Mathematics Level 6 map – template

**Use this curriculum area map to identify where content descriptions and achievement standards are explicitly addressed within your school’s teaching and learning plans. This template will help you to both map the Victorian Curriculum F–10 Version 2.0 and audit your current teaching and learning plans.**

# Instructions

1. Enter your details in the footer on page 1.
2. Enter the title of each teaching and learning unit in the first column of each mapping table. Indicate the connections to the curriculum by checking the box of the relevant content description(s) and writing the number of the relevant sentence(s) from the achievement standard.
3. Complete all the mapping tables, listing all teaching and learning units. Check that all achievement standard sentences have been covered. Detail any comments, notes and actions.
4. Complete the Assessment, Analysis of Curriculum Coverage and Next Steps sections on the final page.

**Hint:** Use your completed curriculum area map to start populating or updating your **curriculum area plan**.

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| **Achievement standard (AS) paragraph for Number strand, with numbered sentences** | **Y/N** |
| 1. By the end of Level 6, students use integers to represent points on a number line and on the Cartesian plane. |  |
| 1. They solve problems using the properties of prime, composite, square and triangular numbers. |  |
| 1. Students order common fractions, giving reasons, and add and subtract fractions with related denominators. |  |
| 1. They use all 4 operations with decimals and connect decimal representations of measurements to the metric system. |  |
| 1. Students solve problems involving finding a fraction, decimal or percentage of a quantity and use estimation to find approximate solutions to problems involving rational numbers and percentages. |  |
| 1. They use mathematical modelling to solve financial and other practical problems involving percentages and rational numbers, formulating and solving the problem, and justifying choices. |  |

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|  | **Strand** | **Number** | | | | | | | | | | | | | | | | | |
|  | **Content description (CD)** | recognise situations, including financial contexts, that use integers; locate and represent integers on a number line and as coordinates on the Cartesian plane  VC2M6N01 | | identify and describe the properties of prime, composite, square and triangular numbers and use these properties to solve problems and simplify calculations  VC2M6N02 | | apply knowledge of equivalence to compare, order and represent common fractions, including halves, thirds and quarters, on the same number line and justify their order  VC2M6N03 | | apply knowledge of place value to add and subtract decimals, using digital tools where appropriate; use estimation and rounding to check the reasonableness of answers  VC2M6N04 | | solve problems involving addition and subtraction of fractions using knowledge of equivalent fractions  VC2M6N05 | | multiply and divide decimals by multiples of powers of 10 without a calculator, applying knowledge of place value and proficiency with multiplication facts, using estimation and rounding to check the reasonableness of answers  VC2M6N06 | | solve problems that require finding a familiar fraction, decimal or percentage of a quantity, including percentage discounts, choosing efficient calculation strategies with and without digital tools  VC2M6N07 | | approximate numerical solutions to problems involving rational numbers and percentages, using appropriate estimation strategies  VC2M6N08 | | use mathematical modelling to solve practical problems involving rational numbers and percentages, including in financial contexts; formulate the problems, choosing operations and using efficient mental and written calculation strategies, and using digital tools where appropriate; interpret and communicate solutions in terms of the situation, justifying the choices made  VC2M6N09 | |
| **Teaching and learning unit** | **Semester/Year** | **CD** | **AS no.** | **CD** | **AS no.** | **CD** | **AS no.** | **CD** | **AS no.** | **CD** | **AS no.** | **CD** | **AS no.** | **CD** | **AS no.** | **CD** | **AS no.** | **CD** | **AS no.** |
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| **Comments, notes, actions** |  | | | | | | | | | | | | | | | | | | |

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| **Achievement standard (AS) paragraph for Algebra strand, with numbered sentences** | **Y/N** |
| 1. Students find unknown values in numerical equations involving combinations of arithmetic operations. |  |
| 1. They identify and explain rules used to create growing patterns. |  |
| 1. They design and use algorithms to generate sets of numbers, using a rule. |  |

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| **Achievement standard (AS) paragraph for Measurement strand, with numbered sentences** | **Y/N** |
| 1. Students interpret and use timetables, and measure, calculate and compare elapsed time. |  |
| 1. They convert between common units of length, mass and capacity. |  |
| 1. They use the formula for the area of a rectangle and angle properties to solve problems. |  |

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|  | **Strand** | **Algebra** | | | | | | **Measurement** | | | | | | | |
|  | **Content description (CD)** | recognise and use rules that generate visually growing patterns and number patterns involving rational numbers  VC2M6A01 | | find unknown values in numerical equations involving brackets and combinations of arithmetic operations, using the properties of numbers and operations  VC2M6A02 | | design and use algorithms involving a sequence of steps and decisions that use rules to generate sets of numbers; identify, interpret and explain emerging patterns  VC2M6A03 | | convert between common metric units of length, mass and capacity; choose and use decimal representations of metric measurements relevant to the context of a problem  VC2M6M01 | | establish the formula for the area of a rectangle and use it to solve practical problems  VC2M6M02 | | measure, calculate and compare elapsed time; interpret and use timetables and itineraries to plan activities and determine the duration of events and journeys  VC2M6M03 | | identify the relationships between angles on a straight line, angles at a point and vertically opposite angles; use these to determine unknown angles, communicating reasoning  VC2M6M04 | |
| **Teaching and learning unit** | **Semester/Year** | **CD** | **AS no.** | **CD** | **AS no.** | **CD** | **AS no.** | **CD** | **AS no.** | **CD** | **AS no.** | **CD** | **AS no.** | **CD** | **AS no.** |
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| **Comments, notes, actions** |  | | | | | | | | | | | | | | |

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| **Achievement standard (AS) paragraph for Space strand, with numbered sentences** | **Y/N** |
| 1. Students identify the parallel cross-section for right prisms. |  |
| 1. They create tessellating patterns using combinations of transformations. |  |
| 1. They locate an ordered pair in any one of the 4 quadrants on the Cartesian plane. |  |

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| **Achievement standard (AS) paragraph for Statistics strand, with numbered sentences** | **Y/N** |
| 1. Students compare distributions of discrete and continuous numerical and ordinal categorical data sets as part of their statistical investigations, using digital tools. |  |
| 1. They critique arguments presented in the media based on statistics. |  |

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| **Achievement standard (AS) paragraph for Probability strand, with numbered sentences** | **Y/N.** |
| 1. Students assign probabilities using common fractions, decimals and percentages. |  |
| 1. They conduct simulations using digital tools, to generate and record the outcomes from many trials of a chance experiment. |  |
| 1. They compare observed frequencies to the expected frequencies of the outcomes of chance experiments. |  |

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|  | **Strand** | **Space** | | | | | | **Statistics** | | | | | | **Probability** | | | |
|  | **Content description (CD)** | compare the parallel cross-sections of objects and recognise their relationships to right prisms  VC2M6SP01 | | locate points in the 4 quadrants of the Cartesian plane; describe changes to the coordinates when a point is moved to a different position in the plane  VC2M6SP02 | | recognise and use combinations of transformations to create tessellations and other geometric patterns, using dynamic geometry software where appropriate  VC2M6SP03 | | interpret and compare data sets for ordinal and nominal categorical, discrete and continuous numerical variables using comparative displays or visualisations and digital tools; compare distributions in terms of mode, range and shape  VC2M6ST01 | | identify statistically informed arguments presented in traditional and digital media; discuss and critique methods, data representations and conclusions  VC2M6ST02 | | plan and conduct statistical investigations by posing and refining questions to collect categorical or numerical data by observation or survey, or identifying a problem and collecting relevant data; analyse and interpret the data and communicate findings within the context of the investigation  VC2M6ST03 | | describe probabilities using fractions, decimals and percentages; recognise that probabilities lie on numerical scales of 0–‍1 or 0%–100%; use estimation to assign probabilities that events occur in a given context, using common fractions, percentages and decimals  VC2M6P01 | | conduct repeated chance experiments and run simulations with an increasing number of trials using digital tools; compare observations with expected results and discuss the effect on variation of increasing the number of trials  VC2M6P02 | |
| **Teaching and learning unit** | **Semester/Year** | **CD** | **AS no.** | **CD** | **AS no.** | **CD** | **AS no.** | **CD** | **AS no.** | **CD** | **AS no.** | **CD** | **AS no.** | **CD** | **AS no.** | **CD** | **AS no.** |
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| **Comments, notes, actions** |  | | | | | | | | | | | | | | | | |

# Assessment

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| **Teaching and learning unit** | **Assessment task name(s) and type(s)** | **AS no.** |
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# Analysis of curriculum coverage

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| <The following questions could be used as prompts for the analysis process:   * Have you addressed all the content descriptions? * Have you addressed all the sentences in the achievement standard? * Where are there gaps in the content description coverage? * Where are there gaps in the achievement standard coverage? * Are all content descriptions equal? Do you think they all take the same amount of time to teach? * Is anything being over-taught? * Is anything being missed completely or given insufficient attention?> |

# Next steps

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| <The following questions could be used as prompts for next steps:   * What implications would gaps in content description coverage have on your teaching and learning plans? * What implications would gaps in achievement standard coverage have on assessment? * How will you address any gaps?   Use your completed curriculum area map to start populating or updating your curriculum area plan.> |