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TE TĀHUHU O TE MĀTAURANGA

Literacy & Communication and Maths Action Plans

AUGUST 2022



Action Plan for Curriculum Changes

This document was released on Friday 12 August, find your copy through TKI

As in the first document there are no time frames given other than statements like: "over the coming years"

More specific times are given for the development of a common practice model and a time line in a separate document.

Throughout the remainder of 2022 they will be working with experts to draft a proposed common practice model

Wider engagement on the draft will take place with the education sector in terms 1 & 2 2023

Schools have also received a poster on a balanced diet for mathematics and leading mathematics.

There are many good things we can look forward to in all of the five focus areas. Focus area 1 appears to be the first focus and mostly involves developing and tweeking what is already there. It sets out what I would expect to see in a school mathematics programme and has been the focus of professional learning development I have been involved in with schools for the last 20 years. I would like to think focus areas 2 - 5 will occur but we have been here before and haven't ever seen everything set out in an action plan implemented- as always there will be financial constraints and focus areas 2 - 5 will take alot of dollar investment.

Focus Area 1 Clear expectations for teaching and learning guide effective practice

- The curriculum refresh will update the mathematicals and statistics learning areas and weave numeracy progress across all learning areas. (*This was something definitely missing from the current NZC. We had language across all learning areas (page 16) but not numeracy across all learning areas*)
- Bring some maths content into years 0 3 that is currently in later years. (There was a reason why just about 100% of students in year 0 3 met expectations and then gradually started to drop off.)
- A more finely detailed progression will provide greater clarity and more examples to help teachers understand the progress pathways, key learning steps and threshold concepts they need to pay attention to. (*This is what I have been providing teachers with through Wilkie Way progressions and other facilitators have designed similar progressions. This should save everyone reinventing the wheel.*)
- Consider the role of the school entry kete to provide a picture of the strengths of students as they begin school. (*I am assuming this is being developed through the early learning action plan*)
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- Guidance and resources will address the mixed and sometimes contradictory thinking about the best way to teach maths so that teachers receive a clear and coherent picture. The guidance will include the importance of students participating in a range of varied learning experiences, including explicit, sequenced instruction, rehearsal strategies, opportunitites for discovery and communicating and justifying ideas. (So glad to hear the term a range of learning experiences but should perhaps read teaching and learning experiences.)
- Recommended minimum time spent on the teaching and learning of maths per week. (At least one hour a day in all schools. I have been in intermediates where three 45 minutes lessons per week was all students had. Many teachers report that maths is the subject dropped when extra curricula activites get in the way.)

Some highlighs from other focus areas of particular interest

Focus Area 2 Capability support

• Co-design a national whole school maths professional learning and development model to effectively build the capability of teachers targeted to the schools with the greatest need. (*This has the potential to fall into the same trap as happened with the numeracy project. By targeting schools with greatest need instead of teachers with greatest need results in some teachers receiving the same professional learning possibly multiple times and some teachers missing out completely.*

I agree with the need to extend PLD that is exclusively focused on developing the pedegogical knowledge of teachers and their understanding of maths content but this needs to focus on individual teachers not the school they are in. I would like to see a completion certificate or such for teachers who have had the opportunity to develop their own knowledge and it should be something they can add to their CV when applying for future jobs. It should not carry any weight to salary as it is knowledge ALL teachers should have.

- Work with ITE providers and Teachers Council to ensure that graduates have up to date knowledge and understanding of the common practice model and assessment tools. (Wouldn't it be great if teachers arrived in school with the tools to teach I sincerely hope Teachers Council step up and put some pressure on the initial training of teachers the stories I hear from beginning teachers who feel ill equiped to deliver a maths programme after sometimes just 3 hours dedicated to maths in their training. how much can you realistically do in one year of teacher training?)
- Provide guidance to support mentor teachers to develop PCT's understanding of maths content and pedegogical knowledge, aligned to the common practice model. (*A mentor teacher should certainly be someone who is very knowledgeable in all areas of the curriculum but I think there is room for specific PCT training with other PCT's delivered by an expert in maths content and pedagogicial knowledge outside of their classroom rather than relying on the mentor teacher who is often dealing with much more than the curriculum knowledge of their PCT under their mentorship.)*
- Encourage teachers to train as maths specialists through promotion of the improved career pathway. (I would love all schools or cluster of small schools to have a lead teacher of mathematics with a unit attached to their salary and the time to carry out a role supporting other teachers.

Focus Area 4 A system of learning supports

• Introduce specialist roles in schools to deliver tailored and individualised accelerative learning - with a focus on supporting neurodiverse students. (Wouldn't ths be wonderful if it was really accessible to ALL students who needed it at primary level and not waiting until they are in danger of not passing the NCEA numeracy requirement. I think I am beginning to see unicorns!)





The Wilkie Way Teacher Challenge



Where have the chocolates gone?

You bought a box of chocolates on Monday and ate a third of them. On Tuesday you ate half of the remaining chocolates. On Wednesday you looked in the box and found you had only two chocolates

Ieft?

How many chocolates were in the box to start with?



NZ Maths Update

A relatively new section on NZ Maths under teaching material in **Acceleration Resources** I have had a quick look through these resources and while they are good for acceleration resources I can't help thinking that if these were part of the programme for all students in the first place maybe many students wouldn't get lost in the mire of learning activities.

A group of students appear to get lost around curriculum level 2 and these students continue to remain at this level making very little progress. One ex secondary teacher then teaching in year 5 told me "You always get a group in every year right through to year 10 - they don't learn anything more"

They can and they need to be taught explicitly and sequentially building up new knowledge and practice in using new knowledge.

Some example headings from the Acceleration Resources:

At Level 2

- Multiplication as a binary operations using the distributive property and doubling and halving to learn new multiplication facts. (*Maths Aotearoa Book 2b Chapter 6 & Chapter 7*)
- Fractions as numbers fractions on a number line (*Maths Aotearoa Book 2b Chapter 12*)

Level 2 - 3

- Using place value to add and subtract 2 and 3 digit numbers (vertical algorithm) (Maths Aotearoa Book 2b Chapters 2 & 3 and Chapters 10 & 11)
- Measurement Scales with whole numbers (Maths Aotearoa Book 2b Chapter 24)



Maths Aoteaora Levels 1 - 4 Available from Edify.co.nz