



What you told us and how we responded

Mathematics and Statistics Years 9-10

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Strengthening the curriculum

The National Curriculum is being updated to provide teachers, kaiako and school leaders with a clear, knowledge-rich and internationally comparable curriculum to underpin their teaching and learning programmes.

The curriculum includes:

- 1. Knowledge, practices, and capabilities that students will develop through their time at school.
- 2. Guidance for teachers and school leaders for developing effective teaching and learning programmes.

The New Zealand Curriculum recognises that all learners should be supported to reach their full potential. We want to help teachers and kaiako focus on bringing learning to life in the classroom. By introducing clearer progressions to the curriculum, we aim to give teachers and kaiako greater direction about what to teach, and how and when to teach it, freeing them up from having to create sequences yourselves themselves.

A knowledge-rich curriculum is:

- Selective content is chosen purposefully for each learning area and subject
- Coherent content progresses and flows through the years and within learning areas and subjects and is carefully connected across disciplines
- Carefully sequenced designed to develop knowledge mastery over time by building on prior content and gradually increasing in complexity
- Specific and clear explicitly outlining what students are expected to understand, know and be able to do for learning areas, subjects and topics across all year levels O-13.

We have developed a 5-year implementation timeline to give you a picture of the key curriculum, assessment and aromatawai changes taking place between 2024 and 2028 which is available at tahurangi.education.govt.nz/implementation-supports.

The New Zealand Curriculum includes a framework and eight learning areas, per the existing 2007 Curriculum.

The learning areas are being strengthened with year-by-year teaching sequences, which provides greater clarity about what teachers need to teach and what students need to learn in each year from Years 0–13.

We asked for feedback from the sector on the revised Mathematics and Statistics Years 9-13 learning in 2025. This report summarises what we heard, and the actions we took to respond to that feedback for Years 9-10. We are considering feedback we received on Years 11-13 as we develop new curriculum content. Reports on the feedback we gathered earlier this year on Years 11-13 and how we've responded will be published with the release of curriculum content for these years in 2026.

How was the Mathematics and Statistics learning content developed?

During 2021, we worked with a wide range of people and groups to develop the draft curriculum content.

We tested the draft with the sector, refined it and published it in 2023.

The writing group¹ further developed the content based on advice from the Ministerial Advisory Group (December 2023 – May 2024).

In August and September 2024, we asked teachers, school leaders, and organisations and agencies with a strong interest in teaching maths for detailed feedback on the draft Maths Years 0–8 learning area. The draft Mathematics and Statistics learning area for Years 0–8 was then refined and published in October 2024. As a result of changes that have occurred in how sequenced, disciplinary knowledge is made explicit, there have been further changes to Years 0–8 to improve clarity and strengthen progression across the entire learning pathway. The Mathematics and Statistics writing group then further developed content for the Years 9–13.

From late January to late April 2025, we again asked teachers and the public for detailed feedback on the draft Years 9–13 Mathematics and Statistics learning area. The feedback was gathered through two avenues. One was an online survey comprised of demographic and open-ended feedback questions on each component of the learning area, and the other was through submissions sent directly to the Ministry.

Online survey: We received 85 responses, 76% of which came from respondents in schools. The remaining responses came from other interested groups and people, mostly with roles in the education sector.

Submissions and emails: Eight additional submissions or emails were received by the Ministry and were included in the analysis of feedback.

The survey feedback submissions and emails were independently analysed and reported back to us by the New Zealand Council for Educational Research (NZCER)². We used these reports to identify key themes in the responses to the draft curriculum content.

Taking account of these key themes, we planned actions for making changes to the draft curriculum content and for providing implementation supports and resources. We checked the validity and reliability of these planned actions with our interest groups before finalising the content.

- 1. Writing group members include academics, Ministry of Education subject matter experts, practising teachers, and other people from the education sector with experience and expertise.
- 2. Read the NZCER report on this survey and its results.

What did we hear and how are we responding?

Key changes to Years 9-10 curriculum content

Changes to Years 9-10 learning area content were made following consultation and alongside the development of the other learning areas within the NZC, with the intention of creating consistency across the learning areas and within Mathematics and Statistics.

Consultation feedback

Teachers were positive about the clear structure and practical layout of the teaching sequence, especially the side-by-side format for Years 9-10. The glossary and language guidance were seen as helpful for supporting mathematical literacy. Many of the respondents appreciated the emphasis on explicit teaching and the inclusion of rich tasks. Many teachers saw the curriculum as well-organised and supportive of planning, with several elements already familiar to teachers.

"Really support these pages. Very clear and concise. Explicit teaching concept. Easy to read and navigate. The teaching consideration column is good. Having the Years 9-10 together makes it good to compare and contrast."

School response

The responses from a wide range of individuals and groups produced many different perspectives about the draft learning area content and how it could be improved.

Key themes that emerged from feedback:

- > People told us that the teaching sequence is clear and practical and could be improved with more detail on what to teach and how to teach it
- > People wanted to see a curriculum that reflects the New Zealand context
- > People were concerned that the amount of content in Years 9-10 is too much to cover effectively within the available time
- People told us that Algorithmic Thinking needs clearer expectations and may belong in other subjects
- > Teachers want better support, including planning tools, resources, and time for implementation.

We've described each key theme and how we have responded to it on the following pages.

People told us that the teaching sequence is clear and practical and could be improved with more detail on what to teach and how to teach it

Teachers said the Years 9-10 teaching sequence was clear and practical. They appreciated the layout but wanted more examples and detail to guide teaching. Others felt the teaching guidance lacked specificity and needed stronger support. Concerns were raised about the amount of content and students' readiness. Some topics were seen as too advanced, and teachers asked for clearer help with concepts like significant figures.

"It is clear, explicit and succinct. The glossary is useful for the teachers and helps to highlight the importance of literacy within the learning area."

School response

How we responded to this theme

- > We've placed a greater focus in the curriculum on knowledge-rich statements which have been written for each individual year level and provided greater clarification around concepts to be taught.
- > For example we have added more detail within the knowledge and practices statements on the topic of significant figures.
- > We've improved how we share New Zealand Curriculum content on Tāhūrangi, so it is easier to access and use.

People wanted to see a curriculum that reflects the New Zealand context

Many respondents wanted the Years 9-10 curriculum to better reflect New Zealand's cultural context. They asked for stronger inclusion of mātauranga Māori, Pasifika knowledge, and local connections. While some praised the curriculum's structure and ethical focus, others felt it lacked relevance for diverse learners. Teachers requested rich tasks, clearer guidance, and support to teach Maths in ways that connect with students' lives and communities.

How we responded to this theme

- > The intention is for teachers to embed the national curriculum in their own teaching and learning programmes, reflecting their local context.
- > You will continue to see bicultural concepts within the learning area, such as using te reo Māori names for numbers and shapes. Teachers are encouraged to embed the national curriculum in their own teaching and learning programmes, reflecting their local context.
- > We are working with our suppliers to ensure that the New Zealand context is reflected in the development of our Year 9-10 teaching resources.

People were concerned that the amount of content in Years 9–10 is too much to cover effectively within the available time

Many people said the draft curriculum for Years 9-10 includes too much content to teach effectively in the time available. The statistics and measurement strands were seen as overloaded, and some felt students lacked the background knowledge needed to keep up. People questioned whether the statistics and probability strands were too complex and if simpler concepts and clear progression were needed. Despite these concerns, some teachers appreciated the clarity of the teaching sequence pages and supported the spiral approach if earlier learning is strong.

"There is a lot of content for students to cover in Phase 4 (Years 9-10) ... even if students were proficient in all Phase 3 (Years 7-8) content, there is just so much to cover in Phase 4 (Years 9-10), that it might not be feasible for everything to be covered adequately in Years 9 and 10."

School response

"The conceptual ideas of statistics and probability are very advanced for the students at my school. They often have no statistical background at the beginning of Year 9."

School response

How we responded to this theme

- > We have clarified and focused on the knowledge to be taught at each year level, so teachers know what to teach in a particular year.
- > In the measurement strand, we've clarified what needs to be taught. This includes greater clarity on what needs to be covered in measurement in Years 7-8 so students will bring greater prior knowledge of measurement with them in Year 9.
- We have reduced the amount of content to be taught in the statistics and probability domains. We have reduced content by moving Algorithmic Thinking from Mathematics and Statistics into the Technology learning area.

People told us that Algorithmic Thinking needs clearer expectations and may belong in other subjects

Many respondents supported including Algorithmic Thinking in Years 9–10 mathematics, seeing it as valuable for building logical thinking. However, they wanted clearer expectations and practical examples. Some questioned whether it belonged in Mathematics and Statistics or would be better placed in Digital Technologies. There was also confusion about whether coding was required. A few suggested it should be optional or used for enrichment rather than core content.

"Love the addition of algorithmic thinking but it needs more explicit ideas about what you actually want us to teach. Are we teaching coding in full even though AI will do it for us now? Or are we just teaching the basic ideas that would show up in earlier years in the digital technology curriculum?"

School response

"We appreciate that financial mathematics and algorithmic thinking are great applications of the skills . . . However, we believe that they fall more logically into social studies (under commerce/business/accounting) and technology (under digital technology)."

School response

How we responded to this theme

> Algorithmic Thinking has been removed from Mathematics and Statistics and is now included in the Technology curriculum.

Teachers want better support, including planning tools, resources, and time for implementation

Many teachers said they need more examples and clearer guidance to understand what to teach at Years 9–10. While the teaching sequence was seen as practical and well-structured, concerns were raised about the amount and difficulty of content, especially in statistics and probability. Teachers also asked for more time to prepare and wanted visual tools to show how learning progresses across year levels.

"We cannot stress enough that both additional time and comprehensive resource support—including hard materials—are essential for schools to implement these changes effectively."

Regional Mathematics Association feedback

How we responded to this theme

- > Much of the content within this version of Mathematics and Statistics will be familiar to teachers as we've built on the valuable feedback and input the sector provided on previous versions.
- > We want to ensure that senior secondary teachers and kaiako have enough time to implement new national curriculum changes for Years 11–13. Your feedback has clearly indicated that you would like greater phasing of the introduction of senior secondary learning areas. We've heard from you that this phasing will support quality implementation by giving teachers and kaiako more time to build confidence with the new content, support resource and assessment alignment and help maintain consistency for students. Following sector feedback, we are updating expectations for Years 11–13 to create a phased roll-out of senior secondary subjects. Full details are available at Curriculum timeline change responds to feedback from senior secondary teachers.
- > To support the updated curriculum timeline for secondary schools and kura, an **implementation package** will be available to ensure that teachers and kaiako are supported every step of the way.
- > Professional learning and development (PLD) for teachers and kaiako of Years 9-10 on the new knowledge-rich curriculum to support implementation of all learning areas and wāhanga ako.
- PLD for curriculum leadership.
- > Expanded Curriculum Advisory Service for secondary schools and kura.
- > Exemplar planning and teacher resources for Years 9-10 teachers and kaiako which include unit plans, lesson plans, teacher guidance and resources.
- > Subject Association and Kahu Pūtoi funding available to support curriculum roll out.

Where to find content, guidance and resources

You'll find information on implementation supports, including a 5-year implementation timeline of key curriculum, assessment and aromatawai changes available at <u>tahurangi.education.govt.nz/implementation-supports</u>.

Find Mathematics and Statistics learning content and resources here: <u>Learning Content & Resources - Mathematics and Statistics</u>. Use the curriculum level and series to quickly locate the resources you are looking for.

Research and background papers commissioned to support the development of The New Zealand Curriculum can be found at Research and background papers.

Timeframes

Your feedback has clearly indicated that you would like greater phasing of the introduction of senior secondary learning areas. We've heard from you that this phasing will support quality implementation by giving teachers and kaiako more time to build confidence with the new content, support resource and assessment alignment, and help maintain consistency for students.

Years 0-10

The final curriculum content for Years 7-10 English and Te Reo Rangatira and Years 9-10 Mathematics and Statistics and Pāngarau will be available in early Term 4, 2025 and in use from the start of Term 1, 2026.

The remainder of the Years 0-10 curriculum content will also be available in draft across all learning areas and wāhanga ako in early Term 4, 2025 to invite wider feedback and to inform planning and professional development days ahead of the new school year. This content will be used from the start of Term 1, 2026.

As students in Year 9 will be the first cohort to take the new Year 11-13 subjects from 2028, and the first to use any changes to the national qualification and assessments aligned to the new curriculum, we encourage schools and kura to use the new Year 9 curriculum in 2026.

Years 11-13

The Years 11–13 curricula will be available in Term 1, 2026 to invite wider feedback and help build familiarisation and readiness. There will be no formal requirement to use this content until 2028 (for Year 11 content), 2029 (for Year 12 content), and 2030 (for Year 13 content).

Following feedback from English and Maths Associations as well as your representative principal groups, we have decided to include Years 11–13 English, Maths, Te Reo Rangatira and Pāngarau in this rephased roll-out. This means that changes to the Years 11–13 curriculum will not be required until 2028, creating more time for quality implementation.

If you see areas in this content that could be improved, please send details to us at national curriculum.refresh@education.govt.nz

The **Mathematics and Statistics learning area content** can be found on <u>Tāhūrangi | the Online Curriculum Hub</u> in PDF and web format.



