# Syllabus comparison chart Queensland | Year 5



Year 5 Australian Curriculum v8.4			Year 5 Australian Curriculum v9			New Courses: Units of Work	Activities (Courses): Topics	Skill Quests
Strand	Content Descriptions	Code	Strand	Outcomes	Code	<b>ONEW</b>	Australian Curr	iculum v9 Yr 05
	recognise that the place value system can be extended beyond hundredths	ACMNA104		interpret, compare and order numbers with more than 2 decimal places, including numbers greater than one, using place value understanding; represent these on a	AC9M5N01	Y5 Decimals Y5 Rounding and estimation	REVIEW Whole Numbers & Place Value Fractions decimals & percentages	Understand decimals to thousandths
	compare, order and represent decimals	ACMNA105		number line			percentuges	
	identify and describe factors and multiples of whole numbers and use them to solve problems	ACMNA098		express natural numbers as products of their factors, recognise multiples and determine if one number is divisible by another	AC9M5N02		Factors & multiples	Multiples & factors Divisibility tests
	compare and order common unit fractions and locate and represent them on a number line	ACMNA102		compare and order fractions with the same and related denominators including mixed numerals, applying knowledge of factors and multiples; represent these fractions on a number line	AC9M5N03	Y5 Fractions Y6 Fractions	Compare & order fractions	Compare & order fractions
			103 100 Number Sc 100 Sc 100 Number Sc 100 Sc 100 Sc 100 Sc 100 S	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	AC9M5N04	Y5 Percentages	Fractions decimals & percentages	Fractions, decimals & percentages
	investigate strategies to solve problems involving addition and subtraction of fractions with the same denominator	ACMNA103		solve problems involving addition and subtraction of fractions with the same or related denominators, using different strategies	AC9M5N05	Y5 Fractions Y6 Fractions	Add & subtract related fractions	Add & subtract fractions
Number	solve problems involving multiplication of large numbers by one- or two-digit numbers using efficient mental, written strategies and appropriate digital technologies	ACMNA100		solve problems involving multiplication of larger numbers by one- or two-digit numbers, choosing efficient calculation strategies and using digital tools where appropriate; check the reasonableness of	AC9M5N06		More multiplication â division	Strategies to multiply by 1- or 2-digits
	use efficient mental and written strategies and apply appropriate digital technologies to solve problems	ACMNA291		answers				
	solve problems involving division by a one-digit number, including those that result in a remainder	ACMNA101		solve problems involving division, choosing efficient strategies and using digital tools where appropriate; interpret any remainder according to the context and express results as a whole number, decimal or fraction	AC9M5N07		More multiplication & division	Division strategies incl. remainders
	use efficient mental and written strategies and apply appropriate digital technologies to solve problems	ACMNA291						
	use estimation and rounding to check the reasonableness of answers to calculations		check and explain the reasonableness of solutions to problems including financial contexts using estimation strategies appropriate to the context	AC9M5N08		Rounding & estimating	Estimation & rounding	

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Strand	Content Descriptions	Code	Strand	Outcomes	Code	<b>O</b> NEW	Australian Curr	iculum v9 Yr 05
				use mathematical modelling to solve practical problems involving additive and multiplicative situations including financial contexts; formulate the problems, choosing operations and efficient calculation strategies, using digital tools where appropriate; interpret and communicate solutions in terms of the situation	AC9M5N09	Y5 Fractions Y6 Fractions Y6 Percentages	Solve problems	Add & subtract practical problems Multiply & divide practical problems All operations practical problems
Number			Number	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 <b>()</b> NEW	AC9M5N010			Create & use algorithms
	create simple financial plans © REMOVED	ACMNA106						
				recognise and explain the connection between multiplication and division as inverse operations and use this to develop families of number facts <b>()</b> NEW	AC9M5A01		Fact families Mult/Div	Connect multiplication & division
Algebra	find unknown quantities in number sentences involving multiplication and division and identify equivalent number sentences involving multiplication and division	ACMNA121	Algebra	find unknown values in numerical equations involving multiplication and division using the properties of numbers and operations	AC9M5A02		Missing Values	Find unknown values in mult & div
	describe, continue and create patterns with fractions, decimals and whole numbers resulting from addition and subtraction ( MOVED TO Y6)	ACMNA107						
	choose appropriate units of measurement for length, area, volume, capacity and mass	ACMMG108		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	AC9M5M01		Measurement	Choose appropriate metric units
	calculate perimeter and area of rectangles using familiar metric units	ACMMG109		solve practical problems involving the perimeter and area of regular and irregular shapes using appropriate metric units	AC9M5M02			Perimeter & area - practical problems
Measurement	compare 12- and 24-hour time systems and convert between them	ACMMG110	Measurement	compare 12- and 24-hour time systems and solve practical problems involving the conversion between them	AC9M5M03		Time conversions & problems	Use 24-hour time
	estimate, measure and compare angles using degrees. Construct angles using a protractor	ACMMG112		estimate, construct and measure angles in degrees, using appropriate tools including a protractor, and relate these measures to angle names	AC9M5M04		Measurement	Estimate, construct & measure angles

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	Year 5 Australian Curriculum v8.4			Year 5 Australian Curriculum v9			Activities (Courses): Topics	Skill Quests
Strand	Content Descriptions	Code	Strand	Outcomes	Code	<b>O</b> NEW	Australian Curi	iculum v9 Yr 05
	connect three-dimensional objects with their nets and other two-dimensional representations	ACMMG111		connect objects to their nets and build objects from their nets using spatial and geometric reasoning	AC9M5SP01		Space & shape	Connect objects to nets
	use a grid reference system to describe locations. Describe routes using landmarks and directional language	ACMMG113		construct a grid coordinate system that uses coordinates to locate positions within a space; use coordinates and directional language to describe position and movement	AC9M5SP02			Use coordinates in a grid system
Geometry	describe translations, reflections and rotations of two-dimensional shapes. Identify line and rotational symmetries	ACMMG114	Space	describe and perform translations, reflections and rotations of shapes, using dynamic geometric software where appropriate; recognise what changes and what remains the same, and identify any symmetries	AC9M5SP03			Identify & describe transformations
	apply the enlargement transformation to familiar two-dimensional shapes and explore the properties of the resulting image compared with the original <b>REMOVED</b>	ACMMG115						
	construct displays, including column graphs, dot plots and tables, appropriate for data type, with and without the use of digital technologies	ACMSP119		acquire, validate and represent data for nominal and ordinal categorical and discrete numerical variables, to address a question of interest or purpose using	AC9M5ST01		Statistics	Acquire, validate & represent data Understand data distributions
	describe and interpret different data sets in context	ACMSP120		software including spreadsheets; discuss and report on data distributions in terms of highest frequency (mode) and shape, in the context of the data				
Statistics			Statistics	interpret line graphs representing change over time; discuss the relationships that are represented and conclusions that can be made	AC9M5ST02			Interpret line graphs
	pose questions and collect categorical or numerical data by observation or survey	ACMSP118		plan and conduct statistical investigations by posing questions or identifying a problem	AC9M5ST03			
	describe and interpret different data sets in context	ACMSP120		and collecting relevant data; choose appropriate displays and interpret the data; communicate findings within the context of the investigation				
	list outcomes of chance experiments involving equally likely outcomes and represent probabilities of those outcomes using fractions	ACMSP116		list the possible outcomes of chance experiments involving equally likely outcomes and compare to those which are not equally likely	AC9M5P01		Chance & Probability	Outcomes of chance experiments
Probability			Probability	conduct repeated chance experiments including those with and without equally likely outcomes, observe and record the results; use frequency to compare outcomes and estimate their likelihoods	AC9M5P02			
	recognise that probabilities range from 0 to 1 MOVED TO Y6	ACMSP117						



Mathletics

	Term one	Term two	Term three	Term four
	Number	Number	Number	Number Algebra
Unit 1	Whole number and decimals	Fractions	Fractions, decimals, and percentages	Number and operations review
	<ul> <li>Place value to thousandths</li> <li>Partitioning</li> <li>Compare &amp; order</li> <li>Whole number review</li> </ul>	<ul> <li>Compare and order</li> <li>Mixed numbers &amp; improper fractions</li> <li>Equivalent fractions</li> <li>Add &amp; Subtract fractions: Same or related denominators</li> </ul>	<ul> <li>Connect fraction, decimal and percentage equivalents</li> <li>Represent remainders as fractions and decimals</li> <li>Problem solving</li> </ul>	Review earlier content
	Number	Number Algebra	Number	Statistics
Unit 2	Addition and subtraction: Mental	Multiplication and division: Mental strategies	Multiplication and division: Written strategies	Data: Investigation and evaluation
	<ul><li> Round to estimate</li><li> Problem solving</li><li> Strategy review</li></ul>	<ul><li>Efficient mental strategies</li><li>Factorising</li><li>Problem solving</li></ul>	<ul> <li>Multiplication algorithm</li> <li>Contracted division</li> <li>Problem solving</li> </ul>	<ul> <li>Misleading diagrams</li> <li>Evaluate statements about displays</li> <li>Interpret data displays</li> <li>Mode</li> </ul>
	Number Algebra	Number Algebra	Probability Statistics	Measurement
Unit 3	Factors, multiples and patterns	Algebra	Chance and data	Time and position
	<ul> <li>Factors, Multiples</li> <li>Common multiples</li> <li>Divisibility tests</li> <li>Patterns with factors &amp; multiples</li> </ul>	<ul> <li>Create and use algorithms</li> <li>Inverse operations</li> <li>Fact families</li> <li>Find unknown values</li> </ul>	<ul> <li>List outcomes</li> <li>Conduct chance experiments</li> <li>Record results</li> <li>Compare outcomes</li> <li>Estimate likelihoods</li> </ul>	<ul> <li>Read and represent 12- &amp; 24-hour time</li> <li>Convert times</li> <li>Use timetables</li> <li>Grid coordinate systems</li> <li>Directional language</li> </ul>
	Measurement Number	Measurement	Space	Measurement
Unit 4	Length, area and perimeter	Addition and subtraction: Written	Angles and 2D shapes	Measurement applications
Unit 4	<ul> <li>Kilometres, metres, centimetres &amp; millimetres</li> <li>Compare &amp; order lengths</li> <li>Estimate lengths</li> <li>Calculate perimeter</li> <li>Calculate area</li> </ul>	Written strategies	<ul> <li>Measure angles</li> <li>Estimate angles</li> <li>Classify angles</li> <li>Translations, reflections &amp; rotations</li> <li>Symmetry</li> </ul>	<ul> <li>Choose appropriate units</li> <li>Use measurement in everyday situations</li> <li>Problem solving</li> <li>Area and perimeter applications</li> </ul>
	Statistics	Space	Measurement Number	Space
	Data: Representation and interpretation	2D space and 3D objects	Capacity and mass	Space review
Unit 5	<ul> <li>Collect data</li> <li>Validate data</li> <li>Represent data</li> </ul>	<ul> <li>Connect 2D shapes with 3D objects</li> <li>Connect &amp; create nets</li> <li>Sketch 3D objects</li> </ul>	<ul> <li>Kilolitres, litres &amp; millilitres</li> <li>Tonnes, kilograms &amp; grams</li> <li>Compare &amp; order</li> <li>Estimate</li> <li>Problem solving</li> </ul>	<ul> <li>Review transformations</li> <li>Tessellation patterns</li> <li>Review Cartesian plane</li> </ul>

Outcome	map	Mathletics
Queensland		I Vien meries

Located

T4 U3, U4

T3 U4

T2 U5

T4 U3, U5

T3 U4 T4 U5

T1 U5 T3 U3 T4 U2

T1 U5 T4 U2

T1 U5 T3 U3

T3 U3

T3 U3

T1 U4 T3 U5 T4 U4 T1 U4 T4 U4

Strand	Outcomes and content descriptions	Located	Strand	Outcomes and content descriptions	
Number	AC9M5N01 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	T1 U1 T3 U1, U5	Measurement	AC9M5M01 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	
	AC9M5N02 express natural numbers as products of their factors, recognise multiples and determine if one number is divisible by another	T1 U3 T2 U2 T3 U2 T4 U1		AC9M5M02 solve practical problems involving the perimeter and area of regular and irregular shapes using appropriate metric units	
	AC9M5N03 compare and order fractions with the same and related denominators including mixed numerals, applying knowledge of factors and multiples; represent these fractions on a	T2 U1 T3 U1		AC9M5M03 compare 12- and 24-hour time systems and solve practical problems involving the conversion between them	
	number line AC9M5N04	T3 U1		AC9M5M04 estimate, construct and measure angles in degrees, using appropriate tools including a protractor, and relate these measures to angle names	
	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		Space	AC9M5SP01 connect objects to their nets and build objects from their nets using spatial and geometric reasoning	
	AC9M5N05 solve problems involving addition and subtraction of fractions with the same or related denominators, using different strategies	T2 U1 T4 U1		AC9M5SP02 construct a grid coordinate system that uses coordinates to locate positions within a space; use coordinates and directional language to describe position and movement	
	AC9M5N06 solve problems involving multiplication of larger numbers by one- or two-digit numbers, choosing efficient calculation strategies and using digital tools where appropriate; check the reasonableness of answers			AC9M5SP03 describe and perform translations, reflections and rotations of shapes, using dynamic geometric software where appropriate; recognise what changes and what remains the same, and identify any symmetries	
	AC9M5N07 solve problems involving division, choosing efficient strategies and using digital tools where appropriate; interpret any remainder according to the context and express results as a whole number, decimal or fraction	T2 U2 T3 U1, U2 T4 U1	Statistics	AC9M5ST01 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)	
	AC9M5N08 check and explain the reasonableness of solutions to problems including financial contexts using estimation strategies appropriate to the context	T1 U2, U4 T2 U2		and shape, in the context of the data           AC9M5ST02	
	AC9M5N09	T1 U2		interpret line graphs representing change over time; discuss the relationships that are represented and conclusions that can be made	
	use mathematical modelling to solve practical problems involving additive and multiplicative situations including financial contexts; formulate the problems, choosing operations and efficient calculation strategies, using digital tools where appropriate; interpret and communicate solutions in terms of the situation	T2 U2, U4 T3 U2 T4 U1		AC9M5ST03 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	
	AC9M5N010 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	T1 U3 T2 U3	Probability	AC9M5P01 list the possible outcomes of chance experiments involving equally likely outcomes and compare to those which are not equally likely	
Algebra	AC9M5A01 recognise and explain the connection between multiplication and division as inverse operations and use this to develop families of number facts	T1 U3 T2 U3		AC9M5P02 conduct repeated chance experiments including those with and without equally likely outcomes, observe and record the results ; use frequency to compare outcomes and estimate their likelihoods	
	AC9M5A02 find unknown values in numerical equations involving multiplication and division using the properties of numbers and operations	T1 U3 T2 U3			

### Term 1 Mothletics Queensland | Year 5



Strand & Topic	Outcomes	New Courses	Activities (Courses)	Skill Quests	Challenges	Ebooks
Unit 1 Number Whole number and decimals Place value to thousandths Partitioning Compare & order Whole number review	AC9M5N01 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	Y5 Decimals • Tenths • Hundredths • Thousandths • Decimals on the number line • Order and compare decimals Y5 Rounding and Estimation • Place Value • Comparing and ordering whole numbers	REVIEW Whole Numbers & Place Value • Place Value to Millions • Numbers from Words to Digits 1 • Numbers from Words to Digits 2 • Greater Than or Less Than? • Partition and Rename 3/Understanding Place Value 3 (CAN) • Expanded Notation • Decimals from Words to Digits 1 • Decimals on the Number Line • Decimal Place Value • Nearest Whole Number	Understand decimals to thousandths • Introducing decimal thousandths • Partitioning decimals of any size • Comparing & ordering decimals • Interpreting zeros at end of decimals • Decimal & fraction equivalences • Connecting decimals to the metric system	<b>Number &amp; Algebra: Decimals</b> LEVEL 4-6 • Code cracker Ook2	(76-C) Fractions, Decimals and Percentages • Decimal fractions (pp 12–20)
Unit 2 Number Addition and subtraction: Mental Round to estimate Problem solving Strategy review	AC9M5N08 check and explain the reasonableness of solutions to problems AC9M5N09 use mathematical modelling to solve practical problems involving additive and multiplicative situations	Coming soon: Addition and subtraction Y5 Rounding and Estimation • Rounding • Estimation	Rounding & estimating • Rounding Numbers 1 • Estimate Sums • Estimate Differences <b>REVIEW Whole Numbers &amp; Place Value</b> • Rounding Numbers <b>Rounding &amp; estimating</b> • Estimate Decimal Sums 2	Estimation & rounding • Rounding to estimate addition & subtraction Add & subtract practical problems • Addition & subtraction word problems • Expressing word problems as equations add/sub • Solving add & subtract money problems	Number & Algebra: Decimals LEVEL 5-7 • Posting parcels (DOK 2) Number & Algebra: Addition & Subtraction LEVEL 3-5 • Solve the zig-zog logic fog (DOK 3) • Mental strategies (DOK 3) LEVEL 4-6 • Totally magic grid (DOK 2) LEVEL 5-7 • Add-venn-turous adding (DOK 2)	<ul> <li>(T6-C) Addition and Subtraction</li> <li>Mental strategies (pp 1–10)</li> <li>Applying strategies (pp 11–19)</li> </ul>
Jnit 3 Aumber Algebra Factors, multiples and patterns Factors Aultiples Common multiples Divisibility tests Patterns with actors & multiples	AC9M5N02 express natural numbers as products of their factors AC9M5N010 create and use algorithms involving a sequence of steps and decisions AC9M5A01 recognise and explain the connection between multiplication and division AC9M5A02 find unknown values in numerical equations involving multiplication and division	Coming soon	Factors & Multiples • Multiples • Lowest Common Multiple • Factors • Highest Common Factor • Find the Factor • Divisibility Tests (2, 5, 10) • Divisibility Tests (3, 4, 9) • Tests of Divisibility 1	<ul> <li>Multiples &amp; factors</li> <li>Finding multiples</li> <li>Finding factors</li> <li>Solving problems using factors &amp; multiples</li> <li>Divisibility tests</li> <li>Divisibility tests for 2, 5 &amp; 10</li> <li>Divisibility tests for 3, 4, 6, 8 &amp; 9</li> <li>Create &amp; use algorithms</li> <li>Factors &amp; multiples</li> </ul>	Number & Algebra: Multiplication & Division LEVEL 3–5 • The greatest triangle! (OK 2) LEVEL 4–6 • Peculiar patterns with multiples (DOK 2) • Multiple muffins (OK 2) • Supermarket stock dilemma (DOK 2) • Training in sync (DOK 2) • Factor in our clues (DOK 2) • Factor in our clues (DOK 2) • Factor in our clues (DOK 2) • Factor finding (DOK 2) • Factor finding (DOK 2) • Fear fact-ors (DOK 2) Number & Algebra: Addition & Subtraction LEVEL 3–5 • Scores for a ball game (DOK 3) LEVEL 4–6 • Multiple patterns (DOK 3)	<ul> <li>(T5-F) Multiplication and Division</li> <li>Mental multiplication strategies (pp 9-10)</li> <li>Mental division strategies (pp 18-1</li> </ul>

### Term 1 Mothletics Queensland | Year 5



Strand & Topic	Outcomes	New Courses	Activities (Courses)	Skill Quests	Challenges	Ebooks
Unit 4 Measurement Number Length, area and perimeter Kilometres, metres, centimetres & millimetres Compare & order lengths Estimate lengths Calculate perimeter Calculate area	AC9M5M01 choose appropriate metric units when measuring the length, mass and capacity of objects AC9M5M02 solve practical problems involving the perimeter and area of regular and irregular shapes AC9M5N08 check and explain the reasonableness of solutions to problems	Coming soon	<ul> <li>Measurement</li> <li>Kilometre Conversions</li> <li>Metres and Kilometres</li> <li>Perimeter: Squares and Rectangles</li> <li>Area of Shapes</li> <li>Biggest Shape/Bigger or smaller shape</li> <li>Equal Areas</li> <li>Area: Squares and Rectangles</li> <li>Fractions decimals &amp; percentages</li> <li>Centimetres and Metres</li> </ul>	<ul> <li>Choose appropriate metric units</li> <li>Introducing kilometres</li> <li>Comparing &amp; ordering units of length</li> <li>Selecting appropriate units - length</li> <li>Perimeter &amp; area - practical problems</li> <li>Calculating perimeter practical problems</li> <li>Calculating area practical problems</li> </ul>	Measurement: Length LEVEL 3-5 • Divide and measure with rods (DOK 2) LEVEL 4-6 • Lengthy thinking (DOK 2) Measurement: Area LEVEL 3-5 • Make a puppy play area (DOK 2) • Farmer's fences (DOK 3) LEVEL 4-6 • Shade a shape (DOK 3) • Five and ten, squares and units (DOK 3)	<ul> <li>(T5-F) Length, Perimeter and Area</li> <li>Units of length (pp 1–8)</li> <li>Travelling far (pp 9–16)</li> <li>Perimeter (pp 17–24)</li> <li>Area (pp 25–32)</li> </ul>
Unit 5 Statistics Data: Representation & interpretation Collect data Validate data Represent data	AC9M5ST01 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 AC9M5ST02 interpret line graphs representing change over time AC9M5ST03 plan and conduct statistical investigations by posing questions or identifying a problem and collecting relevant data	Coming soon	Statistics • Line Graphs: Interpretation • Travel Graphs • Stem and Leaf Plots: -Concept • Dot Plots • Divided Bar Graphs • Tally Charts • Sector Graphs	Acquire, validate & represent data • Conducting surveys or statistical investigations	Statistics & Data LEVEL 5-7 • New director (DOK 3)	<ul> <li>(T5-F) Data Representation</li> <li>Types of graphs 1 (pp 1–6)</li> <li>Types of graphs 2 (pp 7–11)</li> <li>Types of graphs 3 (pp 12–17)</li> <li>Collecting and analysing data (pp 18–23)</li> </ul>

### Term 2 Mothletics Queensland | Year 5



Strand & Topic Outcomes	New Courses	Activities (Courses)	Skill Quests	Challenges	Ebooks
Unit 1 NumberAC9M5N03 compare and order fractions with the same related denominators.FractionsCompare and order fractions with the same related denominators.Mixed numbers & improper fractionsSolve problems involvi addition and subtraction fractions: Same or related denominatorsAdd & Subtract fractions: Same or related denominatorsSolve problems involvi addition and subtraction fractions with the same related denominators	<ul> <li>Compare and order fractions</li> <li>Improper fractions and mixed numbers</li> <li>Add fractions</li> <li>Subtract fractions</li> </ul>	Compare & order fractions • Shading Equivalent Fractions • Equivalent Fraction Wall 1 • Equivalent Fractions on a Number Line 1 • Equivalent Fractions 1a • Compare Fractions 1a • Compare Fractions Beyond 1 • Identifying Fractions Beyond 1 • Improper to Mixed • Mixed to Improper • Converting Mixed and Improper • Identifying Fractions on a Number Line • Mixed and Improper fractions on a number Line • Add & Subtract related fractions • Add: Common Denominator • Subtract: Common Denominator • Common Denominator • Add Like Mixed Numbers • Subtract Like Mixed Numbers	<ul> <li>Compare &amp; order fractions</li> <li>Comparing &amp; ordering fractions &amp; mixed numbers</li> <li>Using common factors to simplify proper fractions</li> <li>Add &amp; subtract fractions</li> <li>Add &amp; subtract proper fractions - same denominator</li> <li>Add &amp; subtract mixed numerals - same denominator</li> <li>Add &amp; subtract fractions - related denominators</li> <li>Add &amp; subtract mixed num - related denominators</li> </ul>	<ul> <li>Number &amp; Algebra: Fractions</li> <li>LEVEL 3-5</li> <li>Which is closer to 1? (DOK2)</li> <li>What fraction is that? (DOK3)</li> <li>Drinking equivalent fractions (DOK3)</li> <li>LEVEL 4-6</li> <li>Fractions in uneven partitioned shapes (DOK2)</li> <li>Fractional relay races (DOK3)</li> </ul>	(Y5-F) Fractions, Decimals and Percentages • Types of fractions (pp 9–16) • Calculating (pp 26–29)
<ul> <li>Unit 2 Number Algebra</li> <li>Multiplication and division: Mental strategies</li> <li>Efficient mental strategies</li> <li>Factorising</li> <li>Problem solving</li> <li>AC9M5N02 express natural number as products of their factors</li> <li>AC9M5N06 solve problems involvi multiplication of large numbers by one- or two-digit numbers</li> <li>AC9M5N07 solve problems involvi division</li> <li>AC9M5N08 check and explain the reasonableness of solutions to problems involving additive and multiplicative situation</li> </ul>	Y5 Rounding and Estimation • Rounding • Estimation	More Multiplication & division • Multiply Multiples of 10 • Multiply More Multiples of 10 • Multiply 2 Digits Area Model • Grid Methods 1 • Double and Halve to Multiplication 1 • Dividing by 10, 100, 1000 • Division Facts 1 • Remainders by Arrays • Mental Methods Division 1 • Mental Methods Division 1 • Mental Methods Division Solve problems • Bar model × ÷ • Problems: Times and Divide Rounding & estimating • Estimate Products • Estimate Quotients • Estimate Decimal Operations	<ul> <li>Strategies to multiply by 1- or 2-digits</li> <li>Multiplication using multiples of 10</li> <li>Multiplying: rounding, compensating &amp; partitioning</li> <li>Multiplying: doubling, halving &amp; thirding</li> <li>Multiplying using the split method</li> <li>Multiplying using an area model</li> <li>Multiplying by factorising</li> <li>Division strategies incl. remainders</li> <li>Dividing by a 1-digit number using partitioning</li> <li>Dividing by a 2-digit number using factorising</li> <li>Dividing by a 2-digit number using factorising</li> <li>Estimation &amp; rounding</li> <li>Rounding to estimate multiplication &amp; division</li> <li>Estimating with money</li> <li>Multiply &amp; divide practical problems</li> <li>Multiplication &amp; division word problems</li> <li>Expressing word problems as equations mult/div</li> <li>Solving mult-step mult/div word problems</li> <li>Solving mult &amp; div money problems</li> </ul>		<ul> <li>(Y5-F) Multiplication and Division</li> <li>Mental multiplication strategies (pp 1-10)</li> <li>Mental division strategies (pp 11-19)</li> </ul>

# Term 2MothleticsQueensland | Year 5



Strand & Topic	Outcomes	New Courses	Activities (Courses)	Skill Quests	Challenges	Ebooks
Unit 3 Number Algebra Algebra Create and use algorithms Inverse operations Fact families Find unknown values	AC9M5N010 create and use algorithms involving a sequence of steps and decisions AC9M5A01 recognise and explain the connection between multiplication and division as inverse operations AC9M5A02 find unknown values in numerical equations involving multiplication and division	Coming soon	Fact families Mult/Div • Fact Families: Multiply and Divide • Multiplication Turnarounds • Missing Numbers: × and ÷ facts • Times Tables • Multiply 3 single-digit numbers	<ul> <li>Create &amp; use algorithms</li> <li>Manipulating numbers using a given rule</li> <li>Designing flowcharts to solve add/sub of fractions</li> <li>Connect multiplication &amp; division</li> <li>Inverse relationship - multiplication &amp; division</li> <li>Find unknown values in mult &amp; div</li> <li>Finding unknown values - multiplication &amp; division</li> </ul>	Number & Algebra: Whole Number LEVEL 4-6 • Unknown values in uneven partitioned shapes (DOK 2) Number & Algebra: Equations & Expressions LEVEL 4-6 • Shape equations (DOK 2) • Steps to success (DOK 3)	<ul> <li>(Y5-F) Patterns and Algebra</li> <li>Patterns and functions (pp 1–12)</li> <li>Equations and equivalence (pp 13–20)</li> <li>Using equations (pp 21–28)</li> </ul>
Unit 4 Number Addition and subtraction: Written Written strategies	AC9M5N09 use mathematical modelling to solve practical problems involving additive and multiplicative situations	Coming soon	Solve problems • Columns that Add • Add Two 2-Digit Numbers • Add 3-Digit Numbers • Columns that Subtract • Subtract Numbers			<ul> <li>(Y5-F) Addition and Subtraction</li> <li>Written methods (pp 17–25)</li> <li>(Y5-F) Fractions, Decimals and Percentages</li> <li>Calculating (pp 30–33)</li> </ul>
Unit 5 Space 2D space and 3D objects Connect 2D shapes with 3D objects Connect & create nets Sketch 3D objects	AC9M5SP01 connect objects to their nets and build objects from their nets using spatial and geometric reasoning	Coming soon	<ul> <li>Space &amp; shape</li> <li>What Pyramid am I?</li> <li>What Prism am I?</li> <li>Prisms and Pyramids</li> </ul>	Connect objects to nets • Connecting prisms & pyramids with their nets • Connecting 3D objects with their nets	Geometry: 3D Shapes LEVEL 4-6 • Notty nets (DK2) • Looking at faces, edges and vertices (DOK3)	(vs-F) Geometry • 3D shapes (pp 25–34)



Strand & Topic	Outcomes	New Courses	Activities (Courses)	Skill Quests	Challenges	Ebooks
Unit 1 Number Fractions, decimals, and percentages Connect fraction, decimal and percentage equivalents Represent remainders as fractions and decimals Problem solving	AC9M5N01 interpret, compare and order numbers with more than 2 decimal places AC9M5N03 compare and order fractions with the same and related denominators AC9M5N04 recognise that 100% represents the complete AC9M5N07 solve problems involving division	Y5 Percentages • Percentages • Compare percentages • Fractions and percentages • Decimals, fractions and percentages	Fractions decimals & percentages • Modelling Percentages • Fractions to Decimals • Percents and Decimals • Common Fractions as Percentages (AU) • Decimal Order • Comparing Decimals	Fractions, decimals & percentages • Introducing percentages • Connecting percentages & decimals • Connecting percentages & fractions • Relationship - percentages, decimals & fractions		(Y5-F) Fractions, Decimals and Percentages • Fractions, decimals and percentages (pp 17–25)
Unit 2 Number Algebra Multiplication and division: Written strategies Multiplication algorithm Contracted division Problem solving	AC9M5N02 express natural numbers as products of their factors AC9M5N06 solve problems involving multiplication of larger numbers AC9M5N07 solve problems involving division AC9M5N09 use mathematical modelling to solve practical problems	Coming soon	Solve problems • Multiply: 1-Digit Number • Multiply: 2-Digit by 1-Digit • Divide: 1-Digit Divisor 1	<ul> <li>Strategies to multiply by 1- or 2-digits</li> <li>Multiplying using expanded algorithm</li> <li>Multiplying using contracted algorithm</li> <li>Multiplying using extended form of algorithm</li> <li>Division strategies incl. remainders</li> <li>Extended division - no remainders or zeros</li> <li>Extended division with &amp; without remainders</li> <li>Contracted division - no remainders or zeros</li> <li>Contracted division - no remainders</li> <li>Dividing by 2-digit numbers - formal algorithms</li> <li>Multiplication &amp; division word problems</li> <li>Expressing word problems as equations mult/div</li> <li>Solving mult-step mult/div word problems</li> <li>Solving mult &amp; div money problems</li> </ul>		<ul> <li>(Y5-F) Multiplication and Division</li> <li>Written methods (pp 20–28)</li> <li>Puzzles and investigations (pp 29–32)</li> </ul>
Unit 3 Probability Statistics Chance and data List outcomes Conduct chance experiments Record results Compare outcomes Estimate likelihoods	AC9M5P01 list the possible outcomes of chance experiments AC9M5P02 conduct repeated chance experiments AC9M5ST01 acquire, validate and represent data AC9M5ST03 plan and conduct statistical investigations	Coming soon	Chance & Probability • What are the Chances? • Chance Gauge • Introductory probability • Fair Games	Outcomes of chance experiments <ul> <li>Investigating equally likely outcomes</li> <li>Exploring fair &amp; unfair chance experiments</li> </ul>	<b>Chance &amp; Probability</b> LEVEL 4-6 • Ordering probabilities (ООК 3)	(Y5-F) Chance and Probability • Chance and Probability (pp 1–10)

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Strand & Topic	Outcomes	New Courses	Activities (Courses)	Skill Quests	Challenges	Ebooks
Unit 4 Measurement Space Angles and 2D shape Measure angles Estimate angles Classify angles Translations, reflections & rotations Symmetry	AC9M5M04 estimate, construct and measure angles in degrees, using appropriate tools including a protractor, and relate these measures to angle names AC9M5SP03 describe and perform translations, reflections and rotations of shapes, using dynamic geometric software where appropriate	Coming soon	Measurement • Classifying Angles • Measuring Angles • Estimating Angles <b>Space &amp; shape</b> • Flip, Slide, Turn • Transformations • Rotational Symmetry	Estimate, construct & measure angles <ul> <li>Identifying, estimating &amp; measuring angles</li> <li>Classifying &amp; constructing angles</li> </ul> <li>Identify &amp; describe transformations <ul> <li>Identifying &amp; describing transformations</li> </ul> </li>	Geometry: Angles LEVEL 3-5 • Estimating angle measures (DOK 3) LEVEL 4-6 • Angle estimation (DOK 3) Geometry: Symmetry, Transformation & Location LEVEL 4-6 • Tessellations (DOK 3)	<ul> <li>(YS-F) Geometry</li> <li>Lines and angles (pp 1–6)</li> <li>2D shapes (pp 7–15)</li> <li>Transformation, tessellation and symmetry (pp 16–24)</li> </ul>
Unit 5 Measurement Number Capacity and mass Kilolitres, litres & millilitres Tonnes, kilograms & grams Compare & order Estimate Problem solving	AC9M5M01 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 AC9M5N01 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	Coming soon	Measurement • Millilitres and Litres • Litre Conversions • Kilogram Conversions • Grams and Kilograms	Choose appropriate metric units • Comparing & ordering units of mass • Selecting appropriate units - mass • Selecting appropriate units - capacity	Measurement: Volume & Capacity LEVEL 3-5 • Water water everywhere (ook 3) Measurement: Mass LEVEL 4-6 • Maze of masses (DOK 3)	<ul> <li>Yolume, Capacity and Mass</li> <li>Volume and capacity (pp 1–2)</li> <li>Mass (pp 9–16)</li> </ul>

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Strand & Topic	Outcomes	New Courses	Activities (Courses)	Skill Quests	Challenges	Ebooks
Unit 1 Number Algebra Number and operations review	AC9M5N02 express natural numbers AC9M5N05 solve problems involving addition and subtraction AC9M5N06 solve problems involving multiplication AC9M5N07 solve problems involving division AC9M5N09 use mathematical modelling to solve practical problems	Coming soon	Keview earlier content	All operations practical problems • Express equations as word problems all operations	بری Review earlier content	√L) Review earlier content
Unit 2 Statistics Data: Investigation and evaluation Interpreting data displays Data distributions Mode Misleading diagrams Evaluate statements about displays	AC9M5ST01 acquire, validate and represent data for nominal and ordinal categorical and discrete numerical variables AC9M5ST02 interpret line graphs representing change over time	Coming soon	Statistics • Mode • Mode from Stem and Leaf Plot • Mode from Frequency Table • Grouping data and modal class	Interpret line graphs • Interpreting line graphs Understand data distributions • Understanding & calculating the mode • Introducing the shape of data distribution	Statistics and Data LEVEL 4-6 • Rugby modal mayhem (DOK 2) • Leap to the mode (DOK 2) • Discover the digits (DOK 2)	(Y5-F) <b>Data Representation</b> • Data investigations (pp 24–28)
Unit 3 Measurement Time and position Read and represent 12- & 24-hour time Convert times Use timetables Grid coordinate systems Directional language	AC9M5M03 compare 12- and 24-hour time systems and solve practical problems involving the conversion between them AC9M5SP02 construct a grid coordinate system that uses coordinates to locate positions within a space; use coordinates and directional language to describe position and movement	Coming soon	Time conversions & problems • Time Conversions: Simple Fractions • Time Conversions: Simple Decimals • What Time Will it Be? • Time Mentals • Elapsed Time • 24 Hour Time • Using Timetables <b>Space &amp; shape</b> • Map Coordinates • Coordinate Graphs: 1st Quadrant • More Directions!	Use 24-hour time • Using 24-hour notation • Using 24-hour time in timetables Use coordinates in a grid system • Working with grid referenced maps • Using Cartesian coordinate system - first quadrant • Using landmarks & directional language	Measurement: Time LEVEL 3-5 • The mysteries of time (DOK 2) • Puppy-sitting (DOK 3) LEVEL 4-6 • 24-hour train time (DOK 2) • Ordering times (DOK 2) • Time to explore 4 (DOK 3) Geometry: Symmetry, Transformation & Location LEVEL 3-5 • Routes on a map (DOK 3) LEVEL 4-6 • A journey back in time (DOK 2) • Which way? (DOK 3) • Island towns (DOK 3)	(Y5-F) <b>Time</b> • Measuring time (pp 1–8) • Calculating time (pp 9–14) • Timetables (pp 15–20)

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Strand & Topic	Outcomes	New Courses	Activities (Courses)	Skill Quests	Challenges	Ebooks
Unit 4 Measurement applications Choose appropriate units Use measurement in everyday situations Problem solving Area and perimeter applications	AC9M5M01 choose appropriate metric units when measuring the length, mass and capacity of objects AC9M5M02 solve practical problems involving the perimeter and area of regular and irregular shapes AC9M5M03 compare 12- and 24-hour time systems and solve practical problems	Coming soon	Classroom directed	Choose appropriate metric units • Recognising suitable metric units - all	Classroom directed	Classroom directed
Unit 5 Space Space review Review transformations Tessellation patterns Review Cartesian plane	AC9M5SP02 construct a grid coordinate system AC9M5SP03 describe and perform translations, reflections and rotations of shapes, using dynamic geometric software	Coming soon	Review earlier content	Review earlier content	Review earlier content	Image: Content