Introducing Mathematics Version 2.0

The revised Victorian Curriculum F–10 Mathematics will give Victoria’s students the best opportunity to thrive in a world of increasing change and rapid technological advancement. Mathematics Version 2.0 reflects the expertise and feedback of our teachers, with the new curriculum making it more streamlined for teachers to plan, assess and report on student learning.

A simplified and more manageable structure

* Organises the content into 6 strands (Number, Algebra, Measurement, Space, Statistics and Probability), where previously content was structured into 3 dual strands and 13 sub-strands, which gives teachers and students greater scope to make connections across different areas of mathematics
* Embeds the proficiencies of Understanding, Fluency, Reasoning and Problem-solving into the content descriptions, which provides teachers with a clearer picture of how proficiency in Mathematics can empower and enable students to respond to familiar and unfamiliar situations by employing mathematical processes to solve problems efficiently, making informed decisions, reflecting on and evaluating approaches, and verifying that answers and results are reasonable in the context

Better sequencing of concepts, with stronger links

* Sequences content to strengthen the developmental progression of key mathematical concepts, skills, procedures and processes, based on evidence, with a stronger focus on students mastering essential mathematical facts, skills, concepts and processes and being introduced to these at the right time
* Revises the sequencing of specific Mathematics content, for example, telling time, introduction of fractions, recall of multiplication facts (‘times tables’) and solving equations
* Strengthens links with the Victorian Early Years Learning and Development Framework (VEYLDF) and retains strong connections that prepare students for VCE Mathematics pathways
* Strengthens the links to the Numeracy capability progression through clearer content descriptions and elaborations
* Emphasises students developing skills through a focus on the mathematical processes of mathematical modelling, computational and algorithmic thinking, statistical investigation, probability experiments and simulations
* Aligns content with the assessment frameworks for OECD’s Programme for International Student Assessment (PISA) and the Trends in International Mathematics and Science Study (TIMSS) and international curriculum standards

Clearer content descriptions and better aligned achievement standards

* Reduces the number of content descriptions in Foundation to Level 10 from 286 to 257
* Makes clear which mathematical computations need to be done with a calculator and which need to be done without a calculator, reinforcing the importance of achieving proficiency in foundational mental arithmetic skills, while ensuring that students will be able to engage with technology-generated solutions as needed
* Raises standards by introducing content earlier (for example, lifting standards in Level 1 in relation to addition and subtraction), expanding depth and/or breadth of content, and including new content (for example, adding content that sets expectations about recall and proficiency with multiplication facts from Level 2)
* Aligns the achievement standards and content descriptions more closely
* Includes refined achievement standards that are presented in a consistent structure with a clear progression
* Includes content descriptions refined to improve clarity of expectation
* Includes revised and new elaborations that provide a range of quality suggestions that contextualise the content for teachers

Other key changes

Foundation to Level 6

* Introduces more play-, exploration- and investigation-based learning from Foundation to Level 2, to assist students in developing proficiency with and positive dispositions towards mathematics and to improve alignment with the VEYLDF
* Moves content for the initial introduction to probability from Level 1 to Level 3, permitting students to master foundational ideas before engaging with chance
* Resequences key mathematical facts and procedures associated with counting and operations, with an emphasis on developing mastery both with and without assistance from technology
* Introduces mathematical modelling and statistical investigations, to ensure that students can make connections between their own experiences and the classroom
* Retains computational and algorithmic thinking, which continues to benefit students starting in Foundation

Levels 7 to 10

* Clearly aligns content at Level 10 with VCE content, to ensure students have access to appropriate mathematical knowledge, skills and processes in preparation for the VCE Mathematics subject suite
* Includes techniques for dealing with error and estimation inherent in all measurements, and augments student learning through mathematical modelling and statistical investigations
* At Level 8, the introduction of 3-dimensional coordinate systems recognises the importance of students developing spatial measurement skills
* At Level 10, the introduction of network diagrams recognises the pervasive presence of networks in real-world problems, and logarithmic scales important for representing data with very large and very small numbers are introduced too
* Includes an improved Level 10A that continues to support teachers and students by providing relevant content for students to enhance their Level 10 studies

► For more detailed changes, at the individual content description and achievement standard level, see the **Mathematics – comparison of curriculums** document, which compares Mathematics Version 1.0 and Mathematics Version 2.0.