# **School Leaders’ Briefing: An overview of the changes to the Mathematics Curriculum**

**[Kellie Heintz]:** Good afternoon everyone, and welcome to today's webinar, which has been designed, specifically, for school leaders and principals about the revised Victorian F–10 Curriculum Mathematics.

This is the first in a series of four webinars that will follow in the next three weeks about the revised Mathematics curriculum.

My name is Kellie Heintz, and I'm the Manager of the familiarisation and support materials for the revised Victorian Curriculum F–10 here at the VCAA.

Before we begin, I would like to acknowledge Country.

I acknowledge traditional owners of the lands that I'm joining you from, the Wurundjeri Woi Wurrung people. I pay my deepest respects to their elders past and present and acknowledge their continued care and ongoing connection to the lands and waters. I extend that respect to all First Nations People's present and to elders past and present on the country that everyone in the meeting or webinar is joining us from.

I would like to now present to you the overview for our briefing.

Today, we're going to have a look at the revision and familiarisation of the Victorian curriculum F–10 Mathematics, the specific changes and revisions made to Mathematics, and the familiarisation program that's being developed to support teachers in their implementation.

Our first speaker this afternoon is the CEO of the VCAA, Stephen Gniel. So, I'd like to hand over now to Stephen to speak to you. Thanks, Stephen.

**[Stephen Gniel]:** Thanks, Kellie, and welcome everyone.

I can see we've got upwards of 350 attendees and probably a few in different rooms that are joining us together. It's great to have you joining us from across Victoria. And I'd also like to pay my respects and our collective respects to the elders past and present and shout out to those emerging leaders, of course, and our particular respect to any Aboriginal or Torres Strait Islander people joining us today.

So look, we're really excited about today. It's been a long time coming for us in terms of the work that's been done, but this work can't be done within the VCAA alone. This is the work of, yes, our wonderful Curriculum Managers and our Revision team, but also, drawing on the expertise of our teachers across Victoria, our Maths Association as well, and other really key people in the mathematics area. So, we do want to present this on their behalf. We think we've got a really fantastic new curriculum, a revised curriculum, to present to you. We're seeing some really great feedback from the Maths Association of Victoria recently as yesterday and today. Some really great stuff going on in social media worlds around blow by blow reviews as people have looked at the changes to Mathematics. And I think my favourite one was that it’s a win for teachers in terms of clarity. And so, that was certainly something we were looking to address in this revised Mathematics curriculum.

So, you'll see there on your screen the project objectives, which is really what are we trying to do with our curriculum. And that second one there is, it is making that curriculum more teachable and manageable. Making sure that we do have that clarity.

We heard from teachers across the state in our monitoring of the Victorian curriculum we needed to improve the achievement standards.

When you see the new curriculum, I think you'll very quickly see the changes we've made there as well. And Michael will talk you through some of the specifics as we come through this work today.

We've also taken the best of the Australian curriculum. Of course, Victorian educators were part of the revised or the review into the Australian Curriculum at large, but also Mathematics. And so, a lot of that feedback that we've provided has now been incorporated into the revised Victorian curriculum. So again, this is Victoria continuing to lead in the space of curriculum and assessment in this country.

We really want to make sure that they, as number four there says, that it meets the needs of Victorian students and that's now, but also into the future, which with the speed of change is becoming more and more challenging for all of us. You've only got to look at the last 12 months with the explosion of AI technology and what we're dealing with there to know that a set and forget curriculum is outdated in itself. So, I want to make sure that this is future ready as well as in the now. And you'll see some of that through the particular work we've done in Maths.

Obviously, we want to see that learning continuum from early childhood with our Victorian Early Years Learning and Development framework all the way through to alignment with our VCE, including our new Vocational Major. So, those secondary pathways continue to be an important part of our work in continuing that alignment.

That box number seven there, or circle number seven, is the new work that we've been asked to do and the teachers that have been asking for and principals and others is to go beyond the publication of the curriculum itself, but to provide supports for the implementation of that curriculum. And this is something that VCAA is really excited about contributing to. We will be providing a whole suite of familiarisation and resources to support the implementation of the new curriculum. And that's something we're, as I say, very excited about providing and really we'll be listening to teachers and educators about what is it that will make that the easiest transition whilst keeping the highest of quality for the Mathematics curriculum and curriculums to follow.

You can see that last one there. We live in an age where the expectations around the digitization of things like curriculum are high and that's why we're currently looking to build a new website that's more interactive and engaging than one we currently have. And we're working through that thanks to a budget initiative received in the last Victorian budget.

So, all good news from our perspective, but really what we want to do is test that with you and that's some of what we'll be doing today.

Thanks, the next slide.

So, just on the timeline, you will have seen some information flowing through this from particular sectors also in the media more recently. So, we are releasing this now to start the familiarisation as soon as possible, but also, really recognising the context that we're working in the moment and want to give people time to familiarise themselves with the content, but also, encourage those early adopters. Those people that want to get straight into this new version of the curriculum. To do so with the support of the VCAA.

So, you can see there that we're looking at that starting of implementation in 2024 where that's appropriate. And that's for the government and Catholic sectors in particular to determine, with an expectation coming from them that this will be fully implemented in 2025.

Thanks, next slide.

So Maths, what's the big news here? Well, one of the things we wanted to make sure was that we were connecting real world experiences embedded into the content descriptors. They've always been there, teachers have always done that work. What we know is that this is a more important approach with mathematics than it ever has been. We need our kids to be numerate. We need our young adults to be able to be numerate, to contribute to larger society and our democratic community.

It does reflect the expertise of our teachers, which I've said before. This comes from the teaching profession. This is essentially your document, the things that we've facilitated to make happen, but these do come from our teachers.

It is a simplified, a more managed structure. And Michael will take you through some of that this afternoon.

And as I said, some of the things that were on the side previously and we were asking people to embed themselves and work out how to do that are now in there. So, the mathematical proficiencies are firmly embedded within our content descriptions and also our achievement standards.

There's also the scope to make those connections across the curriculum and encouragement to do so, which again, we know our great teachers are already doing.

Those content descriptions, we had a lot of feedback about that. They need to be clearer. So that one I said, which was my favourite from the teachers saying, "This is a win for clarity and a win for teachers." Hopefully, you are seeing that as well. We want to see real clarity with the content descriptions and then also complete alignment as well with those achievement standards. So, that schools and teachers are not needing to do another step of unpacking convoluted and you know, multi-sentence structures within the achievement standards. So, less open to interpretation and that they support the assessment and that's what we want to make sure we're doing as well.

You can see there the better sequencing of concepts. That's a development over the past number of years from when we put together the Curriculum version one in this State.

And as I said, a stronger alignment between the VEYLDF and senior secondary and really that continuum, particularly for things like Mathematics, which starts at such a young age and we want to see carry all the way through into our young adults and their adult world.

Thank you.

So, the rest of today is really going to be devoted to some of the nitty gritty. So, what's actually in there? We know we've got a variety of people on the line today. We'll also talk to you about some specific webinars that we're running for primary and secondary, because we know that's different in terms of how we teach and how we organise our curriculum into teaching and learning programs.

But as I said, this is something we're really excited about presenting to you. We're really open to your feedback. The questions really help us, so please don't hold back on questions. Knowing what your questions are means we know what's in your mind and what's front of mind and gives us the opportunity to best support the work that you are doing every day in schools.

Thanks, Kellie, I'll leave it there.

**[Kellie Heintz]:** Thank you, Stephen.

I'd now like to introduce you to Michael MacNeill, who is the Mathematics Curriculum Manager at the VCAA. He'll share some of the key changes and revisions made to the Mathematics curriculum with you. Thanks, Michael.

**[Michael MacNeill]:** So first of all, thank you to everyone for signing up to this webinar and attending. It's always difficult at the end of a long day and I want to acknowledge that, you know, that is the case. And again, thank you for your attendance.

I'd also like to start by acknowledging Country and that I also acknowledge the traditional owners of Country throughout Victoria and pay my respects to elders past, present, and emerging.

I've been asked to speak for a few minutes about the Maths Curriculum and the changes, the revisions I should say to the Maths Curriculum. And I've got to say I'm enormously excited about this, as Steve alluded to, I think that there's plenty of new opportunities and plenty of things to get excited about with this new curriculum and to hopefully, have teachers re-engage with renewed enthusiasm with the content matter.

So, you can see on the screen there the process of revision that we went through and can read through that one, but I wanted to offer a few of what I see is the benefits. And one of the biggest benefits I think is that, where the Victorian Curriculum 1.0 was highly focused on math facts and procedures. There's an improvement here with the connection to the real world. We wanted this curriculum to be one that where students would actually, be able to connect the abstract procedures and the abstract mathematical ideas to the real world. And that's been introduced through the inclusion of the mathematical modelling and statistical investigations, which were in a sense previously present, but they're far more emphasised here and far clearer as well.

I want to acknowledge as well that the Victorian Curriculum Maths 2.0 was fitted together by teachers. It's by an expert panel, but mostly by teachers, and also with teachers in mind. And I think that, that as someone who was in the classroom for almost 20 years, that would be enormously reassuring to me as well. That was written with teachers in mind. And in that sense, it's as much yours as it is ours. It's really, it's a curriculum that has dimensions of greater clarity and greater facilitation and in our estimation it's got a streamlined scoping and sequencing and is future facing, because of that. And in that sense, we see a great level of things to be excited about.

So, some of the changes that you'll notice at a glance. And I'm going to offer some high-level observations here and if you have particular questions, then please place them into the Q&A and there'll be time to address those towards the end of the webinar.

So, some of the high-level observations that you'll notice on a first read is that the content is now organised under six strands and there are no sub-strands there. So, Number, Algebra, Measurement, Space, which was formal Geometry, Statistics, and Probability. And where the six strands were previously three coupled strands, this decoupling will facilitate learning across multiple strands where previously it wasn't necessarily intuitively available. And that'll open up learning opportunities for students where teachers might want to link content from Number with Space or Algebra with Statistics. There's this potential there for many new learning opportunities.

The introductory material provides a greater context or greater contextualisation for how Mathematics sits amongst the other learning areas and where it's positioned within the overall Curriculum.

And it's great for out of field teachers as well. There's plenty of information there about what learning in Mathematics will look like. And that's again, a product of the curriculum being produced predominantly by teachers amongst the State, amongst other academics, and of course, the professional association, the Mathematics Association of Victoria.

There are clearer connections between the content descriptions and the achievement standards. And the connections were always there, but now they're far clearer. And this was designed deliberately to facilitate planning and assessment. And an example of which would be one here and on the left-hand side from the Victorian Curriculum version 1.0. And we're looking at some content from Level four here. And then on the right-hand side, the content descriptions from version 2.0.

One of the other changes is the proficiencies being far more clearly articulated in the Maths Curriculum version 2.0. Seeing where understanding and fluency, reasoning and problem solving are sitting becomes part of the wording of the content descriptions themselves.

And the inclusion, or at least the increased prominence of those key mathematical skills, mathematical modelling, and statistical investigations is a new feature, which is designed and deliberately included. It's one of the benefits of the Australian curriculum version 9.0, which facilitates that connection that students can make between what they might learn abstractly in the classroom and their real-world experiences. And research indicates that that's going to facilitate better learning for students. And so, it's vital that we start paying attention to that, listen to the research and include these dimensions to our curriculum.

And then of course, the clarity of the content descriptions. And that was a key element of what the expert panel were looking at is to ensure that the new curriculum content was going to be far clearer in order to reduce any kind of inference on behalf of the teachers that might need to be engaged with.

And so, at a glance, here is a few of the obvious changes that you'll notice on a first read. On the left-hand side is the Primary space and on the right-hand side is the Secondary space. And in the Primary space, possibly one of the most obvious ones will be the Probability strand commences at Level three. And that's to ensure that students have got time to consolidate foundational counting, counting processes and engagement with those numbers. Items like numerals and partitioning and fractions and engaging in time before they engage with the more esoteric ideas associated with chance and randomness.

And the inclusion of course of play and exploration-based content positioned from Foundation to Level two.

There's an increased prominence of computational and algorithmic thinking and the benefits that are associated with that.

And then from Level seven to 10, the more obvious revisions that you will see will be a much greater emphasis on mathematical modelling and those statistical investigations I mentioned earlier and an increased emphasis on computational and algorithmic thinking. Including the provision of pseudocode, which was included in the VCE study design for 2023 to 2027 as elements for teachers and students to engage with at Levels nine and at Level 10. Where previously a coding language was required. And this relaxes that requirement for teachers to be fully familiar with a coding syntax and instead provides a mechanism for teachers and students to engage in those key conversations around computational and algorithmic thinking, using a common vernacular to explore ideas like substitution, recursion and iteration as they are necessary and as preparation for VCE.

You'll notice a small number of content descriptions have been included at Level eight. There's the inclusion or the expansion of two-dimensional Cartesian mapping into three dimensional and that of course, opens up, you know, far more opportunities for learning to occur.

And then at Level 10 there's the inclusion of Planar graphs and the inclusion of logarithmic scales for larger, for very large and for very, very small numbers. And I will emphasise that it's logarithmic scales. We're not including log laws and log equations there. That's an important one to know.

I'd like to take a few minutes to talk about Level 10A and to just be very, very clear about what Level 10A is. It's a very individual kind of dimension to the Victorian Curriculum where there are elements of content that are designed to complement Level 10 content. It's not a standalone level and there aren't any achievement standards for it. It's not a substitute and students shouldn't be moving directly from Level nine to Level 10A. It's not a swap out for enhanced students, but it does provide those opportunities for students to explore as they wish to any of the ideas where they might want to extend further in say algebra or in measurement. And students don't have to engage with all of the content under that strand. They might pick only one or two of the content descriptions or a teacher might identify an area for extension for a class under statistics that they wish to include for their Level 10 group. And it's also essential to know that it's not a preparation for Maths Methods and Specialist Maths.

Level 10 does the preparation for the entire VCE suite of Mathematics subjects. So, if a student doesn't have the opportunity to engage in Level 10A when they're in year 10, then they will be fully prepared for the VCE suite in so far as the curriculum facilitates.

And it's also important to note that the content in Level 10A isn't pegged at the Unit one and two level. It's pegged somewhere in between Level 10 and Unit one and two. These are important to know.

And I think that's it from me. So, I might hand back to Kellie for the moment.

**[Kellie Heintz]:** Thank you, Michael.

I'd now like to introduce you to Leyna Buller who is the Senior Policy and Strategic Advisor for the F–10 Revision. And she's going to share with you some information about familiarisation. Thanks, Leyna.

**[Leyna Buller]:** Thank you, Kellie. Good afternoon everyone.

Thank you so much for your attendance today. It'd be remiss of me not to mention the fact that schools are dynamic places and at times it can be really challenging to carve out some time for briefings or some of the priorities. So, we really value your attendance and appreciate the time you're taking today to think about the new Mathematics version two curriculum.

It's an exciting opportunity, because it is such a new space to be playing in.

Before moving forward, I'd like to acknowledge the traditional owners of the lands on which we're all meeting and recognise the First Nations People as the ongoing contributors to education.

As has been mentioned, I'm going to present on the familiarisation both for Mathematics specifically and then I will discuss really briefly the broader approach for the other curriculum areas. As we have received a few questions about that and that's something I know many people want to know something about.

When we use the term familiarisation, I just wanted to acknowledge what that meant. I'm referring to both professional learning and support materials and artefacts.

Today, marks the first webinar to support schools in delving into the Victorian Curriculum F–10 Mathematics version two. We acknowledge the importance of engaging school leaders in change management and as such wanted to meet with all of you first so that we were equipping you to support your school community when considering these curriculum revisions.

We then have a cascading set of webinars that begin from a wide view of the Victorian Curriculum F–10 Mathematics revisions next Wednesday the 16th of August. And then get more specific when considering the revisions for Levels F to six on Wednesday the 23rd of August, and then Levels seven to 10 the following Wednesday the 30th of August.

As has been mentioned, all webinars will be recorded and made available to you to ensure that you can return to any of these should you need. Additionally, these could be used at your school level to support your staff. You will receive them as an email, but they will also go up on our website much later.

Although these webinars will provide a solid foundation for teachers and leaders to access and engage with the curriculum, the VCAA in Term four will also be providing a learning module that will delve deeply into the Victorian Curriculum F–10 Mathematics version two. This module has been broken down into different chapters so that the end user can pick and choose their learning journey and cater their learning to the needs they're experiencing at any specific time. We further individualised this module for different audiences from leaders to teachers and then again, for primary and secondary school teachers.

We acknowledge that although there are some similarities in the needs that these different groups have, there is also many nuanced specific needs that must be catered for, if we're to support teachers to engage students and provide a learning environment that ensures they receive their learning entitlement. This module will be accessible through a learning management system that will allow the user to enter in and out of chapters as they need.

Professional learning is a critical element of familiarisation, but it requires additional tangible artefacts to be as effective as possible. In order to support schools with the revisions to the curriculum that Michael outlined earlier, we've already published a number of supporting resources. These have been targeted at teachers' initial engagement with the curriculum such as the Scope and sequence documents and the Comparison of curriculums documents.

Later this term, we will publish some exemplar assessment tasks that illustrate how achievement standards can be translated into meaningful assessment. The construction of this support resources occurred as a consequence of direct feedback from educators indicating that this is an area where they would appreciate additional guidance and modelled examples.

Next term, the supporting artefacts are diving deeply into curriculum area planning, which includes templates, examples, and guides. These are designed to support school leaders and teachers to consider the Victorian Curriculum F–10 Mathematics version two holistically and cohesively within their specific school context and prepare for the potential implementation in 2024.

Today's briefing is focused largely on the Victorian Curriculum F–10 Mathematics version two. However, we wanted to provide some context of the supports that will be provided for the wider curriculum once we have been published.

The VCAA has curated a familiarisation process that encompasses both professional learning and support resources and artefacts. These will broadly mirror those that have been outlined previously for mathematics. However, we'll include elements to support whole-school curriculum planning as well as those developed to support specific curriculum areas and those to consider at a level. Together, these will consider the cohesive and integrated nature of the curriculum and have been constructed based on a robust review of the curriculum literature and ongoing feedback from schools.

The professional learning will be focused on or housed on, sorry, a learning management system provided in modules that are then divided into chapters for end user ease of navigation. With each module specifically designed for an audience starting with whole school leaders progressing to curriculum leaders and then teachers as well as some specific chapters for other interested stakeholders. Their organisation will be nuanced for primary and secondary schools.

The support materials and artefacts both complement and enhance the modules. These will be available in the same learning management system and will be referred to in the modules, but can be used independently. These will include but are not limited to whole-school curriculum planning templates and examples, learning area templates and examples, and teaching and learning unit templates and examples. Additionally, there'll be curriculum area specific resources to meet specific learning needs.

This will be supported by a specifically-designed website and integrated digital tool. The website and its functionality will come on board iteratively. And is being designed considering end user ease of use.

In order to support your engagement with the Victorian Curriculum F–10 Mathematics version two, please find some relevant links on your screen and they'll also be available in the chat.

This is only the first step in us all engaging with the Victorian Curriculum Mathematics version two, but there might be times over the coming weeks and when you're engaging with the Maths Curriculum that you might have some really specific questions that our website or these briefings might not respond to. And as a result, if you do engage in any of those questions or you require some support, here are our contact details.

**[Kellie Heintz]:** Thank you, Leyna.

Now, we'd like to open up the session to provide you with an opportunity to hear some responses to questions that have already been posed prior to this presentation, but also, to have some of those questions that you've placed in the Q&A box answered by the specific personnel who are able to do so.

I'd like to introduce you now to the Acting Director of the Curriculum Revision, Gerry Martin, who is going to respond to some of the questions that were posed prior to the presentation. We'll then follow with specific Maths questions that were targeted to Michael so that Michael can respond to them.

Our other VCAA staff member who's here to support our presentation this evening is Annie Kay. And Annie has been curating the questions that you've placed in the Q&A box. So, she'll be posing those questions to the most appropriate person once Gerry and Michael have completed their responses.

So, I'll hand it over to Gerry now and then we'll move to Michael, thank you.

**[Gerry Martin]:** Good afternoon everybody and thank you for your participation in this afternoon's webinar and thank you for many of you who submitted questions prior today and during this webinar.

There may be many more questions that come from your Maths teachers and we encourage you to ask your Maths teachers to contact VCAA via the contact already provided. We'll attempt to answer many of your questions this afternoon. However, if we do not, we'll collate all those questions and provide a frequently asked question document that will address all questions prior to the start of implementation.

One of the most common questions we have received is in relation to reporting, particularly, around sixth strand of the Maths Curriculum.

Reporting student progress against Victorian Curriculum has both sectoral requirements as set out by the school sector authorities and by the Victorian Registrations and Qualifications Authority (VRQA). In Victoria, the Department of Education and the Catholic Education Commission of Victoria specify the reporting requirements for all Victorian government and Catholic schools, including reporting student progress against the Victorian curriculum and achievement standards. For the sectorial advice on reporting requirements, please refer to the appropriate sectorial guidelines of the government, Catholic and independent schools and we'll put this information on our website.

Another common question we got prior and also during today's webinar is in relation to change to the Levels A to D curriculum.

The English as an additional language curriculum and the Levels A to D towards Foundation are unique curricular to Victoria. Other states in Australia do not currently offer these in their F–10 . Levels A to D is for students with disability and additional needs and are essential components of the Victorian Curriculum F–10 . Now, that we have finalised the Maths Curriculum version two, we're now in a position to review the Levels A to D maths curriculum, which will be available prior to full implementation. We'll have further updates and opportunities provide input into this coming very soon.

And the other question we received is, will there be in-school professional development available to unpack the math curriculum with Maths leaders and teachers?

As Leyna has already outlined and indicated, the VCAA is developing a package of familiarisation modules, which will be accessible and available in Term four and beyond. These modules are targeted to specific audiences to support consistent familiarisation planning and implementation within and across school context. These modules will allow teams of teachers to engage with them when it is most relevant to the individual school and their planning. I'm going to include supporting planning templates and many exemplars.

I'll hand back to Kellie.

**[Kellie Heintz]:** Thank you, Gerry.

Now, we'll go to Michael who has some specific mathematical questions that he'll respond to.

**[Michael MacNeill]:** Now, in terms of Maths questions, I'll just clarify that they're questions about the Mathematics curriculum rather than individual Maths questions. And I'm not going to be reading answers out of the back of the book or anything along those lines.

A few of them that I've got listed here, I'll start with the first one was, is the Victorian Mathematics Curriculum 2.0 similar to the Australian Curriculum version 9.0?

And I wanted to start by saying that the Australian curriculum version 9.0 as Steve alluded to at the beginning in his introduction, Victoria was a part of the review that contributed to the generation of Maths 9.0 for the Australian Curriculum. And so, what we wanted to do is to build upon the improvements that became manifested within the Australian Curriculum version 9.0 for Maths. And that included quite prominently that notion that we are moving away from just Maths facts and associated procedures and towards facilitating students being able to connect their mathematics with the real world and their own real world experiences. So, to that extent, there is a high fidelity to the Australian Curriculum version 9.0, particularly across Foundation to Level nine most obviously, but it is not a 100% facsimile to the Australian Curriculum version 9.0. And there are elements to the content, the wording, and to the achievement standards, which ensure that the new curriculum, the Maths Curriculum version 2.0 for Victoria is going to properly address Victorian requirements for Victorian students. And one of those main ones was to ensure compatibility with the VEYLDF across F to two, but also, incorporate the plan exploration-based wording and approaches that the research tells us is so effective for those students in those levels in terms of their learning. While also ensuring that computational algorithmic thinking, which was peculiar to the Victorian Curriculum version 1.0. We haven't lost the benefits of that and have made the expectations clearer, and hopefully, facilitated that for teachers and in particular, for out-of-field teachers or teachers that are new to teaching to make the expectations of the curriculum a lot clearer.

We also wanted to ensure that the content at Levels nine and Level 10 in particular were appropriate to provide opportunities for students to be prepared for their VCE choices, their senior secondary choices I should say. And that the content that's present at those levels really addresses those needs that are required for Victorian senior secondary pathways.

Another question that has been asked, is how can we use the new curriculum most effectively?

Now, there's a multiplicity of context out there. So, how do you use the new curriculum most effectively will incorporate a number of dimensions. And so, I've identified a few and I'm sure that in the Q&A you might have some particular questions you might want to ask about that.

One of the most prominent ones, however, is to ensure that Mathematics leaders and faculty heads read the new curriculum document as a new document rather than trying to look for a comparison between version 1.0 and version 2.0 and identify overlaps and mutual exclusions instead read the document as a fresh document. And in that sense, teachers and Maths leaders will gain a fresh perspective and understanding of the nuances in the content and clearly identify what the curriculum expectations are and how they're more clearly articulated.

I'll give you an example here, which was from Foundation, where under Victorian Curriculum version one for Maths, the content description simply said, "Subitize small collections of objects." And we want that to be more clearly articulated. The new corresponding content description says, "Recognise and name the number of objects within a collection up to five using subitizing." So the intention is still there, but the clarity has been improved enormously. And for Maths leaders to be able to gain a sense of where that clarity is the extent to which that clarity has been improved. They really need to read the document as a fresh document.

Another question is, how have the proficiencies been included in the Mathematics curriculum?

And the simple answer is that they've been embedded within the content descriptions and there are some key flags that you might see.

I did have a number of content descriptions that I was going to read out. I'm not going to do that. I'm going to offer one of them however, which emerges in Level three. And that is the current content description reads as, "Recall multiplication facts of two, three, five, ten, and related division facts." These are simple actions and they don't describe things. For the new curriculum, the revision or the revised content description says, "Recall and demonstrate proficiency with multiplication facts for three, four, five, and ten. Extend and apply facts and develop related division facts." And with the link to the achievement standard, which again I'm not going to bore you by reading that out, that wording makes more prominent the expectations and reduces the level of searching that teachers need to do to find those proficiencies within the document and just makes them more prominent.

Another question that was sent through was, what is the scope for open-ended and challenging tasks?

And in a sense that scope has already been there, but again, this curriculum is about improving the clarity and the expectations that are outlined in the content. And the Victorian Curriculum for Maths version two provides opportunities for mathematical modelling. You know, extracting data from the real world and at varying levels of sophistication appropriate to the level being able to apply the appropriate mathematical model for students to realise that adopting a mathematical mindset is really useful in particular areas for a particular purpose. And that's really what that's trying to achieve.

Statistical investigations, again, these are designed to be open-ended tasks under the strand of statistics and that really opens up opportunities for teachers and acknowledges teachers professional capacity and decision making for what's right for their group of students, their cohort of kids that they want to investigate in a particular area. Opens up that agency for both teachers and for students to move in that direction and improve their learning and access those opportunities.

Conjecture, creation and testing has been included in the curriculum.

Error and estimation. And these are all elements that are associated with open-ended and challenging tasks, and they're in there.

And then, of course, there's the provision of Level 10A where there are no achievement standards. So, the methodology in exploring the content really is provided for those students who are really excelling at Level 10 content and need or want to be extended as is appropriate and as is decided by their teachers.

What is Level 10A was another one of the questions. I think I've probably already addressed that, but the very brief rundown again for this part of the webinar as it's recorded is that it's not a standalone level. There are no achievement standards. Students don't need to undertake the whole strands. They can pick content as a curiosity as their teacher directs them from one or multiple strands. It's not necessary preparation for Maths Methods and or Spec either. That's such a vital point.

Level 10 in and of itself provides that appropriate preparation for the entire VCE Mathematics suite of subjects and VM numeracy.

There was a further question on advice on how to use the new curriculum more effectively and some slightly different perspectives there were to carefully identify the scope of topics to ensure they're correctly positioned in the sequencing of the school's curriculum. And there are resources that Leyna mentioned earlier that are going to provide guidance for schools in that regard.

Ensuring that Maths leaders build sufficient space in their curriculum to address the now explicit requirements for a broad range of mathematical modelling and statistical investigations. Now, that doesn't mean that, that needs to take up an enormous amount of space, but it's explicit now in the curriculum. It's very explicit. We know that that's going to improve teaching and learning for the students and that's what influenced its inclusion in the Australian curriculum version nine. It influenced the panel's decision to include those elements of the curriculum within the new curriculum. And as such the benefits should be accessible by students.

And Mathematics leaders will need time to develop their own understanding of the curriculum requirements. And again, I can't emphasise enough the benefits to Maths leaders and the wash-on effects through to groups of teachers and learning teams to have that understanding of the curriculum document as a fresh document, as a new take, as a reinvigorated Maths curriculum that is going to address learning needs as we move forward into the future.

And I think that's the end of the questions that I was offered.

**[Kellie Heintz]:** Okay, thank you, Michael.

There is an array of questions that have been put into the Q&A so I'm going to now ask Annie to direct those questions to the people that can respond to them most directly. So, thank you, Annie.

**[Annie Kay]:** Thanks very much Kellie, and hi everyone.

Look, for the remainder of the presentation, we'll try and get to as many of your questions as possible. If we don't manage to answer your questions then just a reminder that we will be putting up a Q&A based on the questions that have been asked, but that will be provided a little bit later on.

So, the first question I'm actually going to ask Gerry. Gerry, a question was asked, "Is a blended implementation permitted or do we need to exclusively commit to 1.0 or 2.0 in a given year?" And that was asked a couple of times.

**[Gerry Martin]:** So, that's a great question. So, both the Department and the Catholic sector, sorry, Department of Education and the Catholic sector provided advice to their schools on the requirements for implementation, which is implementation from 2024 and then full implementation in 2025. Therefore, that gives schools a school-based decision on how they wish to implement the curriculum in 2024, with the requirement that all schools, both Catholic and government schools have full implementation in 2025.

That means the schools who may be early adopters may choose how they wish to transition into the Victorian Curriculum Mathematics version 2 throughout 2024.

**[Annie Kay]:** Thanks, Gerry.

And there was just some other questions, further questions, on the reporting and thanks for clarifying that and that schools will need to, or the school sectors will be able to respond, specifically, to reporting questions. Gerry, would you like to add any more to that, because there have been quite a few questions with regards to reporting requirements and someone also asked for clarification on that.

**[Gerry Martin]:** Yeah, so I think there's been a link spot into the chat to direct people relevantly.

**[Annie Kay]:** Okay, thanks for that, Gerry.

The next question I might ask Leyna to answer this one. Leyna, the question was asked, "Will there be sample planners for each year level as previously published by the VCAA"

**[Leyna Buller]:** There will be curriculum area plans provided in Term four that show you how you could choose to sequence all of the current, or sorry, the new, the Victorian Curriculum Mathematics version two. It is just a suggestion, but we will have F–10 available. We will also be providing templates that you could choose to use, if you wanted to contextualise how you might choose to plan them.

We'll additionally have the blank curriculum area maps available that were part of our previous suite of resources as well as an exemplar option that you could choose to refer to.

And additionally, we'll have a sample teaching and learning unit template that you could choose to use at a school level as well as examples of how you could do that. We've provided both a primary and a secondary example of both of these so that regardless of context you would be able to access and have a look at what it might look like. These are from experts in Mathematics and teachers with quite a lot of experience that have put together these examples, as we wanted teachers that have, actually, taught and actually, constructed these things to be the knowledgeable others in this space.

So, all of those will be provided early Term four.

We know that at the moment everyone is playing in the space of understanding the curriculum and when we get to term four we're really looking at now how do we plan for potential implementation in 2024 and definite implementation in 2025.

**[Annie Kay]:** Thanks for that, Leyna.

And just to clarify, would you mind just clarifying, there's been a few questions about when to expect those resources to be available on the website? Are you able to just provide a little bit more guidance on that?

**[Leyna Buller]:** Yeah, so the assessment tasks that are examples of how you could map the achievement standards, will be available at the end of this term.

So, the last few weeks the templates and examples will be available in the first few weeks of term four. We wanted to provide as much time of Term four that you'd be able to use them and even potentially reach out to us, if you had any clarifying questions. So, in the first fortnight of Term four.

**[Annie Kay]:** Thanks for that, Leyna.

Now, Michael, there's been a few questions about the six strands of the Mathematics curriculum. One of the questions to summarise was, "Are we required to teach each of the six strands each semester or can they be taught across the year?"

**[Michael MacNeill]:** That might be a Gerry question as well as it might feed into reporting requirements as well.

**[Gerry Martin]:** When designing a teaching and learning program, it is obviously, a school-based decision on how they implement the strands.

As Michael has already indicated is that by, actually, decoupling the strands and having six strands allows design teaching learning programs that link. For example, number it's geometry, a number with measurement. So, schools have the flexibility in how they design the teaching learning programs. They implement a strand. So, in a teaching learning program, you may have multiple strands within a particular unit.

Additionally, you will see in the achievement standards that we have removed the headings, but we are still structured across those six paragraphs for each of the strands specifically. So, you'll notice that there. Therefore, schools can decide to report against those achievement standards statements as previously we just remove the headings.

This will allow for more creative design of assessment tasks that allows to assess across strands and link them more explicitly to the content descriptions set out in the strands.

**[Annie Kay]:** There's also been quite a few questions about the proficiencies and I know that you did have already spoken about those, but there was one specific question here. "The previous order of the proficiencies in version 1.0 had problem solving before reasoning. What was the reason for that change?"

**[Michael MacNeill]:** Yes, so I did see that and that's one of the things that I had noted prior to the panel coming together. And I think the answer to that lies in the fact that they're symbiotically combined rather than being in a ranked order. And I mean you can't have fluency without understanding. Reasoning will facilitate fluency. Reasoning also facilitates problem solving, and problem solving facilitates understanding. So, the order in which they proceed is not necessarily a ranked order of importance.

And I'd encourage teachers to be looking for that and adopting that particular mindset with the proficiencies and looking to see how these elements can be symbiotically connected as they explore the connections across the different content strands in the development of learning and assessment.

**[Kellie Heintz]:** Annie, I think we've got time for one more question before we wrap up today. So, if you'd like to just pose one more.

**[Annie Kay]:** Sure, This was an interesting question, actually, and Leyna, you may be able to answer this one, either Leyna or Gerry. "Will there be examples or professional learning on how to successfully implement the Aboriginal and Torres Strait Islander elaborations within the Mathematics curriculum?"

**[Leyna Buller]:** Thank you. So, with Aboriginal Torres Strait Islander histories and cultures, we are currently engaging with the VAEAI and we have worked really diligently to ensure that our First Nations people are engaged in this space.

Once we get to the modules for the whole school curriculum, there will be modules associated with Aboriginal and Torres Strait Islander histories and cultures. When we get to that suite of familiarisation, there'll definitely be some support in there.

In this initial tranche there'll be, it's more maths related and maths leadership related as opposed to those elaborations, but they are coming, but that'll be 2024.

**[Annie Key]:** Thanks, Leyna. We'll hand over to you now, Kellie.

**[Kellie Heintz]:** Thank you, Annie. Thank you, Leyna.

Well, thank you all for coming along today. We really appreciate your time.

We would ask however, before you leave, if you could take a short survey as that would really help us with our continued planning for the next set of events.

I would also like to acknowledge the work of Alicia Farrell from the VCAA who's working in the background to support our webinar today.

There are a few questions in the Q&A that have yet to be answered. Please be assured that these things will be answered and they will be provided to you within the next few weeks when we have time to collate everything from the rest of our webinars.

So, on behalf of all of us here today, I would like to thank you all for coming along. We hope you found this session informative and we hope to see you at our next webinars in the following weeks. So, thank you all.

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