

MATHEMATICS TOPIC MAP

Prep

Package 1	Package 2	Package 3	Package 4	Package 5	Package 6	Package 7	Package 8	Package 9	Package 10	Package 11	Package 12	Package 13	Package 14	Package 15	Package 16
<ul style="list-style-type: none"> • Counting • Connect number names, numerals and quantities • Join collections of items 	<ul style="list-style-type: none"> • Addition • Sharing 	<ul style="list-style-type: none"> • Counting • Connect numerals and number names • Addition • Sharing 	<ul style="list-style-type: none"> • Measurement – direct and indirect comparison • Patterns 	<ul style="list-style-type: none"> • 2D shapes – match and compare • 3D objects – identify and construct 	<ul style="list-style-type: none"> • Explore, describe, create patterns • Identify growing patterns 	<ul style="list-style-type: none"> • Make, represent, compare and order quantities and numerals 	<ul style="list-style-type: none"> • Measurement – explore size and mass 	<ul style="list-style-type: none"> • Sort and classify • Describe and create patterns 	<ul style="list-style-type: none"> • Recall and represent sequences of events • Compare mass using balance scales 	<ul style="list-style-type: none"> • Compare objects using measurement • Describe position and location of objects 	<ul style="list-style-type: none"> • Describe movement • Explore addition 	<ul style="list-style-type: none"> • Interpret and represent data • Create pictures using 2D shapes • Describe events 	<ul style="list-style-type: none"> • Growing patterns 	<ul style="list-style-type: none"> • Measurement – explore student size 	<ul style="list-style-type: none"> • Represent quantities • Count backwards from five

Year 1

Package 1	Package 2	Package 3	Package 4	Package 5	Package 6	Package 7	Package 8	Package 9	Package 10	Package 11	Package 12	Package 13	Package 14	Package 15	Package 16
<ul style="list-style-type: none"> • Growing patterns • Represent and record counting sequences and quantities including 10s • Two-digit numbers 	<ul style="list-style-type: none"> • Model doubles facts • Addition and subtraction • Multiples of 10 	<ul style="list-style-type: none"> • Compare and order numbers • Identify halves • Identify and describe number patterns • Two-digit numbers 	<ul style="list-style-type: none"> • Tell time • Describe location, position, direction and movement of objects • Give and follow directions • 2D shapes and 3D objects 	<ul style="list-style-type: none"> • Addition and subtraction problems • Partition and sequence teen numbers • Describe and sequence numbers to 19 	<ul style="list-style-type: none"> • Lengths – measure and compare • 2D shapes & 3D objects 	<ul style="list-style-type: none"> • Subtraction problems • Capacity of containers – measure, compare and order 	<ul style="list-style-type: none"> • Skip counting • Two-digit numbers -represent and locate on a number line • Australian coins -identify and order 	<ul style="list-style-type: none"> • Lengths – describe and compare objects • Addition problems 	<ul style="list-style-type: none"> • Solve addition and subtraction problems • Describe time durations • Tell time to the half hour 	<ul style="list-style-type: none"> • Identify halves • Describe and represent number patterns • Two-digit numbers – locate on number lines 	<ul style="list-style-type: none"> • Identify the chance of events occurring • Collect data • Join parts to make a whole • Addition and subtraction 	<ul style="list-style-type: none"> • Addition and subtraction problems • Represent and continue growth patterns 	<ul style="list-style-type: none"> • Describe time durations • Recall addition and subtraction facts 	<ul style="list-style-type: none"> • Consolidate number, addition, subtraction, patterns and chance 	<ul style="list-style-type: none"> • Calendars • Describe and compare time durations • Count to and from 100 • Identify, represent and order numbers up to 19

Year 2

Package 1	Package 2	Package 3	Package 4	Package 5	Package 6	Package 7	Package 8	Package 9	Package 10	Package 11	Package 12	Package 13	Package 14	Package 15	Package 16
<ul style="list-style-type: none"> • Two-digit numbers – compare and order • Add numbers that cross over tens numbers • Represent and continue 3s counting sequence • Identify pattern rules for number sequences 	<ul style="list-style-type: none"> • Addition and subtraction problems with two-digit numbers • Multiplication and division – represent in different ways • Simple multiplication and division problems 	<ul style="list-style-type: none"> • Three-digit numbers • Divide collections and shapes into halves and eighths 	<ul style="list-style-type: none"> • Describe polygons • Draw 2D shapes • Describe 3D objects • Tell time to the half hour and quarter hour 	<ul style="list-style-type: none"> • Represent halves, quarters and eighths of collections and shapes • Count Australian notes and coins 	<ul style="list-style-type: none"> • Add and subtract two-digit numbers • Measurement – length and area of objects • Capacity – measure and compare 	<ul style="list-style-type: none"> • Multiplication and division • Count collections of coins and notes • Represent and compare money amounts 	<ul style="list-style-type: none"> • Recall addition and subtraction number facts • Add single and two-digit numbers • Multiplication and division 	<ul style="list-style-type: none"> • Data – collect, represent and display 	<ul style="list-style-type: none"> • Calendars • Recall addition facts • Two-digit numbers and multiples of 10 – add and subtract 	<ul style="list-style-type: none"> • Data – collect, represent and interpret • Mass, length, area and capacity of objects -compare and order 	<ul style="list-style-type: none"> • 2D shapes – draw and describe • 3D objects – describe features 	<ul style="list-style-type: none"> • Recall addition and subtraction number facts to 20 • Addition and subtraction problems with two-digit numbers 	<ul style="list-style-type: none"> • Skip counting with 2s, 5s, 10s and 100s • Divide shapes into parts to represent halves, quarters and eighths • Number problems involving halves, quarters and eighths 	<ul style="list-style-type: none"> • Consolidate mathematical concepts 	<ul style="list-style-type: none"> • Order days and months • Calendars • Tell time to the quarter hour

MATHEMATICS TOPIC MAP

Year 3															
Package 1	Package 2	Package 3	Package 4	Package 5	Package 6	Package 7	Package 8	Package 9	Package 10	Package 11	Package 12	Package 13	Package 14	Package 15	Package 16
<ul style="list-style-type: none"> • Three-digit numbers – represent, compare, order and round • Use place value parts to solve addition and subtraction problems • Identify and use pattern rules 	<ul style="list-style-type: none"> • Recall addition, subtraction and multiplication facts • Three-digit numbers – add and subtract • Multiples of ten – double and halve 	<ul style="list-style-type: none"> • Odd and even numbers • Model fractions including thirds • Three-digit numbers – read, write and order • Count beyond 1000 in multiples of 1, 10 and 100 	<ul style="list-style-type: none"> • 3D objects – sort and compare • 3D objects – construct models • Angles – find, describe and compare 	<ul style="list-style-type: none"> • Represent multiplication using array models • Recall 2s and 10s multiplication facts • Money problems to calculate change 	<ul style="list-style-type: none"> • Sequence numbers beyond 1000 • Represent four-digit numbers • Add two-digit numbers using a written strategy 	<ul style="list-style-type: none"> • Represent and compare fractions with materials and shapes • Divide shapes and collections into halves, thirds, quarters and eighths • Recall multiplication facts including 3s • Connect multiplication and division 	<ul style="list-style-type: none"> • Describe number patterns to 10 000 • Continue patterns involving addition and subtraction • Add and subtract two-digit and three-digit numbers 	<ul style="list-style-type: none"> • Measure and compare time durations • Tell time to the minute • Solve time problems 	<ul style="list-style-type: none"> • Collect and interpret data • Represent data in graphs • Conduct a chance experiment 	<ul style="list-style-type: none"> • Recall multiplication facts (0s, 1s, 2s, 3s, 5s, 10s) • Solve word problems involving multiplication, division and fractions • Divide shapes and collections into halves, quarters, thirds, fifths and eighths 	<ul style="list-style-type: none"> • Addition and subtraction word problems • Add two-digit and three-digit numbers using a written strategy • Subtract two-digit numbers using a written strategy • Create maps and plans 	<ul style="list-style-type: none"> • Create symmetrical shapes and patterns • Angles – describe and compare • 3D objects – make models 	<ul style="list-style-type: none"> • Data – collect, interpret and display • Conduct chance experiments • Count change to the nearest five cents 	<ul style="list-style-type: none"> • Consolidate mathematical concepts 	<ul style="list-style-type: none"> • Tell time to the minute • Simple time problems

Year 4															
Package 1	Package 2	Package 3	Package 4	Package 5	Package 6	Package 7	Package 8	Package 9	Package 10	Package 11	Package 12	Package 13	Package 14	Package 15	Package 16
<ul style="list-style-type: none"> • Five-digit numbers – represent, compare and order • Investigate patterns and relationships relating to odd & even numbers 	<ul style="list-style-type: none"> • Practise fluency when recalling 3s, 6s & 9s multiplication facts • Multiplication and division word problems • Represent fractions on number lines • Fraction problems 	<ul style="list-style-type: none"> • Addition, subtraction, multiplication and division word problems • Problems involving purchases using different strategies • Represent, compare and order numbers up to six digits 	<ul style="list-style-type: none"> • 2D shapes – describe properties of and create • Read maps and plans 	<ul style="list-style-type: none"> • Multiplication and division patterns (by 2s, 4s, 5s, 10s) • Give and follow directions • Angles – compare and classify 	<ul style="list-style-type: none"> • Calculate change using different methods including rounding • Create a spending plan 	<ul style="list-style-type: none"> • Multiplication and division problems using place value materials and arrays • Convert fractions • Investigate equivalent fractions • Fraction problems 	<ul style="list-style-type: none"> • Measurement – length, mass and capacity • Read graduated scales • Measurement – areas of regular & irregular shapes 	<ul style="list-style-type: none"> • Fractions and decimals • Add, subtract, multiply and divide using a range of strategies 	<ul style="list-style-type: none"> • Data – observations and surveys • Data – represent in picture and column graphs • Unknowns using equivalence 	<ul style="list-style-type: none"> • Fractions and decimals • Compare and order events 	<ul style="list-style-type: none"> • Addition, subtraction, multiplication and division problems using a range of strategies 	<ul style="list-style-type: none"> • Division problems using a range of strategies • Data – collect, represent and interpret 	<ul style="list-style-type: none"> • Fractions and decimals • Addition, subtraction, multiplication and division strategies 	<ul style="list-style-type: none"> • Area of shapes – measure and compare • Compare objects using metric units • Calculate time 	<ul style="list-style-type: none"> • Multiples (2,4,5,10) • Recall and extend multiplication facts • Tell time to the minute • Time problems

Year 5															
Package 1	Package 2	Package 3	Package 4	Package 5	Package 6	Package 7	Package 8	Package 9	Package 10	Package 11	Package 12	Package 13	Package 14	Package 15	Package 16
<ul style="list-style-type: none"> • Problems with five-digit numbers • Explore decimals to hundredths • Count, compare and order decimals 	<ul style="list-style-type: none"> • Identify factors and multiples • Create and continue number patterns using whole numbers, fractions and decimals 	<ul style="list-style-type: none"> • Addition, subtraction, multiplication and money problems using a variety of strategies 	<ul style="list-style-type: none"> • Symmetry • Enlarge and reduce shapes • 3D objects – properties 	<ul style="list-style-type: none"> • Interpret maps • Identify location using coordinates • Describe and create symmetry • Enlarge shapes 	<ul style="list-style-type: none"> • Investigate income & expenditure • Develop a savings plan 	<ul style="list-style-type: none"> • Represent fractions as decimals • Connect and compare decimals • Patterns involving addition and subtraction • Investigate the relationship between multiplication & division 	<ul style="list-style-type: none"> • Multiplication and division • Angles 	<ul style="list-style-type: none"> • Transformation symmetry • Multiplication facts and problems • Division problems with no remainder 	<ul style="list-style-type: none"> • Data – collect, display and interpret 	<ul style="list-style-type: none"> • Addition, subtraction and multiplication • Identify factors and multiples 	<ul style="list-style-type: none"> • Division problems • Read and convert between 12- and 24- hour time • Investigate probability of events occurring 	<ul style="list-style-type: none"> • Data – collect, organise and analyse 	<ul style="list-style-type: none"> • Plan a budget • Order and compare fractions and decimals • Apply mental strategies to solve problems 	<ul style="list-style-type: none"> • Angles – measure and construct • Use coordinates on a map 	<ul style="list-style-type: none"> • Time – measure and record • Read and represent 24-hour time

MATHEMATICS TOPIC MAP

Year 6

Package 1	Package 2	Package 3	Package 4	Package 5	Package 6	Package 7	Package 8	Package 9	Package 10	Package 11	Package 12	Package 13	Package 14	Package 15	Package 16
<ul style="list-style-type: none"> Add, subtract and multiply using decimal numbers 	<ul style="list-style-type: none"> Represent square & triangular numbers Numbers less than zero – number lines 	<ul style="list-style-type: none"> Order of operations when solving problems Division with no remainder 	<ul style="list-style-type: none"> Construct 3D shapes Compare volume and capacity Calculate angles 	<ul style="list-style-type: none"> Prime and composite numbers Problems using addition and subtraction Describe, continue and create number patterns Compare and order fractions 	<ul style="list-style-type: none"> Connect fractions, decimals and percentages Calculate percentage discounts Multiplication 	<ul style="list-style-type: none"> Represent and solve problems involving positive and negative integers Plot ordered pairs onto the Cartesian plane Transform, reflect and rotate shapes 	<ul style="list-style-type: none"> Problems involving fractions Apply the order of operations to solve word problems 	<ul style="list-style-type: none"> Add and subtract decimal numbers Multiply and divide decimal numbers Convert between units of measurement 	<ul style="list-style-type: none"> Measure and record the volume & capacity Perimeter and area 	<ul style="list-style-type: none"> Continue patterns involving whole numbers, fractions and decimals Positive and negative integers Locate ordered pairs on the Cartesian plane Multiplication and division using a written algorithm 	<ul style="list-style-type: none"> Word problems using written methods for multiplication and division Investigate secondary data 	<ul style="list-style-type: none"> Plot and interpret real-world data Frequency of events 	<ul style="list-style-type: none"> Add, subtract, multiply and divide decimals Calculate discount and sale price 	<ul style="list-style-type: none"> Data – analyse and interpret Interpret timetables 	<ul style="list-style-type: none"> Multiply whole numbers Investigate, compare and use timetables

Year 7

Package 1	Package 2	Package 3	Package 4	Package 5	Package 6	Package 7	Package 8	Package 9	Package 10	Package 11	Package 12	Package 13	Package 14	Package 15	Package 16
<ul style="list-style-type: none"> Create algebraic expressions Develop algebraic rules to describe patterns Develop mathematical models from tables of values Linear equations 	<ul style="list-style-type: none"> Solve linear equations Graphing on Cartesian planes Create and interpret time graphs 	<ul style="list-style-type: none"> Add and subtract fractions Convert between fractions, decimals and percentages Ratios 	<ul style="list-style-type: none"> Investigate theoretical and experimental probabilities Area of rectangles 3D objects – describing and drawing from different viewpoints Volume of rectangular prisms 	<ul style="list-style-type: none"> Sum of angles in triangles and quadrilaterals Area of rectangles 3D objects – describing and drawing from different viewpoints Volume of rectangular prisms 	<ul style="list-style-type: none"> Multiply and divide fractions Problems involving fractions and the four operations Ratio problems 	<ul style="list-style-type: none"> Multiply, divide and round decimals Calculate best shopping deals Express numbers using the powers of ten Add and subtract integers 	<ul style="list-style-type: none"> Convert between fractions, decimals, percentages Multiplication problems with decimals 	<ul style="list-style-type: none"> Express numbers in index notation Connect square root and square numbers Prime factors Number laws 	<ul style="list-style-type: none"> Add, subtract, compare, order and express fractions Compare and order integers 	<ul style="list-style-type: none"> Data displays – Compare and interpret Construct stem-and-leaf plots Mean, median, mode and range for sets of data 	<ul style="list-style-type: none"> Connect stem-and-leaf plots and measuring of centre Investigate issues involving data 	<ul style="list-style-type: none"> Measures of centre and spread using a spreadsheet Conduct an inquiry by applying statistics 	<ul style="list-style-type: none"> Identify transversals on parallel lines Problems using angle relationships Line and rotational symmetry 	<ul style="list-style-type: none"> Translate, reflect and transform shapes on the Cartesian plane Line and rotational symmetry 	<ul style="list-style-type: none"> Area of parallelograms and triangles Algebraic expressions – create and evaluate

Year 8

Package 1	Package 2	Package 3	Package 4	Package 5	Package 6	Package 7	Package 8	Package 9	Package 10	Package 11	Package 12	Package 13	Package 14	Package 15	Package 16
<ul style="list-style-type: none"> Index laws Problems using indices 	<ul style="list-style-type: none"> Expand simple and algebraic expressions using the distributive law Graph linear functions with expanded and factorised expressions 	<ul style="list-style-type: none"> Consolidate the relationship between rates and linear models Partition a quantity into a ratio Plot linear relationships Solve linear equations 	<ul style="list-style-type: none"> Perimeter and area – squares, rectangles, triangles, parallelograms, rhombuses, trapeziums and kites Relationship between pi and circles 	<ul style="list-style-type: none"> Circumference and area of circles Create a plan for a stained-glass window 	<ul style="list-style-type: none"> Explore the effect of sample size Describe data samples using data displays Mean, median, mode and range using a spreadsheet 	<ul style="list-style-type: none"> Explore outliers and bias Problems using 12- and 24-hour time and time zones Terminating and recurring decimals 	<ul style="list-style-type: none"> Irrational numbers Probability Organise data – Venn diagrams and two-way tables 	<ul style="list-style-type: none"> Add, subtract, multiply and divide integers and rational numbers Apply the order of operations to integers 	<ul style="list-style-type: none"> Percentage, fraction and decimal relationships Percentage problems 	<ul style="list-style-type: none"> Simplify algebraic expressions Solve linear equations Algebraic models 	<ul style="list-style-type: none"> Congruence by translation, reflection and rotation Construct congruent triangles 	<ul style="list-style-type: none"> Convert between units for volume Apply congruence properties Volume of prisms 	<ul style="list-style-type: none"> Volume of prisms using the general formula Volume problems 	<ul style="list-style-type: none"> Properties of quadrilaterals Tangrams 	<ul style="list-style-type: none"> Represent linear patterns Describe linear relationships Sketch linear functions

MATHEMATICS TOPIC MAP

Year 9															
Package 1	Package 2	Package 3	Package 4	Package 5	Package 6	Package 7	Package 8	Package 9	Package 10	Package 11	Package 12	Package 13	Package 14	Package 15	Package 16
<ul style="list-style-type: none"> Distributive law Expand binomial expressions Sketch non-linear graphs 	<ul style="list-style-type: none"> Seven index laws Explore scientific notation 	<ul style="list-style-type: none"> Scientific notation Expand algebraic and binomial expressions Financial decisions using simple interest calculations 	<ul style="list-style-type: none"> Interpret and construct scale diagrams Similarity rules for triangles 	<ul style="list-style-type: none"> Problems using Pythagoras' theorem Sin, cos and tan 	<ul style="list-style-type: none"> Rates, ratios and direct proportions Graphical and algebraic representations of rate Rate problems 	<ul style="list-style-type: none"> Gradients Calculate the distance between two points and the midpoint of a line segment 	<ul style="list-style-type: none"> Trigonometric ratios Side lengths in right-angled triangles Problems involving trigonometry 	<ul style="list-style-type: none"> Construct nets of right and triangular prisms and cylinders Surface area and volume of prisms and cylinders 	<ul style="list-style-type: none"> Surface area of right prisms and cylinders 	<ul style="list-style-type: none"> Evaluate statistics of population estimates in media reports Two-step chance experiments 	<ul style="list-style-type: none"> Determine probabilities Relative frequency using Venn diagrams 	<ul style="list-style-type: none"> Relative frequency using two-way tables Solving problems involving very small and very large timescale and intervals 	<ul style="list-style-type: none"> Scaled timeline to represent the history of life on Earth 	<ul style="list-style-type: none"> Develop an algebraic model Investigate paper sizes 	<ul style="list-style-type: none"> Volume and surface area of cylinders Rearrange formulas to find unknown dimensions

Year 10														
Package 1	Package 2	Package 3	Package 4	Package 5	Package 6	Package 7	Package 8	Package 9	Package 10	Package 11	Package 12	Package 13	Package 14	Package 15
<ul style="list-style-type: none"> Explore linear relations Contextualised linear problems Features and equations of linear functions 	<ul style="list-style-type: none"> Simplify expressions using the seven index laws Explore scientific notation 	<ul style="list-style-type: none"> Expand and factorise algebraic expressions Equations involving simple algebraic fractions Expand binomial expressions including perfect squares 	<ul style="list-style-type: none"> Factorise monic quadratic expressions Graph parabolas, circles and exponential functions Solve quadratic equations 	<ul style="list-style-type: none"> Two-step and three-step chance experiments Conditional probabilities Probability in real-life contexts 	<ul style="list-style-type: none"> Measures of centre and spread Construct and interpret box plots 	<ul style="list-style-type: none"> Construct scatter plots Trends in data using scatter plots Bivariate numerical data 	<ul style="list-style-type: none"> Volume and surface area of 3D objects 	<ul style="list-style-type: none"> Proofs related to plane shapes Apply geometric reasoning to congruency and similarity 	<ul style="list-style-type: none"> Problems using Pythagoras theorem Problems using trigonometry 	<ul style="list-style-type: none"> Interest using the simple interest formula Compound interest problems using a spreadsheet 	<ul style="list-style-type: none"> Compound interest using the formula Problems involving compound interest, growth and decay 	<ul style="list-style-type: none"> Solve linear inequalities Represent inequalities on Cartesian planes Inequalities from graphical representations 	<ul style="list-style-type: none"> Simultaneous solutions from graphical representations Solutions to simultaneous equations using technology 	<ul style="list-style-type: none"> Trigonometry problems in context Radial survey – applying trigonometry