**[Nicola]:** Hi, everyone. If anyone just heard me there, this is just a pre-warning. The internet has stopped working on that side of the office, so we're hoping that the internet here is fine. But we do have some of our team at home so they hopefully can take over from us if things just go a bit crazy. I'm Nicola. I work in the VCAA as a senior project officer in the VPC team. Joining me today I have Jo and Mandy. I'd like to acknowledge the traditional owners of the land on which we meet today and pay my respects to elders past and present, for they hold the memories, traditions, and cultures of the Aboriginal and Torres Strait Islander people across the nation.

The chat function has been disabled for this session, but you can ask questions through the Q and A function on WebEx. We will try and answer your questions throughout the webinar in the background, however, we may not be able to answer them all, or if there's something that is a little bit more tricky, we will endeavor to get back to you in the next few days to answer your questions. We also have the closed caption button at the side of the screen, if that helps. But again, forewarning, whenever I record a message where it is voice to text, the text says nothing like what I've just said, so I'm not guaranteeing the quality of the closed captions for when I'm speaking. But I'm sure when Jo and Mandy speak, they speak with Queen's English, it will be absolutely fine.

Again, those of you that have come along in our webinars before, you know that we like to use this app, Slido, in order to seek your ideas, responses and feedback. We would really love it if you could let us know some of these things, that maybe how you're dealing with VPC numeracy or VCE VM numeracy in your class. The first question is, what is currently the biggest success you've had to date with implementing numeracy in VCE VM and/or VPC in your setting? We'll give you a minute or two to write down your answers.

I like that one. A hands-on cooking activity for the problem-solving cycle. And again, letting students know that they don't have to sit an exam for the class. Although, we have one person that says it has been a real challenge, try to get a [inaudible 00:03:15] teacher. Oh, that's great to hear, that the students really like taking the applied learning approach to the course. Student engagement is one of the things coming out. That's brilliant. Yes, students realize that numeracy isn't strictly just about numbers. Again, sometimes it takes a little while to have those light bulb moments. I like this one: The biggest success has been the buy-in from students on the topics we have been doing. They love how they can connect it to their lives. Thanks heaps for those responses.

We'll move on to the second question now from there is, what is currently the biggest challenge that you're finding with implementing the VCE VM and VPC curriculum for numeracy? We have one that is: Following and implementing the study designs for the VCE VM. Completion of SATs and tasks. Again, there's no requirement to do any SATs for VCE VM or VPC. But obviously, there'll be a number of tasks. Challenging getting engagement with students in the project. And again, we'll talk a little bit more about that later. One of the challenges here that we have is to try and get other staff members on board and trying to get them to be a bit more open-minded about the new things.

Again, this is one positives I can see jumping out at me is, the students have ownership, but they have that choice of what they do do and what projects that they go ahead with, and not things that they're not the slightest bit interested in. Challenge time management with mapping the new curriculum to projects, getting used to the new problem-solving cycle. That can take a bit of time to get your head around. There's benefits coming through about some time relief given by VCAA for paid CRT support. No prior experience for VCE VM and students' [inaudible 00:06:19]. Yeah, this is obviously the first year, and again, it is a transition year. Again, as I said before, it is a lot to get your head around.

I think we'll move on now, Jo, if that's okay. There's probably quite a few of you here. I do recognize some of the names. I was just saying that to my colleagues. I recognize some of the names that are on our list. That's great that you keep coming back. It mustn't be too bad if we've got some people revisiting us. Anyway. Last time we ran several webinars about setting up your classroom with different suggestions, ideas for VPC and VCE VM students. One of the crucial feedback elements was that practitioners asked for more interactivity in the webinars. We were totally up for doing that. We wanted to have breakout rooms so that participants could actually talk to each other, maybe not in person, but talk to each other across the waves, directly about what they've experienced. Again, what we know is that teachers learn best from one another.

However, the problem is that the function on WebEx was not available. When you set up these events, events does not allow you the capacity to have the breakout rooms. Obviously WebEx, most of us who have lived through COVID will know that you can obviously have breakout rooms and stuff like that when it's a meeting, but in an event mode we're just unable to do it. Anyway, we're going to try and provide you with several opportunities for sharing and reflecting, which is why we suggested you bring along any your teaching and learning materials for reference. And we will be sending out slides, but definitely jot down some notes.

Some of the ideas that are coming through on the Slido, we're just putting it in a big PDF document that you can see, so you can see some of the comments that people have made. And again, later on we'll be asking for some of your good ideas of projects that you've had that have worked, or maybe things that have just gone out the window a bit. Again, it just is good to share good experiences, bad experiences that you've tried with kids and your students.

Again, I'd like to thank everyone who filled out our pre-webinar survey. You gave us some ideas about your questions and what you'd like to learn. Again, we do go out to schools, we don't go out to millions of schools. We don't have a direct line to all the schools to know exactly what they want. We obviously get emails coming in from people and we get an idea that we can put in about things that we probably need to talk more about or give extra support with. I know it's annoying, but actually doing these surveys, the pre-webinar surveys and the end-of-webinar surveys, they actually help us. We actually use it to inform what we do next. If we don't hear from you, we are just picking ideas. And if we are not tuned into schools and practitioners, then we are not going to really pick up on what the issues are that you are facing.

Again, we are recording this webinar today for people who rewatch and repeat it [inaudible 00:09:39] and repeat it another time. Again, if you are maybe a leading teacher at your school, or if you're somebody that hasn't brought in the VCE VM this year and wants to bring it in next year and share it with other practitioners, again, you could use this at an afterschool session, whatever. That's all available.

I'm going to pass on to Jo now.

**[Jo]:** Good afternoon, everyone. I want to talk a little about applied learning approaches. If you've joined other webinars this year, we've often mentioned the pillars of applied learning and dug into them quite a bit. They're a set of approaches that should be kept at the forefront of our thinking about developing and delivering applied learning curriculum in both the VCE VM and the VPC. These pillars have been developed so that we can capture the educational philosophy of applied learning that underpins these two curricular. The pillars are here for us also to be able to explain what good applied learning is, and also to enable consistency of practice.

Obviously, students also need to do some classwork and learn new definitions and concepts and receive some explicit teaching, but these pillars should be your foundation when you're planning and delivering curriculum. As we've extensively covered these approaches before, we're not going to spend heaps of time going into detail about them, but we're going to use them as a chance to reflect and to share. But if you have missed our previous PL about the pillars and you want some more information, we have extensive resources available on our PL website. You can access a webinar that we did last term, and there are several on-demand online learning modules for you to work through at your own pace.

This document here is available at the beginning of each curriculum and study design in the VPC and the VCE VM. You may want to have it handy for our short reflection activity that we're about to do, especially if you're not so familiar with the pillars. I'll just give you a moment to screenshot this slide if you would like to have it in front of you. We'll wait about... I don't know. How long does a screenshot take? Five seconds. We'll wait five seconds.

While I'm talking, I will hand you over to Mandy, who is going to manage our sharing activity through Slido and explain a little more about what we would like you to share. Over to you, Mandy.

**[Mandy]:** Thanks, Jo. I think this group of participants definitely get the gold star for their first sharing activity, for the amount of responses that we had. This is our second sharing activity where we'd like you to tell us how you are implementing the applied learning practices in numeracy, so if you can select one of the pillars and share with us how you're using that to build your curriculum and assessment practices within your numeracy class. And just to help you, we've got those five pillars on the slide for you, just to remind you what they are.

I think this one's got people thinking a little bit more. Did you find that happens in class as well, when you big-up the students and you tell them how wonderfully they're doing and then they don't respond? We have our first respondent, well done. Assessment, negotiating with the young people in class, so giving them the student agency, really talking through with them about how they're going to be assessed. Again, allowing student agency where they have a choice in tasks. Student agency. Students are designing the task. Fantastic. Motivation to engage in learning. That just jumped away from me.

Setting tasks that are relatable and applicable to the students. And again, students. Another one for a student agency, students providing the idea for projects. It's a great way of really getting the students engaged in what they're learning. Linking it back to their [inaudible 00:14:37] vocational interest. Fantastic. Using diagnostic data to target specific areas of needs for students, plus trying to make the learning relevant and creating opportunities to apply learning. Linking projects back to things that are going on in the school.

We didn't tell you at the beginning actually, and we should have done, that the secret with Slido, if you are not seeing people's responses, it means you haven't responded. If you actually put an answer in the Slido, it means you get to see everybody else's responses too.

**[Nicola]:** And you can see it cheat. I just put in a full stop and then it lets me see what's on Slido.

**[Mandy]:** Don't tell them how to cheat, Nicola.

Beautiful. Thank you. Some of these responses as well, we'll collate and put together and send them out with the slide pack when we send them out to you, so you'll have those responses too. Thanks very much. And I'm going to put you back now to Jo, who's going to talk a little bit more about the pillars.

**[Jo]:** Thank you, Mandy. And thanks everyone for your responses there, some really great engagement with those pillars and through those pillars. I just wanted to wrap up that quick, little reflection activity, thinking about how the pillars can be useful not just for planning curriculum and assessment activities with students.

If you joined our Assessment Overview webinar last term, you'll have heard from Christina, she's a teacher who shared how she is using the pillars for both student and teacher self-reflection in how her school is rolling out the VCE VM. Having students use those pillars and have that language helps them to understand what is underpinning their learning. And it also gives them a chance to think about when and where they see the pillars in action, and can give them an understanding of some of those metacognitive processes of their learning, especially if applied learning is quite a different style of learning. Sometimes students get really excited by that transition, but they also need to start to understand more about how they learn through applied learning. That can be a great way of engaging students in that.

But for teachers, this is really also an opportunity to make sure you are meeting what is essentially a promise to those students that choose applied learning streams about the kind of learning that they will be doing with you. I can see from those responses that there is a lot of deep thinking about that, a lot of examples of a lot of thought going into that. How you are making sure in numeracy that you're encouraging and understanding students' personal education and pathway goals to make space for student agency was an example of something that a lot of you are clearly thinking deeply about. That's really great. But yes, as Christina talked through in her presentation, there's a lot of great benefit that's coming from having teachers regularly sit down and think this through and use it for professional discussions as well.

I'm going to hand you back to Nicola, who's going to dive into more of an overview of VPC and VCE VM numeracy. Thank you, Nicola.

**[Nicola]:** Thank you very much, Jo. For those of you that have already been teaching numeracy this term, then what is in front of you is not new. But like any teacher, you usually start a lesson with a bit of a lesson recap, so we're just going to have a wee bit of revision of the structure. These diagrams show the way in which both VCE VM and VPC are made up to the same three-phase structure. You've got Numeracy In Context combined with the focus area for the VPC and for the area of study for VCE VM. For VPC, it's called the Learning Requirement, and for VCE VM, it's called Outcome 1.

Then we have the next part of the diagram... Hold on a minute, I've lost my spot... which is a Problem-Solving Cycle, which is Outcome 2 and Learning Requirement 2. And finally, the third phase of these structures are Learning Requirement 3 and Outcome 3, which is the Mathematical Toolbox.

Basically, this means that the general structure of the outcomes and learning requirements stays the same across each unit. The main thing that changes each time will be the use of different key skills and knowledge from the areas of study, or the learning goals from the focus areas that inform the mathematical skills and the context in which those skills and knowledge need to be applied. Note that the level of the outcome or learning goal will increase in complexity from units one and two to units three and four for VCE VM.

In VCE VM, the areas of study are number, shape, quantity, and measure and relationships in unit one. And also for VCE VM, we have the six numeracy contexts. In VPC, we have Module 1 and Module 2. Module 1 contains location and systematics. Location and systematics have to be taught with personal numeracy as the context and number and change have to be taught with financial numeracy as the context. Again, if this is new information to you, for VCE VM, you do have six numeracies. Three of those numeracies have to be taught in unit one. And then the three that haven't been used in unit 1 have to be used in unit 2.

I'll just move on to the unit 2 slides. unit 2 slide there. Again, we can see for VPC, for Module 3, health and recreation is a numeracy context. And the focus areas are shape, quantity and measure. And for Module 4, we have data and likelihood, which has to be taught with civic numeracy. Again, unit 2, we have dimension and direction, data, uncertainty and systematics. As I say, whatever the numeracies you use for unit one, you choose three different ones for unit two. Again, another thing I really want to draw your attention to is that, when you choose your numeracy context, you can pair it up with one or two areas of study, no more than that, just one or two. It just gets too busy if we have others.

Again, looking at slide three, the next slide for unit 3, again, it's just the same areas of study in unit 3 as in unit 1. Obviously there's a more challenging complexity. Again, you can see that, like VPC, it's not under construction like for numeracy three and four, it is almost ready, it just has to finally get its ticks of approval from the VRQA. But we are hoping to get that released and published at some point during term three.

Can we move on to slide 15 now, please, Jo. And I'll hand over to the lovely Mandy.

**[Mandy]:** Thanks, Nicola. As we've just mentioned, we know that with VPCE, the numeracy contexts are attached to specific focus areas. However, with the VCE VM, there is a bit more flexibility. And as Nicola says, you just need to ensure that the three numeracy contexts are used in unit one and three different numeracy contexts are used for unit two, and this is the same for unit three and four.

So, what we'd like you to do now, you're sharing, for this task is to let us know for, this is for VCE and VM teachers only obviously, what combinations are you using that are working well in your setting? Have you got any innovative combinations perhaps that work particularly well that you think might inspire others and help them? We're just asking for the basic information here. Later on in the presentation, you'll be able to highlight those activities and give us a bit more detail. But for now, if you can just use Slido to tell us your numeracy area of study and context combinations.

**[Nicola]:** And I was just saying this to Jo yesterday, Mandy, this is the bit that I see as a matchmaking bit or the farmer wants a wife bit, and you might have people or a context and an area of study that you think is a weird combination, but you've found something great that it works with.

**[Mandy]:** So they can shape quantities and measure health and number relationships, personal numeracy and number, shape and civic has worked well together. Vocational and shape and number. Quantity of measurement and shape, with vocational building and construction.

**[Nicola]:** Yeah, I'm looking forward to hear more about this shape and civic one that's worked really well together.

**[Mandy]:** Civics and data, that's a good one to put together, lots of stuff you can do in there. And health data and uncertainty, civic data and uncertainty, and recreational direction and systematics. I think we definitely have the top class this afternoon. Financial for relationships too. Numbers and relationships with financial. Beautiful. All right. So, thank you very much everybody, and again, we'll share those inputs with you and hopefully we'll get some more information about those later on in the presentation. I'm going to hand back to Jo now who's going to talk about some examples from our recent workshops that we did.

**[Jo]:** Thank you, Mandy. In this part of the webinar, we wanted to talk you through some ideas for topics and suggestions for how those might match up within numeracy. We gathered heaps of great ideas from teachers last year when we were on the road and also from discussions with teachers this year about topics that are working well with particular numeracies. This activity, when we did it on the road, was also really helpful for teachers to think through the numeracies themselves and think about the possibilities for each of the numeracies. So we just brainstormed as many ideas as possible in a short amount of time for each of the numeracies.

One of the things that is worth pointing out here is that there may clearly be an overlap in how you might align a particular topic with a particular numeracy and that is really okay. For example, buying a car is a really common numeracy-related topic and that could be fitted into financial numeracy, but you may also connect it to personal numeracy or potentially even vocational numeracy, particularly if you have a cohort of students who are planning on entering vocations where driving to clients or transporting tools and materials is highly relevant.

So I won't go into every idea that's listed in this table or on the next one, I'll just pull out a few to talk about. But if having these kinds of ideas is really helpful as a starting place for you, feel free to get in touch with us because we can send you the brainstorms that we put together last year. We've got huge PDFs of just photos of all the post-it notes that we gathered. So just, we'll give you our email address later, just get in touch and just ask for that. We're very happy to share that.

So if we look at financial numeracy, one of the ideas that came up a lot was the idea of helping students learn how to read their paychecks and ensuring that they were being paid correctly. And we heard a number of times out on the road instances where teachers were doing this topic with students and then the students found out that they weren't being paid enough super, for example. So yeah, in that financial numeracy section, there's a lot of great work that can be done to help students understand what they should be getting as part of their pay.

Another one that was coming up a few times, it was understanding sort of online shopping and payday lenders and the consequences of say, taking out a payday loan versus saving up for something that the students wanted to buy. That could be a really interesting topic to highlight for students. Civic numeracy had some common ideas as well, such as election data and preferential voting system, but there's also the opportunity to really get out there in the community. One of the great suggestions was a visit to a local Men's Shed where they were going to investigate the costs of the materials to make various projects there and speak to the people that work there. So you could certainly do that with other local organizations as well and even potentially meet a need in the community by collaborating with a local organization.

Recreational, there are a lot of different potential ideas there as well of course. Some of them could be directly connected into school activities, which have already been mentioned. Looking at your school calendar and thinking about where you can make those connections can really also help lift up your applied learning students as community members. So we heard from a few schools that would say, be marking out a sports fields for their sports carnival, for example, making obstacle courses or Amazing Race was a somewhat common one as well. And of course, looking at sports statistics.

So here are a few further ideas about the other numeracies. Of course, and you're already mentioning all of these, there's a lot of opportunity in vocational numeracy to personalize some of the work that you do. Looking at students' vet choices or vocational aspirations and really getting that student agency in there. That also comes through in say, wage comparisons in different industries and looking at starting wages versus the wage you would get through various layers of upskilling through that vocation.

In the personal section, there's just so many things. I think there's a lot of topics that you could pull into a personal numeracy. The meal planning and cooking one, I think I saw someone mention that earlier as well, but you could, of course, do that for health too, but that's potentially just one that students get really interested in, especially if they're leaving home soon.

For health, we got a lot of suggestions around health impacts, so things like the impact of caffeine, impact of vaping and cigarettes and long-term health statistics. Also things like road safety and those statistics over time and looking at comparing the statistics to say, road safety campaigns that have happened over the years. And another one that could be maybe less interesting but more practical is looking at health insurance, analyzing information on medical costs and how that comes up as well.

So when we're looking at these different ideas and thinking across numeracies, it's also a chance as well to have students using mathematics and mathematical tools, say in one numeracy context, but then helping and prompting and then hoping they eventually get there themselves to be able to recognize where that mathematics and those tools are relevant in a different context. So if you're using a spreadsheet for students to track say, women's footie data in recreational numeracy, having them and helping them realize that they can use a spreadsheet to track data on their own personal spending is one of those connections that might be possible to make. And that's really the purpose of having all of these different interconnected numeracies as well as to help students learn that, "I learned this maths over here when I was doing vocational numeracy, but now I can see how I can use that for say, thinking about my health," for example.

I'm going to hand you over to Nicola now who will dig a little bit more into the problem-solving cycle. Thank you, Nicola.

**[Nicola]:** Thanks very much, Jo. All right, so the problem-solving cycle. Again, we were at a professional learning session yesterday and, again, Jo made a really good analogy about the problem-solving cycle. It's basically like the beating heart of the numeracy. So I really like that. So basically, the problem-solving cycle, as you can see, is made up of identifying the mathematics, act on and use mathematics, evaluate and reflect, and finally communicate and report. Students should be taken through the structured problem solving in order to know how to move from the context set and the real world to the mathematical world and use their mathematical knowledge to solve the mathematical problem at hand. Part of solving an embedded problem is to be able to review and evaluate the outcomes, then communicate and report on what has been done and outcomes.

Next slide, Jo, please. So in this slide, this is about the first part of the problem-solving cycle is identifying the mathematics. In here, it shows the expectations of what is required in this part of the problem-solving cycle for VPC on the left-hand side and VCE VM on the right-hand side. Problems should be presented within real-world context where students need to identify the features to be accommodated when transforming the real-world situations into mathematical problems. Students need to identify the mathematics embedded in the scenario and decide about how the tasks need to be shown and worked out mathematically. Students will need to come up with a plan and overview of the background to the scenario and specify the related mathematical questions of interest, conjectures, or investigations of interest.

Next slide, please, Jo. In this stage of the problem-solving cycle, act on and use the mathematics, it requires the use of mathematical processes and problem-solving techniques, facts, and procedures to solve the problems. At this stage, students will need to select appropriate tools and technologies to assist them.

Again, the third part of the problem-solving cycle, students need to check and reflect on the mathematical problem-solving processes and the outcomes in relation to the real world. Any results should be checked and evaluated against the original situation in terms of its reasonableness and its relevance to the final solution, with comparisons made against initial estimates and deciding whether the result is about right or not, and to decide to revise and adjust the results. In VCE VM, in cases where the decisions or judgments are being made about the solution, other factors might also be considered such as social or economic consequences. These processes are often referred to as contextual judgments.

And finally, the fourth part of the problem-solving cycle. Again actually, I'll read this through and then I'll say something else in a minute. Students need to use a combination of informal and formal mathematical representations to document and report outcomes and mathematical results. This will involve both oral and written and the use of formal and informal mathematical representations, including the use of different formats, media, or technology. I am aware, and I should know better because we've just had a little bit professional learning about this today to make things more accessible, but I am aware there is a lot of writing in this page, but I felt it was important that we saw them side by side. Again, this will be sent out to you and you can blow them up to A3 sizes if you need to.

All right. Next we're looking at the learning requirement three for VPC of the mathematical toolkit. Students should develop their own mathematical toolkit to use where necessary as they undertake their numeracy practices, activities, and tasks. On completion of the learning requirements, students should be able to use a variety of tools and appropriate technologies to solve mathematical problems set in a practical context.

Again, you can see between the slides, again, I know they're on two different pages for these ones here because there was so much blimming information. You can see there's a bit more coming through for the VCE VM.

All right, I'm going to move on to the next slide and I'm going to pass you over to Mandy.

**[Mandy]:** Thanks, Nicola. So our next Slido is, after all that talk about the mathematical toolkit, we'd like you to share the list of great mathematical tools that your students use. So it could be from the very obvious to perhaps some little gems that you found, such as links or apps that have changed your world. If it's an online tool, please add your links into the Slido if you have them. So if you can sort of navigate so that other people can access them as well. Also, if you're clear on which numeracy and area of study or focus area of this tool is most useful for, if you could add that too, that would be fantastic. So just sharing your great mathematical tools that you might use.

So now, Nicola, you see we have people that have got wise to your cheating and not responding, just putting little dots. Online tax and super calculators. And apps as well for tax, online interest calculators, currency exchange, cooking measurement tools, Excel, phone calculator. Again Excel and Google Sheets. I'm an Excel nerd. I love Excel. Fatsecret.com.au is great for nutritional information. Mobile phone again, they do have their uses. Money Smart. "Focusing on using physical tools just recently," says Cory. "We went to Bunnings and looked at the measuring equipment the tradies use and purchased some, such as five meter, 10 meter measuring tapes, checking the angles, et cetera." Fantastic. Mobile phone, old calculator on fingers. I did say they could be old school. iPad apps for measurement conversion.

And Christina says, yes, she always gets them to use their phones as this will be their reality. Absolutely. Phones and smart watches for collecting health data, spirit levels, ATO site, Fair Work rules around pay and overtime, cooking, recipes doubling, creating shopping lists, et cetera. Some great tools in there. Cory had fun and used their feet for measuring our stride and hand span as well, then discussed the accuracy. I love that. And getting students to be familiar with their body to measure their surroundings, like steps and size hands for estimation. Again, beautiful.

**[Nicola]:** Yeah, that is a good one, Cory. I used to do, when I was a scholar, I used to be a Duke of Edinburgh Award leader, and we did that with students. So we worked out how many strides it took us to walk like 100 meters. So we'd measure 100 meters on the playground and so then we'd say, "Oh, well this is how many we would do in a kilometer," and then have an idea of different things. So it was actually really quite helpful.

**[Mandy]:** That's great. We'll keep those coming through. I'll leave the Slido open if you want to, Nicola, while you move on. Actually, I think it's Jo that I'm passing back to now about planning a unit of work.

**[Jo]:** That's right. Thank you, Mandy. But keep those good ideas coming as you think of them. So yeah, we're going to talk a little bit about planning a unit of work. And when it comes to this, what we're really hoping for and expecting from a VCAA perspective is that schools will be ensuring that all the learning outcomes are being met and that the work is being supported by the pillars of applied learning. So on top of creating those valuable and engaging applied learning programs, as you clearly are doing already, your goal is also for students to obviously achieve the VCE VM and the VPC and to get their certificates. So we need to make sure that those outcomes are being met.

It's good practice in planning to start with those outcomes and the skills and knowledge that you are working on with the students. So if we look at this diagram here, we have basically what is mimicking that sort of backwards by design planning process that many teachers are familiar with, laying out a way of doing that planning. So once we've identified that endpoint, as applied learning practitioners, we need to understand and think about what this might look like in the real world. And those, of course, are our numeracy contexts. Then we need to consider what evidence will we need to collect that will demonstrate student achievement of the outcomes? And finally, we need to develop teaching and assessment materials or activities that will allow students to develop those skills and knowledge and ultimately be assessed at the standard indicated in the outcomes, which is the VCE VM language, and the learning goals for VPC.

Now, one of the things you'll notice that this slide doesn't say specifically is the word assessment. Rather, it talks about evidence. And this is because activities, classwork, really whatever you're doing with your students can also be used to show how students are meeting the outcomes. One of the things that has come up at times with talking to teachers about numeracy is that question about whether they should be administering tests or quizzing students. And the answer to that really is that it's not necessary and not really best applied learning practice. The outcomes should be taught and assessed together as much as possible. Obviously, there is explicit teaching that will need to happen to get students to build up those skills, but where possible, you're bringing those three outcomes together.

So that means by sort of isolating a skill and having a test just on that separate skill, you are not really able to judge the student's ability to apply mathematics in that specific numeracy context. So just please keep that in mind when you're planning and thinking about tracking your students' abilities to meet those outcomes or learning goals.

I wanted to point out a few more things about the problem-solving cycle. As Nicola said, and what I like to say, it is the beating heart of the numeracy curriculum for both VCE VM and VPC. We've been seeing some really great examples of how teachers are using the problem-solving cycle with students and having the students work directly through the cycle. They just have it either pasted in their workbooks or set up online in a PowerPoint that they received or in notebook or notes or whatever that... Sorry, I'm forgetting the name of that online tool. But yeah, having students then showing their thinking at each stage along the way just makes it really clear and obvious for the teacher to gather that evidence. Yeah, also seeing really great examples then of reflection being used, not just for that evaluate and reflect section, but also as part of communicate and report. So if the students are writing up a reflection in that third step or having a discussion about it, that can potentially also be used for communicate and report.

Especially if you're doing a quick one lesson, two lesson topic to fit into that numeracy, that might be something that you like to do rather than having to think about something sort of a bigger, more showy presentation or something like that. We're also going to look at it at this now more deeply as the problem-solving cycle being a tool for teachers to brainstorm and gather their ideas and plan their curriculum. When we were on the road last year doing face-to-face numeracy workshops, and maybe you joined us, you will have done this activity. We really found that using the cycle as a brainstorming and planning tool helped a lot of teachers have that sort of aha moment about how the three outcomes come together.

On this slide is a template that we will also send around in the post-webinar materials. You can see on the page up in the top left-hand corner, there's a little box there, it says numeracy. You might start by picking a numeracy or you could even begin by slotting in a big idea and then feeding back to the numeracy and/or thinking about the area of study or focus area. The teachers then could brainstorm what they thought the mathematics might be in the scenario, then they might think how they might be working to have students act on the mathematics and how they might have students evaluate and reflect, and of course, communicate and report. There's also space in that bottom left-hand corner to jot down ideas about resources and mathematical toolkits in case you need to gather some of that together.

Yes, we have a lot of these from around the state. We'll talk you through a couple of these now. These were brainstorms done in terms three and four last year. Sometimes if you look at these examples, they don't necessarily meet all of the requirements that we have around matching numeracy with areas of study, et cetera. So please take them as sort of starting place brainstorming ideas, but yeah, we'll talk through a couple.

One of the cool things that you are all noticing as well about numeracy is that you can really tailor it to your students' interest and to what is in your local community. On this page, we've got a couple of examples, and I'll go into one or two in a bit more detail soon, but I like one here. You can see along the bottom, the one on the left there, there's a picture of a fish in the middle, and that's because in this location, the teachers were thinking about using numeracy as a recreational topic to look at measurement and shape because the students there enjoy fishing and nearby there are some sanctuaries and there were a whole lot of things about bag limits and going out in boats and looking at the tide times, for example. So they really could sit and think about, right, this is something, how do we pull out all the mathematics that is connected into this student and locally specific context.

On this page we've got an example of a topic, a brainstormed topic of a tiny house, and someone mentioned that they were doing this project as well. The tiny house project could also be something around designing or redesigning a room or a whole big house. You could fit it into personal or you could fit it into financial. You could even fit it into recreational. The teachers here were brainstorming around two areas of study, shape and quantity and measure. You can see in the identify the mathematics part that they've pulled out what they think the mathematics might be that the students will need to be able to do in order to act on and use the mathematics. Doing that stage can help you think about the resources you might want to gather, what you might need to consider explicitly teaching your students, whether you do any sort of, not diagnostic is the wrong word, but whether you spend some time checking the students' capacity in these areas first and then decide what you need to teach from there.

Students could then maybe make a model to scale. They might estimate and calculate things based on their plans. They might need to be working within particular measurement guidelines or other requirements when they were evaluating and reflecting. They might have been considering the sizing of the rooms and the usability and the practicality of the designs, and if they had included everything that you would need in a tiny house. So did they forget to add a toilet or kitchen storage, for example. Then you can see in communicating and reporting, there are heaps of different ideas and suggestions about how the students might communicate and report. We've mentioned that students could use reflection, okay, that they've done in step three, but this might also be a part where students have some agency about what they'd like to do and how they'd like to present their information, so maybe a presentation or making an advert for their tiny house.

Of course, you wouldn't need to do all of those ideas. You might just choose to have everyone present their model and talk things through. That's also very legitimate. Planning a trip, of course, is a really common project, whether it be a trip to Melbourne or somewhere else. This is a trip to Melbourne here, but it might be a schoolies trip or a school camp or a holiday, but another idea that is possible, especially if undertaking the actual trip is a challenge might be to consider having students research and organize the materials for self-guided tours of the local area or places of interest.

One of the things that was really cool was when we were up in the Wimmera last year and schools were talking about how they set up a program like this where students organize and put together materials for a self-guided tour of all the silo art in the region. This could also be an opportunity to talk to local tourist or industry workers or tour operators in your area to connect it into that sort of world outside school even further.

Lastly, this was an interesting idea for civics numeracy. So civics topics are a good opportunity as well to connect with the school community, with a local community, or potentially even global communities. This example of looking at waste is something that you could definitely do on campus as well or even within your own class and can be conducted over a few weeks with maybe some other work taking place alongside it.

At this point, I just want to mention something from our assessment webinar last term. Again, we mentioned Christina before, but this was another example if you joined us. You would've heard from a few schools. They were talking specifically about how they are tracking evidence of students meeting the outcomes in numeracy, but another idea that was shared there was a suggestion from a teacher called Hervé who talked about having kind of a week on and week off approach to larger projects. The week off project work is when she would be doing some of the explicit teaching of mathematical skills or exploring other things that might also go into undertaking the project, like learning how to use particular mathematical tools in the toolkit, for example. And so that webinar available online, and you can hear a summary from Hervé about how her school is using this idea.

And so a civics example about waste might work well in terms of that idea. So having students do some measurements and carry out some data collection, say on campus, and then in between time, pulling out the mathematics of the data and learning more about how to manipulate that data effectively. I am just, sorry, a bit lost in my... Yeah, and so you can have some really interesting conversations about civics and civics impacts related to things like a war on waste, activities such as this.

Just quickly, this is a planning tool we developed for the face-to-face workshops last year, and I'm really sorry about how small this is. We'll include this as well in the post-webinar materials. Obviously, a lot of schools have their own ways of doing planning and planning protocols or planning tools. We need to put all of that information, but we just wanted to show this to remind everyone that there are a few applied learning specific things when you're doing your planning that should be kept in mind. In particular, on this document, we have a section that asks you to think specifically about how you're using the pillars of applied learning in your activities, and then there's also a section for considering how you might link to another study or studies.

I know that it's challenging to find time to speak to teachers of other subjects, let alone your own teaching partners in your own subject, but figuring out some of that cross-communication can help to see how some subjects sometimes line up, and there's so many places for numeracy in work-related skills or PDFs or even literacy. Also, there's a section there to think about links to community or industry and potentially some of those great connections to bring numeracy topics to life.

Yeah, even if you're using something different for planning, please think through, please try and add in those thoughts into your planning documentation if possible so that you can keep those elements at the forefront as you think through how you're going to deliver numeracy. Okay, I'm going to hand you over to Nicola again. Thanks everyone.

**[Nicola]:** Thanks, Jo. Appreciate that. All right, in front of us now is like an inventory of the exemplars that we have on the VCAA website. You can see for VPC that we have three exemplars for unit one and three exemplars for unit two. Again, you might have a look at, when you go in, you might have a look at these and think, "Wow, these are really good," or you might think, "Mm, yeah, whatever," but there might be aspects of them that you could certainly use with your class and run with some of the ideas. Again, hopefully a lot of it is maybe just giving you inspiration for a starting point or for others that are just got so much work and whatever else like that, then you can maybe just pull out one of these and use them with your group.

Next slide please, Jo. Let's just move on. Now, again, if you've been at any of our webinars from last term, we have tried to give you a little bit of a mini-tour through the website. We appreciate the website has its issues, just one of them, and so sometimes it is a bit hard to find things. Again, when you get to these places, please try and bookmark them. Our exemplars that you can find are in our teaching and learning section. In the right-hand side of the page, you can see it's split up into support materials. The support materials are broken up into four sections for each study. The planning advice includes advice on developing a program, including integration of studies, authentication, discussion of employability skills and glossaries, a range of detailed sample activities, advice on assessment, and sample approaches to assessment.

The second bit, the bit I've just talked about, the teaching and learning advice tab includes the detailed sample units of work, the exemplars that have been developed by experienced practitioners. Again, the assessment tile gives general assessment advice and links to relevant administrative handbooks and related documentation. And finally, the applied learning tile includes advice on approaching the applied learning. Again, we do like for like, so here is my inventory for VCE VM. Now, I have put in this danger warning sign to exemplar number one, not because I just wanted to jazz up the slides because you can see that these slides are a little bit lacking in je ne sais quoi, but the eagled eyes among you will notice that in exemplar number one, the views three areas of study. As I said at the beginning, if you were listening very carefully and if you know your study design very well that you should only use up to two areas of study with each numeracy context.

Next slide please, Jo. All right. Again, numeracy, literacy, PDS, the structure is definitely the same. One of the things I'd like to highlight though is if you look at the first column of the support materials, teaching and learning, within there, there is a lot of teaching and learning sample activities. There's a whole heap. When you look at them, it might just be a couple of sentences, but some of those ideas can be something that could last a week, it could actually last a few weeks, or it could just be a one-off lesson to sort of fill up between just getting a gap in knowledge for something or other, but they're actually really good. I'll go as far as saying that they're almost as good as exemplars, even though they're lacking off all the other bits and pieces that you want to have, but I just think some of the ideas are Smashing.

All right, next slide please, Jo. Okay, so we're going to run another Slido, So Mandy's going to control the Slido because I'm not very good at multitasking. But again, we've got a few things that we would really want to get you guys to share. Again, this is our poor man's version of breakout rooms, woohoo, but it's a Slido, so please put in as much content as you like. We're quite happy to sit here and watch your fantastic ideas coming up or some of your, whatever, gripes coming up, whatever. Unfortunately, we do not have elevator music and you don't want me to sing, but yeah. Look at things like what's worked well in the classroom, what have you done that had the potential but didn't really work to plan. Maybe it was just about the group of students, like you had this amazing idea, but the types of students that you had in the room, they just weren't digging your idea because you're 30-odd years older than them and they're just not engaged in what you find interesting.

So yeah, so your ideas would be great. Feel free to share as much of the idea. Again, going back to the matchmaking of the numeracy context and area study, what was the one that I... Oh, the civic and shape. Can you write down a little bit further information about what it was that you were actually doing? Cheers.

**[Mandy]:** I wanted to be in Emma's class. They were planning a pizza party.

**[Nicola]:** Ah, I do like that one, homelessness unit. That's really good. Using numeracy as part of a community food project. Yes. Again, I'm sure the school wouldn't mind us sharing, but we went to visit a school a couple months back and what they do is they make food and snacks and goodies for a lot of the residents that live in those high-rise flats that were closed down during COVID. They built those relationships with them. I think that because at that time, because of the type of school it was that they were actually at school during COVID, and so they would take food down to them, and they still, they've built those relationships and still do that.

Oh yeah, that's good, bring in their own payslips from their work and using this as an example to use in the class. Yeah, it is really good if you can actually get real life examples. Bring in your parents' bill. Just don't bring in their bank statement. I don't think they'd be very happy about that. Painting a room and calculating the costs. Yeah, and those measurement activities that can be applied. I don't know if any of you use, but the IKEA website is just so good just to say, "Right, I'm going to fit out a room, use an IKEA furniture," and then they've got a little grid that you can actually plan some of the things on. Again, I am not plugging IKEA. Any furniture store is good in my age.

**[Mandy]:** Any non-branded furniture store grid, planning grid. Planning a skate park for the council, I love it.

**[Nicola]:** Yeah, why not? Save the council some money because yeah, get the kids to do it. That's good. Made a burger recipe and looked at it, did a nutritional investigation on it, looking at the protein, fat, and all the other things, sugar and sodium. That's good.

**[Mandy]:** [inaudible 01:06:41].

**[Nicola]:** A Mini Olympics for the primary school. What was that? Sorry, I'll shut up, Mandy. You go.

**[Mandy]:** No, no, no, I love Rebecca where they're planning whether they can afford to move out of home and she brought in all her bills for the students. Actually seeing some real bills as well, I think it's a really good idea rather than something that's kind of sort of mocked up. That kind of thing really does help to keep students engaged

**[Nicola]:** Yeah, without a doubt, definitely. With the fact that the moment we are bombarded in the news with the cost of living and everything, it really does make it relevant, and you can tie it into civic context as well.

**[Mandy]:** I love that, performance from the students who play instruments, then planning to design their instrument in a mini size for their students' pets and then print it off using a 3D printer.

**[Nicola]:** How good is that?

**[Mandy]:** Wonderful.

**[Nicola]:** Fingers crossed. I'm going to go home and tell my husband that I now want a little saxophone for my black cat. Yeah, for little Molly, the COVID cat

**[Mandy]:** Mini Olympics for the primary school.

**[Nicola]:** There is. I think we'll move on because I think we've got a few more slides to go. Thanks, everybody. We appreciate it.

**[Mandy]:** Yeah, I'll leave the Slido open, you can keep putting those ideas in as we carry on talking. Thanks, Nicola. We just want to talk a little bit to you about the assessment overview. Those of you who taught VCAL will be familiar with the competency-based assessment that VCAL was designed around. Students, they were deemed either competent or not yet competent in a particular area. The VCE VM and the VPC have been designed around standards-based assessment, and those standards describe what students should know and be able to do in relation to established criteria. They are distinct statements and provide the building blocks for competencies. Whilst the competencies describe how a student applies and transfers their learning to new context and situations, the standards speak to a predefined level of quality or attainment of those competencies. Each outcome in VCE VM and/or a learning goal in VPC is the standard against which the students are assessed as whether they're satisfactory or not satisfactory. In order to meet the standard, the student must develop capacity in or demonstrate the relevant key knowledge and key skills in VM or learning goal and applications in VPC. The study design states that to achieve each outcome, the student will need to develop capacity in their key knowledge and key skills outlined. However, each of those don't need to be explicitly taught or assessed individually. They're encapsulated by the outcome. They don't need to be ticked off like a checklist, but rather, use them to build your teaching program or to deliver an outcome.

As Jo's already discussed earlier on in the presentation, all of the new studies are underpinned by the pillars of applied learning. The assessment pillar stipulates that assessment practices should be designed to promote success. So as we've talked, using recreational numeracy, for example, not asking a class of students interested in AFL to develop a project that involves designing and costing the creation of a new bowling green for lawn bowls, if they're all going to sigh deeply and not be very interested in it. But I think by the sounds of things from some of the examples that we've had on the Slido today, I don't think we've got any problem there. I think people have some fantastic ideas.

So as you do, allowing students to be creative in the ways that they're presenting information. Doesn't just have to be a Word document that they create. They could verbally present, they could create video, role play, podcast, whatever they're feeling most comfortable with. So Nicola's going to suggest... I'll discuss some assessment ideas shortly with you and give some great examples of different ways that they could be presented. So it really is about thinking about your students, trying to think out of the box. As again, as I think we have done already. We've had some great examples of that to really engage the students.

Making sure that you're giving the students an opportunity to apply their mathematical skills and knowledge within their project rather than actually within that test environment at the end. It doesn't need to be that, and it shouldn't be that. It should be whilst they're actually learning. If students don't quite meet all of the requirements of an outcome in one task, they should be given a further opportunity to demonstrate their understanding of the remaining required key skills and knowledge or learning goals, so it's not just a one-off. They should be given other opportunities. The purpose of assessment is to collect evidence of their understanding, and that can look different in a whole lot of ways, depending on your cohort of students.

When we look at assessment tools, the VCAA study design describes an assessment tool as a method to collect evidence on the standards reached by students. In this slide, you can see some examples of different ways of gathering evidence, so listed on the right. The first one is assessment rubrics. We've got a number of great sample rubrics attached to the exemplars on our website, and we encourage teachers, that's by no means mandated, but we do encourage you to use rubrics. They're a great way to clarify the requirements for students of how they can meet the expectations of the task that they're actually working on. If you haven't used rubrics before, please feel free to utilize the rubrics that we've got on the website and modify them for your own projects or for your own purpose, et cetera. And in line with one of the other pillars, rubrics can also be very motivating for students to engage in the learning, as they can outline for them exactly what they need to improve. This also connects well into the assessment practice approach that allows for incremental indications of success.

If a student's not meeting the standard in line with the VCAA special provision for school-based assessment, the classroom teacher may wish to check that they're provided with multiple opportunities to demonstrate their learning, the outcome's been assessed holistically against the key skills and knowledge, a variety of assessment modes are available for each outcome, and where possible, the assessment mode is negotiated with the cohort and caters for different learning styles. If each of those opportunities are being met and you still feel that the student requires further support, it may possibly be appropriate to investigate the VCAA process for special provision for school-based assessment. Information about that process can be found in the VCE and VCAL admin handbook, and there's a link on the slide to that information on our website as well.

The communities of practice have been established as part of the senior secondary reform to provide support to teachers in the form of a robust network in your area, focusing on collaboration and the collegial development of high-quality curriculum and pedagogical practice. They're led by expert applied learning practitioners, and I see that we actually have some of those expert applied learning practitioners in our webinar today, so thank you to those people. They support the collaboration of teachers across schools in each area. And the leader of each COP directly supports their members in planning and implementation of the VCE VM and VPC. They disseminate relevant resources, information, and training opportunities. They facilitate guest speakers. Most importantly, they facilitate that collaboration between other applied learning teachers in your area.

The COPs generally meet once a term, and it usually alternates between online or face-to-face. Some of the areas are very, very large, so some of the COP leaders will tend to use online, but face-to-face we know is the one that works best. So they'll try and organize those as much as possible. The COP leaders communicate electronically with members on a regular basis to ensure that you receive up-to-date information from VCAA in particular, but also from other sources. All our COP leaders will be meeting next week, and we are discussing moderating and ways to support their COPs in moderation of student work because we know that this is something of great interest to lots of teachers at the moment, so that's something that we'll be doing, and they'll be sharing that information with their communities. If you're not already a member of your regional COP and you'd like to join, please contact us and we'll put you in touch with your local communities of practice leader. So I'll now hand back to Nicola, who's going to discuss a little bit about particular focus areas.

**[Nicola]:** All right. I have a whole bunch of slides coming up that I'm not going to talk about in detail. I'll just start off with number, which I'll talk about a little bit more in detail. But again, these slides are going to be sent out to you, so some of the ideas on there you will have.

So yeah, we're starting off by looking at numbers. So as we looked at the beginning number for VPC is in module two, and it has to be taught with a financial numeracy context. Again, I'm not going to talk about these in details because coming through from all your great ideas and whatever, you're probably really familiar with this. But again, you're going to have this given to you. Next slide please, Jo.

So what I have on here is basically ideas for assessment. So assessment will value the student's practical application of knowledge and skills. It will require the collection of evidence from a range of assessment activities and tasks. Students should be afforded multiple opportunities to demonstrate satisfactory completion of the learning goal. So again, if you don't leave with anything today, I hope you leave with this, that it's not just a one-time chance and you've done it. We had a question earlier on, could other aspects of a particular area of study or focus area be used in another project or task? That's absolutely fine. Again, whatever you're doing, it might not... Half of the learning goals are not really applicable for what you want to do, but you know that you can fit in your next project or your next task that you're doing with students. But again, just regular coursework, mini projects, whatever, that will all suffice.

So basically for VPC, again, as we said before, we're weighing up what's great about VCE VM and what's great about VPC. Well, we said that there was a lot of flexibility with VCE VM, with doing your matchmaking between, again, the context and the area setting. Well, what's good about VPC is again, the assessments you use. In the document, we've given you some things that you could use, but you do not have to use them. So on the right-hand side of the screen is some ideas that I've put there. Again, I can see that my imagination is not the greatest because we've had a whole bunch of these ideas come through already. So we've had the ideas about household bills and bank statements.

The first idea that I've put in is about creating a two-course meal. And again, a lot of that could be about doing comparisons between supermarkets. So again, I'm not going to name a supermarket because I don't want to get in trouble, but you could have supermarket X and supermarket Y, comparing the prices for the same ingredients. The third dot point here is looking at the school equipment list. Calculate the cost for different size families. So again, maybe there's a bit a discount. If you have three students that you're going attending a school, maybe the fees are slightly less. The fourth one, this is the bane of my. Life calculating the cost of the subscription list of your streaming services. I don't do this because it'll make me really sad. I just added a sporting subscription company to the list the other day because my little boy is a big St Kilda fan. It sort of made me cry about the price. And again, I keep thinking, "Will I get rid of the cartoon one or should I get rid of the one that is really more for the parents?" And I haven't come to a decision yet. So again, maybe if I was teaching that, I could get students to help me out here.

All right, we talked about rubrics. So again, this is just rubrics that I have downloaded from the website. Again, if you download them, you can actually change them up a bit. I can't remember if it was this one or another one, but I know that I didn't like the way it was presented, so I changed it around. I think one of them that I downloaded, it was in the order of one, three and two. If you are actually a math teacher, that's just... Yeah, it doesn't make me feel very happy. So I made it one, two, and three. So again, the first section is all about the focus areas, the kind of things that you have to do. So [inaudible 01:20:30] number, it's a lot about doing a bit of fractions and simple percentages. Some that are about place values. And then there's other things about doing, again, simple... Or not simple, but addition and subtraction. All right, so doing operations and things like that.

Next slide. So here, again, I'm not going to speak in depth about this, but this is all the key knowledge and key skills for number. But again, if you are doing something with your class that is a project, like percentages and fractions are just not relevant, that's fine. As long as you fit in somewhere else down the line, as long as it's covered. But it doesn't have to be all covered at once. As long as you can demonstrate and show evidence that those things are being covered and students are demonstrating those particular skills.

Again, what is different from VCE VM to the VPC, again, making the VCE VM a little bit more rigid here is that the types of assessment activities, you have to at least choose one of the given ones that are on that list. So you might have a look at it. And again, what something Mandy said is choose something that is actually going to fit with your students' needs or are more to their interests. So maybe doing a portfolio because some of them don't really doing like media presentations, whatever else like that. So do what actually fit for your students.

Again, on the right-hand side, again, nothing really majorly clever on the ideas, but again, a similar idea is about looking at the school equipment list and looking at the school fees. And again, you could fit that into your civic numeracy, again. Look, if you've got a great imagination, you can fit most of the areas of study with the context. But again, as I said, the cost of living. So what you might do is try and get the uniform list or the schools fee list from 2020, and then get the school fee, the uniform list from 2022, see how much it has increased by, get them to do things like that.

And again, looking at their payslips. So getting them to bring in their payslips, talking about all the stuff to do with the tax brackets. We talked about looking at the ATO websites back when we were looking at all of the tools that we had in our toolbox. So things like that that you'd be using. And finally, again, we've got our rubric here that's split up into our three outcomes, outcome one, outcome two, our problem solving cycle and outcome three, our mathematical toolkit. And again, look, depending on what you're teaching, the problem solving part of that rubric is probably not going to change massively, but you might want to tweak it according to what you were doing. And again, similar for the mathematical toolkit.

So it might be better using a calculator or whatever. But if you guys are doing a type of Bunnings, or not Bunnings, but whatever your local hardware store is and you're going to be kitting out a library or something and you're going to be painting it, or you need to be making shelves, then again, you might be putting things on meter sticks and cylinders to measure the volume, things like that.

Next slide, please, Jo. So again, this slide again, I've just actually put VPC and VCE VM next to one another. Again, I'm just highlighted in yellow the things that do overlap because of obviously, yes, they're the same study focus area, they're both number, but there is obviously a further layer of difficulty for VCE VM, and they're things that you're asking your VCE VM students that you're not asking your VPC students to do. But again, I know that we've got colleagues out there that do have that mixed class. And again, it's not necessarily mapping the whole lot for you, but it's just showing you where the overlaps are.

And again, one of the things I'll go back to about flexibility is that the order that you teach VCE VM units, you could teach unit two before teaching unit one, or you could just take bits out of unit two if it fits in with the VPC topics or focus areas in unit one. So they don't have to be taught in a particular order for units one and two VCE VM. Three and four they do, but for units one and two, they don't. So you can switch it around or you can, again, be teaching things concurrently. So data, you might want to do data and number at the same time. They're in two different units. Although what I have to say is that you can't have the same context for them. But you might have them side by side or it could be kind of like what Jo was talking about, a week on or a week off. You might have two different projects on the go because you feel like you've learned from term one that if they keep doing the same thing every day, they kind of lose motivation, so you might swap it up, that kind of thing.

Again, I'm not going to talk in detail too much about the next lot of slides, but again, there's some further ideas there for you to use or not use if you think they're not the greatest. But yeah, I will hand over to Jo now for Q&A.

**[Jo]:** Thank you so much. We're coming to the end of our presentation, and I think we've answered all the questions that have been coming up in the Q&A. If you have a particular question that you think we could answer quickly, maybe pop that in there now, or if we haven't answered a question, please put that in there as well. And I'll just give 15 seconds or so for that. And we'll do the last bit of wrapping up. This will be in the slide pack of course, and this is all the links to all of the support resources and advice that we have got. Some of that's already been shared earlier in the webinar as well.

We'll aim to send these materials around, all of the great Slido responses, in the next few days. And of course we've got our inbox there, which it's us that answers those questions. So please get in touch with us if you have a question now or at any time down the line about implementing VPC and VCE VM numeracy. As we mentioned, and we beg a few, if you have a few moments, please let us know what you thought of our presentation and what else you might need in terms of implementing the curriculum. And yeah, please give us your thoughts on that. I'll wait for a moment or two for people to respond to that. Was that a question popping through?

**[Mandy]:** So Matthew's asked about do any schools run foundation maths in VCE? Are there any crossovers?

**[Nicola]:** Yeah, we've seen schools that are running foundation maths VCE instead of doing numeracy VCE VM for a number of reasons. It might be to do with staffing or it's more appropriate. Again, you might have students that want to possibly try and get a study score, so that gives them a few more options of doing that. So yes, they do do that. When you look at what's the content of the foundation study guide, yes, they are very similar. They're both at AQF and I'm not sure I talked about that. VPC is AQF level one and VCE VM is AQF two and three, and foundation maths VCE is AQF two and three also. So yes, they are very similar, but I think it's about the approach and maybe the pedagogy of how foundation is taught as opposed to vocational major.

**[Jo]:** Yeah, Matthew, please feel free to get in touch with us if you have questions about that and contemplating that situation for your school. Always happy to have a chat. So yes, I hope some people have had a chance to fill out the survey and any other... I don't think any other questions have come through.

**[Mandy]:** I think that's everything. Yeah.

**[Jo]:** Yeah, we really appreciate your time, everyone. We know that it's starting to get busier and busier as the term goes on, and we've been out at schools a little bit and talking at communities of practice and different groups, or schools to group together a number of schools to work with them. And we know that it's that midpoint of the term and things are starting to ramp up. So we appreciate you coming live and sharing your really cool ideas. I'm not a numeracy teacher and now I sort of want to teach some of those projects. So really appreciate it. Thank you, everyone.

And yes, we'll be in touch in a few days to send around that information. And the recording, it takes a little bit of time for us to process the recording, but that will be available on our website hopefully in the next two-ish weeks or so. No promises on that because we rely on some other parts of the organization to help us with that as well. So yes, thank you so much, and yes, good luck to you and your students. Thank you Mandy and Nicola as well. All right, have a lovely evening everyone. Bye.

**[Mandy]:**Thanks everyone.

**[Nicola]:** See you, guys. Bye.

**[Mandy]:** Bye.

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