga than Achievement Standards. A more pressing consideration for Tourism is the Reform of Vocational Education (RoVE). Policy work will need to be done to determine the relationship between Tourism as an Achievement Standard subject, and Workforce Development Council (WDC) unit standards designed to credential learning in tourism. At this stage, it is not anticipated that this work will lead to significant delays in delivering a Tourism subject.

Māori Studies - deferred

²¹ Interest in the development of Tourism as an NCEA AS subject can be evidenced by the current engagement of ākonga at the unit standard level. In 2020 alone, there were nearly 45,000 entries in the unit standards which support learning in this discipline across Levels 1-3.

The Ministry's final advice is not to include new subject Māori Studies on the NCEA Level 2 and 3 Subject List.

Māori Studies teaching and learning is currently supported by Field Māori unit standards, which are owned by NZQA. Because we believe it could benefit from Achievement Standards to bring it into alignment with other NCEA subjects, and to ensure that we can explore UE credentialing for learners who study this subject, we included it on the provisional subject list. We described the new Māori Studies subject as one in which ākonga would explore whānau, hapū, and iwi narratives from the perspectives of these groups, through a variety of media (oral, written, etc) and across time. We also noted that the new subject would need to be developed carefully to ensure its learning and assessment are distinct from those of other subjects.

During public engagement we heard overwhelming support for a Māori Studies subject. While this is heartening, we nevertheless recommend deferring it in order to best reflect Change 2 of the NCEA Change Package *Mana ōrite mo te mātauranga Māori*, which commits us to weaving mātauranga Māori throughout all subjects. More design work needs to be completed prior to considering its development to establish where a Māori Studies subject would fit within the Social Sciences specifically, and within NCEA more broadly. Deferral will provide an opportunity for the significant learning derived from mātauranga Māori, which would form the basis of Māori Studies, to be used first to enrich the existing subjects within the Social Sciences. We believe that once other NZC subjects have been developed, the Ministry will be better placed to confirm what significant learning remains to be covered in a standalone Māori Studies subject, with its own discrete body of knowledge and clear subject boundaries.

Technology

The Ministry's recommendations for the final subject list include the following changes to the Technology Learning Area:

1. Seeking alignment between Materials Technologies and the Waihangā Ara Rau Construction and Infrastructure WDC
2. Refocusing Processing Technology as Processing and Systems Technologies to include technological systems and manufacturing, which supports this subject to be more relevant and useful for schools.
3. Renaming Computational Thinking as Computer Science
4. Renaming Designing and Developing Digital Outcomes as Digital Technologies

Technology is the youngest Learning Area in the NZC and was added in 1995 to replace 'technical education'. As a discipline, Technology consists of a process ('the technological process') that can be applied to a variety of contexts. It is intervention by design. While different skills and techniques may be needed in the application of the process, to reflect the distinctions which exist between and across these contexts, the technological process itself is typically consistent and generic. Likewise, assessment of student progression across NCEA Levels 1-3 was intended to be more or less context-free, and based instead on the complexity of the problem chosen and the activities undertaken to arrive at a solution. In 2002, an existing subject in schools, Design — Graphic Communication — which did not sit within the Technology curriculum was placed in the Learning Area for NCEA development purposes. This subject became Design and Visual Communication (DVC), and its place within the Technology Learning Area has been clarified over time.

As a Learning Area, therefore, technology was envisaged as multi- and inter-disciplinary, with three fundamental strands: the nature of technology, technological knowledge, and technological practice. These strands should inform the contexts through which students explore technology:

- Designing and developing materials outcomes
- Designing and developing processed outcomes
- Design and visual communication
- Computational thinking for digital technologies
- Designing and developing digital outcomes

Ideally, then, students studying technology would engage with all these disciplines across their multi-year programmes, which begin with general, foundational learning in Years 9 and 10. Specialisation in one or more technology disciplines is possible from Year 12 onwards.

Technology is currently supported by five matrices comprising 41 standards and 174 credits at level 2, and 37 standards and 169 credits at level 3. Within the matrix are standards related to the technology generic strands (technological practice, technological knowledge, and nature of technology), and the five technological areas (materials outcomes, processed outcomes, design and visual communication, computational thinking, and digital outcomes). While intended to cater to more specialised technology pathways, the specialist categories of technological knowledge and skills, as an expansion of the generic Technology matrix, have resulted in some courses that are overly focused on, or determined by, a prescribed subject context (textiles, food, and so forth). These may actually restrict students' pathways into further study or post-school pathways as the course content, methods, and techniques applied do not always align to tertiary or industry practice. There are concerns that the existing technology Achievement Standards promote over-specialisation, rather than a deep exploration of the significant learning in Technology, which is procedural and conceptual as well as applied.

Many schools use Standards from across these matrices to deliver tailored courses to students (e.g., 'Hard Materials', 'Textiles Technology', or 'Food Technology'). These courses reflect traditional

pathways to further industry study and therefore have a strong focus on developing technical skills rather than focusing on the technological process. However, in today's world, industry standards are set by standard-setting bodies (these will be the Workforce Development Councils) and these industry standards can also count towards gaining NCEA. Achievement Standards should not duplicate these. Furthermore, Standard usage data also shows that outside of Design and Visual Communications and Digital Technologies there is very little consistency in which standards are used from the Technology Learning Area. In many cases, this reflects individualised learning programmes, assembled from the large number of standards available. However, there is also a substantive risk that technology students can take courses which exclude significant learning, particularly the highly conceptual content contained in the externally assessed standards, which can result in weakened pathways to further education and employment.

With regards to the NCEA Change Package, then, the Technology Learning Area in its current state presents significant issues — for example, it is already divided into 4 specialist subjects, and yet three of these have more than 30 credits at Levels 2 and 3. Reducing from 30 or more credits to 20 may result in the loss of significant learning. The large number of standards in existence at each level and the combination of generic standards with discipline-specific standards has resulted in a fragmented assessment picture and facilitated the avoidance of both external assessment and engagement with the more conceptual aspects of the curriculum.

Furthermore, Technology is not seen as having parity of esteem with other Learning Areas and subjects in terms of the available UE pathways and the structure of these pathways. Its relationship to engineering offers one example. While schools, kaiako, and whānau often encourage students who are interested in pursuing an engineering pathway through tertiary education to prioritise science and mathematics subjects for their NCEA, technology subjects could be seen as an equally suitable foundation for engineering. We acknowledge that there is likely to be some push from the technology sector to split the matrix into four or more specialist subjects: senior secondary technology departments also deliver programmes such as BCATs, Manufacturing, and Hospitality, and the infrastructure costs for technology subjects tend to be higher than those for other Learning Areas. Therefore, new subjects, or the removal of existing subjects in this area, could create significant financial burdens for schools and risk increasing inequality within and between student groups.

Materials Technologies (Materials Technology) – Final subject list recommendations

The Ministry's final advice is to include Materials Technologies on the NCEA Level 2 and 3 Subject List.

Materials Technologies — Level 2	External Credits	Internal Credits	Total Credits
Support currently available	0 (0)	30 (7)	30 (7)
How support changes (Final subject list)	10 (2)	10 (2)	20 (4)

Materials Technologies — Level 3	External Credits	Internal Credits	Total Credits
Support currently available	0 (0)	32 (7)	32 (7)
How support changes (Final subject list)	10 (2)	10 (2)	20 (4)

In this subject, students develop knowledge and skills that enable them to form, transform, and work with, resistant materials, textiles, and fashion. Currently, and as it is called by NZQA, Construction and Mechanical Technologies only has internal Achievement Standards. The standards are used to teach subjects as diverse as textiles (soft materials), metalwork, and woodwork (hard materials). Consistent with our approach to the provisional subject list, we recommend redeveloping this subject with a full suite of Achievement Standards, and suggest renaming it Materials Technologies to better reflect its coverage of hard, soft, and mixed materials.

Processing and Systems Technologies (Processing Technology) - Final subject list recommendations

The Ministry's final advice is to include Processing and Systems Technologies on the NCEA Level 2 and 3 Subject List.

Processing and Systems Technologies — Level 2	External Credits	Internal Credits	Total Credits
Support currently available	0 (0)	12 (3)	12 (3)
How support changes (Final subject list)	10 (2)	10 (2)	20 (4)

Processing and Systems Technologies — Level 3	External Credits	Internal Credits	Total Credits
Support currently available	0 (0)	10 (2)	10 (2)
How support changes (Final subject list)	10 (2)	10 (2)	20 (4)

In this subject, students develop knowledge of the materials and ingredients used to formulate food, chemical, and biotechnological products. Currently, Processing Technology does not have a complete suite of Achievement Standards, nor does it have any external standards. Delivery of this subject, and credentialing towards UE, rely therefore on combining its Achievement Standards with those from Generic Technology. Currently only one Processing Technology standard is widely used - in combination with Home Economics standards. Consistent with our approach to the provisional subject list, we recommend redeveloping this subject with a full suite of Achievement Standards. We also recommend refocusing Processing Technology as Processing and Systems Technologies to include technological systems and manufacturing, which supports this subject to be more relevant and useful for schools.

Design and Visual Communication - Final subject list recommendations

The Ministry's final advice is to include Design and Visual Communication on the NCEA Level 2 and 3 Subject List.

DVC — Level 2	External Credits	Internal Credits	Total Credits
Support currently available	10 (3)	19 (4)	29 (7)
How support changes (Final subject list)	10 (2)	10 (2)	20 (4)

DVC — Level 3	External Credits	Internal Credits	Total Credits
Support currently available	10 (2)	18 (3)	28 (5)
How support changes (Final subject list)	10 (2)	10 (2)	20 (4)

Design and Visual Communication (DVC) consists of two distinct, but inextricably linked, disciplines. Design encompasses the ideation, exploration, development, and production of design ideas into workable outcomes that serve a specific purpose, provide innovative solutions, and are informed by design heritage. Visual communication addresses how design ideas and outcomes are presented in ways appropriate to the viewer. Design ideas and outcomes are expressed in a manner that gives life to the learner's thoughts, allowing for engagement, feedback, and collaboration.

Our final recommendation for this subject remains unchanged from the provisional subject list. This means that DVC will continue as one subject, which is focused on design thinking, at both Levels 2 and 3. Foundational learning for DVC is provided at NCEA Level 1 by DVC, with further opportunities to specialise and deepen knowledge and skills beginning at Levels 2 and 3. DVC offers pathways through to product, spatial, and architectural design.

Digital Technologies - Final subject list recommendations

The Ministry's final advice is to include two digital technologies subjects on the NCEA Level 2 and 3 Subject List.

Digital Technologies — Level 2	External Credits	Internal Credits	Total Credits
Support currently available	6 (2)	39 (8)	45 (10)
How support changes (Final subject list)	10 (2)	10 (2)	20 (4)

Digital Technologies — Level 3	External Credits	Internal Credits	Total Credits
Support currently available	6 (2)	39 (8)	45 (10)
How support changes (Final subject list)	10 (2)	10 (2)	20 (4)

Computer Science — Level 2	External Credits	Internal Credits	Total Credits
Support currently available	0 (0)	0 (0)	0 (0)
How support changes (Final subject list)	10 (2)	10 (2)	20 (4)

Computer Science — Level 3	External Credits	Internal Credits	Total Credits
Support currently available	0 (0)	0 (0)	0 (0)
How support changes (Final subject list)	10 (2)	10 (2)	20 (4)

On the provisional subject list, we recommended two Digital Technologies subjects, instead of the existing one subject, which has a large assessment matrix. We noted that there are distinct bodies of knowledge for each of the two provisional subjects to cover. The two provisional subjects were:

- Designing and Developing Digital Outcomes ('Digital Outcomes'), which would cover the design and production of fit-for-purpose outcomes and sits comfortably within the existing big ideas of Technology; and
- Computational Thinking, which would draw on the established body of knowledge underpinning Computer Science and has pathways to tertiary programmes and software engineering. This subject also supports students critical-thinking and problem-solving abilities.

Following public engagement, in which we heard overwhelmingly positive support for two digital technologies subjects, our final recommendation to the Minister was that two subjects be developed, albeit with different names.

This is because the one recurrent criticism we heard during engagement was regarding the provisional subject names, which respondents felt were unwieldy, unfit for purpose, and in need of further alignment to student pathways. Our final recommendations for what the two subjects should be called, therefore, are: Digital Technologies (Designing and Developing Digital Outcomes) and Computer Science (Computational Thinking).

Further consideration — we also engaged on a three-subject option for Technology

An alternative that we proposed on the provisional subject list was to support only three subjects: Design in Technology (aligned to DVC), Development in Technology (incorporating materials, processing, and digital outcomes), and Digital Technology (focused on computational thinking). To ensure deep and specialised learning at Levels 2 and 3, the Achievement Standards for each of the three subjects would have needed to cover, and weave together, all strands of the technology curriculum: the Nature of Technology (to support technological literacy), the concepts underpinning Technological Knowledge, which include broad-based technological know-how, and Technological Practice.

In Technology, a reduction in subjects might have improved opportunities for specialisation by making the Learning Area more robust. It would also have complemented future development of skills standards

by the new Workforce Development Councils (WDCs). As argued by the Royal Society Te Apārangi expert panel, and accepted by the Ministry, a more focussed and well-resourced Development in Technology subject would likely improve opportunities for specialisation by creating a more coherent framework for courses to be built around, and provide a clear signal that specialised vocational learning is best served through coherent packages of industry skills standards rather than generic technology Achievement Standards.

Interdisciplinary learning, across a variety of contexts (materials, techniques, and processes) is beneficial to students in all Learning Areas. Development in Technology would have encouraged deep and transferable learning opportunities in diverse contexts. Indeed, this proposal spoke to the need for technological practice to be led by a need, issue, or opportunity, rather than being determined by the material or technique itself. In the proposed subject, students would have developed fit-for-purpose products, artefacts, devices, or outcomes. They would also have demonstrated their ability to access and employ relevant domain-specific technological knowledge which could be aligned to their preferred context (soft materials, hard materials, or food processing).

Of course, this Development in Technology subject would also have represented a consolidation of what is currently available for delivery — Construction and Mechanical Technologies, Processing Technology, and Generic Technology — in schools and kura. This might be acceptable if specialisation in Technology is more about promoting depth and breadth of disciplinary literacy, than offering overly narrow subjects. Where we differed from the Royal Society Te Apārangi, however, is in the view that one Development in Technology subject would provide sufficient breadth within 20 credits to cover all the technological areas supported by the NZC. This has led us to retain our initial proposal for two subjects in this area: Materials Technologies, and Processing and Systems Technologies. The sector and wider public also opposed the three-subject option.



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