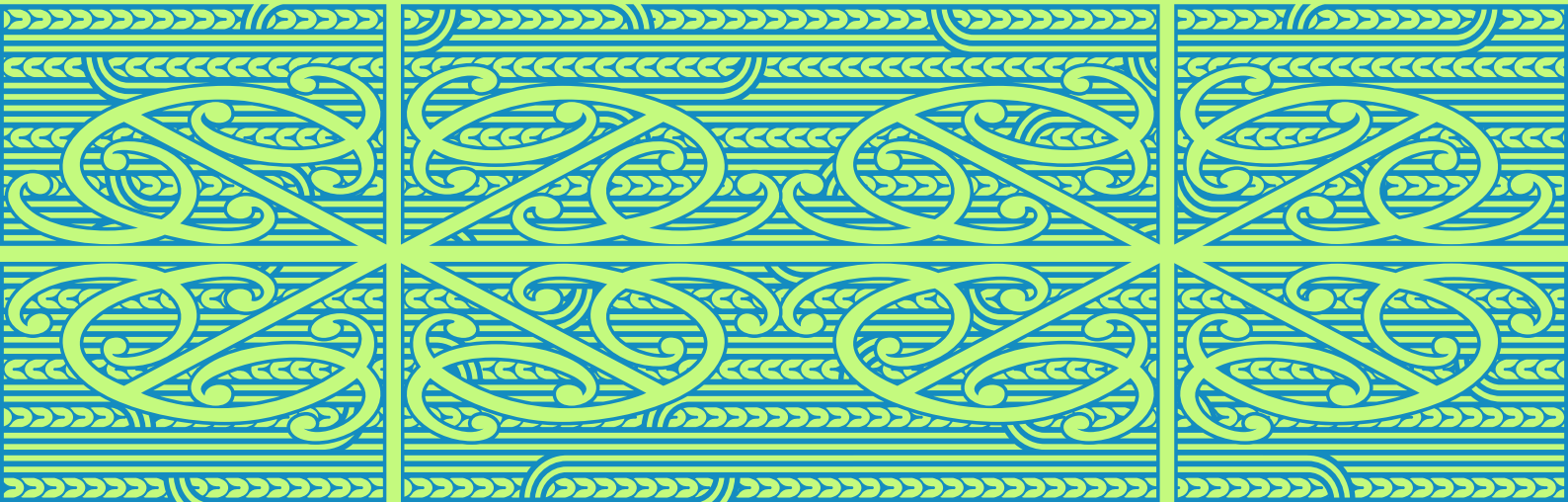


Changing curriculum

A literature review on drivers of change and teachers' roles in curriculum reform

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2026

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He whakarāpopototanga | Executive summary

This literature review is the first output of the New Zealand Council for Educational Research's (NZCER's) Curriculum in Practice research programme. It was undertaken during a period of significant curriculum change in Aotearoa New Zealand and has two main aims:

- to understand and compare the New Zealand Curriculum update's "direction of travel" in relation to selected international jurisdictions
- to provide a thematic synthesis of literature about teachers' and school leaders' curriculum making and curriculum sensemaking.

The review also examines:

- the origins and debates surrounding "knowledge-rich" curriculum approaches
- themes from jurisdictions with Indigenous curriculum arrangements
- emerging literature concerning the role of artificial intelligence (AI) in curriculum making.

We used a scoping and narrative literature review approach. We adopted Priestley et al.'s (2021) framework, which posits "curriculum making" as a "multi-layered" social process that occurs across different layers of education systems, from the highest levels of global policy discourse (supra), to national or state curriculum policy (macro), production of resourcing and guidance (meso), school-level curriculum making (micro) right down to the interactions that happen at the site of learning in a classroom (nano). This framework helps with understanding the complex and interesting dynamics at play within any given jurisdiction, as well as similarities and differences between jurisdictions.

Key themes from analysis of selected jurisdictions

We chose to focus on five jurisdictions: England, Australia, Scotland, Estonia, and South Africa. Collectively, these illustrate a range of approaches in terms of orientation towards "knowledge-rich" curriculum, degree of curriculum autonomy devolved to schools, drivers and methods of curriculum reform, and other social and cultural educational norms. The review shows how competing perspectives and governance contexts can take countries in different directions—from high centralisation and prescription of curriculum to high localised curriculum autonomy, and everything in between. Assessment and accountability policies also play a considerable role in shaping how curriculum is expressed at the school and classroom levels.

The way in which macro curriculum development is managed and governed in each jurisdiction is another interesting variable. For example, who is invited to be part of the design process; what role or agency is afforded to experts, teachers, learners, or the community; how competing perspectives and feedback are managed; and whose priorities are satisfied in new curriculum designs.

Key themes in relation to Indigenous curriculum arrangements

We also included a thematic section summarising common themes in literature from jurisdictions that have some kind of Indigenous curriculum arrangement. In many jurisdictions, the balance between Indigenous authority, localisation, and national consistency are still being actively negotiated. The literature consistently shows that questions about Indigenous curriculum are ultimately questions about whose knowledge matters, who has authority to decide this, and how education systems can create respectful and meaningful relationships between multiple knowledge systems in contemporary societies.

Teachers' roles and experiences of curriculum making

The general view from the literature is that teachers should play some role in macro curriculum making. However, mechanisms for their involvement vary across jurisdictions, and input does not always mean influence. Regardless, macro curriculum reforms have been widely demonstrated to impact teachers in a variety of ways, both positively and negatively. In terms of teachers' micro and nano curriculum making, challenges and opportunities have been identified across contexts of high and low curriculum autonomy. These can include cultures of performativity, compliance, and risk aversion, through to anxiety and overwhelm. It is also evident that teachers are diverse and hold different perspectives about curriculum as well as their desired or expected levels of input or agency as curriculum makers.

The role of AI in curriculum making

The literature suggests that AI is beginning to influence curriculum making across all sites of activity, from supra-national debates about the purposes and content of education through to teachers' everyday curriculum work in schools and classrooms. However, there is currently far more research on teachers' use of AI than on the use of AI in curriculum governance or policy administration. Discussions about AI often reinforce longstanding questions such as: What knowledge and capabilities are needed (or should be prioritised) in the curriculum? What is the role of professional disciplinary expertise or teacher practice knowledge in curriculum design processes? And what forms of external guidance, governance, and accountability are needed to ensure ethical, equitable, and robust curriculum making?

Our next steps

Given that Aotearoa New Zealand is in a period of significant curriculum change, we propose three overarching questions to guide the direction of our research over the next few years:

- How are schools and teachers responding to the updated curriculum (and supports) and putting these into practice in diverse school contexts?
- How are diverse learners (and their families) experiencing the curriculum?
- Over time, what impacts does the curriculum change have for student learning, educational equity, and other outcomes?

Specific questions to explore in relation to teachers' and school leaders' curriculum-making practices include:

- What opportunities and challenges do teachers and school leaders identify in their implementation of the new curriculum?
- What are teachers doing more of, less of, or doing differently in their practice because of the curriculum change?
- How do teachers and school leaders perceive their role and agency as they work with the new curriculum?
- What internal and external factors shape teachers' curriculum practice? (For example, teachers' educational knowledge and beliefs, existing school-wide culture and practices, new and old resources, use of AI for curriculum planning and lesson design, professional learning and development (PLD), assessment and reporting requirements, system monitoring of teacher and school performance, etc.)
- What are the impacts of the curriculum change for consistency and quality of teaching and learning?

1. He kupu whakataki | Introduction

It has been nearly two decades since the release of two national curriculum documents for Aotearoa New Zealand—*The New Zealand Curriculum* or NZC (Ministry of Education, 2007)¹ and *Te Marautanga o Aotearoa* or TMoA (Ministry of Education, 2008).² These two national curricula have been in a period of revision and updating since approximately 2021, spanning two governments, with significant directional, procedural, and timeline shifts. At the time of writing this report, some parts of the updated curriculum had been gazetted for use in schools and kura. Other parts were still being finalised and are scheduled for implementation over the next few years.

About this project

NZCER's Curriculum in Practice research project sets out to explore how updated curriculum is put "into practice" from 2026 onwards. We are interested in understanding the sense-making processes and decisions made within schools and classrooms to *enact* the curriculum, how the curriculum is experienced by learners, and the impacts and outcomes of the curriculum changes.

The purpose of this literature review is to inform subsequent stages of our research. We began with two key aims:

- to understand and compare *The New Zealand Curriculum* update's "direction of travel" (Priestley et al., 2023) in relation to a selection of other jurisdictions
- to provide a thematic synthesis of literature about teachers' and school leaders' curriculum making and curriculum sense making from these jurisdictions and the wider global literature.

During our reading, we identified three additional areas that have also been incorporated into the review:

- a discussion of the origins of "knowledge-rich" curriculum discourse
- a synthesis of themes from jurisdictions with Indigenous curriculum arrangements
- a discussion on the role(s) of AI in relation to curriculum.

A brief timeline of recent curriculum changes in Aotearoa New Zealand

Of the two national curricula, this report focuses more on the trajectory of the national curriculum for English-medium education—*The New Zealand Curriculum*. Documenting the trajectory of TMoA is of no less importance, but there are complexities involved in trying to adequately address both curricula in one analysis. Conceptually, these are meant to be two distinct curricula, with TMoA shaped from a Māori worldview and perspective. For a discussion of longstanding tensions and unresolved issues around development of curriculum for Māori-medium, see Stewart et al. (2017), and Trinick and Heaton (2021).

¹ NZC is the national curriculum for education taught through the medium of English language.

² TMoA is a national curriculum for education taught through the medium of te reo Māori.

Informed by a report from a Ministerial Curriculum, Progress and Achievement Advisory Group, plans for a process to refresh the whole NZC began to form in 2019 (Hipkins, 2019). This period also coincided with the development of new draft curriculum content for teaching Aotearoa New Zealand's histories (Crown Law, 2026), which was finalised and released in 2022.³ In January 2021, Cabinet agreed that the national curriculum would be fully refreshed (Crown Law, 2026).⁴ The early stages of the NZC refresh, under a Labour Government, aimed for a curriculum that was “more explicit about what learners need to understand, know, and do”, “clearer and easier to use”, as well as “bicultural and inclusive” (Education Gazette, 2021; School News, 2021; Tinetti & Davis, 2021).⁵ These aims were also expressed in terms of upholding and giving effect to Te Tiriti o Waitangi, reflecting the language, culture, and identities of ākonga, and connecting with local contexts (Education Gazette, 2021; Ministry of Education, 2022). The name Te Mātaiaho was gifted by Dr Wayne Ngata and has been used in conjunction with NZC since 2022–23, though there has been some recent debate about its continued use.⁶

Since late 2023, under a National-led Coalition Government, the goal has been to produce a curriculum that is “knowledge-rich, carefully sequenced, and based on the science of learning” (Stanford, 2025b; see also Crown Law, 2026 pp. 50–72). We explore the meaning and origins of these ideas in Section 3. In addition to changes in intention and direction, the overall timeline for the refresh and update of the curriculum has been revised several times since 2021, most recently in May 2026 (see Appendix A).

Since 2021, several draft and final components of the curriculum have been written and released to the education sector for feedback. Some components have been rewritten and released several times (see Table 1; see also Crown Law, 2026, pp. 47–87). At the time of writing this report (June 2026), Years 1–10 curriculum for two NZC learning areas (English and Mathematics and statistics) had been gazetted and were required to be in use from the start of 2026.⁷ Other parts of the curriculum were at various stages of drafting, feedback, and finalisation, and will be phased from 2027–30.

3 For a more detailed timeline of the development and release of this curriculum content, see Bolstad et al. (2025).

4 According to evidence submitted by Crown Law (2026, p. 44), Cabinet agreed the National Curriculum would be fully refreshed to be: Clear for kura, schools, kaiako and teachers about the learning that must be covered; Clear about the characteristics of quality local curriculum and marau ā-kura; Accessible and easy-to-use; and Fit for purpose for the unique learning contexts in English and Māori-medium.

5 According to evidence submitted by Crown Law (2026, p. 46), Cabinet also agreed that the refresh of NZC would strengthen its bicultural framing to better reflect the Treaty partnership.

6 This name was used internally within the curriculum refresh during 2022 and was shared publicly with the release of the first draft in March 2023. The name was still present with the release of a revised draft in October 2025; however, some critics have argued that Te Mātaiaho was “unrecognisable” in the rewrite (MacArthur, 2025), no longer honouring of Te Tiriti (Ford & Jepsen, 2025), and continued use of the name was contested.

7 This new content for Years 1–10 replaced previously gazetted curriculum content for Years 1–6 English and Years 1–8 Mathematics and statistics which had been in place from January 2025. The same was also true for two wāhanga ako in TMOA: Te reo Rangatira and pangarau.

TABLE 1 Draft and final English-medium (NZC) curriculum documents released 2022–26

	Drafts released for feedback	“Final” versions	Status
2022		Aotearoa New Zealand’s histories and Te Takanga o te Wā released	Gazetted for use from 2023
	Draft Social Sciences learning area* Draft vision for young people Draft Te Mātaiaho Curriculum Framework Draft English learning area (Years 0–13)* Draft Mathematics and Statistics learning area (Years 0–13)*		Drafts for feedback
		Social Sciences learning area	Released but not gazetted
2023		English learning area (Years 0–13) Mathematics and Statistics learning area (Years 0–13)	Released but not gazetted
2024	Draft English learning area (Years 0–6)		Draft for feedback
		English learning area Years 0–6 Mathematics and Statistics learning area Years 0–8	Gazetted for use from January 2025 but revoked and replaced in October 2025
2025	Draft English learning area (Years 7–13) Draft Mathematics and Statistics learning area (Years 9–13)		
2025 (October)		English learning area Years 0–10 Mathematics and Statistics learning area Years 0–10	Gazetted for use from January 2026 (replacing 2024 versions)
	The New Zealand Curriculum Te Mātaiaho (Framework document) Six draft Years 0–10 learning areas: Social Sciences*, Science*, Health and Physical Education, The Arts, Technology, and Learning Languages		Open for feedback until April 2026 Asterisked (*) learning areas required to be used from 2027; others by 2029
2026 (May)	26 draft subject syllabi for Years 11–13 in the learning areas of English, Mathematics and Statistics, Social Sciences, Science, and Health and Physical Education ⁸		Open for feedback until June Requirement for use will be phased in—2028 (Year 11), 2029 (Year 12), 2030 (Year 13)

8 Additional subject curricula were due to be released for feedback in tranches from June–August 2026.

Changes to the curriculum sit alongside other recent educational policy and legislative changes that influence the enactment of school curriculum. This includes the introduction of mandated hours of teaching for literacy and mathematics in the primary years, investment in structured literacy programmes and maths textbooks, redirection of PLD investment, a shift away from concepts of curriculum localisation, removal of the National Education and Learning Priorities (NELP) provisions⁹ from the Education and Training Act 2020, a plan to remove and replace the senior secondary National Certificates of Educational Achievement (NCEA) qualifications regime, new assessment specifications and reporting requirements for Years 1–10, changes to initial teacher education and teacher PLD, and changes to school board responsibilities.¹⁰

In summary, this research was initiated during a period of extensive educational reform. While we will not address these other reforms further in this report, we are aware there has been a range of sector responses and reactions to the reforms, including an urgent Waitangi Tribunal hearing to address concerns with proposed amendments to the Education and Training Act 2020 and changes to the national curriculum (Crown Law, 2026; Waitangi Tribunal, 2026).¹¹

Methodology

We used a scoping and narrative literature review approach (Reynolds, 2026) to support our key aims. Our literature search strategy included library databases, online and snowball searches, and recommendations from key advisers. We began by searching for recent literature comparing the “direction of policy travel” for curriculum across different countries (Crehan et al., 2025; Magee et al., 2025; Priestley et al., 2021; Priestley et al., 2023; Wood & Hughson, 2025), particularly those that have adopted “knowledge-rich” or “carefully sequenced” curriculum or appear to be moving in this direction. We also searched the literature for jurisdictions that have been widely described as “high performing”,¹² and did a general media scan to identify jurisdictions that have been mentioned in connection with recent Aotearoa New Zealand curriculum policy. Finally, we searched the global education research literature broadly using combinations of keywords such as “teachers”, “curriculum”, “curriculum-making, -reform, -adaptation, -implementation”, and “sense making”.

9 The NELP were: Learners at the centre, barrier-free access, quality teaching and leadership, future of learning and work, and world-class inclusive public education (Sutcliffe, 2020).

10 See <https://www.beehive.govt.nz/release/education-system-reforms-pass-third-reading-parliament>, <https://www.beehive.govt.nz/release/raising-achievement-closing-equity-gap-school>, <https://www.beehive.govt.nz/release/relentless-focus-literacy-numeracy-school>

11 Broadly, claimants and interested parties had three major concerns. “First, they claimed the crown’s process breaches Treaty principles as the Crown has failed to adequately engage with Māori. Secondly, they submitted the Crown, having failed to engage adequately with Māori, has failed to properly inform itself of the potential impacts of the reforms on Māori and Treaty interests in education. Lastly, they argued that the reforms have constitutional significance and that downgrading Treaty standards in the [Education and Training Act] risks diluting the Crown’s obligations as expressed in statute, reducing account ability for Treaty compliance, and removing safeguards for Treaty interests in education” (Waitangi Tribunal, 2026, p. 2).

12 The literature notes that there are challenges in defining “high performing”, given there are various ways to measure this including socially and culturally. In PISA 2022, 18 countries and economies performed above the OECD average in mathematics, reading, and science. In alphabetical order, these were: Australia, Canada, the Czech Republic, Denmark, Estonia, Finland, Hong Kong [China], Ireland, Japan, Korea, Macao [China], New Zealand, Poland, Singapore, Sweden, Switzerland, Chinese Taipei, and the United Kingdom. However, there are additional jurisdictions whose scores are not statistically significantly different from the OECD average. Policy makers may also exercise judgements around which jurisdictions they do or do not consider to be useful comparators for their own performance. OECD’s International High Performing Systems for Tomorrow (HPST) programme involves policy dialogues between seven “high performing jurisdictions”—these are Australia, Canada, Estonia, Finland, Germany, Singapore, and the United Kingdom (OECD, 2025a; Stevenson, 2022). A literature review by Scottish Qualifications Authority (2022), which took advice from OECD, included 11 “high performing” jurisdictions: Norway, Finland, Canada (British Columbia), Wales, Ireland, England, Australia (New South Wales), New Zealand, France, Iceland, and Singapore.

Selection of jurisdictions

To keep our review manageable, we chose to focus on five jurisdictions: England, Australia, Scotland, Estonia, and South Africa. Our reasons for selecting each jurisdiction are outlined in Section 4. Pragmatic factors also informed our selections, including how easily we could locate and retrieve sufficient literature in English to compile a clear picture of recent curriculum reform trajectories and current curriculum arrangements in each jurisdiction.

We also searched for jurisdictions with Indigenous curriculum arrangements. Rather than selecting a single jurisdiction to profile, we chose a thematic approach, synthesising literature from many such jurisdictions. This is also in Section 4.

Overview of report structure

Section 2 provides a conceptual toolkit for thinking about curriculum, key challenges associated with comparison of curricula across jurisdictions, and frameworks that have been developed to support these types of analysis.

Section 3 discusses the origins of the arguments for a curriculum that is “knowledge-rich”, “carefully sequenced”, and “grounded in the science of learning”.

Section 4 describes recent curriculum approaches in five jurisdictions, as well as key themes from jurisdictions that have Indigenous curriculum arrangements.

Section 5 discusses teachers' and school leaders' roles in curriculum making, drawing on studies from our selected jurisdictions as well as from the wider global literature.

Section 6 discusses the roles of AI in curriculum making.

Section 7 provides a brief discussion highlighting questions for exploration in the next phases of our research.

2. Frameworks for thinking about curriculum

Comparing curricula and curriculum policy approaches across different jurisdictions is not straightforward (Priestley et al., 2023), in part due to the many different ways that “curriculum” is defined, organised, implemented, and governed. This section provides a conceptual toolkit for thinking about “curriculum”, introduces the concept of “curriculum making” as a multilayered social practice, and presents a few frameworks that have been used to analyse and compare curriculum within and across jurisdictions.

Curriculum as multi-layered social practices

While it is common for the term “curriculum” to be used in reference to national- or state-level documents, it is also important to understand that curriculum is by nature a mediated and enacted process. People, including school leaders, teachers, facilitators, and others, are responsible for turning curriculum policy documents into acts of teaching and learning. Theorists have sometimes described curriculum as having multiple “levels”,¹³ such as the example in Table 2.

TABLE 2 Curriculum as multi-levelled

Intended or planned curriculum	The official curriculum (e.g., as set out in national curriculum documents)
School curriculum	The school-level planned curriculum
Enacted/taught curriculum	What is taught and experienced in the classroom, including the learning activities, materials, and activities used
Experienced or learnt curriculum ¹⁴	What learners experience and learn

Whether an intended curriculum is tightly prescribed or framed with more flexibility, interpretations and choices are still being made at the school and classroom level. Thus, what appears in official curriculum documents cannot necessarily be assumed to be identical to what is enacted by teachers, nor what is experienced by learners (Jackson, 1990; B. Snyder, 1971).

Priestley et al. (2021, 2023) describe curriculum as involving “multi-layered social practices”, a definition which:

moves us beyond thinking of the curriculum as a product, which needs to be delivered or implemented. Instead, it views curriculum as something that is socially-constructed, differentially across different layers of the education system, as the curriculum is made in different institutional settings. (Priestley et al., 2023, p. 7)

Priestley et al. use the term “curriculum making” to describe these processes. Rather than talking about curriculum “levels” (as shown in Table 2), their framework describes different “sites of activity”

¹³ Theorists associated with these ideas include Philip Jackson, Basil Bernstein, and Elliot Eisner (Eisner, 1979; Jackson, 1990; Singh & Kwok, 2023).

¹⁴ Theorists also identify notions of “unintended” or “hidden” curriculum—which can be described as the unwritten messages, values, and perspectives that students learn in school (Jackson, 1990; B. Snyder, 1971) as well as the “null” curriculum—what is deliberately not taught (Eisner, 1979; Teachers Institute, 2025).

for curriculum making. This framework helps to tease out and compare the complex and interesting dynamics at play in curriculum making from the highest levels of global policy discourse (supra site) right down to the interactions that happen at the site of learning (nano site) (Priestley et al., 2021). Table 3 shows their framework. We have added a few elaborations to the third column that show examples of key actors and influences, though these are not exhaustive lists.

TABLE 3 Priestley et al.'s (2021) framework for analysis of curriculum making

Site of activity	Examples of activity	Who has influence (examples)
Supra	Transnational curriculum discourse generation, policy borrowing and lending; policy learning	OECD; World Bank; UNESCO; ministers; thinktanks; academics
Macro	Development of curriculum policy frameworks; legislation to establish agencies and infrastructure	National governments; curriculum agencies; may include other education agencies and peak bodies
Meso	Production of guidance; leadership of and support for curriculum making; production of resources	National governments; curriculum agencies; district authorities; textbook publishers; curriculum brokers; subject-area facilitators; may include other education agencies and peak bodies
Micro	School-level curriculum making: programme design; lesson-planning	Principals; senior leaders; middle leaders; teachers; may involve parents and community
Nano	Curriculum making in classrooms and other learning spaces: pedagogic interactions; curriculum events	Teachers; students; may involve parents and community

In this literature review, our first aim is to outline the nature and direction of travel for curriculum at the macro level¹⁵ in our selected jurisdictions. In doing so, we also include insights about factors at the supra, macro, and meso levels which help to frame the curriculum expectations, responsibilities, and operational space within which school leaders and teachers put curriculum into practice. Our second aim is to understand teachers' experiences of curriculum making and curriculum sense making,¹⁶ from these and other jurisdictions. Our first aim is mainly addressed in Section 4, and our second aim is mainly addressed in Section 5.

Frameworks for analysing and comparing curriculum

Curriculum analysts have proposed various ways to frame curriculum differences for purposes of analysis and comparison. One way is to examine the ideological discourses that underpin different approaches to curriculum. For example, Schiro (2012, cited in Priestley et al., 2023) offers a schema of four "ideologies" or "orientations" to describe different visions of the *purpose* of education, each with slightly different implications about how curriculum should be designed. A highly simplified version is presented in Table 4.

¹⁵ A note about our language use: Following Priestley et al. (2021), we understand curriculum making as occurring across multiple "sites of activity" rather than fixed hierarchical "levels". In this report, we retain Priestley et al.'s conceptual framing. However, for readability, we occasionally use the term "levels" as shorthand when discussing these sites of curriculum making.

¹⁶ While there may be subtle differences between the terms "curriculum making" and "curriculum sense making" (Andersen et al., 2024), for the purposes of this review we will use both. Terms are defined more carefully in Section 5.

TABLE 4 Schiro's four ideologies, simplified from Priestley et al. (2023)

Scholar-academic	The purpose of education is to learn knowledge developed by the academic disciplines
Social efficiency	The purpose of education is to efficiently train youth to meet the needs of society by learning the skills and procedures they will need in the workplace, and to function as effective members of society
Learner-centred	The goal of education is the growth of individuals, where learners develop their unique attributes and make meaning through interactions with other learners, teachers, ideas, and things
Social reconstruction	The purpose of education is to facilitate construction of a more just society

Most curricula contain traces of all these ideologies. A recent attempt by Crehan et al. (2025) to analyse curriculum across 14 jurisdictions reaffirmed once again that systems “could not be meaningfully grouped by expressed purpose”, because most drew on “the same four broad objectives”¹⁷—though there were some differences in how these purposes were expressed, in how much detail, and how the structures of curriculum were organised to achieve espoused purposes. Understanding the extent to which different purposes or aims for education are evident or emphasised in any curriculum “demand[s] a nuanced analysis” (Priestley et al., 2023, p. 12). In the academic literature, there is no shortage of such analysis. However, due to the scholarly and conceptual nature of these analyses, these ideas and debates may fail to trickle down into the educational conversations that are had within schools, or between schools, political leaders, and the wider community.

In addition to describing the similarities and differences *between* different approaches to curriculum, curriculum analysts have explored different ways to describe the drivers and directional shifts that occur over time *within* jurisdictions. For example, Priestley et al. (2023) discuss recent curriculum trends in relation to Schiro's ideologies, highlighting a few national curricula, as well as key academics or global policy influences, which seem to emphasise one or more of these purposes.

In recent years, curriculum discourse in some jurisdictions has trended towards a binary, with claims that curricula have an emphasis *either* on “knowledge”—what is to be learnt, or “competencies”—what learners are expected to be able to do as a result of their learning. Just as with Schiro's typology, most curricula typically involve aspects of both (OECD, 2025c). The flattening of these nuances into binaries or dichotomies is common in times leading up to significant “pendulum swings” in the trajectory of curriculum policy (Wood & Hughson, 2025). Wood and Hughson identify the “knowledge” or “competencies” axis as one of several axes on which directional shifts in curriculum policy can be mapped. Other axes include “autonomy” versus “prescription”, “reduced content” versus “expanded content”, and “local” versus “global” priorities. When different curriculum reform trajectories are studied at a global/supra-level, the effects of international influence and “policy-borrowing” (Priestley et al., 2023) become evident. The frequent linkage of significant curriculum policy change to changes of government or political sentiment can also be noticed from these types of analysis (Crehan et al., 2025), with governments often looking for “quick wins” within short election cycles (Stoll & Sinnema, 2024, p. 9).

¹⁷ Crehan et al. (2025, p. 7) described these as: academic development; preparation for citizenship and work; personal development and wellbeing; and societal change.

Our approach

In this review, we use Priestley et al.'s typology as an organising framework. In exploring the literature, we also occasionally reference other aspects of curriculum theory and comparative analyses outlined in this section, including Schiro's four ideologies and Wood and Hughson's notion of "pendulum swings".

3. The “knowledge-rich” curriculum

As we illustrate later in this review, recent curriculum reform in many jurisdictions has emphasised a “knowledge-rich” approach. *The New Zealand Curriculum: Te Mātaiaho*, for example, is described as, “a knowledge-rich curriculum underpinned by the science of learning (Ministry of Education, 2024, p. 6). This section explores these ideas, and where they have come from.

What is meant by “knowledge rich”?

Knowledge-rich curricula typically focus on what is considered essential subject matter presented in a coherent and sequenced manner across the levels of schooling. Proponents of knowledge-rich curricula often draw on Hirsch’s (Hirsch et al., 1988) concept of cultural literacy and Young’s (Young, 2007; Young & Muller, 2013) ideas about powerful knowledge. These two concepts are often elided, but they provide quite different accounts of what knowledge is important and, indeed, what knowledge is.

In brief, Hirsch (Hirsch et al., 1988) sees knowledge as factual and stable over time. He argues that important cultural knowledge must be taught in schools to ensure that all students, regardless of their backgrounds, have equal opportunities to learn, and to engage democratically as citizens in public discussion and decision making. As an example, Hirsch’s (Hirsch et al., 1988) book *Cultural Literacy* lists information including names, dates, and concepts that American citizens should know. Critics (Feinberg, 1997; Gardner, 1999) argue that the book marginalises minority cultures, focuses on passive learning at the expense of critical thinking and problem solving, reinforces the status quo at the expense of social justice and emancipatory education, and perpetuates canonical knowledge rather than embracing the changing nature of knowledge.

Social realists, such as Michael Young (Young, 2007; Young & Muller, 2013), differentiate between powerful knowledge and everyday knowledge. Everyday knowledge is learnt from day-to-day experiences while powerful knowledge is abstract and so must be taught. Powerful knowledge centres on knowledge of the disciplines such as mathematics and history. It is developed systematically over time according to the conventions of specialist communities of inquiry (such as mathematicians or historians working in universities) and is constantly being tested and updated. This knowledge is considered powerful because it moves beyond everyday experiences and enables participation in debates about important questions facing society. From a social realist perspective, powerful knowledge enables citizens to analyse, question, and critique the foundations of knowledge, and to participate in the development of new knowledge and its application.

Criticism of the “powerful knowledge” concept includes its failure to recognise different knowledge systems (e.g., Catling & Martin, 2011), its failure to acknowledge the colonising effects of disciplinary knowledge (e.g., Rudolph et al., 2018), and its assumptions about the acquisition of powerful knowledge by disadvantaged students (e.g., Beck, 2013).

The role of cognitive science in the knowledge-rich curriculum

A third way of thinking about knowledge in a knowledge-rich curriculum comes from cognitive science (now often referred to in policy as “the science of learning”).¹⁸ NZC, for example, describes the updated curriculum as being “underpinned by the science of learning”. This cognitive science foundation is evident in the language and ideas throughout the curriculum document. Examples include the importance of “chunking” learning material into manageable amounts and the idea that skill development is dependent on knowledge.

Research from cognitive science shows that the skill of reading comprehension is highly dependent on knowledge (e.g., Wexler, 2019; Willingham, 2021). Knowledge of the topic, concepts, and vocabulary of text, proponents argue, is what enables comprehension of it. The argument is that the curriculum must be knowledge rich because knowledge encoded in the long-term memory is what enables not only the development of further knowledge, but also the development of skills.

Science of learning advocates also argue that broader, so-called generic skills are also knowledge dependent. You think and solve problems *about* something; that is, knowledge. Thinking and problem-solving skills are therefore acquired in the process of learning knowledge. The application of these skills to knowledge provides access to deeper understanding of more complex ideas, which in turn provides further opportunities for skill development.

Cognitive Load Theory (CLT) is central to the science of learning. CLT says teaching should avoid overloading students, allowing them to embed new knowledge in their long-term memory, before new knowledge is introduced. Surma et al. (2025) summarise learning strategies shown to support this. These strategies include the use of explicit instruction, coherent worked examples (with minimal distracting information), and segmented information (complex ideas broken into smaller, structured parts). Students are provided with opportunities to activate prior knowledge, practise new learning at spaced intervals, retrieve and summarise information from memory, and to question and explain information. To help them embed, process, and retrieve information, teachers provide students with scaffolding, the expectation they will be tested, feedback, and explicit instruction on how to self-regulate their learning.

Critics of learning theories such as CLT cite research showing that the working memory is influenced by a range of factors including emotions, motivation, and individual differences, and not just cognitive load. Tytler et al. (2025) argue that working memory is not a simple system that can become overloaded but is distributed across various brain networks. Learning, they argue, is not only about working memory, but also involves making connections involving “affect, identity, and the negotiation of multi-modal sign systems that characterise disciplinary knowledges” (Tytler et al., 2025, p. 8).

Tytler et al. (2025, p. 10) argue that, because teaching is a complex activity, “research into learning can inform teaching but it cannot determine it”. So, while explicit instruction is useful for learning certain types of knowledge, there are many other types of knowledge to be learnt and ways of teaching and learning them. Direct instruction should therefore be but one of many tools in the teacher’s tool kit. Tytler et al. (2025, p. 17) call for complementary accounts to understand learning, that draw on a range of theories, methods, learning constructs, tools, and rules of evidence, concluding that “dependence on CLT as the “silver” bullet pedagogy runs the risk of impoverishing what and how students learn”.

¹⁸ It is important to note the distinction between cognitive science as an academic field, which draws on psychology, philosophy, computer science, and so forth, and the small group particularly identified in the “science of learning” movement, such as Willingham (2021).

Critics also observe that theories of learning from cognitive science may lead to a reductive perspective on what knowledge should be learnt, especially in the humanities and the social sciences, and may ignore disciplinary differences in knowledge (Counsell, 2011; Eaglestone, 2020; Magee et al., 2025). These critics argue that problems occur when learning practices from cognitive science, such as retrieving, summarising, or explaining information from memory, are applied in generic rather than disciplinary-specific ways.

Key takeaways

This very brief overview of what is referred to as a “knowledge-rich” curriculum sets the scene for the next section in which we describe curriculum change in five jurisdictions. There are many and varied reasons for curriculum change in each of these jurisdictions. However, a reason, common to all, is the need to take a position on knowledge; that is, what counts as knowledge, and what knowledge counts when it comes to teaching and learning in schools. Of particular interest to us is how the answers to these questions are decided and by whom.

4. Curriculum change in selected jurisdictions

This section describes recent curriculum reform trajectories and current curriculum arrangements in five jurisdictions: England, Australia, Scotland, Estonia, and South Africa. Key reasons for including each jurisdiction in the review are outlined at the beginning of each case. For each jurisdiction, we have summarised the drivers and processes of curriculum reform, and, where possible, any recent reviews or analyses of impacts of the changes.

This section concludes with a section summarising key themes from multiple jurisdictions with distinct Indigenous curriculum arrangements. Our reasons for taking a thematic approach rather than profiling individual jurisdictions are outlined at the beginning of that section.

England

We chose to focus on the jurisdiction of England as an early adopter of what is now referred to as a “knowledge-rich curriculum”.¹⁹ England is described as “one of the pioneers in developing a knowledge rich National Curriculum” (Vanhees et al., 2025, p. 102729), and has provided a model used in other jurisdictions, including Aotearoa New Zealand.

The turn towards knowledge in the English curriculum

Prior to the election of the Conservative-led coalition government in 2010, England had a National Curriculum with statutory programmes of study and non-statutory guidance for individual subjects. The curriculum included a focus on general skills and competencies and contained less content than earlier curriculum documents, allowing more autonomy for teachers. The Conservative-led coalition positioned the need for curriculum change as a response to concern about scores on international tests, such as the OECD’s PISA, and concern about teacher accountability.

Following the 2010 election, the Education Secretary, Michael Gove, commissioned an Expert Panel to review the National Curriculum. The review team produced a report influenced by the ideas held by Hirsch et al. (1988) and Michael Young (2008) which, in turn, shaped the National Curriculum (Magee et al., 2025).

The content of England’s knowledge-rich curriculum: What changed?

In 2013, a new, statutory, national curriculum was introduced in England based on the ideas of Hirsch and supported by theories of learning from cognitive science (Vanhees et al., 2025). The curriculum had compulsory core subjects with highly specified content. For example, changes to mathematics involved introducing more demanding topics and changes to English literature involved including a broader range of more demanding texts, such as 19th century novels and Romantic poetry. To support these changes, the Department for Education provided additional information about what to teach

¹⁹ It is important to note that this term has been used retrospectively to describe the national curriculum in England.

for each subject at each key stage, and exemplar lesson plans and assessment material, along with professional development. Wood and Hughson (2025) summarise the shifts from the 2008 to the 2013 National Curriculum in England, as a pendulum swing towards increased prescription, expanded content, and a focus on knowledge.

Initiatives supporting the knowledge-rich curriculum

During this time, a range of initiatives supported, or even strengthened, the knowledge-rich approaches laid out in the curriculum. These initiatives, which could be described as sitting at the meso-level in Priestley et al.'s (2023) typology, included an updated assessment system; the provision of “evidence-based” research, reports, and resources by the recently established Education Endowment Fund (EEF); and an inspectorate with a renewed curriculum focus.

An assessment system focused on the disciplines

Soon after coming into office, the Conservative-led coalition began making changes to the assessment system, with the expressed aim of identifying and rewarding excellence. In 2012, the Government announced the development of the English Baccalaureate Certificates in core subjects such as maths and English. There were also new, more challenging requirements for A-levels and for the General Certificate of Secondary Education (GCSE).

The GCSE reforms, which began in 2015 included:

- removing internal assessment from subjects such as English literature, physics, geography, and history
- removing the practice of modularity (i.e., allowing students to sit exams on completion of a module of work rather than at the end of the year and to re-sit exams)
- removing tiering (the practice of differentiating the difficulty of exams according to student ability)
- replacing the A+ to G grading system with a 1–9 system with a new top grade intended to identify and acknowledge excellence.

In 2016, more challenging standardised tests were introduced at the end of key stages 1 and 2 to align with the new curriculum expectations.

Critics argue that these assessment reforms prioritised traditional academic subjects at the expense of vocational and creative subjects, emphasised rigour over inclusion (e.g., Meadows & Cadwallader, 2026), and narrowed the curriculum (e.g., Towers et al., 2026).

The Education Endowment Fund

The EEF²⁰ was set up when the curriculum review and rewriting were underway. The EEF supported the focus of the new curriculum by producing blogs, reports, and tools for teachers highlighting the importance of a knowledge, and referencing research from cognitive science (Magee et al., 2025). Some critics (such as Parker & Leat, 2021) argue that the power of the EEF to determine “what works” gives it undue influence on the enactment of the curriculum.

²⁰ The EEF carries out evaluation and research on interventions in education, disseminates findings to the teaching profession, and provides evidence-based resources for improving teaching practice and results, especially for those from poorer backgrounds.

The Ofsted Inspection Framework

Following the introduction of the new curriculum, there were also changes to the Office for Standards in Education, Children's Services and Skills (Ofsted)²¹ that supported a knowledge-rich focus. From September 2019, a new school inspection framework, based on cognitive science theories of learning, was enforced (Parker & Leat, 2021).

Multi-Academy Trusts (MATs)

Academy Trust schools are state-funded, independent schools run by an Academy Trust under contract with the Department for Education or, in the case of religious Trusts, church bodies. These Trusts have autonomy over finances and curriculum design. MATs are those responsible for more than one school. Following the Academies Act of 2010²² there was a substantial increase in the number of MATs. Some argue that this increase in MATs resulted in a shift of power from democratically elected local authorities, and decreased autonomy for schools, especially in relation to the finances and the curriculum. Greany (2026), West (2026), and Parker and Leat (2021), for example, describe how, in some MAT schools, "teaching is being industrialized and future-proofed" through use of subject teaching packages that come with instructions, scripts, and teaching resources such as PowerPoints, designed to ensure consistency across schools and to save teachers' time.

Review of England's knowledge-rich curriculum

In 2024, the recently elected Labour government commissioned an independent review of England's curriculum and assessment system. The subsequent report *Building a World Class Curriculum for All* (Curriculum and Assessment Review, 2025) recommended retaining the structural foundations of the curriculum while extending its breadth and balance. The report commented on the positive achievement outcomes for English students on international tests such as PISA, as compared with those in neighbouring jurisdictions where knowledge-rich approaches to curriculum had not been adopted. It also noted inequitable outcomes for Special Education Needs and Disabilities (SEND) students and those from lower socioeconomic backgrounds. Other challenges identified were narrowing of curriculum; under-representation of student diversity; overly prescribed yet superficial coverage of knowledge in the foundation subjects; overemphasis of content knowledge at the expense of analytical and creative skills; and insufficient attention to social and technological change.

To address these challenges, the review recommended:

- better recognition of SEND students and those from low socioeconomic backgrounds to ensure equitable outcomes for all
- greater clarity of content
- better representation of diverse student populations in the curriculum
- greater flexibility for teachers to adapt their teaching of the curriculum to meet the diverse strengths and needs of the student population
- greater curriculum breadth with room for subjects such as art and music and for extracurricular activities
- more of a future-focus, through better inclusion of digital literacy, media literacy, financial literacy, climate education, sustainability, oracy, and citizenship.

²¹ Ofsted carries out inspections of education, training, and care providers.

²² The Academies Act of 2010 allowed local authority-maintained schools to become Academy Trust schools.

Key takeaways

England's experience of a knowledge-rich curriculum for over a decade provides useful lessons for jurisdictions, such as Aotearoa New Zealand, embarking on a similar direction of travel. The 2024/25 review of England's curriculum, alongside research findings and academic commentary, highlight what can go well when adopting knowledge-rich approaches to curriculum, and potential pitfalls to avoid.

Australia

We have included Australia as one of our focus jurisdictions because of similarities with Aotearoa New Zealand in geographic and cultural context, knowledge-rich curriculum discourses evident in a recent report by the Australian Education Research Organisation (AERO), and the uptake of these discourses by states such as New South Wales and Victoria, and by educational organisations.

Historically, the states and territories of Australia have been responsible for their own curricula with a range of perspectives on the place of knowledge, skills, and understandings. This section describes the relatively recent development of a standardised federal curriculum in Australia for Foundation to Year 10, and the impact of the AERO report.

The Australian Curriculum, Assessment and Reporting Authority

Following their election in 2007, the Australian Labor Party established the Australian Curriculum, Assessment and Reporting Authority (ACARA). This new national policy organisation was jointly owned and funded by the federal government, six state governments, and two territory governments (Savage, 2016). ACARA was tasked with developing a national curriculum, a national assessment programme, and a national data collection and reporting programme. The purpose was to ensure greater consistency across the states and territories of Australia, to avoid the duplication of resources, and to improve student achievement and retention rates (Reid, 2018).

Since its establishment, the power and reach of ACARA has increased. In an analysis of interviews with policy makers in ACARA and curriculum agencies in four Australian states,²³ Savage (2016, p. 833) found that ACARA had “powerful new roles” in driving national reform and inter-agency collaboration, that ACARA was taking responsibility for areas of policy formerly taken at state level and blurring these lines of responsibility, and that there was now “an uneven playing field of intergovernmental and inter-agency relationships and powers”.

The first national curriculum in Australia

The first national curriculum in Australia was introduced in 2010 and implemented in 2011. The official reasons given for introducing a national curriculum were to increase consistency across the states and territories, to prevent the duplication of resources, and to address differences in achievement between jurisdictions (Reid, 2018). Wyatt-Smith and Adie (2018) link calls for reform to declining PISA rankings since 2006 in reading, mathematics, and science. There have been numerous minor updates of the Australian Curriculum since 2011. The most recent version describes the knowledge, skills, and understandings needed from Foundation to Year 10.

23 Western Australia, New South Wales, Queensland, and Victoria.

The process of developing the Australian Curriculum

The process of developing a national curriculum is described as “perhaps the most extensive in the history of curriculum development in Australia” (Scarino, 2018 p. 26) with “unprecedented opportunities for debates and position-taking” (Yates, 2018, p. 137). These opportunities resulted in “input from teachers, school leaders, curriculum specialists, subject associations, industry and community organisations, parents and caregivers, and the wider community” (Sawatzki, 2025, p. 278). However, some critics have expressed concern over the consultation process, leading Brennan and Zipin (2018, p. 179) to observe that, “Who participates ... and how, has become more questionable over time.”

One of these concerns relates to the controlled and highly structured nature of the consultation. Brennan and Zipin (2018, p. 179) observe that teachers' opportunities to participate in the consultation was “constrained by controls on the process, including (mostly online) feedback templates with carefully framed parameters”, and that there was “little opportunity for parents and wider communities—let alone students—to do more than comment on prepared material, already highly structured”. According to Scarino (2018), the lack of opportunities to consider the conceptual foundation of the curriculum resulted in feedback focused mainly on its structural and surface features or on its implementation, rather than on its underpinning principles.

Another concern about the consultation process relates to a perceived lack of transparency regarding the analysis and use of the consultation feedback. Scarino (2018), for example, observes that response to the feedback was carried out “in closed committees and boards, whose members had the authority to decide” and “were not open to wider participation” (p. 26). Similarly, Brennan and Zipin (2018, p. 179) observe that, while there was “significant professional debate” around the initial subjects included in the Australian Curriculum, the authors of the shaping papers for each learning area had to sign confidentiality agreements. This meant that:

issues such as the place of grammar and phonics, the relationship of numeracy to mathematics, the place of Aboriginal history or discovery in science, were decided behind closed doors. (Brennan & Zipin, 2018, p. 179)

There was also concern about the limited representation of Indigenous, disabled, and rural community groups in the consultation process. Brennan and Zipin (2018, p. 183) argue that there was a lack of opportunity for diverse groups to have input, but also “a lack of underlying intent” to ensure the representation of diverse viewpoints when developing and reviewing the Australian Curriculum. Rigney (2018, p. 194) questions the real impact that consultation with the Aboriginal and Torres Strait Islander advisory group had in developing the cross-curriculum priority on Aboriginal histories and cultures, given their brief was limited to providing advice only, with no delegated authority for final decision making.

The content of the Australian Curriculum

The Australian Curriculum Version 9.0 includes eight learning areas,²⁴ seven general capabilities,²⁵ and three cross-curriculum priorities²⁶ to be applied through the learning areas. One of the main criticisms of the curriculum design is the lack of guidance on how to weave the general capabilities, the cross-

²⁴ These are English, mathematics, history, the humanities and social sciences, the arts, health and physical education, languages, and technologies.

²⁵ These are literacy, numeracy, ICT capability, critical and creative thinking, personal and social capability, intercultural understanding, and ethical understanding.

²⁶ These are sustainability, Asia and Australia's engagement with Asia, and Aboriginal and Torres Strait Islander histories and cultures.

curriculum priorities, and the learning areas together (Gilbert, 2018; Green, 2018; Henderson, 2018). Consequently, the general capabilities and cross-curriculum priorities tend to be seen as “add-ons” and “of secondary importance” (Gilbert, 2018 p. 132).

The content of the national curriculum has also been criticised for excluding or downplaying the knowledges, practices, and values of certain groups of students, such as Aboriginal students (e.g., Rigney, 2018), disabled students (e.g., Price & Slee, 2018), and rural students (e.g., Roberts, 2018). For example, Rigney (2018) summarises the “mismatch” highlighted by Aboriginal scholars, between:

an ‘appearance’ of an inclusive official curriculum to solve the Aboriginal educational crisis, and the realities of narrowing content and reinstating a ‘common culture’ for nation-building purposes. (p. 195)

The focus on knowledge

While Lingard and McGregor (2014, p. 90) describe the 2010 curriculum as “a strong return to the disciplines” it is not typically described as knowledge rich. However, as observed by Poulton (2025) terms such as “knowledge rich”, “evidence-based teaching”, “explicit instruction”, and “cognitive sciences” are now being increasingly used by think tanks and research organisations in Australia, such as the Grattan Institute, Centre for Independent Studies, and AERO and by resource sharing platforms, such as Ochre Education. And, more recently, the curriculum authority in New South Wales and in Victoria used the term “knowledge rich” in relation to their curriculum documents, following recent additions supporting this approach (Magee et al., 2025).

The Australian Education Research Organisation

AERO was established as part of the 2020 School Reform Agreement, and is funded by the Commonwealth, State, and Territory governments to produce evidence supporting excellence and equity in the Australian educational system. It has similar goals to the EEF in England and serves a similar function. According to Sawatzki (2025), it is this shared investment that has given AERO growing power to influence curriculum, teaching, and learning in Australia. According to Savage, this power has grown to the extent that AERO now sends curriculum information and advice directly to schools which can at times conflict with the state or territory curriculum information. Magee et al. (2025) conclude that AERO has now become a key influence on policy in Australia.

The AERO report

Soon after the endorsement of *The Australian Curriculum v9.0*, the New South Wales Education Standards Authority commissioned AERO to produce a report for policy makers and practitioners on the merits of knowledge-rich approaches. The report, *A Knowledge-Rich Approach to Curriculum Design* (Lonsdale et al., 2024), brings together research from cognitive science and from the field of social realism (Young & Muller, 2013). It states that all students should be entitled to “progressively and systematically build specialised content knowledge and disciplinary learning” (Lonsdale et al., 2024, p. 8) and explains “the strong link between knowledge and skills” (Lonsdale et al., 2024, p. 11).

According to Magee et al. (2025), the report has influenced curriculum reform in several jurisdictions including New South Wales and Victoria and has influenced policy definitions of knowledge-rich curriculum in the Australian context. Sawatzki (2025) argues that the representation of curriculum, teaching, and learning in the AERO report has led to the creation of resource banks including lesson scripting and worked examples by companies such as Ochre Education, which are purported to save teachers time and ensure greater cross-school consistency. Sawatzki (2025) expresses concern about

the impact use of these resources may have for “the organisation of teaching and learning, teachers’ professional learning and job enjoyment, and young people’s engagement with school” (p. 278).

Critics of the report focus on the narrow conception of knowledge as content and the narrowing of curriculum (e.g., Harris & Murphy, 2025; Moodie, 2025; Sawatzki, 2025; Thomson, 2025); the priority given to Western, disciplinary, and factual knowledge and the exclusion of Indigenous knowledges (e.g., Lowe et al., 2025; Moodie, 2025); the representation of knowledge and skills in binary terms (e.g., Harris & Murphy, 2025; Sawatzki, 2025); and the lack of relevance or future-focus (e.g., Sawatzki, 2025). Further concerns about the report include the standardised, one-size-fits-all approaches to knowledge, pedagogy, and assessment (e.g., Harris & Murphy, 2025); the focus on equality rather than equity (e.g., O’Connor et al., 2025; Sawatzki, 2025); and the limitations placed on teachers’ agency in designing curriculum (e.g., Sawatzki, 2025). These challenges are summed up by Thomson (2025, p. 2) who concludes that “there is still much to discuss about what is meant by knowledge rich” and that “the assumed connection to a particular pedagogy is problematic”.

Other concerns relate to the *process* of developing the report and the lack of representation of those involved (see, for example, Harris & Murphy, 2025; Sawatzki, 2025). Sawatzki (2025, p. 279), for example, questions the timing and process of producing the AERO report, observing that:

It is curious that just two years after the Australian Curriculum v9.0 achieved Ministerial endorsement in April 2022, at a time when most states and territories are only in the early stages of familiarisation and implementation, AERO would release a report on knowledge-rich curriculum design. It is also curious that Australia’s best and brightest scholars in curriculum innovation are not cited in the reference list.

Key takeaways

Some of the changes to the Australian Curriculum are similar to those currently occurring in Aotearoa New Zealand, including the rationale given for the change, and the processes in which these changes have come about. The *Australian Curriculum v9.0* is not seen as strongly “knowledge rich”, but through the influence of the AERO report and of AERO itself, along with the influence of some state governments such as New South Wales and Victoria, ideas from the knowledge-rich discourse have gained traction in policy circles, and with resources sent to schools/teachers.

Scotland

Scotland is currently in a process of reviewing its national curriculum, the Curriculum for Excellence (CfE), with some signs of influence from “knowledge-rich” curriculum discourse. The current CfE is described as “holistic” and “learner-centred”. Developed from the early 2000s and phased in from 2010, CfE replaced an earlier more content-heavy curriculum (Crehan et al., 2025). We have included Scotland in this review because Scotland and Aotearoa New Zealand’s curriculum trajectories have often been compared, with similar conceptual influences and processes in the early 2000s in the lead up to the 2007 NZC and the Scottish CfE. Some analysts suggested there was a “downgraded” role for knowledge in both curricula (Priestley & Sinnema, 2014).

Scotland also provides an interesting comparator for Aotearoa New Zealand as both countries are now reviewing and updating their respective national curricula. The background and key events leading to the CfE are outlined below, followed by a brief update about the current review and update of the CfE.

2002–08 engagement and development of CfE

In 2002, the Scottish Executive Education Department launched a national debate on schools for the 21st century (Hizli Alkan, 2022), said to have elicited over 1,500 responses with an estimated 20,000 people taking part (Munn et al., 2004). This began an extended process of curriculum review between 2002 and 2008, including the 2003 formation of a multi-stakeholder Review group, publication of a proposed CfE in 2004, release of draft experiences and outcomes²⁷ in 2007, and a 12-month engagement strategy to elicit feedback on these from various stakeholder groups (Munn et al., 2004).

Education Scotland²⁸ defines curriculum as “the totality of all that is planned for children and young people from early learning and childcare, through school and beyond” (Education Scotland, 2024b, n.p.). The CfE aims for “a coherent curriculum from age 3 to 18” to “develop the knowledge, skills, and attributes [learners] need to adapt, think critically and flourish in today’s world”. CfE says this learning can be developed through four contexts: curriculum areas and subjects; interdisciplinary learning; the ethos and life of the school; and opportunities for personal achievement. The CfE centres four fundamental capacities for learners: successful learners; confident individuals; responsible citizens; and effective contributors. There are eight curriculum areas: expressive arts, health and wellbeing, languages, mathematics, religious and moral education, sciences, social studies, and technologies.

2010–14 phased introduction of CfE

Implementation of CfE was phased, beginning in 2010–11 for primary schools and early learning,²⁹ and 2013–14 for the senior school phase. A 2010 review of teacher education supported the vision of curriculum change “recognising that professional capacity building was essential to the implementation of strategic reform” (Hulme, 2025, p. 1208). Early-stage feedback from practitioners (even prior to implementation) indicated that teachers generally welcomed the shift toward greater professional autonomy and flexibility, and increased responsiveness to local circumstances. However, some also “expressed anxiety about ‘getting it wrong’ without the ‘safety blanket’ of prescription” (Hulme, 2025, p. 1208).

2017 further guidance leading to overload

In 2017, the Scottish Government introduced benchmark guidance “after practitioners requested clarification of the specific knowledge and skills students should demonstrate when teaching at each ... level” (Hulme, 2025, p. 1208). Additional assessment guidance was also added. However, it was later noted that this extensive exemplification led to problems, with an overload of too many documents, too much guidance, “over-specified programmes, fragmented instructional tick-box approaches and more bureaucratic than coherent, curriculum planning” (OECD, 2021, p. 61). There is plenty of additional literature discussing strengths, criticisms, and implementation of CfE (Hardley et al., 2021; Hedge & MacKenzie, 2016; Hulme, 2025; Priestley et al., 2014), including arguments in favour of moving towards a more “knowledge-rich” approach (Farmer, 2025b; Paterson & Robertson, 2025).

27 These are described as “a set of clear and concise statements about children’s learning and progression in each curriculum area” (Education Scotland, 2017, n.p.).

28 Education Scotland was established on 1 July 2011 as an Executive Agency of the Scottish Government “with responsibility for supporting quality and improvement in Scottish education and thereby securing the delivery of better learning experiences and outcomes for Scottish learners of all ages” (Education Scotland, 2021, p. 3). Curriculum implementation is part of its remit.

29 Design and implementation of CfE for Early Years learning was also supported by the development of the Early Years Framework (2009), which defined early years as “pre-birth to 8 years old”.

2021–25 OECD review and the Curriculum Improvement Cycle (CIC)

In 2021, a commissioned external OECD review found that “CfE continues to offer a vision and a philosophy of education widely supported and worth pursuing” (OECD, 2021, p. 3) and that policy coherence can be strengthened “by adopting a more structured and strategic approach to curriculum review and implementation” (p. 3). Following the OECD report, a National Discussion on education was conducted. Described as a “generational opportunity for children, young people, and those who support them to have their voices heard concerning the future direction of Scottish education” (Campbell & Harris, 2023, p. 8), this involved a “grassroots engagement approach to help ensure that the National Discussion was as inclusive as possible” (p. 9). Over 38,000 people participated, including young people, educators, parents, and organisations. The processes used to ensure inclusion of the voices of young people who are not always heard are strongly reminiscent of the Aotearoa New Zealand Ministry of Education’s 2018 Kōrero Mātauranga | Education Conversation³⁰ approach (O’Neill, 2024).

Other independent reviews have advocated for more learner-centred assessment and a new curriculum and assessment agency (Hayward, 2023; Muir, 2022). Subsequently, a new working model for a 10-year curriculum review—the Curriculum Improvement Cycle (CIC)—was launched (Education Scotland, 2024a). The CIC is premised on co-design principles:

The refreshed curriculum will start to be formally adopted in schools and settings from August 2028. It is being co-created by teachers, practitioners, partners, and children and young people. We anticipate draft curriculum guidance will be shared in the summer of 2026. (Education Scotland, 2025, p. 1)

It is indicated that what *won’t* change are the four capacities (the “Why”), the four contexts for learning (the “What”), and Scotland’s Curriculum Making model (the “How”). What will change is an “evolved technical framework”; that is, “the documents and guidance that teachers and practitioners use to plan learning for and with children and young people and alongside communities and partners”. The new framework will be underpinned by a Know–Do–Understand approach:

The new guidance will set out big ideas and associated concepts that all children and young people need to help them be individuals, contributors, citizens and learners. At each level, it will clarify the knowledge and skills that will support children and young people in the development of key conceptual understanding. (Education Scotland, 2025, p. 2)

This provides an interesting contrast to Aotearoa New Zealand, where the explicit use of Understand–Know–Do (UKD) construct used in the early stages of the NZC refresh has been reconfigured into a Knowledge and Practices structure.³¹

Key takeaways

With Scotland’s curriculum update still very much at an early stage, it remains to be seen how its trajectory will compare with Aotearoa New Zealand’s over the next decade. At this stage, Scotland’s approach seems to involve a commitment to co-design.

Estonia

Estonia is a high-scoring PISA jurisdiction in Northern Europe, with a population of approximately 1.3 million. Estonia’s approach to education has attracted Aotearoa New Zealand’s interest (Stanford, 2025a), which contributed to our decision to include Estonia in this review.

³⁰ See <https://web.archive.org/web/20190526213036/http://www.conversation.education.govt.nz/>

³¹ One of the original proponents of UKD has argued that the underlying intention of using knowledge and practices to build understanding has not changed (Aitken, 2025).

We found Estonia interesting for several reasons. On one hand, the national curriculum in Estonia provides a high degree of autonomy to schools to develop their own curriculum to meet the intent of the national curriculum framework. There is also a national strategic policy focus on “developing general and future competences” and “lifelong learning” (Ministry of Education and Research, 2020). On the other hand, the literature suggests that assessment and accountability regimes provide a strong driver towards more traditional knowledge-focused teaching practices, particularly for secondary schooling.

Below we outline key steps in the evolution of Estonia’s curriculum approach from the Soviet era until the present.

From Soviet control to educational reform and curriculum democratisation

From the 1940s to the end of the 1980s, Estonia was a Soviet state. Education was primarily conducted in the Russian language, with curriculum centrally compiled by special institutions that prescribed both content and instructional methods (Mikser et al., 2016). Teachers “played no significant role in curriculum development” (p. 834), though it is said that Estonian teachers practised covert resistance by teaching national values through the “hidden curriculum” (Mikser & Goodson, 2019). Teacher groups were also among the key drivers of aspirations for Estonian independence in the late 1980s (Poom-Valickis & Eisenschmidt, 2023).

The collapse of the communist bloc in Eastern Europe led to major educational and societal reforms, including curriculum reform.³² A national curriculum was developed in the mid-1990s with “steps ... towards bringing teachers back into the curriculum development process” (Mikser et al., 2016, p. 838). Teachers were included in committees for compiling national curriculum documents, and there was delegation of many areas of decision making and learning design to the school level. Estonia also has an ongoing mission to fully transition education into the Estonian language by 2030 (Antelme, 2024; Toome, 2024).³³

National curriculum

The 1996 Estonian National Curriculum (NC) first introduced the concept of the “school curriculum” (SC) and defined the relationship between the NC and SC. The NC is a framework that sets out what is expected across all schools, and the SC is the document individual schools create based on the national curriculum. There are currently two NC statements for Estonian schools. The “basic education” curriculum (Estonian Government, 2011a) applies to Grades 1–9 (students approximately aged 7–16). The “upper secondary schools” curriculum (Estonian Government, 2011b) applies to Grades 10–12. Estonia has also recently introduced a new early childhood education curriculum, for children aged 1.5–7 years (Ministry of Education and Research, 2025).

Both the basic education and upper secondary NC documents include general sections that set out the general values, goals, and competences expected for learners at the respective levels of school and “stages” of learning, as well as guidance about the nature of learning and the learning environment, areas of study, and principles for assessment and progression. Eight subject fields are identified in the NC as compulsory for basic education.³⁴ Four subjects are identified as optional.³⁵ The

32 Similar reforms occurred in other Eastern European countries during this period.

33 In 2024, kindergarten and grades one and four transitioned to entirely Estonian teaching. Each year, the grades these students move into will also transition, with Grades 2 and 5 joining the transition in 2025 and Grade 9 transitioning in 2029. Full transition is expected by 2030.

34 These are: language and literature; physical education; art subjects; natural science subjects; mathematics; social subjects; technology; and languages.

35 These are: education in entrepreneurship; informatics; career education; and religious studies.

NC also specifies eight “cross-curricular topics” through which schools are encouraged to integrate learning from different subjects.³⁶

The NC for basic education does not prescribe year-by-year teaching sequences. However, the appendices include subject syllabi for each of the compulsory and optional subjects. These syllabi list intended learning outcomes (expressed as knowledge, skills, and attitudes) to be acquired by the end of each 3-year “stage”. There is also an appendix document providing guidance for the eight “cross-curricular topics” and how these could be framed for learning within each stage.

The “stages” approach seems to share some similarities with the initial years of the NZC refresh (2021–23) which included “UKD progress outcomes” for learners to be achieved by the end of each “phase” of learning. However, the Estonian stages and the Aotearoa New Zealand phases do not quite align, as children in Estonia also start school later than in New Zealand, with most children still in early childhood education until the age of 6–7.

The NC for upper secondary education is similarly structured to the NC for basic education.³⁷ As with the basic education curriculum, subject syllabi are included as appendices. These specify learning outcomes to be achieved by the end of secondary school, as well as prescribing (at a high level) what should be covered in the “courses” or “subdisciplines” within each subject. There is also a similarly structured syllabus for cross-subject-field courses.³⁸

School curriculum

Schools and school leaders in Estonia are said to “have one of the highest levels of autonomy among their European counterparts ... particularly in curriculum development and adaptation” (Khurtsidze et al., 2025, p. 188).³⁹ Schools are delegated responsibility for designing their SC, which must “[take] into consideration the unique characteristics of the school and region, the wishes of school staff, parents and students as well as the mental and material resources available” (Estonian Government, 2011b, para. 19). The head of the school is responsible for “the democratic organisation of the preparation and development of the school curriculum”, which is expected to involve “all persons working in the field of teaching and education at the school ... as well as other school staff, where necessary” as well as involving “students, parents and representatives of other interest groups” (Estonian Government, 2011b, para. 19).

Subject “academicism” meets lifelong learning competencies

In addition to the curriculum, national education strategies shape expectations and priorities for schools. The *Estonian Lifelong Learning Strategy 2020* (Ministry of Education and Research, 2014) aimed to transform school learning approaches to become more learner-centred and the *Estonia: Education Strategy 2021–2035* (Ministry of Education and Research, 2020) emphasises the importance

36 These are: lifelong learning and career planning; environment and sustainable development; civic initiative and entrepreneurship; cultural identity; information environment and media; technology and innovation; health and safety; and values and morals.

37 Seven subject fields are identified as compulsory (the same as for basic education, minus technology). The optional subjects are also similar to those for basic education, with the addition of economics and business administration and national defence studies.

38 English translations were not available. However, a translation produced with Chat-GPT 5.2 identified these as follows: architecture as a living environment; design; drama studies; supporting older people in the home environment; philosophy; the individual in the contemporary information environment; technical drawing; where does my money come from and where does it go?; fundamentals of childcare work; and natural science, technology, and society.

39 Estonia was one of two jurisdictions selected for an infographic in the 2024 TALIS report to illustrate “high” levels of school and teacher decision-making authority (TALIS, 2024, p. 189).

of principals having capabilities in innovation leadership and evidence-informed practice. School self-evaluation is also one of the characteristics of Estonian education (Khurtsidze et al., 2025).

Poom-Valackis and Eisenschmidt (2023) speculate that Estonia's success in PISA and TIMSS may be due to the retention of a relatively strong "academicism" within subject syllabi, noting that, in the early days of reform from Soviet-era curriculum to more democratised forms of curriculum making, "it was challenging for teachers to relinquish deep-rooted, subject-specialist mindsets and evaluate anew what would constitute 'correct' knowledge and ways of teaching" (Poom-Valackis & Eisenschmidt, 2023, p. 434). They cite various studies of teacher practice which suggest that the pedagogical practices and beliefs of many Estonian teachers—whose average age tends to be higher than the OECD average—were shaped in the era of teacher education that favoured a subject-oriented approach, with lower teacher autonomy. The influence of high-stakes senior secondary assessment is also evident, with centralised external exams tending to define what "counts" (Erss, 2018; Mikser et al., 2016; Mikser & Goodson, 2019).

In terms of standardised assessments at the primary and lower secondary level, these are described as "voluntary, but powerful low-stakes assessment".⁴⁰ At the upper secondary school level, the assessment and qualification regime combines three required elements: national external exams (high-stakes, standardised); an internal school exam; and a research paper or practical project.

Key takeaways

Our review of literature about Estonia suggested a few intriguing contradictions that are difficult to fully understand at a distance. On one hand, educational reforms are oriented in the direction of building lifelong learning competencies, emphasising cross-curricular learning opportunities, and devolving a high degree of professional autonomy to schools and teachers. On the other hand, studies suggest teaching approaches may tend towards didactic and traditional approaches, with minimal integration of cross-curricular learning, and lack of systematic development of generic competencies (Erss, 2018; Poom-Valackis & Eisenschmidt, 2023, p. 446). Competing policy drivers have been identified as explanation for some of these contradictions, with the effect that:

the overwhelming rhetoric of the early 1990s related to prioritising teachers' curriculum ownership was in practice quickly and successfully subordinated to globally rising regulatory policies that prioritised external evaluation, benchmarking and standardisation. (Mikser et al., 2023, p. 542)

Estonia is not the only jurisdiction in which these contradictions have been observed. These themes will be discussed again in Section 5.

South Africa

South Africa came up during our searches for curricula that are "carefully sequenced". Further investigation identified South Africa's CAPS (Curriculum and Assessment Policy Statement) Curriculum (introduced in 2011–12) as one of the most prescribed and content-sequenced examples we could find in the English language.⁴¹ South Africa's curriculum trajectory also appears to have

⁴⁰ There are nationally produced scientific, mathematics and reading tests at the end of the first stage (Grades 1–3) and the second stage of schooling (Grades 4–6). Instead of testing students at the end of the academic year in Grades 3 and 6, the assessment takes place at the start of Grades 4 and 7 (approximately equivalent to Aotearoa New Zealand Years 5/6 and 8/9). There are nationally produced, mark-free tests to assess the general/key competences of self-management, learning to learn, and communication (Education Estonia, n.d.).

⁴¹ South Africa's Foundation stage curriculum is available in 11 languages. At intermediate and senior phases, nonlanguage subjects are available in two languages: English and Afrikaans.

been influenced by Michael Young's "powerful knowledge" discourse (Hoadley, 2015). Young has said that his consulting work in South Africa had a big influence on his thinking about knowledge and the curriculum (M. Young, 2015). South Africa is also an interesting context in terms of the influence of a colonial history on the educational system (with similarities and differences to Aotearoa New Zealand and Australia).⁴²

Like Estonia, South Africa has experienced significant curriculum reform—as well as massive social and governance changes—since the 1990s. We outline key stages in South Africa's curriculum trajectory leading to the current CAPS curriculum.

Centralised but highly segregated curricula under apartheid

Under apartheid (from the late 1940s to early 1990s), South Africa's education system was characterised by deeply institutionalised racial and ethnic segregation, with different education departments for different groups. While in theory each department had its own curriculum development and protocols, in reality, curriculum development was "controlled tightly" from the centre, dominated by committees attached to the white House of Assembly (*Apartheid Education—New Learning Online*, n.d.). Resourcing and quality of curriculum were highly disparate, with deliberately inferior curriculum in Black schools (Muyambi & Ahiaku, 2025).⁴³

First post-apartheid curriculum, C2005

With the end of apartheid, policy and legislative changes began dismantling the racially fragmented apartheid education system. Nineteen education departments were eventually unified into one national system (Department of Performance Monitoring and Evaluation, 2014). Curriculum debates surfaced during this time, along with acknowledgement of the "damage done by the apartheid curriculum" (Hoadley, 2015, p. 735). Education was seen as critical in the transformation of apartheid society, and "considerations of *whose* knowledge and *whose* curriculum were paramount" (Hoadley, 2015, p. 735).

Curriculum 2005 (C2005) was developed and phased in from the late 1990s to the early 2000s. C2005 was an outcomes-based curriculum with an overtly "transformational" agenda. C2005 emphasised group work, relevance for learners, local curriculum construction, and a shift from strong disciplinary boundaries towards an emphasis on integration, as well as skills such as problem solving and critical thinking. However, within a few years, C2005 was already being critiqued for "subordinat[ing] knowledge" and "rendering the conceptual sequence and learning progression path of subjects invisible" (Hoadley, 2015, p. 738). A review recommended clearer specification of content. It also identified inadequate teacher development, learning support materials, and lack of alignment between curriculum and assessment policy as issues confounding implementation of C2005 (Curriculum 2005 Review Committee, 2000).

⁴² As a point of interest, South Africa is also one source of overseas-trained teachers (OTT) and is one of several countries that have been targeted for teacher recruitment during shortages due to similarities in teaching qualifications (Hipkins, 2018) and meeting Aotearoa New Zealand English language competency requirements (Teaching Council, 2026). A 2020 report identified South Africa as the highest contributor of OTT (38%) to Aotearoa New Zealand in the period since 2018, followed by the United Kingdom (29%) (Education Review Office, 2020). South Africa was also the fifth-largest overseas birthplace group in Aotearoa New Zealand in both the 2018 and 2023 censuses, after England, China, India, and Australia.

⁴³ This aligned with the Bantu Education Act's aims: "train children for manual labor and menial jobs deemed suitable for their race, instilling the idea that Black people were subservient to white South Africans" (Bantu Education Act | Definition, Summary, & Facts | Britannica, 2026).

Movement towards knowledge specification

In 2002, the National Curriculum Statement⁴⁴ was introduced, “paying greater heed to the conceptual integrity of subjects” (Hoadley, 2015, p. 741), though outcomes were retained as an organising device for the curriculum.⁴⁵ Linda Chisholm, a key leader in the curriculum update process, describes how lobby groups, including disciplinary interest groups, academics, NGOs, teacher unions, and the Christian Right, weighed in on the curriculum change:

Selection of what was to be taught was contested at two levels: the overall shape of the curriculum, and the content of particular learning areas. (Chisholm, 2005, p. 197)

Chisholm goes on to describe particular contestation in areas such as teaching of history, environmental education, economics, and technology.

The curriculum’s promotion of humane values and commitments to social justice, equity, tolerance, diversity, and openness also “provoked a storm of outrage among the Christian Right” (Chisholm, 2005, p. 203). While this particular group ultimately had little influence on the resulting curriculum, Chisholm details the strong influence of other lobby groups and social actors, leading to a curriculum that was “very much the social product of contests between these social forces” while at the same time “not the product of any one such social force” (p. 204). Hoadley (2018, p. 210) similarly described it as a “hybrid curriculum” with some elements of “more strongly classified subject knowledge” and some elements of “learner-centredness”.

The National Curriculum Statement was reviewed again in 2009, amid growing criticism of the outcomes-based structure, or what Young (2015, p. 823) characterised as the “disastrous consequences of introducing a curriculum policy that failed to take seriously the question of knowledge”. Young claimed that it was “fortunate” for South Africa that “there were intellectuals who persuaded policy-makers to call a halt to such madness” (Young, 2015, p. 824):

Around this time the notion of powerful knowledge ... became prominent in a South African curriculum terrain which was deeply divided over the question of knowledge and its place in the curriculum, even after the radical curriculum experiments of the foregoing 15 years or so. (Hoadley, 2015, p. 741)

Hoadley was one of the academics who aligned with Young’s views on knowledge. Hoadley (2010, cited in Hoadley, 2015) said that, around this time, there were two different camps (which she called “tribes”) in the curriculum debates—the “knower tribe” and the “knowledge tribe”—with “almost no critical engagement between the groups” leading to “inaccurate, simplistic stereotypes” of each other’s positions (p. 742). The arguments from the knowledge tribe, Hoadley says, held sway in the review that led to The Curriculum and Assessment Policy Statement (CAPS) in 2011–12.

The introduction of CAPS

The tagline for CAPS is “Structured. Clear. Practical”. CAPS combines curriculum and assessment direction for teachers into single documents with weekly content and pacing. In practical terms, CAPS documents cover phases of learning: Foundation (Grades 1–3), Intermediate (Grades 4–6), Senior (Grades 7–9), and FET (further education and training) (Grades 10–12). Children generally enter their reception year aged 5–6 and start Grade 1 at age 6.

⁴⁴ The full title was *Revised National Curriculum Statement Grades R-9* (Department of Education, 2002).

⁴⁵ Chisholm (2005, p. 196) says that the original brief from the C2005 review committee was to “simplify the complexity of the curriculum” and “ensure a stronger human-rights content within the existing outcomes-based framework”.

CAPS documents specify the hours of teaching that should be allocated to each subject at each grade level, as well as guidance about the weighting of time to allocate to content areas within subjects. CAPS also specifies what content to cover in each school term, for each grade level. Some CAPS documents provide highly detailed teaching notes and guidelines for each piece of content. The level of specificity is most evident in the CAPS for mathematics, illustrated by the size of these documents: Foundation stage (over 500 pages), Intermediate (300 pages), Senior (160 pages).⁴⁶

Table 5 shows the CAPS statements for each phase up to the Senior phase (Grade 9).⁴⁷

TABLE 5 South African CAPS subjects up to Grade 9

Foundation	Intermediate	Senior
Home languages	Home languages	Home languages
First additional languages	First additional languages	First additional languages
Second additional languages	Second additional languages	Second additional languages
Mathematics	Mathematics	Mathematics
Life skills ⁴⁸	Life skills	Life orientation
	Natural sciences and technology	Natural science
	Social sciences	Social science
	Coding and robotics	Technology
		Creative arts
		Economics management and science

The impact of CAPS

Evidence about the overall educational impacts of CAPS appears to be limited. A 2017 evaluation focused only on implementation, not learner impact or outcomes:

The short answer to the question Is CAPS being effective? is that it is too soon to say. It is likely that the interventions which have been rolled out since 2011—including the workbooks, promulgation of CAPS, and an increased focus on continuous professional development—are reinforcing the performance improvements which began showing in 2011. However, there is also widespread agreement that the system continues to underperform. (Taylor, 2017, p. iv)

The broader achievement data show a mixed pattern over the past two decades. International studies such as TIMSS indicate gradual improvement in mathematics and science achievement at Grade 9 level during the 2010s⁴⁹ (Reddy et al., 2021). Regional assessments⁵⁰ also showed gains in Grade 6 reading and mathematics between 2007 and 2013. However, PIRLS studies reveal continuing severe weaknesses in literacy: in PIRLS 2021, 81% of South African Grade 4 learners could not read for meaning in any language, compared with 78% in 2016, indicating both long-standing structural literacy problems and substantial pandemic-related learning losses (PIRLS, 2021). Research using Annual

46 See [https://www.education.gov.za/Curriculum/CurriculumAssessmentPolicyStatements\(CAPS\)/CAPSFoundation/tabid/571/Default.aspx](https://www.education.gov.za/Curriculum/CurriculumAssessmentPolicyStatements(CAPS)/CAPSFoundation/tabid/571/Default.aspx)

47 For brevity, we have omitted the FET phase, for which there are 41 CAPS statements.

48 This covers the areas of creative arts, physical education, and personal and social wellbeing.

49 South Africa's TIMSS mathematics score increased from 352 in 2011 to 389 in 2019 and 397 in 2023, while science improved from 332 in 2011 to 370 in 2019 before declining slightly to 362 in 2023.

50 The Southern and Eastern Africa Consortium for Monitoring Educational Quality (SACMEQ) studies.

National Assessments (ANA) data likewise consistently found very low levels of literacy and numeracy achievement alongside extreme inequalities (Spaull, 2013; van der Berg et al., 2016).

Spaull (2013) argued that “there are in fact two different education systems in South Africa”, demonstrating persistent bimodal patterns in student achievement that correlated with wealth levels (higher scores amongst the wealthiest 25%), language background (higher scores in English and Afrikaans than African languages), and the education department under which schools were historically managed during apartheid (higher scores amongst historically white schools). Further evidence since 2013 suggests that Spaull’s description of a bifurcated or bimodal schooling system remains broadly valid, albeit with some evidence of gradual improvement among lower-performing schools and learners (PIRLS, 2021; van der Berg & Gustafsson, 2019).

Key takeaways

South Africa provides an example of how competing interests and influences can lead to curriculum “pendulum swings” (Wood & Hughson, 2025). The deep and persistent inequalities in South Africa’s education system also suggest that curriculum alone has not resolved these issues (Muyambi & Ahiaku, 2025; Ngoben et al., 2023).

In terms of further curriculum change, we could not find any planned timetable for a complete review or update of CAPS. However, South Africa is currently engaged in an active subject-specific CAPS revision process for the subject of history, with a draft revised curriculum under public consultation in 2026.⁵¹

Themes from jurisdictions with Indigenous curriculum arrangements

We found a variety of configurations in our search for jurisdictions with distinct Indigenous curricula at the national or state/provincial level. Because of the diversity of approaches, and their complicated contextual and historical specificities, rather than present each jurisdiction separately, this section highlights four themes across the Indigenous curriculum literature across jurisdictions including Aotearoa New Zealand, Canada, Sápmi,⁵² Hawai’i, Bolivia, and Australia. A deeper and more detailed analysis of similarities and differences across these jurisdictions could be the subject of a dedicated future literature review.

Language and culture revitalisation are central to Indigenous curriculum projects

The literature shows that Indigenous curriculum developments are deeply connected to wider struggles over language revitalisation, political authority, cultural survival, Indigenous self-determination, and intergenerational knowledge transmission (Kawano, 2023; Keskitalo, 2022; McKinley & Smith, 2019; Salinas & Juárez Núñez, 2000; G. Smith, 2003). Movements to shape Indigenous education approaches to foster these aims is often a response to colonial educational systems and structures having actively contributed to the suppression and marginalisation of Indigenous language and knowledge systems, to the point that these are at risk of loss (Fortune et al., 2025; Webb & Mashford-Pringle, 2022). The work to progress Indigenous curriculum, schooling, and teacher

⁵¹ <https://www.gov.za/news/media-statements/basic-education-invites-public-comments-draft-new-history-curriculum-and>

⁵² Sápmi is the cultural region traditionally inhabited by the Sámi people, spanning northern Norway, Sweden, Finland, and Russia.

education often advances slowly, over decades, alongside wider legal and political changes that recognise Indigenous language rights, establish Indigenous governance institutions, and create statutory obligations for states to support Indigenous-language education and cultural revitalisation.⁵³

Specific arrangements for Indigenous education and curriculum are often quite varied. These can include the presence of Indigenous schools or early learning centres, where learning may be completely in Indigenous languages, or bilingual/multilingual—particularly in cases where communities have already experienced severe levels of Indigenous language loss. In some contexts (like Aotearoa New Zealand), learners at primary and secondary level are now able to access all learning areas in te reo Māori through *Te Marautanga o Aotearoa*. In many other places, Indigenous curricula are largely centred on language and cultural learning, and may feature more strongly in some learning areas, but learners cannot yet access a full curriculum that is delivered through their Indigenous languages and/or designed from Indigenous knowledge foundations. Indigenous education and curriculum arrangements often evolve over time as gains are made in language and cultural revitalisation,⁵⁴ along with legislative and policy gains that help to advance Indigenous educational governance, resourcing, and teacher education (Elstad, 2023; Fortune et al., 2025).

Tensions persist between state control and Indigenous self-determination

Even where Indigenous curricula are officially enabled by the state, states generally hold ultimate authority over curriculum approval, qualifications systems, funding arrangements, teacher certification, accountability measures, regulation, and education system governance. Thus, Indigenous curriculum governance is often characterised by negotiated, shared, or constrained forms of authority (Angelo et al., 2022; Chundary, 2025; Elstad, 2023; Fortune et al., 2025; Stewart et al., 2017; Trinick & Heaton, 2021; Zhang, 2024).

This can generate persistent tensions between Indigenous groups' own educational aspirations and the state's educational aspirations for Indigenous learners. Some scholars argue that, while Indigenous peoples engage with the state seeking dialogue, partnership, sovereignty, and justice (Bargh, 2019; Rudolph, 2020), state policies tend to frame Indigenous peoples as "a domestic population who are legitimate subjects of state intervention and improvement" (Strakosch, 2019, p. 115). The literature notes situations in which states are enabling Indigenous curriculum through policy recognition and resourcing, while also limiting Indigenous control through bureaucratic requirements and standardisation pressures, including in relation to assessment (Hunia et al., 2024).

53 Three examples drawn from the literature help to illustrate this point:

In Norway, the Sámi Act 1987 and the establishment of the Sámi Parliament created an Indigenous governance institution; the 1988 constitutional "Sámi paragraph" imposed a state obligation to support Sámi language, culture, and social life; Norway's 1990 ratification of ILO Convention 169 strengthened Indigenous rights recognition; and the Education Act 1998 created statutory rights to Sámi education and Sámi curriculum content, later developed through Sámi curriculum frameworks.

In Aotearoa New Zealand, the development of Māori curriculum, Māori-medium schooling, and Māori teacher education occurred progressively over several decades alongside wider legal and political recognition of Māori language rights and Treaty obligations, including the Treaty of Waitangi Act 1975, the Māori Language Act 1987, the Education Act 1989, and Education and Training Act 2020, and many rulings from the Waitangi Tribunal on language and education matters (e.g., WAI 11, WAI 262, WAI 3310, and others).

In Nunavut (Canada), the Nunavut Education Act (2008) specified that "The public education system in Nunavut shall be based on Inuit societal values and the principles and concepts of Inuit Qaujimajatuqangit" and that "it is the responsibility of the Minister, district education authorities, and education staff to ensure these principles are incorporated throughout the public education system".

54 For example, early childhood language nests may be the starting point to generate new cohorts of primary- and secondary-aged language speakers, enabling the establishment of successively higher educational pathways to serve their needs.

Questions about whose knowledge and worldviews matter are inherent in curriculum discourse

Indigenous curriculum is not simply about adding cultural content to existing schooling structures but about challenging colonial assumptions regarding whose knowledge counts within education systems (Battiste, 2013; McKinley & Smith, 2019; L. T. Smith, 2021; Stewart et al., 2017). In many jurisdictions including Aotearoa New Zealand, Indigenous learners are spread between Indigenous and “mainstream” schooling structures. Questions about how Indigenous knowledge and worldviews are represented in curricula, and who should be involved in curriculum design, therefore arise in relation to curricula specifically designed for Indigenous education settings as well as curricula intended for “mainstream” schools. Reforms that incorporate Indigenous cultural content into mainstream curricula without fundamentally altering underlying curriculum structures or knowledge hierarchies are critiqued (Carrión Justiniano, 2020; L. T. Smith, 2021; Somby & Olsen, 2025). The literature also unpacks distinctions between “culturally inclusive” curriculum, bilingual curriculum, and genuinely Indigenous or decolonising curriculum frameworks that position Indigenous languages, values, and knowledge systems as foundational rather than supplementary (Battiste & Henderson, 2017; Carrión Justiniano, 2020; Chundary, 2025; Kawano, 2023; Stewart et al., 2017).

In jurisdictions where Indigenous knowledge and values have been progressively included into “mainstream” curriculum, research shows a mixed pattern of responses. Positive responses include enthusiasm from educators, learners, whānau/families, and communities; stronger connections to local places and histories; deepened individual and collective identity; and improved learning outcomes (Bolstad et al., 2025; Bright et al., 2025; Evju, 2022; Kanu, 2007). At the same time, the literature also documents negative or ambivalent responses including teacher uncertainty, resistance, and lack of confidence. Among the wider public, responses can include racism and educational politicisation, particularly where Indigenous curriculum challenges dominant national narratives, settler identities, or established assumptions about legitimate knowledge (Bell & Russell, 2022; O’Malley & Kidman, 2018; Webb & Mashford-Pringle, 2022).

Balancing localised knowledge and disciplinary knowledge

Indigenous knowledge is typically understood as relational, place-based, and community-held (Angelo et al., 2022; Battiste, 2013; L. T. Smith, 2021). Localisation is therefore commonly embedded into the design of Indigenous curriculum frameworks (New Zealand Gazette, 2008). Central frameworks typically establish learning entitlement, legitimacy, broad aims, curriculum areas (and sometimes core content), while local communities, elders, iwi, hapū, First Nations, Sámi regions, Inuit communities, or Indigenous nations shape the localised knowledge, stories, language forms, places, histories, and practices that give the curriculum meaning in their “place” (McGregor, 2012; Ministry of Education, 2023).

At the same time, most Indigenous curricula endorsed by the state also incorporate Western or “globalised” knowledge. The major subject divisions of Western knowledge—mathematics, science, language/literacy, social studies, technology—are often retained as a core architecture, though these are usually renamed and reframed through Indigenous language, values, histories, epistemologies, and local knowledge. This means there may be some degree of central prescription of what “Western” knowledge is to be learnt, especially when Indigenous curricula are framed as “parallel” options to the non-Indigenous or “mainstream” state curriculum, and where assessment and accreditation systems reinforce what kinds of learning are valued. There is a range of approaches to combining national subject entitlement with Indigenous knowledge and language localisation. For example,

Bolivia's plurinational curriculum model includes a national "core" curriculum alongside regionalised Indigenous curricula.

Regardless of curriculum flexibility, assessment and credentialing is often the strongest driver of knowledge prescription or standardisation in practice, particularly where there is a mandated requirement for learners to demonstrate achievement against specific state-determined standards (Hunia et al., 2024).

Recent scholarship on Indigenous and national curriculum increasingly frames the integration of Indigenous and Western knowledge not as simple content inclusion, but as a project of bringing together "multiple knowledge systems" (Cirkony et al., 2023; Tolbert et al., 2025). The literature presents various ideas about how curriculum designers and teachers can seek to create respectful relationships between Indigenous knowledge systems and Western disciplines, build their own knowledge, and recognise and confidently navigate tensions that inevitably arise, but may not need to be entirely resolved (Chinn, 2023; Lange et al., 2025; Melis et al., 2025).

Key takeaways

Our reading of the literature suggests that Indigenous curriculum arrangements across most jurisdictions are dynamic, evolving, and politically situated. In most jurisdictions, the balance between Indigenous authority, localisation, and national consistency are still being actively negotiated. The literature consistently shows that questions about Indigenous curriculum are ultimately questions about whose knowledge matters, who has authority to decide this, and how education systems can create respectful and meaningful relationships between multiple knowledge systems in contemporary societies. The Indigenous curriculum literature also provides a complicating lens to the comparative international curriculum discourse. For example, Indigenous territorial and nationhood boundaries do not always align with "national" and "state" educational jurisdictions.

5. Teachers' and school leaders' roles and experiences of curriculum making

This section discusses literature on teachers' and school leaders' roles in, and experiences of, curriculum making. Using Priestley et al.'s (2021) typology, we discuss teachers' positioning across macro and meso sites of curriculum making, as well as micro and nano (school and classroom) sites. We have included studies from the jurisdictions we profiled in the previous section, as well as findings from the wider global literature on this topic.

Teachers' roles in macro curriculum making

Some studies provide insights about teachers' and school leaders' engagement and input into specific curriculum reform processes at the macro levels of curriculum making—such as the development of new national curriculum documents. There is also a supra-national literature that contributes perspectives about what role(s) teachers ought to play in curriculum design and education policy development more broadly (Gouëdard et al., 2020; OECD, 2025c).

What roles should or could teachers play?

There seems to be no clear consensus across jurisdictions or in the literature around how, why, and at what stages teachers ought to participate in macro-level curriculum making. Some argue that curriculum making should be seen as part of teachers' professional practice, and that they should be involved in actively making and shaping policy as “agents of change” and “co-designers of learning” (OECD, 2025c), rather than being seen as implementers of “policies handed down from above” (Hulme, 2025, p. 1208). Another rationale for their involvement is that teachers can bring “grounded” classroom expertise and knowledge of working with learners (Dai et al., 2022). Finally, a more instrumental rationale is that curriculum reform is more likely to be successfully implemented if teachers have been involved in the changes (Bradfield & Exley, 2020; Finnanger & Prøitz, 2024; Gordon & Lourie, 2026; Mikser et al., 2016; Mulpeter et al., 2026).

The roles and positioning of teacher unions is also described in curriculum reform literature (Chisholm, 2005; Crehan et al., 2025). Crehan et al.'s (2025) comparative analysis across 14 jurisdictions compares why and how national (macro) curriculum are reformed, and who is involved, including the role of consultation and wider involvement of teachers, unions, and other stakeholders. They describe four broad approaches, which are not necessarily mutually exclusive.

The first is “collaborative or co-constructed design”, with Wales and Finland highlighted as:
systems in which educators and stakeholders participate directly in writing and shaping the curriculum, often through iterative development and trialling. (Crehan et al., 2025, p. 54)

While Crehan et al. included Aotearoa New Zealand as an example of this approach, this was in reference to the processes used to develop the 2007 NZC. In our view, this is not an accurate classification for the current curriculum update approach.

The second approach is “expert-led with consultation”, a model that “relies on expert or ministry-appointed groups to prepare drafts, supported by formal consultation processes” (Crehan et al., 2025, p. 54). England, Japan, and Singapore are said to illustrate this approach. In our view, this may be a more appropriate classification for Aotearoa New Zealand’s approach since 2023.⁵⁵

A third approach is “advisory or representative consultation structures”, where “consultation is channelled through permanent or statutory advisory bodies that include representatives of educators, researchers, unions, and the public” (Crehan et al., 2025, p. 55). Ireland, France, and Scotland are said to illustrate this approach.

Finally, Crehan et al. describe a fourth approach (which can overlap with other approaches) involving “open or public consultation processes”, where “drafts [are published] for open review and feedback is invited from schools, educators, and the public” (p. 55). Finland, Poland, and the Netherlands are indicated as examples. In Poland, for example:

Online meetings bring together teachers, parents, students, and civil society organisations to discuss draft curricula. Feedback from these sessions is incorporated into ministerial drafts before adoption, creating a transparent and participatory review process. (Crehan et al., 2025, p. 56)

What are the challenges for teacher involvement and influence?

Even when teachers are involved in national or state curriculum writing, the literature highlights mechanisms and processes that may limit the extent of their influence (Crehan et al., 2025; Finnanger, 2025; Priestley et al., 2025). These can include a lack of clarity about teachers’ roles or mandates in the process, hierarchies of expertise or evidence,⁵⁶ teacher input only occurring after key framing or conceptual architecture decisions have already been made, policy coherence requirements,⁵⁷ and time pressures to complete a curriculum change.

Teachers’ sense of “curriculum ownership” and how this is cultivated (or not) through the national curriculum development processes has been studied in various contexts, including in Estonia (Mikser et al., 2016, 2023). A Norwegian study by Finnanger & Prøitz (2024) highlights that “teacher involvement and consultation does not necessarily equate to teachers having actual influence on the final curriculum” (p. 221). Using document analysis, they compared the influence of teachers against the influence of subject experts, identifying how teachers’ or experts’ differing input was foregrounded, backgrounded, or omitted in the final curriculum documents. Similarly, analysing themes from interviews in an Irish curriculum development context, Mulpeter et al. (2026) noticed how the curriculum development process “carefully positioned” teachers, “with their involvement occurring after key decisions had already been made by an expert advisory committee” (p. 15). Crehan et al. (2025, p. 66) cite additional studies where teachers felt their involvement was “symbolic rather than influential”.

Scholars have offered theoretical lenses to explain how mechanisms of curriculum governance create these patterns (see Box 1).

⁵⁵ See also Crown Law (2026, para. 212.7).

⁵⁶ For example, teacher or practice knowledge having less weight than disciplinary/scholarly knowledge, research, or educational data.

⁵⁷ For example, requirements to fit with national priorities, assessment structures, achievement targets, political commitments, or international benchmarking.

BOX 1 Hopmann's theory of social differentiation processes in curriculum making

We read several studies from European curriculum jurisdictions which used Hopmann's (1990) theory of the social differentiation processes that are inherent to large-scale systems of curriculum making (Mikser et al., 2016; Mølsted & Hansén, 2013). Hopmann argued that, because "curriculum issues are impossible to solve as a whole" (Mikser et al., 2016, p. 836), three social processes are used to divide the work into smaller units:

- Compartmentalisation—the differentiation of curriculum documents and other regulations into smaller, more easily manageable pieces (e.g., different syllabi for different school subjects and school types).
- Licensing—the delegation of certain powers to schools and teachers (e.g., the freedom to choose instructional methods).
- Segmentation—separation of different discourse communities (political, public, and professional) in solving complex tasks in curriculum making and keeping them apart in different decision-making bodies.

Hopmann and others highlight some implications of these processes. For example, the process of compartmentalisation "provides fixed frames so that questions concerning the curriculum are limited to specific subject issues [rather than] overall aims for education and schooling (Mølsted & Hansén, 2013, p. 738). Likewise, through "being granted control over some curricular activities (licensing)":

teachers are kept at a distance from other, no less important curricular decisions, which are, via the processes of compartmentalization and segmentation, delegated to other curriculum stakeholders. (Mikser et al., 2016, p. 837)

Finally, segmentation is argued to be "particularly important for reconciling and satisfying the different discourse communities (political, public and professional) who expect a role in decision-making regarding curricular matters" (Mikser et al., 2016, p. 837). For example, a curriculum development process might include expert writing teams, teacher consultation, public consultation, advisory groups, policy coherence reviews, and Ministerial directives and approvals. While many stakeholders (including teachers) might be able to contribute to the process, their actual influence depends on which segment they occupy, what decisions are open in that segment, and whether decisions or advice made in one segment can be overruled in another.

Ideas for strengthening teachers' participation

Mulpeter et al. (2026) point out that "teachers do not form a homogeneous group" and can hold diverse perspectives on curriculum. Teachers may not always have as much disciplinary expertise, or access to educational research, as other curriculum contributors. They call for "thoughtful consideration of when and why [teachers] are included, the nature of that inclusion, and how they can be supported" (p. 19) as well as "how ... different perspectives [are] represented and facilitated in the decision-making process" (p. 18). Looking at the current curriculum reform processes in Scotland, Farmer (2025a) offers a view on how teachers can be prepared and supported to work effectively in small curriculum writing groups, which collectively should hold "expertise in curriculum-making, assessment, cognitive science, the wider policy landscape and a broad perspective of curricula internationally as well as a strong teacher voice" (p. 3).

Teachers as recipients of macro and meso curriculum reforms

Regardless of whether teachers are directly involved in curriculum reform, it has been argued that curriculum changes necessarily interact with teachers' professional identities (Fomunyan, 2014). Curriculum reforms can increase workload, demand new competencies, and raise feelings of vulnerability and insecurity, though they can also inspire hope, enjoyment, and enthusiasm if teachers perceive themselves to be in alignment with the intentions of the reform (Anttila et al., 2023; Bolstad et al., 2025). Analyses of research across many jurisdictions demonstrate that frequency and scale of macro curriculum reform has been linked to stress and "change fatigue" (TALIS, 2024), feelings of insufficient professional learning time and support, "overload", perceptions around politicisation of education policy, and reluctance or resistance adopt new policies (Crehan et al., 2025; Gordon & Lourie, 2026).

For scope reasons, we have not specifically reviewed literature on teachers' roles in the making of the meso-level supports, resources, assessments, and other policy structures intended to accompany macro curriculum. Given the variety of approaches to curriculum making across jurisdictions, it is likely that this is another area where there is a high degree of variability.⁵⁸ Regardless of the specifics, it is evident that "teachers' curriculum-making abilities ... are systemically developed (or constrained)" by other policy and system choices (Hulme, 2025, p. 1205).⁵⁹ Various analyses highlight what can happen where policies pull in different directions. For example, Estonia's flexible curriculum approach appears to be contradicted by the power of exam assessment, reliance on legacy textbooks, and teachers' performance pay being linked to exam scores. Similarly, in Scotland's CfE, "high levels of central direction and performance monitoring via conventional accountability mechanisms stood in tension with the espoused commitment to professional agency, curriculum experimentation, and local adaptation" (Hulme, 2025, p. 1214).

Teachers' roles in micro and nano curriculum making

There is a large field of research exploring how teachers and school leaders make sense of what is being asked of them by macro curriculum structures, and how they put this into practice at the localised school and classroom level. These processes go by different terms, which can be loosely correlated with implicit perspectives on what role or agency⁶⁰ teachers should have in curriculum making (Table 6).

58 For example, in some jurisdictions, teachers may be involved in identifying what resources and supports they need, while in others the decisions may be centralised and involve little to no consultation. Likewise, some jurisdictions grant higher levels of autonomy to schools to shape their curriculum and select resources, while others emphasise uniformity and standardisation, with state-prescribed or approved textbooks.

59 Crehan et al. (2025, Table 12, pp. 86–89) provide a useful analysis of coherence between curriculum and related policy areas (e.g., teacher education, learning support materials, assessment, and teacher appraisal) across 14 jurisdictions.

60 Teacher agency is typically defined as developing the capacity of teachers to act intentionally and make autonomous decisions within their professional environments, in order to enhance students learning (Erss, 2018). In relation to curriculum, this could involve (for example) decisions about what to teach, what contexts or methods are used, decisions about pace, depth, coverage, sequencing, integration, etc.

TABLE 6 Curriculum-making terms in relation to implied teacher agency⁶¹

Term	Typical view of teacher role	Implied teacher agency
Curriculum fidelity	Following intended curriculum	Low
Curriculum implementation	Delivering or putting curriculum into practice	Low–moderate
Curriculum adaptation	Modifying curriculum to fit context	Moderate
Curriculum sense making	Interpreting curriculum and policy	Moderate–high
Curriculum enactment	Bringing curriculum into being through practice	Moderate–high
Curriculum design	Deliberately creating learning experiences	High
Curriculum co-design or collaborative design	Designing curriculum collaboratively with others ⁶²	High

Even in highly centralised and standardised curriculum jurisdictions, teachers inevitably make some adaptations in the course of implementation (Bümen & Holmqvist, 2022; Priestley, 2021). The literature is very clear that there is no such thing as a “teacher proof” curriculum. As Priestley puts it:

Fidelity from policy to practice is a pipe dream, rendered impossible by the inevitable processes of interpretation, mediation, and translation that occur as professionals operationalize curriculum policy across widely different settings. (Priestley, 2021, n.p.)

Teachers' curriculum enactment has been theorised and researched as a process of sense making. Sense making, which can be both individual and collective, refers “to not only how people perceive, choose, and interpret ideas in their environment, but also how they implement them to make them meaningful” (Bümen & Holmqvist, 2022, p. 834).

Studies across many jurisdictions show that teachers bring their own beliefs, perspectives, and lenses to their practice, leading to a range of curriculum adaptations that can include extending, replacing, or substituting, and even omitting content based on what they believe will work best for their learners or to achieve the aims of learning in their subject(s). One qualitative study directly comparing the practices of high autonomy (Swedish) and low autonomy (Türkiye) teachers teaching primary-level mathematics noted that curriculum adaptations occurred in both contexts; however, teachers seemed to think about their license to do so in different ways:

Turkish teachers provided extensive evidence about their adaptations and even tried explaining their reasons whereas Swedish teachers perceived the changes they made in the classroom as teaching. (Bümen & Holmqvist, 2022, p. 832)

Studies have noted many interacting influences on teachers' curriculum interpretation and planning. Internal factors include teachers' knowledge and educational beliefs (Bas & Senturk, 2019). External influences can include textbooks, alternative or additional resources, assessments, national policies, colleagues, the provision (or lack) of professional development relating to the curriculum, what teachers hear from politicians and social media, and schools' prioritisation (or not) of particular learning areas (Bradfield & Exley, 2020; Grundén, 2022).

⁶¹ This table is our own, informed by a range of sources including Priestley et al. (2012), Snyder et al. (1992), and other literature cited in this section.

⁶² For example, this might include other teachers and school leaders, academics or other knowledge experts, the community, families, learners, etc.

In terms of teachers' curriculum "autonomy" and "decision-making authority", the OECD's Teaching and Learning International Study (TALIS) provides one source of comparative information.⁶³ The 2018 TALIS survey asked lower secondary principals about the extent to which schools play a significant role in choosing what learning materials are used, determining course content, and deciding which courses were offered. Lower secondary teachers were asked about the extent to which *they* have control over determining course content, selecting teaching methods, and assessing students' learning for a target class.⁶⁴ Similar questions were asked in the 2024 TALIS study. Looking at the jurisdictions we focused on in Section 3, overall, the patterns suggest relatively high perceptions of autonomy for schools and teachers in Estonia and Aotearoa New Zealand (and England in TALIS 2018⁶⁵), while South Africa and Australia were more variable (see Appendix B). Interestingly, Aotearoa New Zealand and England were the two lowest ranked jurisdictions when it came to teachers indicating they had control over assessing students' learning in 2018.

It should also be noted that teachers are diverse, and patterns of difference in perceptions of curriculum agency and personal curriculum orientation have been observed among teachers within the same jurisdiction (Bas & Senturk, 2019) as well as between jurisdictions (Bümen & Holmqvist, 2022; Erss, 2018; TALIS, 2024).

Some broad themes from studies of teachers' school- and classroom-level curriculum-making practices across jurisdictions are summarised below. We begin by exploring some observed consequences of curriculum systems that are at different ends of the "prescribed" or "autonomy" axis (Wood & Hughson, 2025) and conclude with ideas that have been put forward for seeking a "balance point" (Hughson & Poulton, 2026) for curriculum design and shared purpose.

Performativity and risk aversion in teachers' curriculum practice

In contexts where macro curriculum is, or becomes, more centrally prescribed, research has explored consequences such as "cultures of performativity" and "risk aversion" in teachers' classroom curriculum practices (Badal, 2024; R. Harris, 2021). This is particularly the case where there are also strong accountability mechanisms to monitor teachers' performance in relation to curriculum specifications. For example, in South Africa, under the CAPS curriculum there is tight oversight, with regular checking and tracking of teachers' curriculum coverage. Badal (2024) found that these served to "pattern and shape teachers in ways that encourage conformity and compliance", with teacher efforts "geared towards pleasing the supervisor ... instead of the business of teaching and learning" (pp. 15–16). Bertram et al. (2021, n.p.) found that, while structured curriculum did provide clear guidance to South African teachers who needed it, the emphasis on coverage and pacing did not necessarily match the pace of learners, nor did it provide teachers with "strategies to teach learners who were not at the level of the curriculum".

Studies from England have raised similar "performativity" and "risk aversion" concerns. An analysis of "low-attaining" primary-aged learners' accounts of their term-by-term learning led Hargreaves et al. (2023) to claim that current curriculum and assessment arrangements were narrowing children's opportunities for participation in engaged learning, as "more engaging aspects of mathematics and English ... have been squeezed out even of the core curriculum and the way it is taught; while other, potentially more inspiring subjects, have been devalued" (p. 558). Harris (2021) found that teachers

63 Appendix B shows the principal and teacher responses from Aotearoa New Zealand, other participating jurisdictions we have profiled in this review, and the OECD averages.

64 Teachers were asked to select the first class they teach after 11am on a Tuesday and answer several sections of the survey in relation to this class.

65 England did not participate in TALIS 2024.

largely adopted a “low-risk” approach when constructing their history curriculum, driven by the need for students to perform successfully in the examinations. High accountability systems have also been found to drain teachers’ creativity and sense of purpose (Perryman et al., 2025; Stoll & Sinnema, 2024).

Even in jurisdictions with ostensibly high levels of school curriculum autonomy, there is evidence that teachers’ curriculum making can be constrained by assessment and attainment accountabilities. For example, studies in Sweden and Scotland have reported cultures of “performativity” (Priestley et al., 2025) and curriculum fragmentation and narrowing in schools as a result of school-level curriculum decisions “primarily driven by the demand for better attainment data ... with less emphasis on what it means for an individual to become an educated person in a modern and complex society” (Shapira et al., 2023, p. 397). As already noted, Estonia’s high curriculum autonomy seems to be mediated or even subverted by regulatory policies that prioritise external evaluation, standardisation, and a strong focus on success in exams (Crehan et al., 2025; Erss, 2018; Mikser et al., 2023). Aotearoa New Zealand studies have found NCEA requirements to have a similar effect on teachers’ school and classroom curriculum making (Hughson & Poulton, 2026; Ormond, 2017).

Anxiety and design burden in contexts of greater autonomy

Curricula that afford greater autonomy to schools and teachers also create challenges. There are concerns in the literature about high autonomy curricula creating inequities in students’ access to important knowledge and skills, or a lack of curriculum coherence (Hughson, 2022; Ormond, 2017; J. Smith, 2019). This is particularly likely when teachers or school leaders are expected to act as curriculum (co-)designers without sufficient time, support, expertise, or shared understandings (Priestley et al., 2025), or where curricula require schools and/or teachers to weave transversal competencies with subject learning, or work with more than one knowledge system.

While Scotland’s CfE was intended to increase teacher agency and local curriculum development, studies found that some teachers struggled to interpret broad curriculum aspirations and translate them into coherent programmes of learning. Although many were supportive of the intentions of the CfE, some teachers struggled with the curriculum’s flexibility, creating uncertainty about expectations and quality (Priestley & Minty, 2013). Similar findings were reported in South Africa under the previous C2005 curriculum (Chisholm, 2005).

Studies across many jurisdictions have found that “convoluted curriculum language, intricate new frameworks, and an overwhelming volume of new concepts” can contribute significantly to the cognitive challenge of curriculum reform for teachers (Gordon & Lourie, 2026, p. 3). A small study of early-adopter secondary teachers attempting to enact the 2022 draft of *Te Mātaiaho: The Refreshed New Zealand Curriculum* (Gordon & Lourie, 2026), found that “despite their eagerness to embrace changes”, the participants found implementation to be demanding, in part because of the complexity of trying to understand and enact a new knowledge system (mātauranga Māori), and feeling a responsibility to “get it right”. Similar themes were identified in a study of schools’ early experiences with the 2022 Aotearoa New Zealand’s histories curriculum (Bolstad et al., 2025).

Research on the implementation of the 2007 NZC showed that teachers and school leaders needed time and support to become confident with new content and concepts, and to plan how to work with these effectively in their own school and community contexts. Schools often started by focusing on the newer aspects of the curriculum (e.g., unpacking key competencies), which was engaging for teachers and helped them to connect to the bigger picture of the curriculum change (Cowie et al., 2009).

In search of a “balance point” and collective purpose

Above all else, the literature demonstrates that teachers' and school leaders' curriculum making is a complex space, with significant nuance and a wide range of perspectives.

Hughson and Poulton (2026, p. 14) note that “achieving the right balance” of prescription and autonomy is challenging and that “there is no ‘perfect solution’”, particularly given the complex variability that is inherent within schools, teachers, learners, and policy settings across jurisdictions. They argue that a “careful balance between prescription and scope for teacher decision making” should be aimed for, acknowledging that what this might look like will “vary greatly between contexts, subjects, and year levels” (p. 15) and require curriculum support materials that “scaffold, not dictate teacher decision-making”. Finally, they argue for Biesta’s (2004) notion of foregrounding “democratic accountability” in curriculum making “where teachers are ‘accountable’ to ‘a shared concern’ for the common educational good ...” (p. 15).

There are many possible ways that a system might be designed to explicitly build teachers' and school leaders' collective curriculum capabilities and shared moral purpose. Communities of learning such as Aotearoa New Zealand's Kāhui Ako initiative⁶⁶ have been identified as enablers of this type of work (Bolstad et al., 2025; Wylie, 2016), as have configurations of “schools as learning organisations”⁶⁷ (Kools & Stoll, 2016; Stoll & Sinnema, 2024). In Finland, local municipal steering groups are responsible for constructing the local curriculum based on the national core curriculum. Studies have found participatory strategies to be crucial for supporting teachers to process the ideas of the new curriculum (Soini et al., 2022), with recommendations that wide collaboration should be planned for “as a significant source of support” for collective curriculum sense-making in large-scale curriculum reforms (Anttila et al., 2023, p. 189).

Summary

The general view from the literature is that teachers should play some role in macro curriculum design. However, mechanisms for their involvement vary across jurisdictions, and input does not always mean influence. Regardless, macro curriculum reforms have been widely demonstrated to impact teachers in a variety of ways, both positively and negatively. In terms of teachers' micro and nano curriculum making, challenges and opportunities have been identified across contexts of high and low curriculum autonomy. These can include cultures of performativity, compliance, and risk aversion, through to anxiety and overwhelm. Teachers are diverse and hold different perspectives about curriculum as well as their desired or expected levels of input or agency as curriculum makers.

⁶⁶ These have now been disestablished.

⁶⁷ Kools and Stoll (2016, p. 63) defined an SLO as a school in which the collective endeavour is focused on:

- developing and sharing a vision centred on the learning of *all* students
- creating and supporting continuous learning opportunities for all staff
- promoting team learning and collaboration among all staff
- establishing a culture of inquiry, innovation, and exploration
- embedding systems for collecting and exchanging knowledge and learning
- learning with and from the external environment and larger learning system
- modelling and growing learning leadership.

6. The roles of AI in curriculum making

The rapid expansion and adoption of AI technologies—particularly GenAI—has been identified as a major trend within education (OECD, 2025d). These developments are seen as requiring new regulatory, ethical, pedagogical, and policy responses, including in relation to curriculum, assessment, teaching, teacher education, and planning for the future of education (Miao & Holmes, 2023). While public, policy, and media attention has often focused on concerns about academic integrity, plagiarism, and student misuse of generative AI, the implications of AI for curriculum design and curriculum-making processes are also important to examine.

There is a growing body of literature about AI in curriculum making, spanning all curriculum-making sites of activity within Priestley et al.'s typology (see Table 2, Section 2). As is the case regarding Indigenous curriculum, we found this to be a complex area that could be the subject of a dedicated future literature review. Here we broadly outline some key emerging themes in the literature relevant to:

- supra-national discussions about AI and its implications for curriculum
- the place of AI in macro and meso sites of curriculum making
- the place of AI in micro and nano sites of curriculum making.

Supra-national discussions about AI and curriculum

There is an evolving global discourse about how AI could or should reshape the purposes, organisation, and knowledge priorities of education systems. AI is often framed as a key driver (or disruptor) in “future-focused” global curriculum literature from OECD, UNESCO, and other institutions associated with transnational policy discourse (Schola Europaea, 2025; UNESCO, 2022). The literature offers anticipatory discussions about the social, ethical, cultural, economic, environmental, workforce, and educational implications of AI, as well as systematic reviews and meta-analyses of emerging practices (Alfiras et al., 2025; Sapawi & Yusoff, 2025).

There are several clear themes relevant to macro curriculum development discourses about “what is important to learn” in an age of rapidly advancing AI. For example, questions and perspectives about what “AI literacies” all learners or all citizens may need to develop (Zhou et al., 2025), what ethical frameworks should guide the integration of AI in education, and which human capabilities will become more or most valuable as AI advances (Alfiras et al., 2025; Miao & Holmes, 2023). Patterns of “policy borrowing” can be seen in the emergence and circulation of AI literacy frameworks and AI-framed competency discourses across multiple jurisdictions (OECD, 2025b).

There is also speculation that some “current foundational assumptions about the school curriculum” may need to be completely rethought as the capabilities of AI continue to evolve (Fuster Rabella, 2025, p. 7). For example, Fuster Rabella considers how the four “purposes” for curriculum in Schiro’s typology might be challenged or rendered obsolete, depending on what trajectories AI capability development (and its application in society) might take.

Fuster Rabella postulates that some of the “social efficiency” purposes for education that are “currently geared towards preparing learners for employment” could be deeply challenged by further AI developments, while “knowledge” purposes might need to be revisited. For example:

How much disciplinary knowledge is necessary, or sufficient, for humans to develop? Is it enough to cultivate habits of engagement with knowledge, such as reading celebrated studies, or should everyone reach a certain threshold of disciplinary understanding? Should that threshold be the same for all? And what are the consequences for those who do not meet it in a world where everyday tasks are supported by high-performing AI systems? (p. 34)

For “learner-centred” orientations, Fuster Rabella suggests curriculum could be redirected to emphasise learners’ intrinsic motivation and “promoting contexts to see students’ self-expression flourish and foster the development of social and emotional skills and awe” (p. 34). For “social reconstructionist” orientations, “the curriculum might centre on identity, critical consciousness and social responsibility ... as challenges related to social, economic and environmental sustainability are likely to remain constant, even in a future of technology-induced material abundance and expanded leisure” (p. 34).

As with all futures, the eventual trajectory of AI progression and its impacts cannot yet be known. However, it certainly appears to hold the potential to challenge “deeply held assumptions about what education should accomplish and what kind of society it should help create”:

And, as AI progresses, even the most dominant, seemingly stable justifications for selecting and organising curriculum knowledge at present could quickly become unstable. (Fuster Rabella, 2025, p. 36)

The place of AI in macro and meso sites of curriculum making

Some literature describes and compares what different jurisdictions are developing in terms of “AI curriculum” or “AI literacies” within curriculum (UNESCO, 2022). This provides some insight about the speed and direction of macro and meso curriculum making in response to AI. Some studies have also centred around teachers as the collaborative co-creators of localised curriculum to teach school-aged learners *about* AI (Chiu et al., 2021; Kim & Kwon, 2025; Van Brummelen & Lin, 2020). These examples arguably span the meso and micro sites of curriculum-making activity.

We found less literature that specifically addresses the role of “system-facing” AI⁶⁸ in supporting the work of “curriculum development, policy analysis and communication” (Schola Europaea, 2025, p. 5). Our brief search of the international literature provided little evidence or clear information about the use of AI in the development of national curricula.⁶⁹ However, there is some evidence of its adoption and use in stakeholder consultations including curriculum reviews (Hodgson, 2025), in the development of educational assessments (Klinkum, 2025), and for resource and textbook translations (UNESCO, 2025). Given the competitiveness and efficiency drivers leading to widespread adoption of AI tools in many areas of business and government, this trend is not surprising.

Compared with literature focusing on AI use in learning settings (e.g., schools, classrooms, higher education), we found much less literature focusing on AI in educational governance and policy.⁷⁰

68 As opposed to “teacher-facing” or “student-facing” AI.

69 In Aotearoa New Zealand, the Ministry of Education has stated that “AI is not used to directly author curriculum content” but “supports Ministry writers by providing background research, comparative insights, and thematic analysis” (Cleaver, 2025).

70 One likely reason for this is that researchers typically have greater access to learning settings as contexts for study, whereas the activities of policy making and system design are less accessible sites for empirical research.

However, one systematic review on this topic recommended “collaborative governance between policymakers, developers, and educational institutions to ensure shared accountability and adaptive oversight” (Alfiras et al., 2025, p. 16).

The roles of AI in micro and nano sites of curriculum making

There is a rapidly growing body of research on the use of AI by teachers at the micro and nano curriculum levels—for example, using generative AI to adapt curriculum, plan lessons, design assessments, and differentiate materials.

Global data show that AI use is becoming more common for many teachers. TALIS 2024 found that, on average, 36% of lower secondary teachers across OECD systems reported using AI in their work in that year. Aotearoa New Zealand and Australia had the third and fourth highest reported usages, with 69% and 66% respectively.⁷¹ Other jurisdictions that have been profiled or mentioned in this review seemed to report less usage; for example, South Africa (49%), Estonia (35%), Sweden (33%), Finland (27%).⁷² No UK jurisdictions participated in TALIS 2024, so equivalent data are not available for England and Scotland.

Systematic reviews (Marzano, 2025; Sapawi & Yusoff, 2025) and studies from Aotearoa New Zealand (Coblentz et al., 2025; Li & MacDonald, 2025) and other jurisdictions (Crosthwaite et al., 2025; Laak & Aru, 2024) show how teachers are using AI to develop learning materials, support lesson planning, personalise learning for their students, and assist with assessment tasks. These studies also tend to highlight gaps in teachers’ professional learning opportunities and some issues around school policies and/or governance of AI use.

For the purposes of this review, we were particularly interested in how the AI literature “positions” teachers and their work in relation to curriculum. Some studies focused on potential time and efficiency gains (or losses) for teachers using AI to plan or personalise their lessons (Roy et al., 2024; Walkington et al., 2026) or closely examined how AI adds to or changes teachers’ existing practices of curriculum adaptation (Karataş et al., 2025). Other studies considered how “collaboration” between teachers and AI might impact or expand concepts of teacher agency (Frøsig & Romero, 2024).

Across the literature there is general agreement that effective curriculum making remains dependent on human judgement, contextual knowledge, and educational values. While emerging studies are beginning to conceptualise AI as a “collaborator”, “co-designer”, or “dialogic partner” in curriculum-making processes, most authors also emphasise that AI lacks the contextual, relational, and ethical capacities required to make educational judgements about what is worthwhile, appropriate, or meaningful for particular learners (Frøsig & Romero, 2024; Wang et al., 2026). Teachers are cautioned against relying on AI-generated materials without critical review, sharing sensitive student information with AI systems, delegating professional judgement to AI, or allowing AI-generated content to narrow opportunities for critical thinking, creativity, or meaningful human interaction (Miao & Holmes, 2023; OECD, 2025b). Most guidelines advocate a human-centred approach, emphasising the continuing importance of teacher agency, ethical oversight, and accountability in curriculum design and instructional planning.

71 The two highest use jurisdictions were UAE and Singapore, each at around 75%.

72 The two lowest use jurisdictions were Japan (17%) and France (14%).

Summary

Overall, the literature suggests that AI is beginning to influence curriculum making across all sites of activity, from supra-national debates about the purposes and content of education through to teachers' everyday curriculum work in schools and classrooms. However, there is currently far more research on teachers' use of AI than on the use of AI in curriculum governance or policy administration. Discussions about AI often reinforce longstanding curriculum questions such as: What knowledge and capabilities are needed (or should be prioritised) in the curriculum? What is the role of professional disciplinary expertise or teacher practice knowledge in curriculum design processes? And what forms of external guidance, governance, and accountability are needed to ensure ethical, equitable, and robust curriculum making?

A recurring theme across the literature is that, when AI is used, it should be seen as augmenting and not replacing teachers' professional judgement and oversight. Given the growing levels of use of AI, by Aotearoa New Zealand teachers and school leaders, as well as its increased "system-facing" educational use, we have noted this as an area for further exploration in research on curriculum making in Aotearoa New Zealand.

7. He matapaki | Discussion

Overall, the literature we have reviewed draws attention to the complex processes through which curriculum is created, interpreted, negotiated, and enacted across different sites of activity. These insights provide a useful foundation for the next phases of NZCER's Curriculum in Practice research programme, which will explore how the updated NZC is experienced and enacted within diverse schools and classrooms in Aotearoa New Zealand.

We found Priestley et al.'s (2021) typology to be a highly useful framing device for this review. The international literature shows that the drivers of large-scale curriculum reform across jurisdictions often stem from competing perspectives about knowledge and the purposes of education. Despite the nuanced nature of these debates, it is not uncommon to see flattening and sloganisation of curriculum ideas into binaries, as well as "policy borrowing" between jurisdictions.

Supra-national influences such as the OECD play an interesting role. For example, PISA results seem to have played a strong role in driving curriculum reforms towards a "knowledge-rich" emphasis in some jurisdictions. At the same time, OECD, UNESCO, and other supra-national influences are driving influential ideas about developing students' competencies to tackle identified global challenges and a complex and uncertain future.

The review of five jurisdictions (Section 4) demonstrates that curriculum trajectories can be better understood when viewed within their wider historical and political contexts. The way in which macro curriculum development is managed and governed in each jurisdiction is another interesting variable; for example, who is invited to be part of the design process, what role or agency is afforded to experts, teachers, learners, or the community, how are competing perspectives and feedback managed, and whose priorities are satisfied in new curriculum designs.

Competing perspectives and governance contexts can take countries in different curriculum directions—from high centralisation and prescription of curriculum to high localised curriculum autonomy, and everything in between. As we have seen in several jurisdictions, assessment and accountability policies also play a considerable role in shaping how curriculum is expressed at the school and classroom levels, even in a high autonomy context. Research has identified strengths and challenges for curriculum "in practice" within each type of arrangement.

Given that Aotearoa New Zealand is in a period of significant curriculum change, we propose three overarching questions to guide the direction of our research over the next few years:

- How are schools and teachers responding to the updated curriculum (and supports) and putting these into practice in diverse school contexts?
- How are diverse learners (and their families) experiencing the curriculum?
- Over time, what impacts does the curriculum change have for student learning, educational equity, and other outcomes?

Specific questions to explore in relation to teachers' and school leaders' curriculum-making practices include:

- What opportunities and challenges do teachers and school leaders identify in their implementation of the new curriculum?
- What are teachers doing more of, less of, or doing differently in their practice because of the curriculum change?
- How do teachers and school leaders perceive their role and agency as they work with the new curriculum?
- What internal and external factors shape teachers' curriculum practice (e.g., teachers' educational knowledge and beliefs, existing school-wide culture and practices, new and old resources, use of AI for curriculum planning and lesson design, PLD, assessment and reporting requirements, system monitoring of teacher and school performance, etc.)?
- What are the impacts of the curriculum change for consistency and quality of teaching and learning?

There are other questions that could be added to our list, including those that look more specifically at particular learning areas within the curriculum, cross-curricular "capabilities", or other directives signalled in the front pages of *Te Mātaiaho* / NZC. As time progresses, we could also revisit and compare developments in the jurisdictions that have been profiled in this review to explore similarities and differences with Aotearoa New Zealand's trajectory.

Given that there are two national curricula in Aotearoa New Zealand, our review of themes from jurisdictions with Indigenous curriculum arrangements highlights additional areas that should remain in focus in the years ahead. Across this literature, questions repeatedly arise concerning what knowledge should be valued, who has authority to determine this, and how different knowledge traditions can be represented within curricula (including "mainstream" and "Indigenous" curriculum variants). Issues of authority, sovereignty, and uneasy relationships with the state are also prevalent across this literature.

While some of the general questions above might be of relevance in exploring the trajectories of *Te Marautanga o Aotearoa* in the years ahead, ultimately this is an area where Māori should determine the scope, questions, and methods of research best suited to supporting Māori educational aspirations.

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Appendices

Appendix A Goals and timelines for curriculum changes

The figures and tables on the following pages show changing goals and timelines for the curriculum update as communicated by the Ministry of Education between 2021 and 2026.

FIGURE A1 Initial direction of change for NZC refresh (Ministry of Education, 2021)

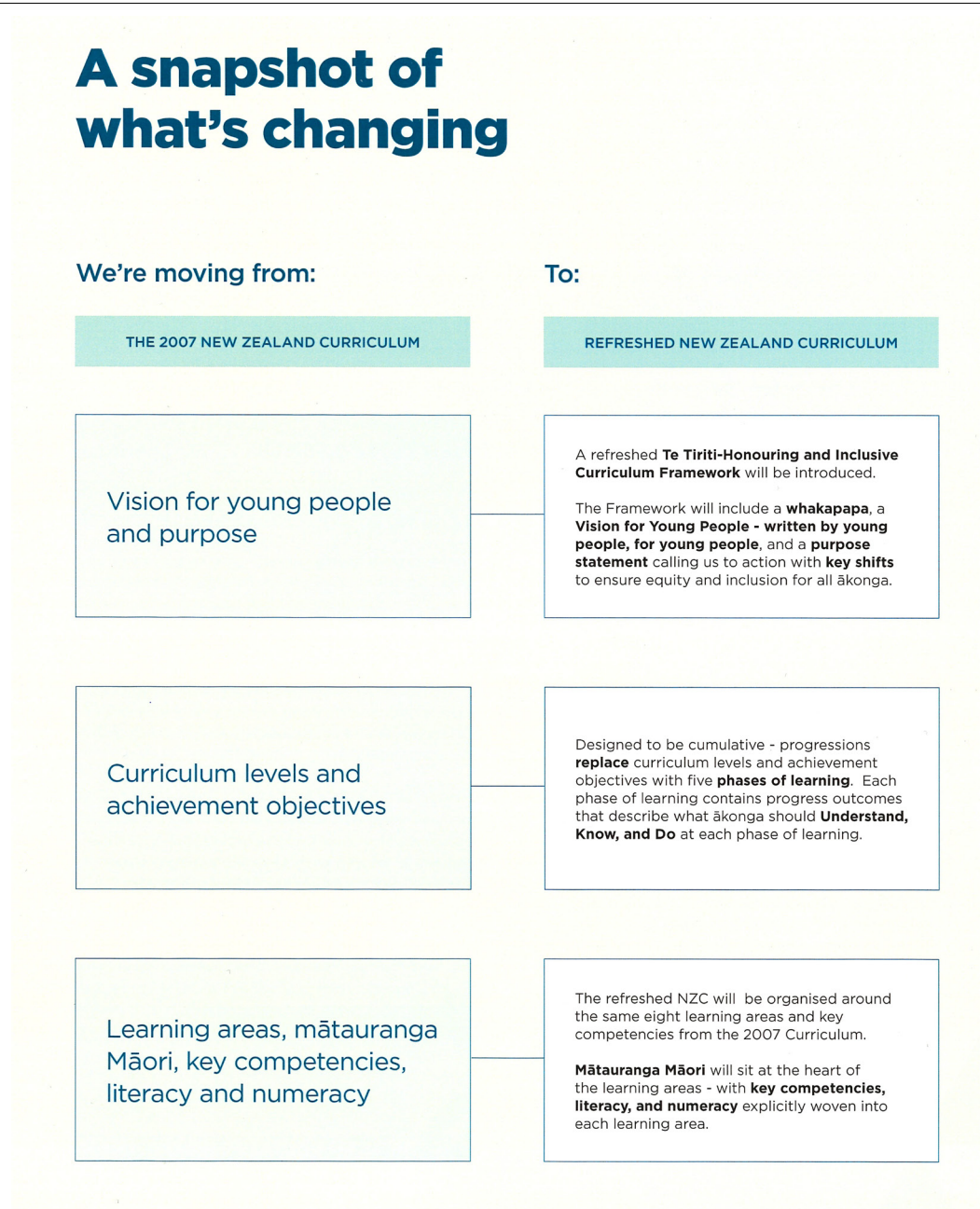
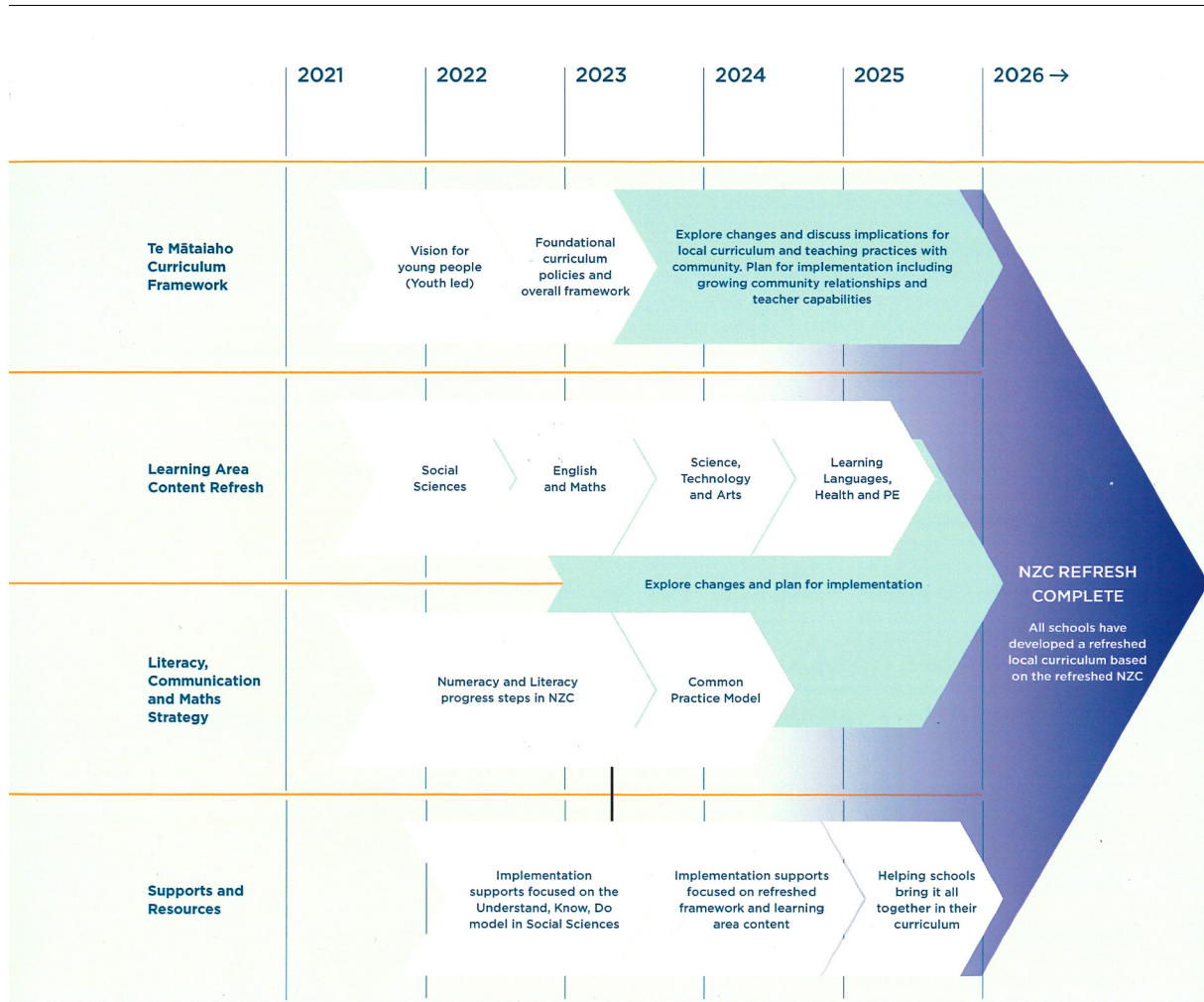


FIGURE A2 Initial timeline for NZC refresh (Ministry of Education, 2021)



Over the next four years, there will be regular opportunities for you to have your say as we refresh the NZC together. From fast-testing, to sector feedback, to learning area writers' groups – we want you to have your say, get involved, and be part of the change. Each year, fast testing within the learning area design phase will occur around June, and wider sector feedback will occur around September.

FIGURE A3 Updated descriptions of changes (Ministry of Education, 2025a)

What's changing in the national curriculum?

Our national curriculum has been in place since 2007 and we need to make some changes. We want a national curriculum that is relevant, fit for purpose, and prepares our young people for higher education, work, and life.

We are introducing content that is:

- **knowledge rich** so every child learns content that is purposeful, specific, clear, and connected between their years of learning and across learning areas and subjects
- **well sequenced** so every child learns knowledge in a well-organised, logical order and can connect, build on, and apply previous learning every step of the way
- **clear about the learning that matters** so every child is supported by a teacher or kaiako that knows what learning should be prioritised and when
- **grounded in the science of learning** so every child becomes a self-reflective and positive learner capable of mastering skills they can confidently recall and use in future

FIGURE A4 Updated timeline as of August 2025 (Ministry of Education, 2025b)

New timeline for the national curriculum

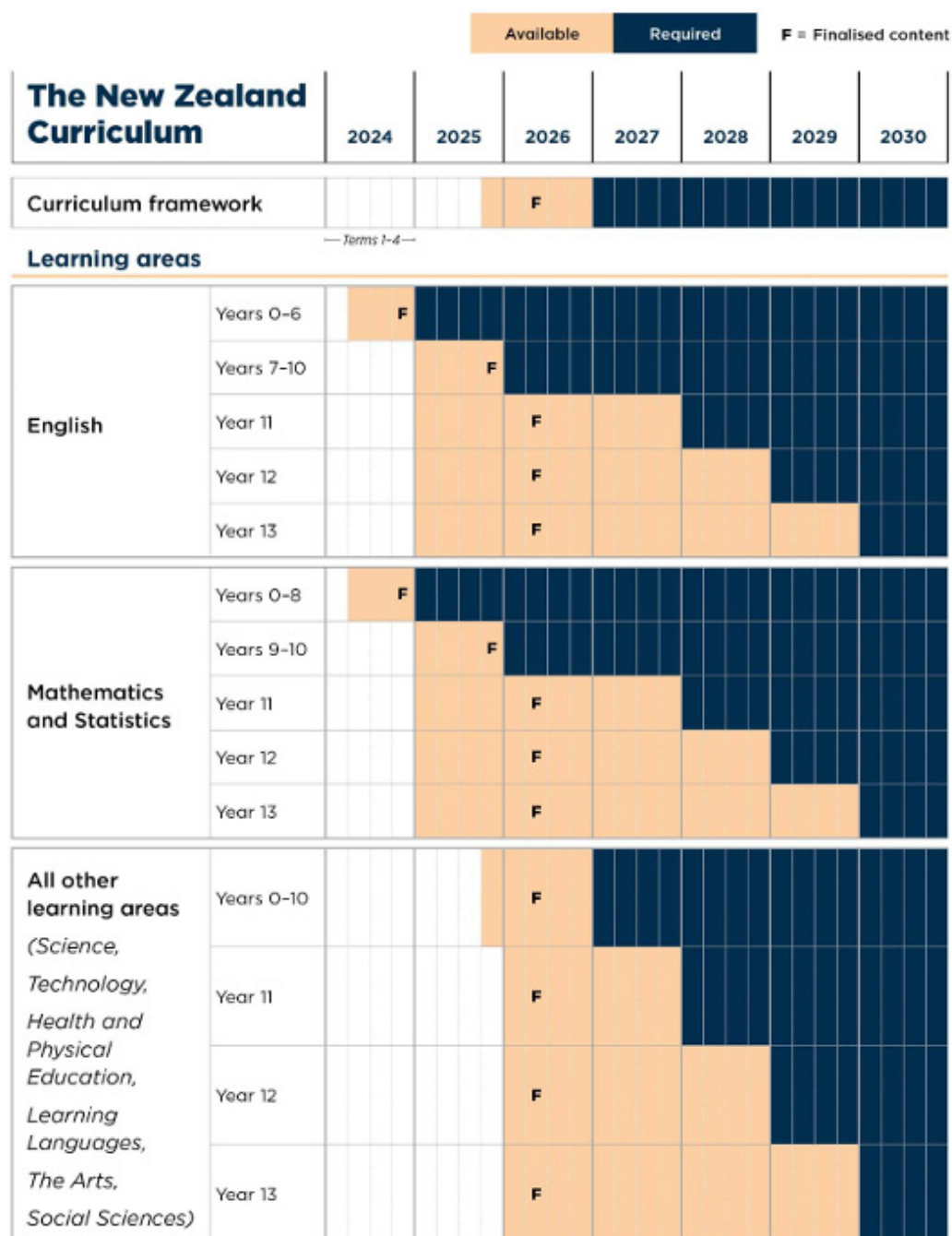


FIGURE A5 Further timeline changes as of May 2026 (Ministry of Education, 2026)

The new implementation dates are:

2026: Years 0–10—English, Mathematics and Statistics, Te Reo Rangatira, and Pāngarau.

2027: Years 0–8—Science, Social Sciences, Pūtaiao, and Pūmanawa Tangata; Years 9–10—all learning areas and wāhanga ako.

2028: Year 11—new curriculum.

2029: Years 0–8—all remaining learning areas and wāhanga ako (Health and Physical Education, The Arts, Technology, Learning Languages, Waiora, Toi Ihiihi, Hangarau, Te Reo Pākehā, and Ngā Reo). Year 12—new curriculum.

2030: Year 13—new curriculum.

The Refreshed National Curriculum

2025	2026	2027	2028	2029	2030
English and Te Reo Rangatira 0–6 and Mathematics and Statistics and Pāngarau 0–8 required to be used	English and Te Reo Rangatira 0–10 and Mathematics and Statistics and Pāngarau 0–10 required to be used All learning areas, wāhanga ako and curriculum frameworks available. Encouraged use of all Year 9 content	Full curriculum required to be used for Years 9–10 Science and Pūtaiao, Social Sciences and Te Pūmanawa Tangata for Years 0–8 are required to be used	Full curriculum required to be used for Years 9–11	Full curriculum required to be used for Years 9–12 Health and Physical Education, Te Waiora, The Arts, Toi Ihiihi, Technology, Hangarau, Learning Languages, Te Reo Pākehā and Ngā Reo for Years 0–8 are required to be used	All Years 0–13 learning areas, wāhanga ako and curriculum frameworks required to be used
English 0–6	English 0–10	English 0–10	English 0–11	English 0–12	English 0–13
Te Reo Rangatira 0–6	Te Reo Rangatira 0–10	Te Reo Rangatira 0–10	Te Reo Rangatira 0–11	Te Reo Rangatira 0–12	Te Reo Rangatira 0–13
Mathematics and Statistics 0–8	Mathematics and Statistics 0–10	Mathematics and Statistics 0–10	Mathematics and Statistics 0–11	Mathematics and Statistics 0–12	Mathematics and Statistics 0–13
Pāngarau 0–8	Pāngarau 0–10	Pāngarau 0–10	Pāngarau 0–11	Pāngarau 0–12	Pāngarau 0–13
		Science 0–10	Science 0–11	Science 0–12	Science 0–13
		Pūtaiao 0–10	Pūtaiao 0–11	Pūtaiao 0–12	Pūtaiao 0–13
		Social Sciences 0–10	Social Sciences 0–11	Social Sciences 0–12	Social Sciences 0–13
		Te Pūmanawa Tangata 0–10	Te Pūmanawa Tangata 0–11	Te Pūmanawa Tangata 0–12	Te Pūmanawa Tangata 0–13
		Health & Physical Education 9–10	Health & Physical Education 9–11	Health & Physical Education 0–12	Health & Physical Education 0–13
		Waiora 9–10	Waiora 9–11	Waiora 0–12	Waiora 0–13
		The Arts 9–10	The Arts 9–11	The Arts 0–12	The Arts 0–13
		Toi Ihiihi 9–10	Toi Ihiihi 9–11	Toi Ihiihi 0–12	Toi Ihiihi 0–13
		Technology 9–10	Technology 9–11	Technology 0–12	Technology 0–13
		Hangarau 9–10	Hangarau 9–11	Hangarau 0–12	Hangarau 0–13
		Learning Languages 9–10	Learning Languages 9–11	Learning Languages 0–12	Learning Languages 0–13
		Ngā Reo 9–10	Ngā Reo 9–11	Ngā Reo 0–12	Ngā Reo 0–13
		Te Reo Pākehā 9–10	Te Reo Pākehā 9–11	Te Reo Pākehā 0–12	Te Reo Pākehā 0–13

Appendix B Findings from TALIS

The following tables show the principal and teacher responses from Aotearoa New Zealand, other participating jurisdictions we have profiled in this review, and the OECD average for TALIS 2018 (Tables B1 and B2) and TALIS 2024 (Tables B3 and B4). Jurisdictions with the two highest and lowest percentages for each item are included for reference.

TABLE B1 TALIS 2018 principal school autonomy (lower secondary)

Lower secondary principals who reported that their school has autonomy in the following tasks:

		OECD average	Estonia	New Zealand	England	South Africa	Australia ⁷³	Highest jurisdictions	Lowest jurisdictions
Deciding which courses are offered	%	60.0	88.5	88.8	90.4	73.9	73.8	Czech Republic (99.7), Italy (93)	Croatia (3.2), Saudi Arabia (5.4)
	Rank ⁷⁴	19	6	5	3	12	13		
Determining course content	%	48.1	70.8	78.6	88.2	12.3	47.1	Czech Republic (94.6), CABA Argentina (89.1)	France (6.3), Saudi Arabia (3.6)
	Rank	18	7	6	3	47	19		
Choosing which learning materials are used	%	87.0	95.9	95.1	96.4	63.3	85.6	Flemish-Belgium (100), Netherlands (100)	Japan (23.8), Saudi Arabia (16.8)
	Rank	25	10	11	8	43	28		

⁷³ Participation rates for Australia were noted as “too low to ensure comparability”.

⁷⁴ All rankings for this table were out of 51, including 48 jurisdictions and averages for OECD, EU, and TALIS.

TABLE B2 TALIS 2018 teacher autonomy (lower secondary)

Lower secondary teachers who agreed or strongly agreed that they have control over the following:

		OECD average	Estonia	New Zealand	England	South Africa	Australia	Highest jurisdictions	Lowest jurisdictions
Determining course content	%	84.3	92.9	83.1	62.2	86.5	73.3	Sweden (97.3), Iceland (96.5)	Malta (61.6), Portugal (47.1)
	Rank ⁷⁵	30	15	31	51	26	47		
Selecting teaching methods	%	96.2	98.7	97.0	94.3	96.5	96.3	Shanghai China (99.0), Estonia	Japan (90.8), Netherlands (87.1)
	Rank	33	2	21	47	28	31		
Assessing students' learning	%	94.0	98.1	83.6	83.1	92.4	86.8	Russian Federation (99.1), Georgia (98.3)	Aotearoa New Zealand, England
	Rank	34	3	52	53	45	51		

TABLE B3 TALIS 2024 school autonomy (lower secondary)

Percentage of lower secondary teachers in schools who report they have “substantial” or “full” autonomy over the following aspects:

		OECD average	Estonia	New Zealand	South Africa	Australia	Highest jurisdictions	Lowest jurisdictions
Implementing the curriculum in a flexible way	%	75.1	83.8	82.5	82.1	77	Vietnam (94.9), Italy (92.5)	Morocco (50.8), Cyprus (41.8)
	Rank ⁷⁶	30	10	12	13	22		
Selecting teaching methods and strategies	%	92.2	95.6	92.4	91.6	91.5	Sweden (97.5), Vietnam (97.4)	Morocco (73.2), Netherlands (73.1)
	Rank	24	9	3	26	30		
Choosing assessment activities	%	78.2	74.7	60.9	86.0	56.7	Romania (95.6), Vietnam (95.6)	Australia, Latvia (55.6)
	Rank	37	41	52	17	55		
Selecting learning objectives	%	71.3	76.9	71.5	84.1	63.8	Vietnam (94.4%), Colombia (89.2)	Cyprus 41.9%, Malta (39.5)
	Rank	35	24	34	10	42		
Designing and preparing lessons	%	93.1	95.8	92.2	92.3	90.4	Italy (98.8%), Vietnam (98.5)	Korea (77.7), Morocco (76.7)
	Rank	23	10	30	28	39		

⁷⁵ All rankings for this table were out of 53 including 50 jurisdictions and averages for OECD, EU, and TALIS.

⁷⁶ All rankings for this table are out of 58. This includes 55 jurisdictions as well as the averages for OECD, EU, and TALIS.

TABLE B4 TALIS 2024 teacher autonomy (lower secondary)

Percentage of lower secondary teachers who work in schools where they have significant responsibility for the following areas:

		OECD average	Estonia	New Zealand	South Africa	Australia		
Choosing which learning materials are used	%	76.7	91.3	80.2	47.8	82.8	Denmark (98.1), Netherlands (97.5)	Japan (22.4), Uzbekistan (13.2)
	Rank	25	5	22	45	19		
Determining course content, including national/regional curricula	%	46.7	85.7	73.9	7.6	56.2	Netherlands* (94.1), Denmark (91.2)	Morocco (6.1), Saudi Arabia (2.8)
	Rank	18	3	6	53	11		
Deciding which courses are offered	%	33.4	65.8	41.1	18.3	34.2	Italy (88.5), Estonia (65.8)	Uzbekistan (2.5), Saudi Arabia (1.4)
	Rank	18	2	12	35	16		
Deciding on the use of digital resources and tools for teaching	%	68.2	84.5	66.5	37.2	72.5	Iceland (89.7), Slovenia (84.8)	Azerbaijan (18.6), Uzbekistan (8.6)
	Rank	23	3	24	49	18		

