



Confirming the NCEA Level 2 and 3 Subject List for the *NZC*

Technical Report

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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 Provisional NZC subject list for NCEA Levels 2 and 3, and summarises the decision-making process and rationale behind these. The provisional 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.

Purpose

1. Following a public engagement process, the Ministry of Education (supported by NZQA) will provide advice to the Government so the *NZC* Level 2 and 3 subject list can be finalised. Once finalised, development work for any new subjects can commence. The Standards for any subject not included on the final list will be allowed to remain and expire as per current rules.
2. This report complements, and should be read in conjunction with, *Te Marautanga o Aotearoa* (*TMoA*) Levels 1-3 subject list Technical Report. We know that kura and kaiako want to see these lists together and understand the relationship between them, as well as with others in English medium.
3. A final Technical Report will also be produced following public engagement.
 - Part 1 of this report outlines the policy context for the proposed *NZC* subject list at NCEA Levels 2 and 3 in more detail.
 - Part 2 presents the recommended provisional subject list, and discusses the relevant data and other information for each *NZC* subject to support these recommendations.

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

Specialisation

1. The make-up of the 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.

Draft 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 drafted a list of principles. These draft principles form the criteria for a specialised, and therefore viable, Level 2 and 3 subject. The principles are:
 - that the subject represents a discrete and coherent body of knowledge, derived from the NZC or 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 standard- and resource-creation, exam-setting and moderation processes;
 - 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 draft 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 standards means that every subject developed through the RAS will have four standards totalling 20 credits. Two of these standards will be assessed internally, while the remaining two will be externally assessed. 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 51 *NZC* groups of standards and 10 *TMoA* groups of standards, to which we commonly refer as 'subjects'. These groupings are based on divisions within the current AS matrices and on the division of 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 within the matrix. 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 type 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 New Zealand curriculum. However, 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 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*, although this is no longer bound by the Learning Objectives in the back half of the *NZC*.

13. This definition of a subject is however tempered by the interactions between and amongst subjects, particularly those derived from the same LA 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 basic 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 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 be consistent with the principle statements contained in the *New Zealand Curriculum*. The following table considers the three most relevant changes to the Level 2 and 3 subject list and what they mean 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 weaved 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 credibly credentialled. • The subject list should not undermine fewer, larger 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 better signal pathways. Where subjects do not show clear pathways as a result of how the subject is formulated or are otherwise underutilised, there is an opportunity to repackage that learning 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 LA 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 LA currently 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 not fit for purpose or meet the definition of a subject.
- Add new subjects to support better pathways or improved access to mātauranga Māori should be balanced against practical considerations and whether that support is better served through more strongly weaving through existing subjects.
- Show how specialist subjects at Levels 2 and 3 align with the new broad and foundational Level 1.

The Opportunity

The Level 2 and 3 subject list will provide a comprehensive suite of learning across NCEA Levels 2 and 3. They will build on and complement the broad, foundational learning offered at NCEA Level 1, and offer further opportunities for ākonga to specialise and deepen their knowledge and skills in the Senior Secondary curriculum.

The decision to determine subjects formally¹ does not signal any change to how teachers and schools use the AS available to design courses for their local school curriculum. A senior secondary course may, for example, continue to include US credits that count towards NCEA, as well as using the new AS that will be developed through the RAS.

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. The new Standards will be deliberately written to reflect the curriculum entitlement of important learning ('Significant Learning') in each subject within each NZC LA. 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 the LA.

All foundational learning, disciplinary knowledge, Big Ideas, and the essence of each LA derived from the NZC are available through a subject at NCEA Level 1 and can be progressed to basic factual and/or operational knowledge of a field of study for Level 2. For Level 3, there needs to be a demonstration of some operational and theoretical knowledge in a field of study.

¹ 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 — meaning that they form part of a parallel curriculum, and counting them individually may be inappropriate.

Part 2: Provisional Subject List

We recommend 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 and 3 Subjects	Provisional Level 2 and 3 Subjects
Te Reo Māori	Te Reo Māori	Te Reo Māori
English	English	English
The Arts	Dance	Dance
	Drama	Drama
	Music	Music Creation [†]
		Music Representation [†]
	Design	Design
	Photography	Photography and Film [†]
	Painting	Visual Arts ^{* †}
	Printmaking	
	Sculpture	
	Art History	Art History
	--	Te Ao Haka
	--	Mau Rākau ^{^*†}
	--	Whakairo ^{^*†^}
	--	Raranga ^{*†}
Health and Physical Education	Physical Education	Physical Education
		Outdoor Education [*]
	Home Economics	Food and Nutrition [†]
	Health	Health
		Whaiora ^{*†}
Learning Languages	Cook Islands Māori	Cook Islands Māori
	--	English as a Second Language ^{*†}
	French	French
	German	German
	Japanese	Japanese
	Korean	Korean
	Lea Faka-Tonga	Lea Faka-Tonga
	Mandarin	Mandarin
	Gagana Sāmoa	Gagana Sāmoa
	Spanish	Spanish
	NZ Sign Language	NZ Sign Language
	--	Comparative Language [†]
	--	Gagana Tokelau [*]
	--	Vagahau Niue [*]

Mathematics and Statistics	Mathematics and Statistics	Mathematics
		Statistics
		Applied Mathematics (Level 3 only)*†
Science	Biology	Biology
	Chemistry	Chemistry
	Earth and Space Science	Earth and Space Science
	Physics	Physics
	--	Science*†
	Agricultural and Horticultural Science	Agricultural and Horticultural Science
Social Sciences	Religious Studies	Religious Studies
	Classical Studies	Classical Studies
	--	Pacific Studies*†
	--	Māori Studies*†
	Social Studies	People and Societies†
	Psychology	Psychology
	Media Studies	Media Studies
	History	History
	Business Studies (with Agribusiness)	Business Studies
		Agribusiness*
	Accounting	Accounting
	Economics	Economics
	Geography	Geography
	--	Tourism*
	Education for Sustainability	Environments and Societies†
Technology	Design and Visual Communication	Design and Visual Communication
	Digital Technologies	Designing and Developing Digital Outcomes†
		Computational Thinking†
	Construction and Mechanical Technologies	Materials Technology
	Processing Technologies	Processing Technology
	Generic Technology	--
Totals	51	62

Table 1: Comparison between Current Level 2 and 3 Subjects, and Provisional Level 2 and 3 Subjects.

^ To be developed in either TMOA or NZC

* New subject

† Provisional name

NCEA Level 2	External Credits (AS)	Internal Credits (AS)	Total Credits (AS)
Support currently available	472 (99)	921 (218)	1393 (317)
How support changes (@62 subjects)	620 (124)	620 (124)	1240 (248)
Change	+148 (+25)	-301 (-94)	-153 (-69)
How support changes (@55 subjects)	550 (110)	550 (110)	1100 (220)
Change	+78 (+11)	-371 (-108)	-293 (-97)

NCEA Level 3	External Credits (AS)	Internal Credits (AS)	Total Credits (AS)
Support currently available	509 (101)	915 (204)	1424 (305)
How support changes (@62 subjects)	620 (124)	620 (124)	1240 (248)
Change	+111 (+23)	-295 (-80)	-184 (-57)
How support changes (@55 subjects)	550 (110)	550 (110)	1100 (220)
Change	+41 (+9)	-365 (-94)	-324 (-85)

Table 2: Comparison between current totals for Credit and Achievement Standard support at Levels 2 and 3, and how these totals would change with the implementation and full support of 62 Level 2 and 3 Subjects.

<u>Learning Area</u>	<u>Final Level 1 Subjects</u>	<u>Provisional Level 2 and 3 Subjects</u>
Te Reo Māori	Te Reo Māori	Te Reo Māori
English	English	English
The Arts	Dance	Dance
	Drama	Drama
	Music	Music Creation
		Music Representation
	Visual Arts	Design
		Photography and Film
		Visual Arts
	--	Art History
	Te Ao Haka	Te Ao Haka
	--	Mau Rākau
Health and Physical Education	Physical Education	Physical Education
		Outdoor Education
	Health Education (with Home Economics)	Food and Nutrition
		Health
Learning Languages	Cook Islands Māori French -- German Japanese Korean Lea Faka-Tonga Mandarin Samoan Spanish NZ Sign Language (Gagana Tokelau) (Vagahau Niue) --	Whakairo
		Raranga
		Physical Education
		Outdoor Education
		Food and Nutrition
		Health
		Whaiaora
		Cook Islands Māori
		French
		English as a Second Language
		German
		Japanese
		Korean
		Lea Faka-Tonga
		Mandarin
		Samoan
		Spanish
		NZ Sign Language
		Gagana Tokelau
		Vagahau Niue
		Comparative Language
Mathematics and Statistics	Mathematics and Statistics	Mathematics
		Statistics
		Applied Mathematics (Level 3 only) ²
Science	Science	Science
	Chemistry and Biology	Biology
		Chemistry

² Provisional subject name for a Computer-oriented mathematics subject.

	Physics, Earth, and Space Science	Earth and Space Science
		Physics
	Agricultural and Horticultural Science	Agricultural and Horticultural Science
Social Sciences	Religious Studies	Religious Studies
	--	Classical Studies
	Social Studies	Pacific Studies
		Māori Studies
		People and Societies
		Psychology
	History	Media Studies
		History
	Commerce	Business Studies
		Agribusiness
		Accounting
		Economics
	Geography	Geography
		Tourism
		Environments and Society ³
Technology	Materials and Processing Technology	Materials Technology
		Processing Technology
	Digital Technologies	Designing and Developing Digital Outcomes
		Computational Thinking
	Design and Visual Communication	Design and Visual Communication
Totals	32⁴	62

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

³ Proposed new name

⁴ With Gagana Tokelau and Vagahau Niue, the total is 34; however, these subjects are Budget sensitive, and will likely follow a different process.

Current and Proposed 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.

We do not propose any 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. We place Te Reo Māori outside the Learning Languages LA in order to align with parity objectives for this language. In this regard Te Reo Māori mirrors both second-language subjects within the Learning Languages LA, and the first-language subject English within the English LA.

The Ministry will however develop Te Reo Māori using a more specialised approach compared to that for other NZC subjects. Specifically, our Ākonga Maori team is developing this subject alongside Te Reo Rangatira (the parallel subject within *TMoA*). This will enable cross-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.

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

English

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.

Proposed approach (current recommendation)

The English LA currently contains only one subject. The Ministry recommends that we 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 and other English-rich subjects (History, Social Studies, Geography). Further opportunities to specialise and deepen knowledge and skills in English would take place within this single subject at Levels 2 and 3.

The analysis from our English SEG (Subject Expert Group) shows that keeping one subject is both possible (in terms of the NCEA Change Package) and desirable (for equity, coherence, and pathways). They are working to ensure that the design of English AS across all NCEA Levels will accommodate a diverse range of texts, modes, and media. They are confident that these AS can cover all the Significant Learning available through the current AS. While literature in English can be taught and assessed using these new AS, 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.

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

Further consideration — we also considered developing an additional English subject

Building one coherent matrix of four AS 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 AS at Levels 2 and 3. Further, a number of these AS 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 is one possibility, but the non-literature focussed English subject may be of particular benefit to students likely to leave school at 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.⁵

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 US. These practices often lead to less coherent course structures and a lack of participation in external assessments. Reorganising the English LA 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. All these factors were considered and the recommended approach was selected as most appropriate.

⁵ 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

There are several proposed changes to subjects within The Arts:

1. Music as two subjects at Levels 2 and 3.
2. Consolidation of some of the Visual Arts subjects.
3. Bespoke resource development and PLD for Te Ao Haka, a new AS subject across Levels 1-3 (already underway).
4. Three new subjects: Whakairo, Raranga, and Mau Rākau. At this stage, these may be delivered either within either *NZC* and *TMoA*, or through an integrated approach, like that taken with Te Ao Haka.

Art History

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. We continue to recommend including this subject at NCEA Levels 2 and 3. Foundational learning for this subject is provided across NCEA Level 1 History, Religious Studies, English, Visual Arts, and Social Studies, with further opportunities to specialise and deepen knowledge and skills beginning at Level 2 with Art History.

Feedback during the Level 1 subject list feedback process confirmed that Art History draws on a range of LAs, particularly the Social Sciences. Indeed, because the majority of the subjects Art History draws on are located in the Social Sciences LA, we have considered whether it should be relocated from the Arts LA to the Social Sciences LA. 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 do not propose moving it from The Arts LA at this time. Nor do we 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).

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

Art History ⁶ - Level 3	External Credits	Internal Credits	Total Credits
Support currently available	12 (3)	16 (4)	28 (7)
How support changes (Provisional subject list)	10 (2)	10 (2)	20 (4)

Dance

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. We do not propose any changes to Dance 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).

⁶ Opportunity to consider whether this fits within the Social Sciences LA.

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

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

Drama

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. We do not propose any changes to Drama 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).

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

Music

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.

Proposed approach (current recommendation)

The Ministry recommends bringing the subject(s) supported into line with widespread practice in senior secondary environments where the single subject, Music, is commonly taught as — Music Studies, and Making Music (Performance). The title of the former is misleading, though, since schools tend to split their senior Music programmes either by genre, i.e. one classical course and one contemporary course (including industry US), or by discipline, i.e. one performance class and one composition class. The most underused AS relate to Musicology. Our SEG advises 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.

This recommended approach would also support further opportunities to specialise and deepen knowledge and skills at NCEA Levels 2 and 3, in line with the NCEA Change Package. As noted, Music at Level 3 already has many AS and a large matrix. Care will need to be taken to ensure that both Music subjects support a wide variety of music — from diverse cultures, genres, etc. Too often music theory means 'western music theory', while performance means 'playing a western classical or jazz instrument'. Support for electronic music-making or instruments that are of cultural value in the Pacific would equally be important, but could hopefully be included by design. Having

two matrices from which to draw also opens up the possibility that schools will default to internal-only assessment. This would run counter to the aims of the NCEA Change Package, but may be an unavoidable risk.

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 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.

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

Further consideration — we also considered splitting the subject at Level 3

Similar to our recommended approach, we also considered splitting Music into Music Making and Music Studies at Level 3, instead of Level 2, where the current single-subject, dual-matrix, model appears particularly unwieldy. On balance, however, we have chosen to go with the recommended approach for the provisional list.

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.

Proposed approach (current recommendation)

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, however, 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 the other hand, student numbers in the discipline as a whole are small, and those taking more than one visual art subject even smaller. Where subjects such as Painting Printmaking, and Sculpture have low student numbers, steadily declining student numbers, or are limited to a certain region (e.g. Auckland or Otago) or type of school (e.g. large urban or small rural), this causes some concern about the sustainability of the subject. Yet demand and sector capability issues are not point-in-time assessments, as this criterion includes looking at certainty over the medium-term. Supporting fewer AS for Visual Arts at Levels 2 and 3 is then a complicated decision. It may mean that students who study more than one subject within this discipline are disadvantaged (fewer standards to gain credits from, exclusions between standards).

On balance, however, the Ministry recommends that these three underused Visual Arts subjects are combined and taught as one, 'Visual Arts'. This would fit with the current AS model for these subjects, where differentiation takes place at the level of medium and task, and also dovetails with the need to future proof the Standards. Design and Photography, popular subjects with strong pathways, would be developed as standalone subjects. We do not propose any changes to Design 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). For Photography, we recommend a new title. The provisional title, Photography and Film, better reflects the subject's coverage of both moving and still image photography.

Some aspects of this recommendation do not easily align with the NCEA Change Package, since combining three subjects into one seems to conflict with the objective of having further opportunities to specialise and deepen knowledge and skills at NCEA Levels 2 and 3. Indeed, some in the sector may feel that the current arrangement of identical AS and matrices does not adequately recognise the differences between and intricacies of these subjects, especially at NCEA Levels 2 and 3. But, as noted above, opportunities to specialise should not be reduced to mere numerical increases in subject options, and underuse of well-established AS cannot be ignored.

Design

In Design, students learn the conventions and skills of design tasks, including how to engage with a client brief, develop their practices and portfolio, and use technical skills and tools to create successful visual design processes and outcomes.

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

Photography and Film

Photography and Film, as a subject derived from the Arts LA, 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.

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

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

Visual Arts

In Visual Arts, students explore, refine, and communicate their own artistic ideas by selecting one or more visual arts media through which to express identity, culture, ethnicity, ideas, feelings, moods, beliefs, political viewpoints, and personal perspectives. Through engaging in this subject, students learn how to discern, participate in, and celebrate their own and others' aesthetic worlds.

Visual Arts - Level 2	External Credits	Internal Credits	Total Credits
Support currently available	36 (3)	48 (12)	84 (15)
How support changes (Provisional subject list)	10 (2)	10 (2)	20 (4)

Visual Arts - Level 3	External Credits	Internal Credits	Total Credits
Support currently available	42 (3)	48 (12)	90 (15)
How support changes (Provisional subject list)	10 (2)	10 (2)	20 (4)

Further consideration — we also considered maintaining the status quo of multiple generic subjects

Currently, the five NCEA visual arts subjects are each supported by 4 internal AS and 1 external AS at both Levels 2 and 3. These Standards are almost identical for each of the five subjects, with only the medium (photography, sculpture etc.) differing in the respective Standard's title. This would entail the preservation of this arrangement across Levels 2 and 3, with the five NCEA visual arts subjects supported as standalone subjects, but sharing — as they currently do — AS design, assessment matrices etc. On balance, however, we have chosen to go with the recommended approach for the provisional list.

Te Ao Haka

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 will be trialled in schools and kura this year, across NCEA Levels 1-3. We recommend supporting this subject across all levels of the senior secondary curriculum.

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

Mau Rākau

Mau Rākau is a traditional Māori martial 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 US. This does not however allow them to gain University Entrance (UE) through the subject, nor does it allow for endorsement to recognise exceptional performance and demonstration of skill.

This new AS subject at NCEA Levels 2 and 3 would give ākonga the opportunity to study and engage with the ancestral practices, values, and protocols of the warrior. They will gain specialisation in Māori culture and traditions, gain new skills, and participate in embodied learning.

New subject delivery timing: the subject would be scoped before development could be confirmed. This would be no earlier than from 2022. This subject will not necessarily be developed within *TMoA*. Further options exist such as developing it as a *NZC* subject, similar to the process the Ministry followed for Te Ao Haka.

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

Raranga

In Raranga, ākonga will 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.

New subject delivery timing: the subject would be scoped before its development could be confirmed. This would be no earlier than from 2022. This subject will not necessarily be developed within *TMoA*. Further options exist such as developing it as a *NZC* subject, similar to the process the Ministry followed for Te Ao Haka.

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

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

Whakairo

In Whakairo, ākonga will learn about the history and art of Māori and other indigenous carving practices, gaining appreciation for the rich tikanga and whakapapa of this discipline.

New subject delivery timing: the subject would be scoped before its development could be confirmed. This would be no earlier than from 2022. This subject will not necessarily be developed within *TMoA*. Further options exist such as developing it as a *NZC* subject, similar to the process the Ministry followed for Te Ao Haka.

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

Health and Physical Education

At NCEA Levels 2 and 3, three subjects in this LA are currently supported by AS: 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 propose two additions to the Health and Physical Education LA: Outdoor Education and Whaiora. This latter, however, is in early development stages and will need a confirmed development timeline.

Health

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 Education (with Home Economics), 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. We do not propose any changes to Health 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).

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

Home Economics (Food and Nutrition)

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 with (Home Economics), which is likely to be retitled.

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'.

Proposed approach (current recommendation)

The Ministry recommends modernising the title of this subject. The provisional title is Food and Nutrition. This is because 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 AS for the subject at Level 2 support this — 5 out of 6 include 'food' and/or 'nutrition' in their titles, while the remaining AS mentions well-being (covered in Health). At Level 3, all AS 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.

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

Further consideration — we also considered removing this subject

Given the concerns noted above, one approach we considered was discontinuing standalone support for Home Economics, and weaving its significant learning into Processing Technology and Health. Theoretically, it would be possible for these subjects to accommodate and cater to the small quantities of unique significant learning that Home Economics covers.

This alternative approach would be similar to our decisions at Level 1, but would seem to endanger the perception that 'more specialisation at Levels 2 & 3' implied that no existing Level 2 or 3 subject would be removed. Nevertheless, the removal of Home Economics as a standalone subject still required close attention in terms of the change package. On balance, however, we have chosen to go with the recommended approach for the provisional list. If feedback on the recommended approach is not supportive, we will reconsider this matter closely.

Physical Education

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 Education (with Home Economics), as well as Chemistry and Biology, and Science.

Analysis conducted by the Ministry showed many students from at-risk backgrounds, particularly at-risk Māori and Pacific boys, were overly represented in AS derived from the Health and Physical Education LA. 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 supports a wide range of pathways. Of note will be 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. We do not propose any changes to Physical Education 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).

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

Outdoor Education

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'.⁷ 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.

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 US. With the reduction of Physical Education AS at each level to four achievement standards, it is unlikely that Outdoor Education courses will be in a position to utilise these new AS for the purposes of teaching, learning, and assessment. If the subject is forced to rely on US 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.

The Ministry recommends adding AS support for Outdoor Education, which will serve many purposes. It would for example require a clarification of Physical Education to ensure that the subject covers anatomy and physiology, as well as fostering enjoyment of physical activity. This would serve learners well, especially those who choose to take both subjects. Outdoor Education builds on foundational knowledge from NCEA Level 1 Physical Education, and Health Education (with Home Economics). At Levels 2 and 3, it fosters in-depth knowledge and opens multiple pathways post-secondary school (Sports Science, Medicine, Physiotherapy). As US already exist for Outdoor Education, it may be possible to fast-track the development of AS for this subject.

New subject delivery timing: the subject is ready for development work to commence in 2021.

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

Whaiora

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

⁷ Ministry of Education (1999) *Health and Physical Education in the New Zealand Curriculum*.

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.

New subject delivery timing: the subject would be scoped before its development could be confirmed. This would be no earlier than from 2022. This subject will not necessarily be developed within *TMoA*. Further options exist such as developing it as a *NZC* subject, similar to the process the Ministry followed for Te Ao Haka.

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

Learning Languages

At NCEA Levels 2 and 3, nine modern international languages are currently supported through AS (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. To complement the changes outlined in the NCEA Change Package (fewer, larger standards [four]; 50 per cent of the standards to be externally assessed), we propose four additions to the Learning Languages LA.

1. Add Comparative Language (and develop AS to support this subject)
2. Add English as a Second Language (and develop AS to support this subject)
3. Add Gagana Tokelau (and develop AS to support this subject)
4. Add Vagahau Niue (and develop AS to support this subject)

Each of these subjects will be addressed below. By adding support for three more languages, the Ministry will bring the total number of modern languages supported at NCEA Levels 1-3 to thirteen. As announced in 2020, Latin will no longer be offered as a separate subject at any Level. Likewise, Bahasa Indonesian, 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.

We note that during consultation on the Level 1 Subject List, feedback was received suggesting that further language subjects should be added, including Arabic and Hindi. These two languages will require consideration at a later date.

A further issue to consider is the unique needs of heritage speakers and second-language learners. The AS in the Learning Languages LA 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.⁸ 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 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 precludes development of separate first and second-language subjects at this time.⁹ 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.¹⁰ For example, including the wording 'second language' after each language subject on a learner's NCEA, and next to any

⁸ See especially Australia.

⁹ 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.

¹⁰ 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_small_er_cohorts_AS_Alevel.pdf)

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 continue to pose a significant challenge; however, we will work closely with NZQA to ensure that these changes are implemented. One interim solution is the development of a new subject — Comparative Language. We will investigate how languages are documented on the Record of Learning.

Existing Subjects

We do not propose any changes to the remaining nine Learning Languages subjects 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).

Cook Islands Māori — Level 2	External Credits	Internal Credits	Total Credits
Support currently available	10 (2)	14 (3)	24 (5)
How support changes (Provisional subject list)	10 (2)	10 (2)	20 (4)
Cook Islands Māori	External Credits	Internal Credits	Total Credits
Support currently available	10 (2)	14 (3)	24 (5)
How support changes (Provisional subject list)	10 (2)	10 (2)	20 (4)
French — Level 2	External Credits	Internal Credits	Total Credits
Support currently available	10 (2)	14 (3)	24 (5)
How support changes (Provisional 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 (Provisional 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 (Provisional 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 (Provisional 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 (Provisional 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 (Provisional 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 (Provisional 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 (Provisional 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 (Provisional 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 (Provisional 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 (Provisional 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 (Provisional subject list)	10 (2)	10 (2)	20 (4)

Mandarin

In 2020, the Ministry sought permission from the Minister to consult on a number of changes to the NCEA Level 1 subject list. Amongst these was the proposal to change the name of the Chinese-language learning subject to Mandarin, in order to better reflect the significant learning covered in the subject (the spoken language that ākongā learn is Pǔtōnghuà). Mandarin is the accepted English term for the common language of mainland and greater China, but it is important to maintain a clear distinction of this from Chinese since there is no single 'Chinese' language.

During public consultation on the provisional list, and the name there, no significant feedback opposing the name change was received. The new name Mandarin was included in the NCEA Level 1 subject list, which was finalised by the Minister and released in December 2020.

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

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

New Zealand Sign Language (NZSL)¹¹

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 AS for this subject were modelled on those of the other modern international languages. RAS provides the opportunity to design assessment which is more tailored to the unique demands of teaching and learning a visual language. Therefore, NZSL will undergo a bespoke process to develop Levels 1-3 in a single phase, like the process used for Te Ao Haka. It will be developed on a separate timeline to the main wave of the RAS.

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

New Subjects

The introduction of new language subjects provides a way to credential language learning for a wider range of communities. However, language subjects being offered in NCEA need to have strong student numbers and the availability of qualified teachers to ensure viability.

Comparative Language

This 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.

¹¹ As an Official Language of Aotearoa New Zealand, it is unclear whether NZSL should sit within the Learning Languages LA, which is mostly understood to be the LA for second-language subjects.

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.

New subject delivery timing: the subject would be scoped before development could be confirmed. This would be no earlier than from 2022.

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

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

English as a Second Language

English as a Second Language (ESOL) support is provided for non-English speaking background students. As a subject, ESOL assists students from a variety of non-English speaking backgrounds in the development of academic writing skills and vocabulary. It is 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 may 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 aims to be context-neutral and does not indigenise the study of English.

While support for two first-language English subjects at Levels 2 and 3 appears low, we know that there are both support and demand for an ESOL subject at these Levels. Existing English Language and English for Academic Purposes US are used to support pathways to further education and employment (the EAP standards particularly are used as preparation for further degree study).

As such, we propose to develop ESOL as an additional subject at Levels 2 and 3. Supporting a subject for second-language speakers of English at these levels would offer recognition to the diverse group of learners who participate in senior secondary education in Aotearoa New Zealand. The addition of AS to this subject, including external assessment of approximately 50 per cent of these, would allow us to consider, alongside NZQA, whether ESOL could count towards UE. Of course, the interaction of this subject with the new literacy requirements for NCEA would need to be taken into account (for instance, would learners take this subject in order to prepare for sitting the literacy US, or would they need to pass the US first).

New subject delivery timing: the subject would be scoped before development could be confirmed. This would be no earlier than from 2022.

English as a Second Language - Level 2	External Credits	Internal Credits	Total Credits
Support currently available	0 (0)	0 (0)	0 (0)
How support changes (Provisional subject list)	10 (2)	10 (2)	20 (4)

English as a Second Language — Level 3	External Credits	Internal Credits	Total Credits
Support currently available	0 (0)	0 (0)	0 (0)
How support changes (Provisional subject list)	10 (2)	10 (2)	20 (4)

Gagana Tokelau

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

The decision has been made to support the development of AS for this subject. Currently, it has no AS, US, or pathways at NCEA Levels 1-3. Unlike Niue, however, Tokelau does not currently use NCEA or its subjects. The Ministry is establishing a Readiness Expert Group to scope the delivery of the full range of supports required.

New subject delivery timing: the subject would be scoped before development could be confirmed. This would be no earlier than from 2022.

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

Vagahau Niue

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 would 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.

New subject delivery timing: the subject would be scoped before development could be confirmed. This would be no earlier than from 2022.

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

Mathematics and Statistics

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.

Proposed approach (current recommendation)

During consultation on the NCEA Level 1 subject list, 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 with Statistics and Mathematics with Calculus as two possible UE (and Scholarship) subjects. As they stand, both Mathematics with Calculus and Mathematics with Statistics have an almost complete suite of credits. The Ministry therefore recommends these as standalone subjects at Levels 2 and 3, called 'Mathematics' and 'Statistics' respectively.

Development of the separate subjects, Mathematics and Statistics, would be a straightforward process. Investing in the development of two subjects would provide the opportunity to level these more appropriately, and to avoid the streaming-by-default practices we are aware take place in many schools. Statistics at Levels 2 and 3 is a strong subject, but sometimes suffers from parity of esteem issues in schools which favour Calculus, and on account of a lack of awareness of its value to a variety of student pathways.

Developing two subjects in this LA may have a positive outcome for pathways: we know that the jump from Level 3 Mathematics with Calculus to University Mathematics has increased in recent years.

We also considered developing a third subject at 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. We are less confident in the recommendation to include Applied Mathematics and will consider feedback closely before forming our final advice.

Statistics — Level 2	External Credits	Internal Credits	Total Credits
Support currently available	4 (1)	14 (5)	18 (6)
How support changes (Provisional subject list)	10 (2)	10 (2)	20 (4)
Statistics — Level 3	External Credits	Internal Credits	Total Credits
Support currently available	4 (1)	16 (4)	20 (5)
How support changes (Provisional subject list)	10 (2)	10 (2)	20 (4)
Mathematics — Level 2	External Credits	Internal Credits	Total Credits
Support currently available	9 (2)	15 (6)	24 (8)
How support changes (Provisional subject list)	10 (2)	10 (2)	20 (4)

Mathematics — Level 3	External Credits	Internal Credits	Total Credits
Support currently available	25 (5)	15 (5)	40 (10)
How support changes (Provisional subject list)	10 (2)	10 (2)	20 (4)

Applied Mathematics

This subject would facilitate the study of synthetic languages, truth tables, logic, algebra, and more. It is intended that this subject provides an equal academic challenge for students as Mathematics and Statistics.

A third subject in the Mathematics and Statistics LA is only proposed at NCEA Level 3. At this level, ākonga studying a Mathematics subject are often doing so to support a tertiary pathway, which means the increased specialisation of Applied Mathematics is likely to more appropriate to their needs.

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

Science

Biology

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 Science, Horticultural Science, Chemistry, Science, Education for Sustainability, and Mathematics with Statistics to impart in learners an in-depth knowledge of biology's most important themes and skills.

At this time, we do not propose any changes to Biology 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).

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

Chemistry

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 Level 2/3, Chemistry offers further opportunities to specialise and deepen knowledge and skills, and complements learning in Biology, Science, Mathematics with Statistics, and Mathematics with Calculus to impart learners with an in-depth knowledge of chemistry's most important themes and skills.

At this time, we do not propose any changes to Chemistry 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).

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

Earth and Space Science

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 Earth, Physics 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 (Mathematics with Statistics, Mathematics with Calculus, Science, and Physics) to impart learners with an in-depth knowledge of Earth and Space Science's most important themes and skills. At this time, we do not propose any changes to Earth and Space Science 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).

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

Physics

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 Earth, Physics and Space Science. At NCEA Levels 2 and 3, Physics builds on this learning and complements the study of other specialist subjects (Biology, Chemistry, Mathematics with Statistics, Mathematics with Calculus, Earth and Space Science, and Science) to impart learners with an in-depth knowledge of physics' most important themes and skills. At this time, we do not propose any changes to Physics 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).

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

Agricultural and Horticultural Science

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 AS 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.

Proposed approach (current recommendation)

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 AS 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 AS, totalling 24 credits, are available. On the other hand, there is a risk that reducing the large number of existing AS 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. Agricultural and Horticultural Science AS 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.

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

Further consideration — we also considered creating two dedicated subjects

As noted, 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 subjects or 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? The large matrix at Level 2 tends to concretise this practice, since schools can choose to run specialised programmes using Agricultural or Horticultural AS. 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 pathway appears to be unfit for purpose.

Anecdotal evidence suggests that if we only support one subject at Levels 2 and 3, schools and kura which wish to deliver specialised Agricultural or Horticultural Science programmes will default to Unit Standards. While it is not an objective of the RAS to discourage the use of Unit Standards per se, we know that reliance on these can inhibit some pathways for learners, since US tend to be more skills-heavy, do not benefit from UE accreditation, and lack parity of esteem with AS. On the other hand, splitting the subject may mean further narrowing the pathways of ākonga through this subject. Chemistry and Biology provide strong bases for further study and work in Agriculture and Horticulture, without ruling out other options, or making transitions into other study and work pathways less viable. On balance, however, we have chosen to go with the recommended approach for the provisional list.

Agricultural Science — Level 2	External Credits	Internal Credits	Total Credits
Support currently available	12 (3)	28 (7)	40 (10)
How support changes (Provisional subject list)	10 (2)	10 (2)	20 (4)
Agricultural Science — Level 3	External Credits	Internal Credits	Total Credits
Support currently available	14 (3)	10 (2)	24 (5)
How support changes (Provisional subject list)	10 (2)	10 (2)	20 (4)
Horticultural Science — Level 2	External Credits	Internal Credits	Total Credits
Support currently available	12 (3)	28 (7)	40 (10)
How support changes (Provisional subject list)	10 (2)	10 (2)	20 (4)
Horticultural Science — Level 3	External Credits	Internal Credits	Total Credits
Support currently available	14 (3)	10 (2)	24 (5)
How support changes (Provisional subject list)	10 (2)	10 (2)	20 (4)

Science - General

Proposed approach (current recommendation)

To avoid duplication of learning from the above specialist science subjects, we recommend developing a suite of unique AS to support a general science subject at Levels 2 and 3, which would build on foundational knowledge from NCEA Level 1 Science. The subject's four big ideas would 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; 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, both through 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.

At Levels 2 and 3, students of Science will learn about what science is and how scientists work, and they will have the opportunity to engage with significant learning from across the science disciplines that relate to local, regional, and global contexts. There will be a focus on understanding different scientific approaches and methods, to support a wide range of students to engage with science and scientific literacy at higher levels. This subject is intended to complement student pathways where science literacy is useful, for example in the humanities. This subject may also complement the pathways of students wishing to specialise in a scientific discipline as the subject can help link disciplinary knowledge to wider scientific issues and conversations.

Pūtaiao (from Te Marautanga o Aotearoa) may also offer guidance for the development of this new subject, since it includes teaching and learning on the history and philosophy of science. There is also a demand for Human Biology, which could sit well within or provide a learning context for a general science subject. Given growth in health industries, and skills shortages — in nursing, aged care, vet nursing, homeopathy etc. — particularly in a post-Covid world, a general science subject may prove more necessary, and popular, than ever before.

One of the drawbacks of providing a General Science suite of Achievement Standards at Levels 2 and 3 is that it will enable 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 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. Similarly, the subject could be misused by schools to stream students.

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

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

Further consideration — we also considered not proposing General Science at Levels 2 and 3

The drawbacks of proposing a Level 2 and 3 General Science subject are covered above. We therefore also considered not proposing it as a subject. On balance, our provisional decision is that to propose the subject is justified and will support multiple science-related pathways and learning opportunities.

Social Sciences

The Social Sciences LA 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.

At NCEA Levels 2 and 3, eleven social science subjects are currently supported by AS. Beyond the changes outlined in the NCEA Change Package (fewer, larger standards [four]; 50 per cent of the standards to be externally assessed), eight of these subjects (Accounting, Classical Studies, Economics, Geography, History, Media Studies, Psychology, and Religious Studies) will remain unchanged in their overall structure.

We recommend that three subjects are revised: Business Studies (with Agribusiness), Social Studies, and Education for Sustainability.

Finally, we recommend the addition of three new subjects within the Social Sciences LA.

1. Māori Studies
2. Pacific Studies
3. Tourism

Adding AS support for three new subjects, and splitting Business Studies and Agribusiness, would bring the total number of social science subjects supported at NCEA Levels 2 and 3 to fifteen. The proposed new subjects ensure the subject list better reflects the needs of students, our commitment to support mana ōrite mo te mātauranga Māori, the Pacific, and emerging school practices. None are entirely new subjects in the strict sense, however, as all have existing US and/or are somewhat taught in senior secondary environments.

Accounting

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

We recommend 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 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.¹² 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 consultation, about the Level 1 Commerce subject, where concern was raised about students understanding of financial literacy and the importance of it.

At this time, therefore, we do not propose any changes to Classical Studies 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).

¹² 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.

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

Classical Studies

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, Social Studies, and European second-language subjects. At this time, we do not propose any changes to Classical Studies 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).

Classical Studies — Level 2	External Credits	Internal Credits	Total Credits
Support currently available	14 (3)	10 (2)	24 (5)
How support changes (Provisional subject list)	10 (2)	10 (2)	20 (4)
Classical Studies — Level 3	External Credits	Internal Credits	Total Credits
Support currently available	14 (3)	12 (2)	26 (5)
How support changes (Provisional subject list)	10 (2)	10 (2)	20 (4)

Economics

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, Business Studies, Geography, History, Psychology, Mathematics with Statistics, and Mathematics with Calculus. At this time, we do not propose any changes to Economics 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).

Economics — Level 2	External Credits	Internal Credits	Total Credits
Support currently available	12 (3)	21 (4)	30 (7)
How support changes (Provisional 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 (Provisional subject list)	10 (2)	10 (2)	20 (4)

Geography

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, Economics, History, and Social Studies. At this time, We do not propose any changes to Geography 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).

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

History

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, Māori Studies, Pacific Studies, Media Studies, Economics, History, Social Studies, and second-language subjects. At this time, we do not propose any changes to 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).

Further consideration — we also considered developing a standalone ANZH subject

Development of Phase 1 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.

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

Media Studies

Media Studies, in contradistinction to Film and Photography, sits within the Social Sciences LA. This subject involves critical thinking about, and engagement with, a variety of media. 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.

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. We do not propose any changes to Media Studies 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).

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

Psychology

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 AS. 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. We do not propose any changes to Psychology 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).

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

Religious Studies

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. We do not propose any changes to Religious Studies 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).

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

Business Studies

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. Agribusiness is defined as a course of study that integrates all the primary industries and businesses that comprise primary production. These subjects build 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, Mathematics with Statistics, Tourism, and Social Studies.

Proposed approach (current recommendation)

The Ministry recommends 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 may be appropriate. NZQA already recognises them as such, however Agribusiness lacks a complete suite of AS: at Levels 2 and 3 it only has internal assessments, which means schools have to use external AS from Business Studies to build their course offerings. The NCEA Change Package requirement of a 50:50 split between external and internal assessment will add to the robustness of Agribusiness. This approach will allow students to build on their knowledge in Level 1 subjects such as Agricultural and Horticultural Science, Commerce, and Mathematics and Statistics. And, at Level 2, learning in Agribusiness would complement that in subjects such as Business Studies, Accounting, Agricultural Science, Horticultural Science, and Economics. This specialist subject may prove particularly important for rural schools and kura.

Business Studies — Level 2	External Credits	Internal Credits	Total Credits
Support currently available	12 (3)	11 (3)	23 (6)
How support changes (Provisional 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 (Provisional subject list)	10 (2)	10 (2)	20 (4)
Agribusiness — Level 2	External Credits	Internal Credits	Total Credits
Support currently available	0 (0)	15 (4)	15 (4)
How support changes (Provisional 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 (Provisional subject list)	10 (2)	10 (2)	20 (4)

Further consideration — we also considered keeping Agribusiness and Business Studies as one subject

Business Studies and Agribusiness are currently supported by one matrix. To avoid duplication of learning, and exclusions between AS, and taking into account the support provided to Agricultural and Horticultural Science, it would be possible for schools to build a course that focuses on Agricultural in business contexts, and Business Studies in agricultural and horticultural context. This approach would align with feedback received from NZQA that for subjects with small cohorts '[a]n alternative approach is to provide opportunities for contextualising [other] more generic subjects'. On balance, however, we have chosen to go with the recommended approach for the provisional list.

	External Credits	Internal Credits	Total Credits
Business Studies — Level 2	12 (3)	11 (3)	23 (6)
Agribusiness — Level 2	0 (0)	15 (4)	15 (4)
Total support currently available	12 (3)	26 (7)	38 (10)
How support changes (Provisional subject list)	10 (2)	10 (2)	20 (4)

	External Credits	Internal Credits	Total Credits
Business Studies — Level 3	12 (3)	21 (7)	33 (7)
Agribusiness - Level 3	0 (0)	12 (3)	12 (3)
Total support currently available	12 (3)	33 (10)	45 (10)
How support changes (Provisional subject list)	10 (2)	10 (2)	20 (4)

Education for Sustainability (Environments and Societies)

In this subject, students explore the relationship between people and the environment. They learn about the environmental, social, cultural, and economic aspects of sustainability. EFS 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, EFS unfortunately continues to suffer from both low numbers and an ill-defined body of knowledge.

Proposed approach (current recommendation)

We recommend changing the name of this subject to Environments and Societies. This would 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 recommend testing this rebrand with the existing SEG and subject association. Renaming would also allow for strengthening of the subject. For example, an AS could focus on interpreting and analysing environmental data, and we could also bring to the fore the subject's links to problem solving, and social science research methods.

In this way, Environments and Societies could 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 Chemistry, Biology, Science, Economics, Geography, Mathematics with Statistics, and Social Studies.

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

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

Further consideration — we also considered discontinuing support for this subject

On the other hand, if there is an Environments and Societies subject (or Environmental Science) and also a General Science subject, these two subjects would potentially overlap (duplication of significant learning). and exclusions between AS. This could be managed either through controlling the scope of design or through exclusions between AS. Overlap is more likely to occur if the subject ends up with a scientific focus, in which case it may be necessary to reconsider its location in Social Sciences (e.g. it may belong in the Science LA).

Given the concerns noted above that the subject has declining student numbers, and may not contain a separate 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: General Science, 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 have decided that it is 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’s commitment to UNESCO sustainability goals.

Social Studies (People and Societies)

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 takes a flexible and inclusive understanding of the concept of ‘citizen’. This recognises the multiplicity and diversity of identities, cultures, and experiences in Aotearoa New Zealand and our connectedness with the wider world as global citizens.

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, Māori Studies, Pacific Studies, Media Studies, Economics, History, Health, Food and Nutrition, Environments and Societies, and second-language subjects.

Proposed approach (current recommendation)

There is a feeling within the sector that Social Studies suffers from a lack of esteem. In discussion with the SEG for Social Studies, who have just drafted Level 1 materials for the subject, the Ministry has decided to consult on a name change for the subject. The provisional name is 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.

People and Societies — Level 2	External Credits	Internal Credits	Total Credits
Support currently available	8 (2)	14 (3)	22 (5)
How support changes (Provisional subject list)	10 (2)	10 (2)	20 (4)
People and Societies — Level 3	External Credits	Internal Credits	Total Credits
Support currently available	8 (2)	14 (3)	22 (5)
How support changes (Provisional subject list)	10 (2)	10 (2)	20 (4)

Māori Studies

In Māori Studies, students explore whānau, hapū, and iwi narratives from the perspectives of these groups, through a variety of media (oral, written, etc) and across time. Māori Studies is currently supported by Field Māori US. We believe it needs AS to bring it into alignment with other NCEA subjects, and to ensure that we can explore UE credentialing for learners who study this subject. This subject could include knowledge and mātauranga that is currently credentialed within Field Māori US, with a focus on Māori culture and society. AS in this subject at Levels 2 and 3 would build on learning at NCEA Level 1 in History, Te Reo Māori, English, Te Ao Haka, and Geography.

At this time, the subject name is a placeholder only. This new subject would need to be developed carefully alongside *TMoA* and *NZ Histories* to ensure the learning and assessment is distinct.

New subject delivery timing: the subject would be explored before development could be started no earlier than from 2022.

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

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

Pacific Studies

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.

Proposed approach (current recommendation)

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 LA. Pacific Studies is currently supported by US. The Ministry recommends supporting the subject with AS. 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 would offer essential indigenous learning not available in other *NZC* subjects, a represents a distinct, coherent body of knowledge. AS in this subject at Levels 2 and 3 would build on learning at NCEA Level 1 in History, English, Geography, and Pacific Languages subjects. At this time, the subject name is a placeholder only.

New subject delivery timing: the subject is ready for development work to commence in 2021.

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

Tourism

This subject is designed to help meet the need for skilled and knowledgeable individuals in our rapidly diversifying 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 US only. It is an incredibly popular

course of study¹³ for senior secondary learners, but without AS it has neither academic recognition, nor can it be counted towards UE. US may be used by schools to stream students, and while many learners who take this subject may choose not to pursue a tertiary pathway, there is no reason to foreclose on this option — as the status quo does. However, we acknowledge that it may be challenging to redefine the subject into one that does not favour vocational learning and is levelled correctly to sit alongside other subjects.

Proposed approach (current recommendation)

The Ministry recommends developing Tourism as an AS subject at Levels 2 and 3. This subject will 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 would complement Level 2 and 3 Social Studies, Geography, Environments and Societies, Economics, Business Studies, Outdoor Education, Accounting, and second-language learning subjects.

New subject delivery timing: the subject is ready for development work to commence in 2021.

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

¹³ 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.

Technology

Technology is the youngest LA 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 LA for NCEA development purposes. This subject became Design and Visual Communication (DVC), and its place within the Technology LA has been clarified over time.

As a LA, 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 of learning.

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). 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.

With regards to the NCEA Change Package, therefore, the Technology LA 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 LAs 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 whanau 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 that the infrastructure costs for technology subjects tend to be higher than those for other LAs. Therefore, new subjects, or the removal of existing subjects in this area, may create significant financial burdens for schools and risk increasing inequality within and between student groups.

Proposed approach (current recommendation)

The Ministry recommends replacing Generic Technology with two specialist subjects — Processing Technology and Materials Technology. The Processing subject would focus on applying the technological process to food and chemical contexts, while the Materials subject would focus on applying the technological process to soft and hard materials contexts, including wood, metal, fabric, and plastic etc. As such, these two subjects would also include a focus on assessing technical skill. This approach also entails a separate DVC subject, and two specialist Digital Technologies subjects.

While the Generic Technology subject has proven flexible, and is adaptable to a variety of contexts, these same qualities have led to concerns in the sector about the robustness of Generic Technology AS and the reliability of the assessment of these. A generic subject is also hard to square with our policy objectives of providing opportunities for specialisation at Levels 2 and 3, and of clarifying pathways into the world of work and further study. As its title suggests, Generic Technology is a broad and non-specialised subject. For these reasons, we recommend removing support for the subject.

Materials Technology

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 AS. The standards are used to teach subjects as diverse as Textiles (soft materials), Metalwork, and Woodwork (hard materials). We recommend redeveloping this subject with a full suite of AS, and suggest renaming it Materials Technologies to better reflect its coverage of hard and soft materials.

Materials Technology — Level 2	External Credits	Internal Credits	Total Credits
Support currently available	0 (0)	30 (7)	30 (7)
How support changes (Provisional subject list)	10 (2)	10 (2)	20 (4)
Materials Technology — Level 3	External Credits	Internal Credits	Total Credits
Support currently available	0 (0)	32 (7)	32 (7)
How support changes (Provisional subject list)	10 (2)	10 (2)	20 (4)

Processing Technology

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 AS. It does not have any external standards. Delivery of this subject, and

credentialing towards UE, rely therefore on combining it with AS from Generic Technology. We recommend redeveloping this subject with a full suite of AS.

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

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

Design and Visual Communication

Design and Visual Communication consists of two distinct disciplines that are inextricably linked. 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.

We recommend that DVC continues 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.

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

Digital Technologies

We suggest creating two Digital Technologies subjects as there are distinct bodies of knowledge for each of these to cover.

- Designing and Developing Digital Outcomes ('Digital Outcomes'), which covers the design and production of fit-for-purpose outcomes and sits comfortably within the existing big ideas of Technology; and
- Computational Thinking, which draws 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.

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

Digital Outcomes — Level 3	External Credits	Internal Credits	Total Credits
Support currently available	6 (2)	39 (8)	45 (10)
How support changes (Provisional subject list)	10 (2)	10 (2)	20 (4)
Computational Thinking — Level 2	External Credits	Internal Credits	Total Credits
Support currently available	0 (0)	0 (0)	0 (0)
How support changes (Provisional subject list)	10 (2)	10 (2)	20 (4)
Computational Thinking — Level 3	External Credits	Internal Credits	Total Credits
Support currently available	0 (0)	0 (0)	0 (0)
How support changes (Provisional subject list)	10 (2)	10 (2)	20 (4)

Further consideration — we also considered supporting three subjects

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, has 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 AS promote over-specialisation, rather than a deep exploration of the significant learning in Technology, which is procedural and conceptual as well as applied.

As such, an alternative that we are also proposing is 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 AS for each of the three subjects would need 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.

This alternate proposal would see Digital Technologies remain as one subject at Levels 2 and 3, with a focus on computational thinking. The designing digital outcomes strand of the Technology LA would be accommodated within Development in Technology. As such, Development in Technology would be wholly focussed on designing outcomes and the processes by which these are achieved. For example, in Development in Technology, students might develop an electronics', textiles, or food technology outcome, while in Computational Thinking, students might develop a complex computer programme.

Design in Technology would allow students to explore product and spatial designs through modelling and drawing. This subject would require a recalibration of the current Level 1 subject, DVC, which has been a standalone subject for many years, but is seen by some in the sector as overemphasising presentation.

Interdisciplinary learning, across a variety of contexts (materials, techniques, and processes) is beneficial to students in all LAs. Development in Technology would be designed to encourage deep and transferable learning opportunities in diverse contexts. This speaks to the need for technological practice to be led by a need, issue, or opportunity, rather determined by the material or technique itself. In this subject, students would develop fit-for-purpose products, artefacts, devices, or outcomes. They would also demonstrate 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 third subject would represent a consolidation of what is currently available for delivery — Construction and Mechanical Technologies, Processing Technology, and Generic Technology — in schools and kura. This may be acceptable if specialisation in Technology is more about promoting depth and breadth of disciplinary literacy, than offering overly narrow subjects.

On balance, we have decided to seek feedback on both options. It is hoped that public engagement will help us to answer the question of whether we should support Technology subjects which are defined by a specific discipline or context, or curriculum-driven Technology subjects which emphasise learning about the nature of technology and technological literacy.

Proactively Released

Appendices

Appendix A — Unit Standard Subjects

The subjects supported uniquely by US are:

- Computing
- Electronics and Control
- Equestrian
- Farming
- Fishing
- Forestry
- Industrial Trades
- Info and Communication Tech
- Legal Studies
- Māori Studies
- Mathematics (Remedial)
- Outdoor Education
- Pacific Language Studies
- Service Trades
- Sociology
- Special Needs Programmes
- Travel, Hospitality, and Tourism
- Māori Performing Arts (Te Ao Haka)
- English as a Second Language (ESOL)
- English for Academic Purposes (Remedial)

Appendix B — Frequently Taught NCEA Courses

There are also courses which can be supported through existing Achievement Standards, but which are not supported as standalone NCEA subjects themselves. These subjects are not counted as 'existing':

- Agribusiness
- Art Design
- Biotechnology
- Computer Science/Programming (through NCEA Digital Technologies)
- Computer Studies (supported through AS from NCEA Digital Technologies)
- Design, Drawing, and Graphics
- Food Technology
- Graphics
- Health and Physical Education
- Human Biology
- Integrated Studies
- Language and Cultural Studies
- Mathematics with Calculus¹⁴

¹⁴ Supported as a UE and Scholarship subject through NZQA.

- Mathematics with Statistics¹⁵
- Music Practical/Performance
- Other Languages
- Other Social Sciences
- Performing Arts (supported through AS from NCEA Dance, Drama, and Music)
- Sports Studies (supported through AS from a range of NCEA subjects such as Physical Education, Biology, and Commerce)
- Visual Arts

Proactively Released

¹⁵ Supported as a UE and Scholarship subject through NZQA.



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equitable and **excellent outcomes**

He mea **tārai** e mātou te **mātauranga**
kia **rangatira** ai, kia **mana taurite** ai ōna **huanga**