Mathematics Level 5 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 5, students use place value to write and order decimals including decimals greater than one. |  |
| 1. They express natural numbers as products of factors and identify multiples and divisors. |  |
| 1. Students order and represent, add and subtract fractions with the same or related denominators. |  |
| 1. They represent common percentages and connect them to their fraction and decimal equivalents. |  |
| 1. Students use their proficiency with multiplication facts and efficient mental and written calculation strategies to multiply large numbers by one- and two-digit numbers and divide by one-digit numbers. |  |
| 1. They check the reasonableness of their calculations using estimation. |  |
| 1. Students use mathematical modelling to solve financial and other practical problems, formulating and solving problems, choosing arithmetic operations and interpreting results in terms of the situation. |  |

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|  | **Strand** | **Number** | | | | | | | | | | | | | | | | | | | |
|  | **Content description (CD)** | interpret, compare and order numbers with more than 2 decimal places, including numbers greater than one, using place value understanding; represent these on a number line  VC2M5N01 | | express natural numbers as products of their factors, recognise multiples and determine if one number is divisible by another  VC2M5N02 | | compare and order common unit fractions with the same and related denominators, including mixed numerals, applying knowledge of factors and multiples; represent these fractions on a number line  VC2M5N03 | | recognise that 100% represents the complete whole and use percentages to describe, represent and compare relative size; connect familiar percentages to their decimal and fraction equivalents  VC2M5N04 | | solve problems involving addition and subtraction of fractions with the same or related denominators, using different strategies  VC2M5N05 | | solve problems involving multiplication of larger numbers by one- or two-digit numbers, choosing efficient mental and written calculation strategies and using digital tools where appropriate; check the reasonableness of answers  VC2M5N06 | | solve problems involving division, choosing efficient mental and written strategies and using digital tools where appropriate; interpret any remainder according to the context and express results as a whole number, decimal or fraction  VC2M5N07 | | check and explain the reasonableness of solutions to problems, including financial contexts using estimation strategies appropriate to the context  VC2M5N08 | | use mathematical modelling to solve practical problems involving additive and multiplicative situations, including simple financial planning contexts; formulate the problems, choosing operations and efficient mental and written calculation strategies, and using digital tools where appropriate; interpret and communicate solutions in terms of the situation  VC2M5N09 | | follow a mathematical algorithm involving branching and repetition (iteration); create and use algorithms involving a sequence of steps and decisions and digital tools to experiment with factors, multiples and divisibility; identify, interpret and describe emerging patterns  VC2M5N10 | |
| **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.** | **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 apply properties of numbers and operations to find unknown values in numerical equations involving multiplication and division. |  |
| 1. They design and use algorithms to identify and explain patterns in the factors and multiples of numbers. |  |

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| **Achievement standard (AS) paragraph for Measurement strand, with numbered sentences** | **Y/N** |
| 1. Students choose and use appropriate metric units to measure the attributes of length, mass and capacity, and to solve problems involving perimeter and area. |  |
| 1. Students convert between 12- and 24-hour time. |  |
| 1. They estimate, construct and measure angles in degrees. |  |
| 1. Students use grid coordinates to locate and move positions. |  |

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|  | **Strand** | **Algebra** | | | | **Measurement** | | | | | | | |
|  | **Content description (CD)** | recognise and explain the connection between multiplication and division as inverse operations and use this to develop families of number facts  VC2M5A01 | | find unknown values in numerical equations involving multiplication and division using the properties of numbers and operations  VC2M5A02 | | choose appropriate metric units when measuring the length, mass and capacity of objects; use smaller units or a combination of units to obtain a more accurate measure  VC2M5M01 | | solve practical problems involving the perimeter and area of regular and irregular shapes using appropriate metric units  VC2M5M02 | | compare 12- and 24-hour time systems and solve practical problems involving the conversion between them  VC2M5M03 | | estimate, construct and measure angles in degrees, using appropriate tools, including a protractor, and relate these measures to angle names  VC2M5M04 | |
| **Teaching and learning unit** | **Semester/Year** | **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 connect objects to their two-dimensional nets. |  |
| 1. They perform and describe the results of transformations and identify any symmetries. |  |

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| **Achievement standard (AS) paragraph for Statistics strand, with numbered sentences** | **Y/N** |
| 1. Students plan and conduct statistical investigations that collect nominal and ordinal categorical and discrete numerical data with and without digital tools. |  |
| 1. Students identify the mode and interpret the shape of distributions of data in context. |  |
| 1. They interpret and compare data represented in line graphs. |  |

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| **Achievement standard (AS) paragraph for Probability strand, with numbered sentences** | **Y/N.** |
| 1. Students conduct repeated chance experiments, list the possible outcomes, estimate likelihoods and make comparisons between those with and without equally likely outcomes. |  |

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|  | **Strand** | **Space** | | | | | | **Statistics** | | | | | | **Probability** | | | |
|  | **Content description (CD)** | connect objects to their nets and build objects from their nets using spatial and geometric reasoning  VC2M5SP01 | | construct a grid coordinate system that uses coordinates to locate positions within a space; use coordinates and directional language to describe position and movement  VC2M5SP02 | | describe and perform translations, reflections and rotations of shapes, using dynamic geometry software where appropriate; recognise what changes and what remains the same, and identify any symmetries  VC2M5SP03 | | acquire, validate and represent data for nominal and ordinal categorical and discrete numerical variables to address a question of interest or purpose using software including spreadsheets; discuss and report on data distributions in terms of highest frequency (mode) and shape, in the context of the data  VC2M5ST01 | | interpret line graphs representing change over time; discuss the relationships that are represented and conclusions that can be made  VC2M5ST02 | | plan and conduct statistical investigations by posing questions or identifying a problem and collecting relevant data; choose appropriate displays and interpret the data; communicate findings within the context of the investigation  VC2M5ST03 | | list the possible outcomes of chance experiments involving equally likely outcomes and compare to those that are not equally likely  VC2M5P01 | | conduct repeated chance experiments, including those with and without equally likely outcomes, and observe and record the results; use frequency to compare outcomes and estimate their likelihoods  VC2M5P02 | |
| **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.> |