

Proposed subjects for NCEA Levels 2 and 3:

The New Zealand Curriculum
Discussion document



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Foreword from the Chair of the Professional Advisory Group

This engagement is an important opportunity to ensure that the most appropriate NCEA subjects are available so all young New Zealanders can fulfil their potential and be prepared for future success beyond school.

We want the learning recognised through the NCEA subjects to reflect both New Zealand today and also the world of study and work. The existing critical knowledge and learning should continue to be supported, whilst recognising a wider range of learning – particularly mātauranga Māori and Pacific bodies of knowledge and languages. We are also exploring the subjects to be derived from *Te Marautanga o Aotearoa*. More information about these subject proposals is available in the [Te Marautanga o Aotearoa Discussion Document](#).

Schools, teachers, and students have been incredibly resilient over the last two years, with COVID-19 disrupting learning and creating significant uncertainty. The Professional Advisory Group (PAG) is immensely proud of how schools and kura have responded, demonstrating how hardworking and dedicated our educators are, alongside the strength and flexibility of NCEA. In this context, with change occurring across the education system, not all subjects can be developed immediately – particularly proposed new subjects. Teachers and kaiako are heavily involved in developing all subjects, and new subjects will also have a significant impact on school and teacher planning. With feedback from this engagement and advice from the PAG, the Ministry and NZQA will work together to develop the confirmed subjects in accordance with the indicative timeline and with a

staged approach for some subjects, giving space for schools and kura to adapt to the changes and ensure that all subjects credential important and relevant learning.

The PAG is confident that these proposed subjects will provide students with further opportunities for specialisation and will support them in meaningful learning pathways. We believe that the opportunities outlined through these subjects will enhance a more meaningful, coherent and credible NCEA. Similarly, we hope that this document supports you in the discussion on the future of NCEA subjects and allows you also to share in our confidence in the future qualifications of our young people.

Roger Moses CNZM

Chair NCEA Professional Advisory Group

The Minister of Education established the NCEA Professional Advisory Group (PAG) in September 2018 to provide advice on the NCEA Review.

Further information on the PAG can be found at Professional Advisory Group ([education.govt.nz](https://ncea.education.govt.nz)).

Have your say



Visit <https://ncea.education.govt.nz/have-your-say>

Tell us what you think about the NCEA subject proposals by 13 August 2021.

You can provide feedback on all changes or only on those of interest to you.

You are invited to provide feedback on proposed changes to NCEA Level 2 and 3 subjects in the 8 Learning Areas of *The New Zealand Curriculum*. Significant changes are proposed in some Learning Areas, while others have only minor or no changes.

The proposed subjects have been developed by the Ministry internally.

The proposed subjects are not final, and we welcome your feedback. We would value feedback from any interested individuals, whānau, and groups, including teachers, parents and whānau, ākonga (students), subject associations, industry organisations, the Māori community, and the Pacific community.

While this discussion document is focussed on subjects derived from *The New Zealand Curriculum*, we would also value your feedback on proposed changes to subjects derived from *Te Marautanga o Aotearoa*. Visit <https://ncea.education.govt.nz/have-your-say> for more information and to have your say.

This public engagement process is on the Achievement Standards, not the Unit standards that are also available.

In some cases we will need to work with standard setting bodies for unit standards to confirm how the different standards will relate. More information on standards is available here:

<https://www.nzqa.govt.nz/qualifications-standards/standards/>

Strengthening NCEA for all ākonga in Aotearoa

Proposed changes to NCEA Level 2 and 3 subjects are part of a broader programme of changes to strengthen NCEA for all learners in Aotearoa New Zealand.

The changes give effect to Cabinet's vision for NCEA Level 1 to become a broad and foundational qualification and introduce opportunities for greater specialisation and deeper learning at Levels 2 and 3.

Once available in schools, the revised package of NCEA Level 2 and 3 subjects will:

- » support exciting learning opportunities for ākonga to deepen their learning and specialise more as they progress through senior secondary school and wharekura
- » be fit for purpose for 21st-century learners and reflect emerging developments in education and the world of work
- » explicitly value te ao Māori and mātauranga Māori
- » enable all ākonga to successfully transition from school into further study, employment, and life beyond school
- » reflect the sector's expertise and capability.

When will the proposed subject changes be in schools?



The final **NCEA Level 1** subjects for *The New Zealand Curriculum* were announced by the Minister of Education in December 2020 following public engagement. Development work is underway to have these Level 1 subjects in schools by January 2023.

Your feedback will help us to confirm whether there are any aspects of the proposed Level 2 and 3 subjects that need further attention. The Ministry will make final decisions on **NCEA Level 2 and 3** subjects later this year based on insights from public feedback. However there may also be implications from other Ministry priorities which affect secondary schools and wharekura such as the Reform of Vocational Education.

Where it is agreed that subjects will proceed, further work will be done to confirm the development timeline for each subject as shown in the diagram on the next page. It shows we are working towards most subject changes being in schools in 2024 (Level 2) or 2025 (Level 3). Some new subjects will be on longer development timeframes. This reflects the Ministry's capacity to resource the required development, how ready these subjects are for development and implementation, and the sector's capacity to manage change above that already required to implement the changes to existing subjects. The Ministry expects to make recommendations on final subjects in September 2021, together with an indication of the timeline for any subjects on a longer development timeframe.

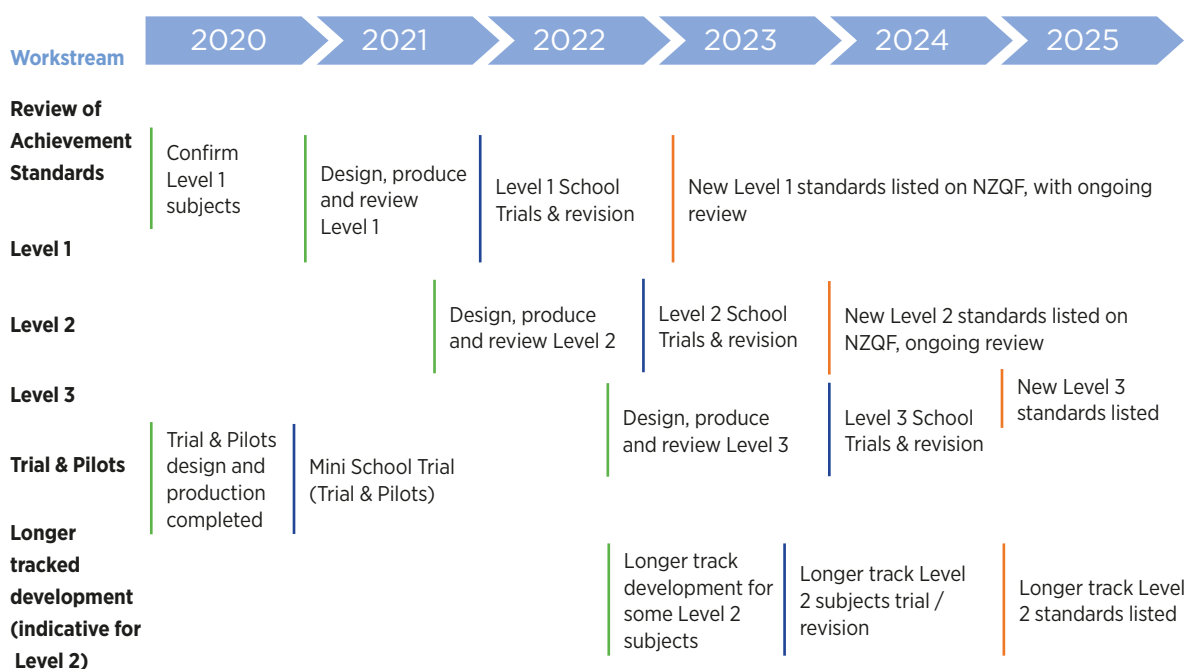


Figure 1: Indicative delivery timelines for NCEA Level 2 and 3 subjects

As the new Achievement Standards are being developed, the Ministry will work with NZQA to ensure New Zealand Scholarship reflects the changes to subjects and the learning they contain. NZQA will also work with Universities New Zealand to update the University Entrance Award.

All existing Achievement Standards will expire at the end of 2022 (Level 1), 2023 (Level 2) and 2024 (Level 3). This means that where a subject is not confirmed, all existing standards will be allowed to expire, but new standards will not be developed to replace them.

What changes are being proposed?



Significant changes are proposed in some Learning Areas, while others have only minor or no changes. For example, while significant change is proposed in Social Sciences and Language Learning Areas, others such as English have minor, or no changes proposed.

English

The Arts

Health and Physical Education

Learning Languages

Mathematics and Statistics

Science **Social Sciences**

Technology

Summary of key changes in each Learning Area

Key changes proposed to Level 2 and 3 subjects are summarised below.

Learning Area...	The following key changes to subjects are proposed ...
English	No change.
The Arts	<ul style="list-style-type: none"> » Develop two subjects for Music (Music Creation and Music Representation). » Combine Painting, Printmaking, and Sculpture into a single Visual Arts subject that provides flexibility for ākonga to explore various visual artistic disciplines. » Expand Photography to include both static and moving image. » Introduce three new subjects: Mau Rākau, Raranga, and Whakairo.
Health and Physical Education	<ul style="list-style-type: none"> » Refocus Home Economics as Food and Nutrition. » Offer Outdoor Education as a stand-alone subject. » Introduce Whaiora as a new subject.
Learning Languages	<ul style="list-style-type: none"> » Introduce two new subjects: Comparative Language and English as a Second Language (or ESOL).
Mathematics and Statistics	<ul style="list-style-type: none"> » Split Mathematics and Statistics into two subjects from Level 2 instead of from Level 3. » Introduce a new Applied Mathematics subject at Level 3 that covers linear programming, networks, logic etc.
Science	<ul style="list-style-type: none"> » Introduce a general Science subject at Levels 2 and 3.
Social Sciences	<ul style="list-style-type: none"> » Develop Agribusiness as a separate subject to Business Studies. » Refocus Social Studies (as People and Societies) and Education for Sustainability (as Environment and Societies). » Introduce three new subjects: Māori Studies, Pacific Studies, and Tourism.
Technology	<ul style="list-style-type: none"> » Develop five subjects in line with the 'Technological Areas' identified in the revised Technology Curriculum (2017). » Split Digital Technologies into two subjects: <ul style="list-style-type: none"> • Designing and Developing Digital Outcomes and • Computational Thinking (provisional names). » Split Materials and Processing Technology into two subjects: <ul style="list-style-type: none"> • Materials Technology and • Processing Technology (provisional names) » Design and Visual Communication is remaining.

Proposed package of Level 2 and 3 subjects

Learning Area...	Current Level 2/3 Subjects	Proposed Level 2/3 Subjects
English	English	English
The Arts	Art History	Art History
	Dance	Dance
	Design	Design
	Drama	Drama
	Music	Music Creation Music Representation
	Painting	Visual Arts (provisional name)
	Printmaking	
	Sculpture	Photography and Film (provisional name)
	Photography	
	Te Ao Haka	Te Ao Haka
	Proposed new subjects	» Mau Rākau » Raranga » Whakairo
Health and Physical Education	Health Education	Health
	Home Economics	Food and Nutrition (provisional name)
	Physical Education	Physical Education
	Proposed new subjects	» Outdoor Education » Whaiaora
Learning Languages	Bahasa Indonesia	
	Cook Islands Māori	Cook Islands Māori
	French	French
	Gagana Sāmoa	Gagana Sāmoa
	German	German
	Japanese	Japanese
	Korean	Korean
	Latin	
	Lea Faka-Tonga	Lea Faka-Tonga
	Mandarin	Mandarin
	NZ Sign Language	NZ Sign Language
	Spanish	Spanish
	Te Reo Māori	Te Reo Māori
	Confirmed new subjects	» Gagana Tokelau » Vagahau Niue
	Proposed new subjects	» Comparative Language (provisional name) » English as a Second Language (provisional name)

Learning Area...	Current Level 2/3 Subjects	Proposed Level 2/3 Subjects
Mathematics and Statistics	Level 2 Mathematics and Statistics	Level 2 Mathematics ¹ Statistics
	Level 3 Calculus Statistics	Level 3 Mathematics ¹ Statistics
	Proposed new subject (Level 3)	Level 3 » Applied Mathematics
	¹ Mathematics includes calculus.	
Science	Agricultural and Horticultural Science	Agricultural and Horticultural Science
	Biology	Biology
	Chemistry	Chemistry
	Earth and Space Science	Earth and Space Science
	Physics	Physics
	Proposed new subject	» Science
Social sciences	Accounting	Accounting
	Business Studies (including Agribusiness)	Agribusiness
	Classical Studies	Business Studies
	Economics	Classical Studies
	Education for sustainability	Economics
	Geography	Environment and Societies (provisional name)
	History	Geography
	Media Studies	History
	Psychology	Media Studies
	Religious Studies	Psychology
	Social Studies	Religious Studies
	Proposed new subjects	People and Societies (provisional name) » Māori Studies (provisional name) » Pacific Studies » Tourism
Technology	Construction and Mechanical Technologies	Materials Technology (provisional name)
	Design and Visual Communication	Design and Visual Communication
	Digital Technologies	Designing and Developing Digital Outcomes (provisional name)
	Processing Technology	Processing Technology (provisional name)
	Generic technology	
	Proposed new subject	» Computational Thinking (provisional name)

Learning Areas: How the next part of the document works



You can choose to read the whole document, or dip into the sections about the Learning Areas of interest to you.

The following information is provided for each Learning Area:

What is proposed?

Opportunities and evidence

What will be the impact of this change?

What are the key things the Ministry would like feedback on?

Links to further information about each Learning Area.

We are interested in your views on the overall subject package proposed for NCEA Levels 2 and 3. You may also wish to have your say about the changes proposed to subjects in specific Learning Areas. Each Learning Area also provides a link to the feedback survey so you can have your say.

Learning Area 1:

English

Ko te reo te tuakiri
Ko te reo tōku ahurei
Ko te reo te ora.

In English, ākonga study, use, and enjoy language and literature communicated orally, visually, or in writing.

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 text forms. Learning English encompasses learning the language, learning through the language, and learning about the language.

English is currently supported by one matrix of 10 standards and 39 credits at Level 2, and 9 standards and 35 credits at Level 3. These standards cover two interconnected strands, each encompassing the oral, written, and visual forms of the language.

The strands differentiate between the modes in which students are primarily:

- » making meaning of ideas or information they receive (Listening, Reading, and Viewing)
- » creating meaning for themselves or others (Speaking, Writing, and Presenting).

What is proposed?

For **English** we are proposing to offer one subject of 20 credits (4 standards) at Level 2, and one subject of 20 credits (4 standards) at Level 3, reflecting the structure of the English Learning Area.

Te Reo Māori and New Zealand Sign Language (NZSL) are official languages of Aotearoa New Zealand. English, the medium for teaching and learning in most schools, is a de facto official language by virtue of its widespread use. For these reasons, these three languages have special mention in *The New Zealand Curriculum*.

Note that:

- » **Te Reo Māori** in *The New Zealand Curriculum* is a subject under the Learning Languages area
- » New Zealand Sign Language in *The New Zealand Curriculum* is a subject under the Learning Languages Area.

A new subject in the Learning Languages Area, **English as a Second Language** is also proposed.

What will be the impact of this change?

- » As there is already only one English subject available within NCEA, there will be no change to the subjects available within the English Learning Area.
- » The total number of standards and credits available in English will decrease from 10 (39 credits) at Level 2, and 9 standards (35 credits) at Level 3, to 4 standards and 20 credits at each of Levels 2 and 3.
- » Consideration was given to adding an additional subject within the English Learning Area to provide more options to engage with English language learning in more applied or vocational contexts. However, the risk that this subject would be used to inappropriately stream students was considered to outweigh the benefits, especially given the flexibility that English teachers will have within the single subject to select appropriate texts for their students.

Opportunities and evidence

- » English remains unique in having a single subject pathway within the Learning Area, and this approach broadly seems to work well in providing opportunities across the Learning Area.
- » Other jurisdictions offer alternative education programmes for students seeking more applied or vocational opportunities. In Aotearoa New Zealand schools can offer courses using only some of the available standards. We expect this practice to continue, but with greater consistency as fewer, larger standards cater for a wider range of topics and contexts for learning.
- » Many ākonga access communication skills unit standards as an alternative English pathway. These will be reviewed as part of ongoing work to implement the NCEA Change Package and the Reform of Vocational Education.

What are the key things the Ministry would like feedback on?

- » Do you agree that the proposed single English subject covers all the significant learning that should be available in English?
- » Any other comments about English? For example, if you disagree with the above, what learning could form a new English subject?

Further Information

- » Provide feedback at
<https://consultation.education.govt.nz/ncea/ncea-level-2-3-subject-list/>
 - » In-depth analysis on the proposed changes is available in *The New Zealand Curriculum* Technical Report <https://ncea.education.govt.nz/have-your-say>
 - » **Information on English is available in:**
 - *The New Zealand Curriculum*
<https://nzcurriculum.tki.org.nz/The-New-Zealand-Curriculum>
 - Senior Secondary Teaching and Learning Guides on TKI
<https://seniorsecondary.tki.org.nz/>
-

Learning Area 2: The Arts

Te toi whakairo, ka ihiihi, ka wehiwehi,
ka aweawe te ao katoa.

In the Arts, ākonga explore, refine, and communicate ideas as they connect thinking, imagination, senses, and feelings to create works and respond to the works of others.

The Arts are powerful forms of expression that recognise, value, and contribute to the unique bicultural and multicultural character of Aotearoa New Zealand, enriching the lives of all New Zealanders. The arts have their own distinct languages that use both verbal and non-verbal conventions, mediated by selected processes and technologies. Through movement, sound, and image, the Arts transform people's creative ideas into expressive works that communicate layered meanings.

The Arts are currently supported by 9 matrices of 54 standards and 265 credits at Level 2, and 57 standards and 302 credits at Level 3. For each of the five visual arts, the same matrix is replicated with the relevant medium subbed into each Standard's title. The Arts Learning Area comprises four disciplines: dance, drama, music, and visual arts. Each discipline is structured around four interrelated strands: Understanding the Arts in Context, Developing Practical Knowledge in the Arts, Developing Ideas in the Arts, and Communicating and Interpreting in the Arts.

What is proposed?

For **the Arts** we are proposing to offer **twelve subjects**, reflecting the structure of the Learning Area:

- » **Art History** – In Art History, ākonga learn to engage with visual culture and the creative expression of artists, and with the production of art works. They 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.
- » **Dance** – In Dance education, ākonga integrate thinking, moving, and feeling. They explore and use dance elements, vocabularies, processes, and technologies to express personal, group, and cultural identities, to convey and interpret artistic ideas, and to strengthen social interaction.
- » **Design** – In Design, ākonga learn the conventions and skills of design, including how to engage with a client brief, develop their practices and portfolio, and use the technical skills and tools for successful visual design processes.
- » **Drama** – In Drama, ākonga express human experience through a focus on role, action, and tension, played out in time and space. Students learn to structure these elements and to use dramatic conventions, techniques, and technologies to create imagined worlds.
- » **Music Creation** – In Music Creation, ākonga 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 i.e. notation conventions. Students may work in groups or individually and will develop their creative, digital, and collaborative skills.
- » **Music Representation** – In Music Representation, ākonga focus on presenting music, through performance or other contexts. Ākonga 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. This includes practice skills and techniques, setting up and packing down, and understanding and applying customs and tikanga for music performance and representation.
- » **Photography and Film** – In Photography and Film, ākonga can explore photography and film as an artform. Students will develop either or both photography and film techniques, think critically about still and moving image, and work creatively to express themselves.
- » **Te Ao Haka** – In Te Ao Haka, ākonga learn within 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 artform.
- » **Visual Arts** – In Visual Arts, ākonga explore, refine, and communicate their own artistic ideas by selecting one or more Visual Arts disciplines and responding to how art expresses identity, culture, ethnicity, ideas, feelings, moods, beliefs, political viewpoints, and personal perspectives. Through engaging in Visual Arts, ākonga learn how to discern, participate in, and celebrate their own and others' visual worlds.

What is proposed? (continued)

Three new subjects are proposed for development over time:

- » **Mau Rākau** – In Mau Rākau, ākonga will learn about the history, art, and practice of Māori and other indigenous people's weaponry, gaining skills of discipline and leadership, and growing understanding of the human and spiritual dynamics of challenges.
- » **Raranga** – In Raranga, ākonga will learn the history, art and practice of Māori and other indigenous weaving, exploring the customs and whakapapa of the artform and how patterns can be used to tell stories.
- » **Whakairo** – In Whakairo, ākonga will learn about the history, art and practice of Māori and other indigenous carving, gaining appreciation for the rich tikanga and whakapapa of artistry.

What will be the impact of this change?

- » The proposal (12 subjects) means there will be more Arts subjects available to ākonga.
- » The total number of standards and credits available in The Arts will decrease from 54 standards, 265 credits at Level 2 and 57 standards, 302 credits at Level 3 to 240 credits and 48 standards at both Levels 2 and 3.
- » **Art History, Dance, Drama** and **Te Ao Haka** remain separate subjects.
- » Music becomes two subjects: **Music Creation** and **Music Representation**.
- » **The visual arts assessment matrix, which currently contains duplicate standards for Design, Painting, Photography, Printmaking and Sculpture will be unbundled:**
 - **Design** becomes a separate subject, with an explicit focus on visual design processes and techniques.
 - Photography becomes a separate subject, with a name change (**Photography and Film**) being considered to extend the scope of visual artistic mediums included within the subject. This does not exclude the assessment of moving images through other visual arts subjects, for example animation through Design, nor does it require students specialising in photography to produce film or vice versa.
 - The subject **Visual Arts** will consolidate the learning in the remaining strands of visual arts into one subject. This reflects low student numbers participating in Printmaking and Sculpture. The combined subject will allow students to explore multiple art disciplines should they wish and provide an avenue for art media and disciplines that would be excluded from more specified subjects. It is not intended that this subject requires students to have access to multiple art media; a student focussed on only painting or sculpture will be able to successfully engage in this subject.

- » *Mana Ōrite mō te Mātauranga Māori* is upheld through decisions to introduce new kaupapa Māori subjects over time. These are: **Mau Rākau**, **Raranga** and **Whakairo**. These subjects will sit alongside existing unit standards, providing new University Entrance pathways for ākonga.
- » For new kaupapa Māori subjects derived from the *The New Zealand Curriculum*, wānanga and design work on how these subjects will relate to *Te Marautanga o Aotearoa* will be needed.

Opportunities and evidence

Key information

- » In 2018, only 283 students were enrolled in 14 or more credits of Level 2 Printmaking and 120 in Level 2 Sculpture, compared to 4181 in Photography, 3982 in Painting and 3057 in Design.
- » In 2018, only 316 students were enrolled in 14 or more credits of Level 3 Printmaking and 183 in Level 3 Sculpture, compared to 3022 in Photography, 2845 in Painting and 2551 in Design.
- » Students who do more than two Visual Arts subjects are much more likely to do a combination including no more than one of Painting, Printmaking or Sculpture (1404 students in 2018) than a combination involving two or more of Painting, Printmaking and Sculpture (120 students in 2018).

Opportunities and evidence

- » Currently the broad subjects within the Arts are intended to be inclusive of mātauranga Māori, however they do not explicitly credential or support the unique mātauranga of subjects like Raranga and Whakairo.
- » Mau Rākau, Raranga, and Whakairo are currently only supported with unit standards, which means there is a perception of unequal status and no University Entrance pathways for these subjects.
- » The single broad Visual Arts matrix provides limited opportunity for different visual arts disciplines to specialise, but also ensures a strong common understanding of the cross-cutting strands of the Arts.

What are the key things the Ministry would like feedback on?

- » Do you agree that the proposed 12 Arts subjects, including three new subjects, cover all significant learning that should be available in the Arts?
- » Do you support the proposal to offer Mau Rākau as a new subject?
- » Do you support the proposal to offer Raranga as a new subject?
- » Do you support the proposal to offer Whakairo as a new subject?
- » Do you support the proposal to offer a Design subject with an explicit focus on visual design processes and techniques?
- » Do you support the proposal to offer a Photography and Film subject?
- » Do you support the proposal to offer two Music subjects?
- » If you support the proposal to offer two Music subjects, do you agree that the two subjects should be offered at Level 2 and above?
- » Do you agree that the proposal for the Visual Arts subject has the right balance between specialised assessment and flexibility to explore multiple artistic media?
- » Any other comments about the Arts?

Further Information

- » Provide feedback at
<https://consultation.education.govt.nz/ncea/ncea-level-2-3-subject-list/>
 - » In-depth analysis on the proposed changes is available in *The New Zealand Curriculum* Technical Report <https://ncea.education.govt.nz/have-your-say>
 - » **Information on the Arts is available in:**
 - *The New Zealand Curriculum*
<https://nzcurriculum.tki.org.nz/The-New-Zealand-Curriculum>
 - Senior Secondary Teaching and Learning Guides on TKI
<https://seniorsecondary.tki.org.nz/>
-

Learning Area 3: Health and Physical Education

He ora ngākau, he pikinga waiora

In Health and Physical Education, ākonga learn about their own well-being, and that of others and society, in health-related and movement contexts.

In **Health and Physical Education**, the focus is on the well-being of the students themselves, of other people, and of society through learning in health-related and movement contexts.

Health and Physical Education is currently supported by 3 matrices which comprise 21 standards and 88 credits at Level 2, and 20 standards and 87 credits at Level 3.

The four strands are:

- » Personal Health and Physical Development, in which students develop the knowledge, understandings, skills, and attitudes that they need in order to maintain and enhance their personal well-being and physical development;
- » Movement Concepts and Motor Skills, in which students develop motor skills, knowledge and understandings about movement, and positive attitudes towards physical activity;
- » Relationships with Other People, in which students develop understandings, skills, and attitudes that enhance their interactions and relationships with others;
- » Healthy Communities and Environments, in which students contribute to healthy communities and environments by taking responsible and critical action.

Seven key areas are then further developed: mental health, sexuality education, food and nutrition, body care and physical safety, physical activity, sport studies, and outdoor education.

What is proposed?

For **Health and Physical Education**, we are proposing to offer **five subjects**:

- » **Health** – In Health, ākonga develop their understanding of the factors that influence the health of individuals, groups, and society: lifestyle, economic, social, cultural, political, and environmental factors.
- » **Food and Nutrition** – In Food and Nutrition, ākonga will gain an understanding of the relationships between food science and technology, current issues and theories of nutrition, and factors that influence people's choices and behaviours, and use this knowledge to make informed decisions.
- » **Physical Education** – In Physical Education, the focus is on movement and its contribution to the development of individuals and communities. By learning in, through, and about movement, ākonga gain an understanding that movement is integral to human expression and that it can contribute to people's pleasure and enhance their lives.

Two subjects are proposed for development over time:

- » **Outdoor Education as a stand-alone subject** – In Outdoor Education, ākonga develop core knowledge and skills in outdoor contexts and critically engage with how people interact with the outdoors, including engaging with ideas around sustainable interaction with the outdoors. By applying learning to outdoor contexts, ākonga develop a wide range of practical skills from trip preparation to leadership.
- » **Whaiora as a new subject** – In Whaiora, ākonga will learn about te ao Māori and other indigenous models of health and wellbeing, building skills to grow and preserve personal and community wellbeing and expanding their understanding of the social, economic, and political factors which can impact on wellness through an explicit te ao Māori lens.

What will be the impact of this change?

- » Currently three subjects are available in the Health and Physical Education Learning Area: **Physical Education**, **Health**, and Home Economics. This proposal would increase the number of subjects available by two.
- » The total number of credits available in Health and Physical Education will increase from 88 at Level 2 and 87 at Level 3, to 100 at both Level 2 and 3, while the total number of standards will decrease by 1 (from 21 to 20) at Level 2 and remain the same at Level 3 (20).
- » Physical Education currently includes **Outdoor Education**. It is proposed that these subjects be separated to better recognise the unique learning contribution that Outdoor Education can make in an Aotearoa New Zealand context.
- » It is proposed that Home Economics is refocused as **Food and Nutrition**. Food and Nutrition is already a focus of Home Economics at Levels 2 and 3 and is an increasingly important pathway into further study. To strengthen this strand, it is proposed that this refocused subject would include stronger links to the Science and Technology Learning Areas and a reduced emphasis on food preparation (which is better supported with industry skills standards).
- » It is proposed that a new subject be explored. This is provisionally referred to as **Whaiaora**. The expectation is that this subject would explore te ao Māori and other indigenous models of health and wellbeing, building skills to grow and preserve personal and community wellbeing and expanding their understanding of the social, economic, and political factors which can impact on wellness through an explicit te ao Māori lens.

Opportunities and evidence

- » Currently Outdoor Education is part of Physical Education. Unless unbundled there is a risk that Outdoor Education may not continue to be available as a standalone subject.
- » Home Economics at Levels 2 and 3 has relatively low and declining enrolments. There is also a lack of clarity about the intended relationship between Home Economics, Processing Technology (which can include Food Technology) and food preparation unit standards.
- » There are opportunities to strengthen deep engagement with te ao Māori perspectives within this Learning Area.

What are the key things the Ministry would like feedback on?

- » Do you agree that the proposed five Health and Physical Education subjects, including two new subjects, cover all significant learning that should be available in Health and Physical Education?
- » Do you support the proposal to offer Whaiora as a new subject?
- » If the proposal is confirmed, do you agree that Outdoor Education will work well as a standalone subject?
- » Do you support the proposal to refocus Home Economics as Food and Nutrition?
- » Any other comments about Health and Physical Education?

Further Information

- » Provide feedback at <https://consultation.education.govt.nz/ncea/ncea-level-2-3-subject-list/>
 - » In-depth analysis on the proposed changes is available in *The New Zealand Curriculum* Technical Report <https://ncea.education.govt.nz/have-your-say>
 - » **Information on Health and Physical Education is available in:**
 - *The New Zealand Curriculum*
<https://nzcurriculum.tki.org.nz/The-New-Zealand-Curriculum>
 - Senior Secondary Teaching and Learning Guides on TKI
<https://seniorsecondary.tki.org.nz/>
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Learning Area 4: Learning Languages

Ko tōu reo, ko tōku reo te tuakiri tangata.
Tihei uriuri tihei nakonako

In Learning Languages, ākonga learn to communicate in an additional language, develop their capacity to learn further languages, and explore different world views in relation to their own.

Learning a new language provides a means of communicating with people from another culture and exploring one's own personal world.

Proficiency Descriptors provided by *The New Zealand Curriculum* guide development in NCEA Levels 1, 2 and 3:

- » At Level 1, ākonga work towards understanding and producing more complex language. They can communicate beyond the immediate context, for example, about past and future events. Ākonga can understand and produce a variety of text types. (Adapted from *Common European Framework* for Languages, Global Scale Level A2: Strong Waystage Performance; Council of Europe, 2001.)
- » Across Levels 2 and 3, ākonga work towards using language variably and effectively to express and justify their own ideas and opinions and support or challenge those of others. They can use and identify the linguistic and cultural forms that guide interpretation and enable them to respond critically to texts. (Adapted from *Common European Framework for Languages*, Global Scale Level B1: Independent User; Council of Europe, 2001.)

Learning Languages is currently supported by 13 matrices comprising 62 standards and 286 credits at Level 2, and 62 standards and 287 credits at Level 3.

What is proposed?

For **Learning Languages**, we are proposing to offer **15 subjects**. Unlike other Learning Areas, for Learning Languages all subjects will be available at Levels 1, 2 and 3 of NCEA, to support language proficiency and acquisition.

The following languages will be developed as subjects:

- » Cook Islands Māori
- » French
- » Gagana Sāmoa
- » Gagana Tokelau
- » German
- » Japanese
- » Korean
- » Lea Faka-Tonga
- » Mandarin¹
- » New Zealand Sign Language
- » Spanish
- » Te Reo Māori
- » Vagahau Niue.

Two new subjects are proposed for development over time

- » **Comparative Language** – In Comparative Language, ākonga with advanced skills in a language other than English explore the intersection of languages and cultures. They consider linguistic concepts and compare language features and related cultural elements between English (or Te Reo Māori) and another nominated language. They develop skills relating to translation and interpretation.
- » **English as a Second Language** as a language learning subject.

¹ Mandarin is the accepted English term for the common language of mainland and greater China.

What will be the impact of this change?

- » A number of languages already offered in NCEA will continue to be offered (**Cook Islands Māori, French, Gagana Sāmoa, German, Japanese, Korean, Lea Faka-Tonga, Mandarin, NZ Sign Language, Spanish, and Te Reo Māori**).
- » Bahasa Indonesia has been available as a subject, but is not actively supported or used in schools, and will not be redeveloped as part of the Review of Achievement Standards.
- » As announced in 2020, Latin will not be offered as a separate subject at any level of NCEA.
- » Two additional Pacific languages are confirmed: **Vagahau Niue** and **Gagana Tokelau**. Development of these subjects will be over a number of years, so that there is an appropriate focus up front on supporting schools to offer the subjects.
- » A new subject, **Comparative Language** is proposed to extend and recognise those ākonga with higher levels of proficiency in a language other than English. Currently, such ākonga either present evidence against standards with an inadequate level of challenge (if the language in question is already offered within NCEA) or have no opportunity to have their linguistic skills developed or officially recognised at all. This subject also represents a way for heritage speakers of languages to have a key element of their cultural and linguistic identity valued and credentialed, connecting with one of the principles of the NCEA Change Programme to make the qualification more inclusive of a diverse range of ākonga.
- » A new subject, **English as a Second Language** is also proposed. This would be developed to complement or (if appropriate) replace English Language Learning unit standards. This will provide ākonga learning English, such as international students, an English as a Second Language pathway that counts towards course endorsements and University Entrance. Developing English as a Second Language as Achievement Standards will also mean the introduction of external assessment which will reduce workload pressures on teachers compared to the current Unit Standards.
- » The total number of standards and credits available in Learning Languages will decrease from 62 standards and 286 credits at Level 2, and 62 standards and 287 credits at Level 3, to 56 standards and 280 credits at each of Levels 2 and 3.

Opportunities and evidence

- » The Learning Languages area is about second-language learning. This means that students with strong heritage language proficiency or simply language skills beyond that which is required for the existing second language learner-focussed subjects, do not have access to standards with the appropriate degree of challenge. The current system neither recognises nor extends on their abilities.
- » The introduction of new language subjects provides a way to promote and credential language learning to 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.
- » We are developing Gagana Tokelau and Vagahau Niue to contribute to safeguarding and supporting the national languages of the Pacific Realm countries.

What are the key things the Ministry would like feedback on?

- » Do you agree that the proposed language learning subjects cover all significant learning that should be available in Learning Languages?
- » Do you support the proposal to offer Comparative Languages as a new subject?
- » Do you support the proposal to offer English as a Second Language as a new subject?
- » Do you support maintaining Mandarin as the subject title for the Chinese-language learning subject at Levels 1, 2 and 3?

Further Information

- » Provide feedback at <https://consultation.education.govt.nz/ncea/ncea-level-2-3-subject-list/>
- » In-depth analysis on the proposed changes is available in *The New Zealand Curriculum* Technical Report <https://ncea.education.govt.nz/have-your-say>
- » **Information on Learning Languages is available in:**
 - *The New Zealand Curriculum*
<https://nzcurriculum.tki.org.nz/The-New-Zealand-Curriculum>
 - Senior Secondary Teaching and Learning Guides on TKI
<https://seniorsecondary.tki.org.nz/>

Learning Area 5: **Mathematics and Statistics**

Kei hopu tōu ringa ki te aka tāepa, engari kia mau ki te aka matua.

In Mathematics and Statistics, ākonga explore relationships in quantities, space, and data and learn to express these relationships in ways that help them to make sense of the world around them.

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 of solving problems. Both equip students with effective means for investigating, interpreting, explaining, and making sense of the world in which they live.

Mathematics and Statistics is currently supported by one matrix of 42 credits and 15 standards at Level 2, and 60 credits and 16 standards at Level 3.

What is proposed?

For **Mathematics and Statistics**, we are proposing to offer **two subjects** at Level Two:

- » **Mathematics** – In Mathematics, ākonga will learn about the exploration and use of patterns and relationships in quantities, space, and time. This includes calculus and the use of symbols, graphs, displays, and diagrams to help them find and communicate patterns and relationships.
- » **Statistics** – In Statistics, ākonga will learn about identifying problems that can be explored by the use of appropriate data, designing investigations, collecting data, exploring and using patterns and relationships in data, exploring and solving situations, and communicating findings. Statistics also involves interpreting statistical information, evaluating data-based arguments, and dealing with uncertainty and variation.

At Level Three an additional subject is also proposed for development over time:

- » **Applied Mathematics** – In Applied Mathematics, ākonga will engage with Mathematics and Statistics content (with some overlaps with both Mathematics and Statistics), but with an emphasis on the applied nature of the subject and how it relates to other subjects. This is an opportunity to explore topics such as linear programming, and networks which will not be part of Mathematics or Statistics but have important applications for a range of student pathways. It is intended that this subject provides an equal academic challenge for students as Mathematics and Statistics.

A third subject is only proposed at NCEA Level 3 as ākonga studying Mathematics and Statistics at Level 2 still need a broad foundation in the Learning Area. Two subjects at Level 2 provides for that foundation for ākonga studying either or both subjects. At Level 3, ākonga studying a Mathematics subject are often doing so to support a tertiary pathway so increased specialisation is more appropriate.

What will be the impact of this change?

- » Currently mathematics is one large subject, and it is proposed to subdivide this subject to reflect the pathways available to learners in NCEA Level 2 and 3.
- » At Level Two, it is proposed that Statistics will be available as a separate subject.
- » At Level Three, it is proposed that a third subject, Applied Mathematics be offered. This subject will draw on curriculum content from across the Mathematics and Statistics Learning Area.
- » Note that the Level 3 Mathematics subject will be known as Mathematics rather than Calculus. Calculus remains a core topic within that subject.
- » The total number of standards and credits available in Mathematics and Statistics at Level 2 will decrease from 15 standards (42 credits) to 8 standards (40 credits), while at Level 3 there will be a decrease in standards from 16 to 12, but no change in credits available (60 credits).

Opportunities and evidence

- » *The New Zealand Curriculum* provides strong coverage of Statistics, and Statistics is typically taught as a separate subject in Year 13, or in Year 12 classes with different focuses.
- » There is a lack of clarity about the most important learning in Mathematics due to the many small standards on the matrices. Consolidation into separate subjects provides an opportunity to clarify.
- » Other jurisdictions provide specific subject support for higher mathematics in applied or vocational contexts. Unit standards in mathematics tend to be occupationally specific or foundational, which leaves a gap for study at Curriculum Levels 7 and 8.

What are the key things the Ministry would like feedback on?

- » Do you agree that the proposed split into two subjects, Mathematics and Statistics at Level 2 covers all significant learning that should be available?
- » Do you agree that the proposed split into three subjects, Mathematics, Statistics and Applied Mathematics, at Level 3 covers all significant learning that should be available?
- » Any other comments about Mathematics and Statistics? For example, what learning do you think should be included in the new Applied Mathematics subject to help ākonga prepare for life, work, and further study?

Further Information

- » Provide feedback at <https://consultation.education.govt.nz/ncea/ncea-level-2-3-subject-list/>
 - » In-depth analysis on the proposed changes is available in *The New Zealand Curriculum* Technical Report <https://ncea.education.govt.nz/have-your-say>
 - » **Information on Mathematics and Statistics is available in:**
 - *The New Zealand Curriculum*
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<https://seniorsecondary.tki.org.nz/>
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Learning Area 6: **Science**

Mā te whakaaro nui e hanga te whare;
mā te mātauranga e whakaū.

In Science, ākonga explore how both the natural physical world and science itself work so that they can participate as critical, informed, and responsible citizens in a society in which science plays a significant role.

Science is a way of investigating, understanding, and explaining our natural, physical world and the wider universe. It involves generating and testing ideas, gathering evidence – including by making observations, carrying out investigations and modelling, and communicating and debating with others to develop scientific knowledge, understanding, and explanations. Scientific progress comes from logical, systematic work and from creative insight, built on a foundation of respect for evidence. Different cultures and periods of history have contributed to the development of science.

Science is currently supported by five matrices which offer a total of 45 standards and 174 credits at Level 2, and 38 standards and 155 credits at Level 3.

What is proposed?

For **Science** we are proposing to offer **six subjects** (including one new subject):

- » **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.
- » **Biology** – in Biology, ākonga 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.
- » **Chemistry** – in Chemistry, ākonga 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.
- » **Earth and Space Science** – in Earth and Space Science, ākonga 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.
- » **Physics** – in Physics, ākonga learn how to describe, explain, and predict physical phenomena. Ākonga 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.

One new subject is proposed for development over time:

- » **Science** – in Science, ākonga learn about what science is and how scientists work. They develop the knowledge, skills, attitudes, and values to build a foundation for understanding the world. They come to appreciate that scientific knowledge is revised, refined and extended as new evidence arises, and that science is a culturally and socially valuable knowledge system. They learn how scientists use critical and creative thinking to develop questions and draw evidence-based conclusions using scientific approaches and methods to investigate the natural world and changes made to it through human activity.

What will be the impact of this change?

- » Five subjects continue from the current subject list – **Agricultural and Horticultural Science, Biology, Chemistry, Earth and Space Science, and Physics.**
- » A new subject, **Science**, will be developed over time to provide ākonga with 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 ākonga to engage with science and scientific literacy at higher levels. This subject will be for ākonga not necessarily on a science specific pathway and is intended to complement ākonga pathways where science literacy is useful, for example in the humanities. This subject may also complement the pathways of ākonga wishing to specialise in a scientific discipline as the subject can help link disciplinary knowledge to wider scientific issues and conversations.
- » Consideration was given to separating **Agricultural and Horticultural Science** into two subjects, Agricultural Science and Horticultural Science. However, there is a concern that one or both subjects may not be sustainable given ākonga numbers across the combined subject.
- » The total number of standards and credits available in Science will decrease from 45 standards (174 credits) at Level 2 and 38 standards (155 credits) at Level 3 to 24 standards (120 credits) at both Levels 2 and 3.

Opportunities and evidence

- » There is an opportunity to enhance the available science pathways by continuing the Level 1 general Science subject at Levels 2 and 3.
- » Agriculture and Horticulture Science is currently a single subject. This could be revisited. The subject has low participation rates particularly among Māori and Pacific students, and among decile 1-3 schools.

What are the key things the Ministry would like feedback on?

- » Do you agree that the proposed six Science subjects, including one new subject, cover all the significant learning that should be available in Science?
- » Do you support the proposal to offer a new subject, Science, at Levels 2 and 3?
- » Do you support keeping Agricultural and Horticultural Science as a single subject at Levels 2 and 3?
- » Any other comments about Science? For example, what alternatives could be proposed for Agricultural and Horticultural Science?

Further Information

- » Provide feedback at
<https://consultation.education.govt.nz/ncea/ncea-level-2-3-subject-list/>
- » In-depth analysis on the proposed changes is available in *The New Zealand Curriculum* Technical Report <https://ncea.education.govt.nz/have-your-say>
- » **Information on Science is available in:**
 - *The New Zealand Curriculum*
<https://nzcurriculum.tki.org.nz/The-New-Zealand-Curriculum>
 - Senior Secondary Teaching and Learning Guides on TKI
<https://seniorsecondary.tki.org.nz/>

Learning Area 7: **Social Sciences**

Unuhia te rito o te harakeke kei whea te kōmako e kō?
Whakatairangitia – rere ki uta, rere ki tai;
Ui mai koe ki ahau he aha te mea nui o te ao,
Māku e kī atu he tangata, he tangata, he tangata!

In the Social Sciences, ākonga explore how societies work and how they themselves can participate and take action as critical, informed, and responsible citizens.

The Social Sciences Learning Area is about 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.

The Social Science Learning Area integrates four conceptual strands: Identity, Culture, and Organisation; Place and Environment; Continuity and Change; and Economic World.

Social Sciences is currently supported by 11 matrices comprising 73 standards and 302 credits at level 2, and 69 standards and 305 credits at level 3.

What is proposed?

For **Social Sciences** we are proposing to offer **15 subjects** (including 3 new subjects):

- » **Accounting** – In Accounting, ākonga develop the knowledge and skills to manage the financial affairs of individuals, communities, and businesses. Students will develop the knowledge and skills necessary to prepare and maintain financial records, manage financial affairs, act with integrity, and contribute to the wider community using their accounting knowledge and skills.
- » **Agribusiness** – In Agribusiness, ākonga study all the primary industries and businesses that comprise primary production. Students engage in future and innovative thinking and develop problem-solving strategies and lifelong skills. They build knowledge of the whole operation and are encouraged to find innovative solutions to challenging operational issues.
- » **Business Studies** – In Business Studies, ākonga consider the issues that challenge businesses and stakeholders. In a rapidly changing world, it is important that citizens can make informed and rational decisions about business matters.
- » **Classical Studies** – In Classical Studies, ākonga study the people, places, and events of the classical world and how they influence the modern world. Students explore community, cultural identity, values, and perspectives. They will also think critically about human behaviour and relationships to appreciate the civilisations of ancient Greece and Rome, understand the past and the present.
- » **Economics** – In Economics, ākonga consider how New Zealanders are affected by the economic decision-making of individuals, communities, businesses, and government agencies in Aotearoa New Zealand and overseas. They will develop an understanding of the Aotearoa New Zealand economy and the policies that the Government uses to manage it, make sense of economic problems that they may be facing, now and in the future, and make connections between Aotearoa New Zealand's economy and the global economy.
- » **Environment and Societies** – In Environment and Societies, ākonga explore the relationship between people and the environment. They learn about the environmental, social, cultural, and economic aspects of sustainability. They learn to show leadership by example and to contribute to collective decisions that lead to actions for a sustainable future.
- » **Geography** – In Geography, ākonga learn about the environment as the home of people. It seeks to interpret the world and how it changes over time – past, present, and future. Students learn to think spatially and use maps, visual images and new technologies, including geographical information systems (GIS), to obtain, present and analyse information.
- » **History** – In History, ākonga engage with the dilemmas, choices, and beliefs of people in the past. The subject connects students with the wider world as they develop their own identities and sense of place. Students engage with history at personal, local, and international levels. They investigate the histories of their communities, Aotearoa New Zealand, and the wider world.

What is proposed? (continued)

- » **Media Studies** – In Media Studies, ākonga engage in active exploration, analysis, creation, and enjoyment of the media and its products. Media studies examines the dynamic role of the media in society, how the media constructs messages about individuals, communities, and cultures and how media products are produced, controlled, and distributed.
- » **People and Societies** – In People and Societies, ākonga learn about how societies work and how people can participate in their communities as informed, critical, active, and responsible citizens. Students examine the causes and effects of social issues that relate to identity, culture, and organisation, and learn to take actions that may bring about social change.
- » **Psychology** – In Psychology, ākonga learn about 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, and how to address questions by deconstructing patterns of thinking, emotion, and behaviour, and identifying and challenging assumptions, theories, and mores.
- » **Religious Studies** – In Religious Studies, ākonga use 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 in clarifying questions about the functions of religious culture for enabling cooperative communities, at small and large scales.

The three new Social Sciences subjects proposed for development over time are:

- » **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.
- » **Pacific Studies** – In Pacific Studies, ākonga will explore the knowledges, languages, politics, arts, histories, stories, cultures, and societies of Pacific peoples. Students will also explore the role of colonialism in the Pacific to better understand Pacific issues within Aotearoa New Zealand. Using Indigenous Pacific methods and theory as a way to make meaning, students will practice and develop skills to critically analyse diverse perspectives.
- » **Tourism** – In Tourism, ākonga study the relationship between people and places. They critically evaluate the tourism sector, both in Aotearoa New Zealand and globally, and how people experience tourism. Ākonga can explore conceptual models of and frameworks for sustainable tourism, indigenous tourism, destination planning, globalisation and tourism, and tourism technologies.

What will be the impact of this change?

- » The total number of standards and credits available in Social Sciences will decrease from 73 standards (302 credits) at Level 2 and 69 standards (305 credits) at Level 3 to 60 standards (300 credits) at both Levels 2 and 3.
- » No subject will be removed from the Social Science Learning Area. Instead, some refocussing of existing subjects and the creation of some new subjects, is proposed.
- » The following subjects will continue without significant change: **Accounting, Classical Studies, Economics, Geography, History, Media Studies, Psychology, and Religious Studies.**
- » It is proposed that Business Studies is separated into two subjects: **Agribusiness and Business Studies.** Agribusiness was designed and developed as a separate subject, but ‘added onto’ Business Studies to address technical issues that are no longer relevant.
- » It is proposed that **Environment and Societies** will refocus the existing Education for Sustainability subject to include broader enquiries about sustainability, the environment, resource usage, and the geopolitics of the environment including international relations.
- » It is proposed that **People and Societies** will change the existing Senior Social Studies subject to focus more explicitly on significant learning relating to sociology, citizenship, and political action.
- » The three proposed new Social Sciences subjects (**Māori Studies, Pacific Studies, and Tourism**) will ensure that the subject list better reflects the needs of students, our commitment to support Mana Ōrite mō te Mātauranga Māori and the Pacific, and emerging school practices.
- » During development of the provisional Level 2 and 3 subject list, consideration was given to a new subject, Government and Politics that would consolidate learning from social studies, philosophy, legal studies and education for sustainability to create a new subject with clear pathways into politics, international relations, and legal studies. However, at this stage we propose to ensure these pathways are supported by the other social sciences (e.g. Environment and Societies and People and Societies).

Opportunities and evidence

- » The Social Sciences have always had a large number of potential and actual NCEA subjects. This can create issues for the viability of subjects with low or declining participation, or where perceived overlaps exist between subjects.
- » Some subjects have some subject support (e.g. teaching and learning guides), but no Achievement Standards. For example, Legal Studies and Philosophy. Others have Unit Standards, including NZQA-set standards relating to Māori and Pacific culture, language, and knowledge. These could be more explicitly recognised as Achievement Standards.

What are the key things the Ministry would like feedback on?

- » Do you agree that the proposed 15 subjects, including 3 new subjects, covers all the significant learning that should be available in the Social Sciences?
- » Do you support the proposal to offer Māori Studies as a new subject?
- » Do you support the proposal to offer Pacific Studies as a new subject?
- » Do you support the proposal to offer Tourism as a new subject?
- » Do you support the proposal to refocus Education for Sustainability as Environment and Societies?
- » Do you support the proposal to refocus Social Studies as People and Societies?
- » Any other comments about the Social Sciences?

Further Information

- » Provide feedback at <https://consultation.education.govt.nz/ncea/ncea-level-2-3-subject-list/>
 - » In-depth analysis on the proposed changes is available in *The New Zealand Curriculum* Technical Report <https://ncea.education.govt.nz/have-your-say>
 - » **Information on Social Science is available in:**
 - *The New Zealand Curriculum*
<https://nzcurriculum.tki.org.nz/The-New-Zealand-Curriculum>
 - Senior Secondary Teaching and Learning Guides on TKI
<https://seniorsecondary.tki.org.nz/>
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Learning Area 8:

Technology

Kaua e rangiruatia te hāpai o te hoe
e kore tō tātou waka e ū ki uta.

Technology is intervention by design. It uses intellectual and practical resources to create technological outcomes, which expand human possibilities by addressing needs and realising opportunities.

In Technology, ākonga learn to be innovative developers, and discerning consumers of products and systems.

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).

What is proposed?

For **Technology** we are proposing to offer **five subjects**, reflecting the technological areas of the Technology Learning Area:

- » **Materials Technology (name provisional)** – In this area, ākonga create technological outcomes (i.e. products) that solve problems. They form, transform, and work with resistant materials, textiles, and fashion, and develop knowledge about the systems, structures, machines and techniques used in manufacturing products.
- » **Processing Technology (name provisional)** – ākonga form, transform and manipulate materials or ingredients to develop outcomes (i.e. products or processes) that meet an identified need. They develop knowledge of the materials and ingredients used to formulate food, chemical, and biotechnological products, and use processes related to food technology, biotechnology, chemical technology and agricultural technology.
- » **Design and Visual Communications** – ākonga learn to apply design thinking. They develop an awareness of design by using visual communication to conceptualise and develop design ideas in response to a brief.
- » **Designing and Developing Digital Outcomes (name provisional)** – ākonga understand that digital applications and systems are created for humans by humans. They develop increasingly sophisticated understandings and skills for designing and producing quality, fit-for-purpose, digital outcomes.
- » **Computational Thinking (name provisional)** – computational thinking enables ākonga to express problems in ways that allow a computer to be used to solve them. Ākonga develop algorithmic thinking skills and an understanding of the computer science principles that underpin all digital technologies.

Alternatively, we could offer three subjects in the Technology Learning Area:

- » Design in Technology (aligned to Design and Visual Communication)
- » Development in Technology (incorporating materials, processing, and digital outcomes)
- » Digital Technology (focused on computational thinking).

What will be the impact of this change?

- » Currently these subjects are available within the 'Technology' subject, and no subjects will be removed.
- » Under the five-subject proposal, all subjects include aspects of design and development and would reflect the three Technology strands.
- » The shift to specific matrices for each technological area will provide an opportunity to clarify how the three Technology strands (technological knowledge, technological practice, and the nature of technology) are woven through each.
- » The new Computational Thinking subject will provide an opportunity to strengthen pathways into computer science study. We expect that it will have a strong relationship with the Mathematics and Statistics learning area.
- » Students will continue to be able to access industry skills standards in related areas (e.g. building and construction), as these are developed by Workforce Development Councils and NZQA for use in schools.
- » The total number of standards and credits available in technology will decrease from 41 standards (174 credits) at Level 2 and 37 standards (169 credits) at Level 3, to 20 standards (100 credits) at both levels 2 and 3.

Opportunities and evidence

- » There is inconsistent participation in standards that credential the overarching technology strands, rather than technological area specific skills.
- » The generic matrix means that multiple technology subjects within a school compete over shared standards, and the generic standards are often paired with skills matrices in ways that limit student access to conceptual learning.
- » There are concerns that the technology standards promote over-specialisation, rather than a deep exploration of the significant learning in Technology.

What are the key things the Ministry would like feedback on?

- » Do you agree that the proposed five subjects, based on each of the five strands of the Technology Learning Area cover all the significant learning that should be available in Technology?
- » Do you support the proposal to offer Computational Thinking as a new subject?
- » Do you think that offering three subjects (Design in Technology, Development in Technology, and Digital Technology) will provide better learning outcomes than the five-subject proposal?
- » Any other comments about Technology? For example, under a three-subject option: would combining Materials Technology and Processing Technology into one subject work? Should Designing and Developing Digital Outcomes be offered as one subject?

Further Information

- » Provide feedback at <https://consultation.education.govt.nz/ncea/ncea-level-2-3-subject-list/>
 - » In-depth analysis on the proposed changes is available in *The New Zealand Curriculum* Technical Report <https://ncea.education.govt.nz/have-your-say>
 - » **Information on Technology is available in:**
 - *The New Zealand Curriculum*
<https://nzcurriculum.tki.org.nz/The-New-Zealand-Curriculum>
 - Senior Secondary Teaching and Learning Guides on TKI
<https://seniorsecondary.tki.org.nz/>
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He mea **tārai** e mātou te **mātauranga**
kia **rangatira** ai, kia **mana taurite** ai ōna **huanga**