Introducing Mathematics Version 2.0

The revised Victorian Curriculum F–10 Mathematics will give Victorian students at these levels 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 teachers, with the revised curriculum making it more streamlined for teachers to plan, assess and report on student learning.

A simplified and more manageable structure

* **The 6 strands of Number, Algebra, Measurement, Space, Statistics and Probability** (replacing 3 dual strands and 13 sub-strands) give teachers and students greater scope to make connections across different areas of mathematics.
* **The proficiencies of Understanding, Fluency, Reasoning and Problem-solving are embedded in the content descriptions**. This shows teachers 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 their context.

Better sequencing of concepts, with stronger links

* **Content is sequenced 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.
* **Specific Mathematics content sequencing has been revised**, for example telling time, introduction of fractions, recall of multiplication facts (‘times tables’) and solving equations.
* **Links are strengthened with the Victorian Early Years Learning and Development Framework** (VEYLDF), while retaining strong connections that prepare students for VCE Mathematics pathways.
* **Student development of skills is emphasised** through a focus on the mathematical processes of mathematical modelling, computational and algorithmic thinking, statistical investigation, probability experiments and simulations.
* **Content aligns with 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, elaborations and better aligned achievement standards

* **Content descriptions and elaborations specify which mathematical computations need to be done with a calculator and which need to be done without a calculator**. This reinforces 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.
* **Standards are raised** by introducing content earlier (for example raising 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).
* **Achievement standards and content descriptions are aligned more closely**.
* **Achievement standards are presented in a more consistent structure with a clear progression**.
* **Refined content descriptions improve clarity about what students are expected to learn**.
* **Revised and new elaborations provide a range of quality suggestions** that contextualise the content for teachers.

Other key revisions

Foundation to Level 6

* More learning based on play, exploration and investigation is introduced from Foundation to Level 2, to assist students in developing proficiency with and positive dispositions towards mathematics and to improve alignment with the VEYLDF.
* Content for the initial introduction to probability has been moved from Level 1 to Level 3, permitting students to master foundational ideas before engaging with chance.
* Key mathematical facts and procedures associated with counting and operations have been resequenced, with an emphasis on developing mastery both with and without assistance from technology.
* Mathematical modelling and statistical investigations have been introduced to ensure that students can make connections between their own experiences and the classroom.
* Computational and algorithmic thinking have been retained, which continues to benefit students starting in Foundation.

Levels 7 to 10

* Content at Level 10 is clearly aligned with VCE content to ensure students have access to appropriate mathematical knowledge, skills and processes in preparation for the VCE Mathematics subject suite.
* Techniques for dealing with error and estimation inherent in all measurements are included, and student learning is augmented 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 also introduced.
* An improved Level 10A continues to support teachers and students by providing relevant content for students to enhance their Level 10 studies.

► For more detailed revisions, see the [Mathematics – comparison of curriculums](https://f10.vcaa.vic.edu.au/learning-areas/mathematics/resources) document, which compares individual content descriptions and achievement standards for Version 1.0 and Version 2.0.