**Instruction:** List the title of the unit of work in the first column and then tick the check box of the content description/s addressed by it, which can be done electronically. Once completed, fill out the ‘Assessments’ table. If you need help completing the template view the curriculum mapping instructions document.

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|  | **Number and Algebra Strand** |
|  | **Sub-strand** | **Number and place value** | **Real numbers** |
|  | **Content Descriptions** | Investigate index notation and represent whole numbers as products of powers of prime numbers[(VCMNA238)](http://victoriancurriculum.vcaa.vic.edu.au/Curriculum/ContentDescription/VCMNA238) | Investigate and use square roots of perfect square numbers [(VCMNA239)](http://victoriancurriculum.vcaa.vic.edu.au/Curriculum/ContentDescription/VCMNA239) | Apply the associative, commutative and distributive laws to aid mental and written computation and make estimates for these computations [(VCMNA240)](http://victoriancurriculum.vcaa.vic.edu.au/Curriculum/ContentDescription/VCMNA240) | Compare, order, add and subtract integers[(VCMNA241)](http://victoriancurriculum.vcaa.vic.edu.au/Curriculum/ContentDescription/VCMNA241) | Compare fractions using equivalence. Locate and represent positive and negative fractions and mixed numbers on a number line [(VCMNA242)](http://victoriancurriculum.vcaa.vic.edu.au/Curriculum/ContentDescription/VCMNA242) | Solve problems involving addition and subtraction of fractions, including those with unrelated denominators [(VCMNA243)](http://victoriancurriculum.vcaa.vic.edu.au/Curriculum/ContentDescription/VCMNA243) | Multiply and divide fractions and decimals using efficient written strategies and digital technologies[(VCMNA244)](http://victoriancurriculum.vcaa.vic.edu.au/Curriculum/ContentDescription/VCMNA244) | Express one quantity as a fraction of another, with and without the use of digital technologies[(VCMNA245)](http://victoriancurriculum.vcaa.vic.edu.au/Curriculum/ContentDescription/VCMNA245) | Round decimals to a specified number of decimal places [(VCMNA246)](http://victoriancurriculum.vcaa.vic.edu.au/Curriculum/ContentDescription/VCMNA246) | Connect fractions, decimals and percentages and carry out simple conversions[(VCMNA247)](http://victoriancurriculum.vcaa.vic.edu.au/Curriculum/ContentDescription/VCMNA247) | Find percentages of quantities and express one quantity as a percentage of another, with and without digital technologies. [(VCMNA248)](http://victoriancurriculum.vcaa.vic.edu.au/Curriculum/ContentDescription/VCMNA248) | Recognise and solve problems involving simple ratios [(VCMNA249)](http://victoriancurriculum.vcaa.vic.edu.au/Curriculum/ContentDescription/VCMNA249) |  |
| **Unit** | **Semester/Year** | CD  | Achievement standard # | CD  | Achievement standard # | CD  | Achievement standard # | CD  | Achievement standard # | CD  | Achievement standard # | CD  | Achievement standard # | CD  | Achievement standard # | CD  | Achievement standard # | CD  | Achievement standard # | CD  | Achievement standard # | CD  | Achievement standard # | CD  | Achievement standard # |  |
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|  | **Sub-strand** | **Money and financial mathematics** | **Patterns and algebra** | **Linear and non-linear relationships** |
|  | **Content Descriptions** | Investigate and calculate 'best buys', with and without digital technologies [(VCMNA250)](http://victoriancurriculum.vcaa.vic.edu.au/Curriculum/ContentDescription/VCMNA250) | Introduce the concept of variables as a way of representing numbers using letters [(VCMNA251)](http://victoriancurriculum.vcaa.vic.edu.au/Curriculum/ContentDescription/VCMNA251) | Create algebraic expressions and evaluate them by substituting a given value for each variable [(VCMNA252)](http://victoriancurriculum.vcaa.vic.edu.au/Curriculum/ContentDescription/VCMNA252) | Extend and apply the laws and properties of arithmetic to algebraic terms and expressions [(VCMNA253)](http://victoriancurriculum.vcaa.vic.edu.au/Curriculum/ContentDescription/VCMNA253) | Design and implement mathematical algorithms using a simple general purpose programming language [(VCMNA254)](http://victoriancurriculum.vcaa.vic.edu.au/Curriculum/ContentDescription/VCMNA254) | Given coordinates, plot points on the Cartesian plane, and find coordinates for a given point [(VCMNA255)](http://victoriancurriculum.vcaa.vic.edu.au/Curriculum/ContentDescription/VCMNA255) | Solve simple linear equations [(VCMNA256)](http://victoriancurriculum.vcaa.vic.edu.au/Curriculum/ContentDescription/VCMNA256) | Investigate, interpret and analyse graphs from real life data, including consideration of domain and range [(VCMNA257)](http://victoriancurriculum.vcaa.vic.edu.au/Curriculum/ContentDescription/VCMNA257) |
| **Unit** | **Semester/Year** | CD  | Achievement standard # | CD  | Achievement standard # | CD  | Achievement standard # | CD  | Achievement standard # | CD  | Achievement standard # | CD  | Achievement standard # | CD  | Achievement standard # | CD  | Achievement standard # |
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| **Level 6 Achievement Standard** | **Level 7 Achievement Standard**Separated by line. Number in brackets, E.g. (3), is used as an identifier in various parts of the template. | **Level 8 Achievement Standard**  |
| **Number and Algebra*** Students recognise the properties of prime, composite, square and triangular numbers and determine sets of these numbers.
* They solve problems that involve all four operations with whole numbers and describe the use of integers in everyday contexts.
* Students locate fractions and integers on a number line and connect fractions, decimals and percentages as different representations of the same number.
* They solve problems involving the addition and subtraction of related fractions.
* Students calculate a simple fraction of a quantity and calculate common percentage discounts on sale items, with and without the use of digital technology.
* They make connections between the powers of 10 and the multiplication and division of decimals.
* Students add, subtract and multiply decimals and divide decimals where the result is rational.
* Students write number sentences using brackets and order of operations, and specify rules used to generate sequences involving whole numbers, fractions and decimals.
* They use ordered pairs of integers to represent coordinates of points and locate a point in any one of the four quadrants on the Cartesian plane.
 | **Number and Algebra*** Students solve problems involving the order, addition and subtraction of integers. (1)
* They make the connections between whole numbers and index notation and the relationship between perfect squares and square roots. (2)
* They solve problems involving all four operations with fractions, decimals, percentages and their equivalences, and express fractions in their simplest form. (3)
* Students compare the cost of items to make financial decisions, with and without the use of digital technology. (4)
* They make simple estimates to judge the reasonableness of results. (5)
* Students use variables to represent arbitrary numbers and connect the laws and properties of number to algebra and substitute numbers into algebraic expressions. (6)
* They assign ordered pairs to given points on the Cartesian plane and interpret and analyse graphs of relations from real data. (7)
* Students develop simple linear models for situations, make predictions based on these models, solve related equations and check their solutions.(8)
 | **Number and Algebra*** Students use efficient mental and written strategies to make estimates and carry out the four operations with integers, and apply the index laws to whole numbers.
* They identify and describe rational and irrational numbers in context.
* Students estimate answers and solve everyday problems involving profit and loss rates, ratios and percentages, with and without the use of digital technology.
* They simplify a variety of algebraic expressions and connect expansion and factorisation of linear expressions.
* Students solve linear equations and graph linear relationships on the Cartesian plane.
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*See next page for Measurement and Geometry and Statistics and Probability Strands and Assessments section*

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|  | **Measurement and Geometry Strand** |
|  | **Sub-strand** | **Using units of measurement** | **Shape** | **Location and transformation** | **Geometric reasoning** |
|  | **Content Descriptions** | Establish the formulas for areas of rectangles, triangles and parallelograms and use these in problem solving [(VCMMG258)](http://victoriancurriculum.vcaa.vic.edu.au/Curriculum/ContentDescription/VCMMG258) | Calculate volumes of rectangular prisms[(VCMMG259)](http://victoriancurriculum.vcaa.vic.edu.au/Curriculum/ContentDescription/VCMMG259) | Draw different views of prisms and solids formed from combinations of prisms [(VCMMG260)](http://victoriancurriculum.vcaa.vic.edu.au/Curriculum/ContentDescription/VCMMG260) | Describe translations, reflections in an axis, and rotations of multiples of 90° on the Cartesian plane using coordinates. Identify line and rotational symmetries [(VCMMG261)](http://victoriancurriculum.vcaa.vic.edu.au/Curriculum/ContentDescription/VCMMG261) | Identify corresponding, alternate and co-interior angles when two straight lines are crossed by a transversal [(VCMMG264)](http://victoriancurriculum.vcaa.vic.edu.au/Curriculum/ContentDescription/VCMMG264) | Investigate conditions for two lines to be parallel and solve simple numerical problems using reasoning[(VCMMG265)](http://victoriancurriculum.vcaa.vic.edu.au/Curriculum/ContentDescription/VCMMG265) | Demonstrate that the angle sum of a triangle is 180° and use this to find the angle sum of a quadrilateral[(VCMMG263)](http://victoriancurriculum.vcaa.vic.edu.au/Curriculum/ContentDescription/VCMMG263) | Classify triangles according to their side and angle properties and describe quadrilaterals [(VCMMG262)](http://victoriancurriculum.vcaa.vic.edu.au/Curriculum/ContentDescription/VCMMG262) |
| **Unit** | **Semester/Year** | CD  | Achievement standard # | CD  | Achievement standard # | CD  | Achievement standard # | CD  | Achievement standard # | CD  | Achievement standard # | CD  | Achievement standard # | CD  | Achievement standard # | CD  | Achievement standard # |
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|  | **Statistics and Probability Strand** |
|  | **Sub-strand** | **Chance** | **Data representation and interpretation** |
|  | **Content Descriptions** | Construct sample spaces for single-step experiments with equally likely outcomes[(VCMSP266)](http://victoriancurriculum.vcaa.vic.edu.au/Curriculum/ContentDescription/VCMSP266) | Assign probabilities to the outcomes of events and determine probabilities for events[(VCMSP267)](http://victoriancurriculum.vcaa.vic.edu.au/Curriculum/ContentDescription/VCMSP267) | Identify and investigate issues involving numerical data collected from primary and secondary sources[(VCMSP268)](http://victoriancurriculum.vcaa.vic.edu.au/Curriculum/ContentDescription/VCMSP268) | Construct and compare a range of data displays including stem-and-leaf plots and dot plots[(VCMSP269)](http://victoriancurriculum.vcaa.vic.edu.au/Curriculum/ContentDescription/VCMSP269) | Calculate mean, median, mode and range for sets of data. Interpret these statistics in the context of data[(VCMSP270)](http://victoriancurriculum.vcaa.vic.edu.au/Curriculum/ContentDescription/VCMSP270) | Describe and interpret data displays using median, mean and range [(VCMSP271)](http://victoriancurriculum.vcaa.vic.edu.au/Curriculum/ContentDescription/VCMSP271) |
| **Unit** | **Semester/Year** | CD  | Achievement standard # | CD  | Achievement standard # | CD  | Achievement standard # | CD  | Achievement standard # | CD  | Achievement standard # | CD  | Achievement standard # |
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| **Level 6 Achievement Standard**  | **Level 7 Achievement Standard**Separated by line. Number in brackets, E.g. (3), is used as an identifier in various parts of the template. | **Level 8 Achievement Standard**  |
| **Measurement and Geometry*** Students relate decimals to the metric system and choose appropriate units of measurement to perform a calculation.
* They solve problems involving time, length and area, and make connections between capacity and volume.
* Students interpret a variety of everyday timetables.
* They solve problems using the properties of angles and investigate simple combinations of transformations in the plane, with and without the use of digital technology.
* Students construct simple prisms and pyramids.

**Statistics and Probability*** Students interpret and compare a variety of data displays, including displays for two categorical variables.
* They analyse and evaluate data from secondary sources.
* Students compare observed and expected frequencies of events, including those where outcomes of trials are generated with the use of digital technology.
* They specify, list and communicate probabilities of events using simple ratios, fractions, decimals and percentages.
 | **Measurement and Geometry*** Students use formulas for the area and perimeter of rectangles. (9)
* They classify triangles and quadrilaterals and represent transformations of these shapes on the Cartesian plane, with and without the use of digital technology. (10)
* Students name the types of angles formed by transversals crossing parallel lines and solve simple numerical problems involving these lines and angles. (11)
* They describe different views of three-dimensional objects, and use models, sketches and digital technology to represent these views. (12)
* Students calculate volumes of rectangular prisms. (13)

**Statistics and Probability*** Students identify issues involving the collection of discrete and continuous data from primary and secondary sources. (14)
* They construct stem-and-leaf plots and dot-plots. (15)
* Students identify or calculate mean, mode, median and range for data sets, using digital technology for larger data sets. (16)
* They describe the relationship between the median and mean in data displays. (17)
* Students determine the sample space for simple experiments with equally likely outcomes, and assign probabilities outcomes. (18)
 | **Measurement and Geometry*** Students convert between units of measurement for area and for volume.
* They find the perimeter and area of parallelograms, rhombuses and kites.
* Students name the features of circles, calculate circumference and area, and solve problems relating to the volume of prisms.
* They make sense of time duration in real applications, including the use of 24-hour time.
* Students identify conditions for the congruence of triangles and deduce the properties of quadrilaterals.
* They use tools, including digital technology, to construct congruent shapes.

**Statistics and Probability*** Students explain issues related to the collection of sample data and discuss the effect of outliers on means and medians of the data.
* They use various approaches, including the use of digital technology, to generate simple random samples from a population.
* Students model situations with Venn diagrams and two-way tables and explain the use of 'not', 'and' and 'or'.
* Students choose appropriate language to describe events and experiments.
* They determine complementary events and calculate the sum of probabilities.
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| **Assessments** |  |  |
| **Unit (Title)** | **Assessment** | **Achievement Standard/s** |  | **Unit (Title)** | **Assessment** | **Achievement Standard/s** |
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