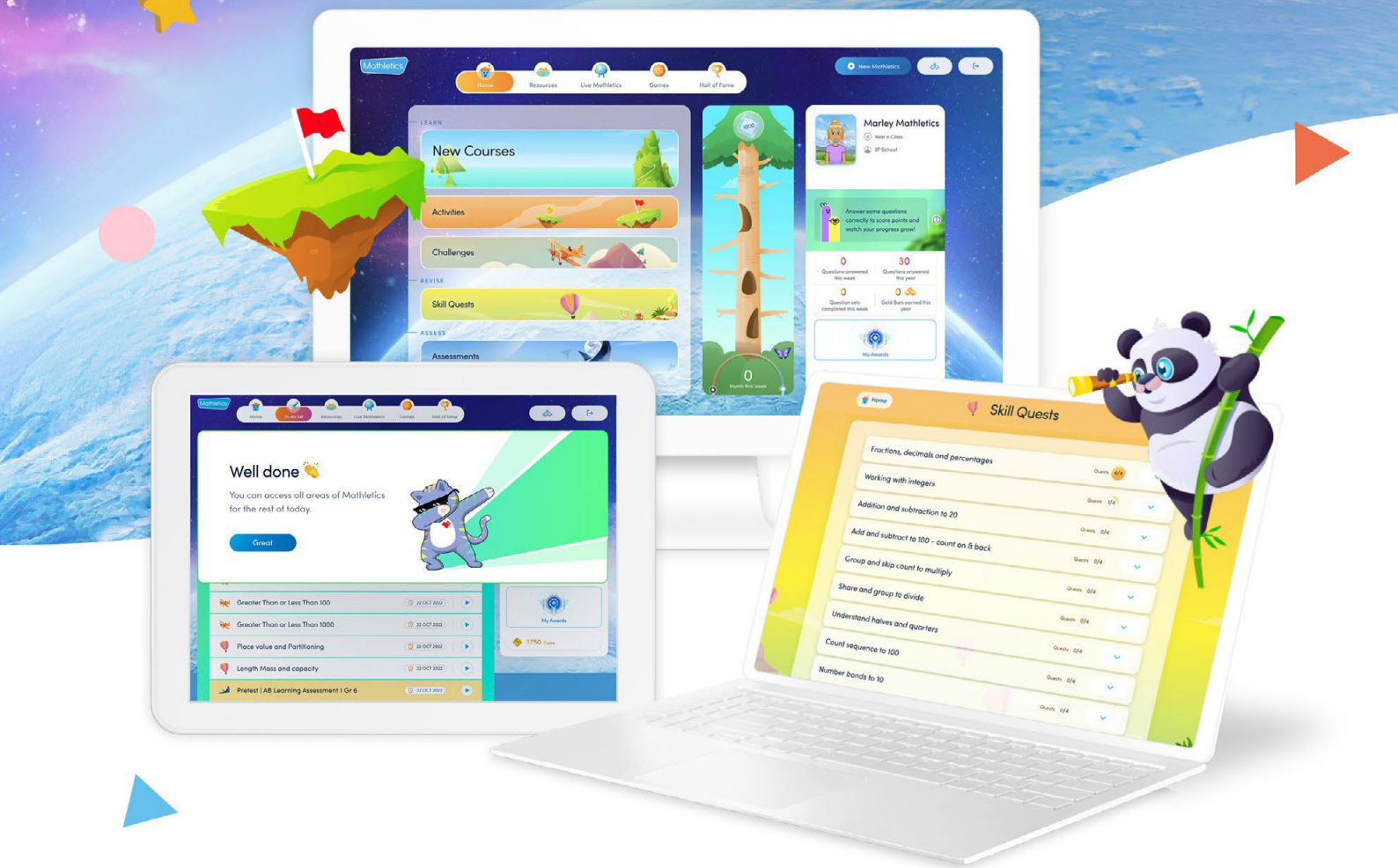
Mathletics

New South Wales Curriculum

Activities (Courses) and Skill Quests



Stage 1, Years 1-2

January, 2025

Mathletics

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NSW Curriculum

Activities (Courses) & Skill Quests

January, 2025

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Year 1

1 Number and Algebra

1.1 Representing whole numbers A

MA1-RWN-01 applies an understanding of place value and the role of zero to read, write and order two- and three-digit numbers	
Course Topics	**Activities**
Representing whole numbers (A)	Concept of Zero
	Matching Numbers to 10
	Matching Numbers to 20
	Everyday Money
	Arranging Numbers
	Number Lines
	Going Up
	Going Down
	Number Line Order
	Before, After and Between to 20
	Before, After & Between to 100
	Compare Numbers to 50
	Compare Numbers to 100
	Ordinal Numbers
	Odd or Even
	Odd and Even Numbers 1
	Which is Bigger?
	Which is Smaller?
Topics	**Skill Quests**
Count by ones to 100	Counting forwards & backwards to 100
	Numbers before & after to 100
	Counting collections 0 to 100
Count by ones to 200	Finding numbers on number line to 200
Identify ordinal numbers	Identifying ordinal numbers up to 31st
Number patterns	Odd & even number patterns to 100
	Counting by 2s to 50
	Counting by 2s to 100
Compare & order numbers	Comparing & ordering numbers to 100

MA1-RWN-02 reasons about representations of whole numbers to 1000, partitioning numbers to use and record quantity values	
Course Topics	**Activities**
Representing whole numbers: place value (A)	Making Teen Numbers
	Making Numbers Count
	Making Big Numbers Count
	Place Value 1
	Repartition Two-digit Numbers

	1 More, 2 Less
	Model Numbers
Topics	**Skill Quests**
Count collections by 10	Counting collections by 10
Place value of 2-digit numbers	Identifying place value up to 2 digits
	Solving problems using place value up to 2 digits
	Model, read, write & count 2-digit numbers
Partition 2-digit numbers	Partitioning 2-digit numbers
	Partitioning 2-digit numbers (non-standard)
Round to nearest 10	Rounding to the nearest 10

1.2 Combining and separating quantities A

MA1-CSQ-01 uses number bonds and the relationship between addition and subtraction to solve problems involving partitioning.	
Course Topics	**Activities**
Combine and separate quantities (A)	Model Addition
	Adding to Ten
	All about Ten
	Addition Facts
	Balance Numbers to 10
	Add 3 Numbers: Bonds to Multiples of 10
	Commutative Property of Addition
	Add 3 Single Digit Numbers
	Model Subtraction
	Subtracting from Ten
	Simple Subtraction
	Adding to 10 Word Problems
	Problems: Addition and Subtraction
	Doubles and Halves to 10
	Doubles and Near Doubles
	More, Less or the Same to 10
	All about Twenty
	Related Facts 1
	Balance Numbers to 20
	Subtracting from 20
Topics	**Skill Quests**
Count by one to add & subtract	Finding the difference between 2 numbers (to 20)
	Counting on & back to 20
	Counting on & back to 100
	Recording & solving number sentences to 20
Addition & subtraction to 10	Modelling & recording combinations that make 5 – 9
	Recognising & recalling bonds to 10
Use strategies to add & subtract	Doubles to 20
	Adding zero to a number (up to 20)
	Add & subtract near doubles or doubles
	Adding compatible numbers (doubles or bonds to 10)
	Add & subtract using bridging to 10 up to 100
	Exploring equality & inequality to 10

Explore equality & inequality to 20	Exploring equality & inequality to 20
	Finding fact families for addition & subtraction
	Introducing the commutative property of addition

1.3 Forming groups A

MA1-FG-01 uses the structure of equal groups to solve multiplication problems, and shares or groups to solve division problems.	
Course Topics	**Activities**
Forming groups (A)	Counting by Twos
	Counting by Fives
	Counting by Tens
	Share the Treasure
	Groups
	Fill the Jars
	Grouping in Twos
	Grouping in Fives
	Grouping in Tens
	Count by 2s, 5s and 10s
	Counting on a 100 grid
	Count Forward Patterns
	Count Backward Patterns
	Grouping in Threes
	Grouping in Fours
	Divide Into Equal Groups
Topics	**Skill Quests**
Count in multiples of 2, 3, 5, 10	Skip count by 2s
	Skip count by 3s
	Skip count by 5s
	Skip count by 10s
	Skip count by 2s, 5s & 10s
Use equal grouping to multiply	Using groups & skip counting to solve problems
	Using "groups of" to represent multiplication
	Exploring "groups of" in arrays (no x symbol)
Recognise & represent division	Sharing objects to divide
	Grouping objects to divide
Explore halves	Finding half of a set or quantity (no symbols)
	Finding half of a set or quantity (symbols)
Explore leftovers	Fair shares with/without remainders

2 Measurement and Space

2.1 Geometric measure A (Position)

MA1-GM-01 represents and describes the positions of objects in familiar locations	
Course Topics	**Activities**
Geometric measure: position (A)	Where is it?
	Left or Right?
	Following Directions
Topics	**Skill Quests**
Position & direction	Position using left & right
	Following directions
	Describing a path

2.2 Geometric measure A (Length)

MA1-GM-02 measures, records, compares and estimates lengths and distances using uniform informal units, as well as metres and centimetres	
Course Topics	**Activities**
Geometric measure: length (A)	Comparing Length
	Measuring Length with Blocks
	Measuring Length
	How Long is That?
	Ordering Lengths (cm)
Topics	**Skill Quests**
Length using informal units	Measuring with informal units
	Comparing & ordering lengths using informal units

MA1-GM-03 creates and recognises halves, quarters and eighths as part measures of a whole length	
Course Topics	**Activities**
Teacher directed	
Topics	**Skill Quests**
Subdivision to find halves & quarters	Finding halves & quarters

2.3 Two-dimensional spatial structure A

MA1-2DS-01 recognises, describes and represents shapes including quadrilaterals and other common polygons	
Course Topics	**Activities**
2D spatial structure: 2D shapes (A)	Collect Simple Shapes
	Count Sides and Corners
	Collect the Shapes 2
	Simple Patterns
	Complete the Pattern
	Flip, Slide, Turn
	Symmetry
Topics	**Skill Quests**
Two-dimensional shapes	Regular & irregular triangles
	Sorting quadrilaterals from other 2D shapes
	Identifying, sorting & naming octagons
	Identifying, sorting & naming pentagons
	Identifying, sorting & naming hexagons
	Identifying & naming simple 2D shapes
	Comparing, describing & sorting simple 2D shapes
	Representing & describing regular polygons
	Patterns with shapes
Slides, flips & reflections	Translations of shapes
	Recognising line symmetry

MA1-2DS-02 measures and compares areas using uniform informal units in rows and columns	
Course Topics	**Activities**
2D spatial structure: 2D shapes (A)	Equal Areas
Topics	**Skill Quests**
Area	Comparing & measuring area using informal units

2.4 Three-dimensional spatial structure A (3D objects)

MA1-3DS-01 recognises, describes and represents familiar three-dimensional objects	
Course Topics	**Activities**
3D spatial structure: 3D objects (A)	Match the Solid 1
	Match the Solid 2
	Relate Shapes and Solids
	How Many Faces?
Topics	**Skill Quests**
Recognise three-dimensional objects	Exploring surfaces & faces

2.5 Three-dimensional spatial structure A (Volume)

MA1-3DS-02 measures, records, compares and estimates internal volumes (capacities) and volumes using uniform informal units	
Course Topics	**Activities**
3D spatial structure: volume (A)	How many Blocks?
	Comparing Volume
	How Full?
	Which Holds More?
	Filling Fast!
Topics	**Skill Quests**
Volume & capacity	Exploring volume & capacity using informal units
	Measuring volume & capacity (informal units)
	Compare & order volume/capacity (informal units)

2.6 Non-spatial measure A (Mass)

MA1-NSM-01 measures, records, compares and estimates the masses of objects using uniform informal units	
Course Topics	**Activities**
Non-spatial measure: mass (A)	Balancing Act
	Everyday Mass
Topics	**Skill Quests**
Mass	Investigating mass with equal-arm balance

2.7 Non-spatial measure A (Time)

MA1-NSM-02 describes, compares and orders durations of events, and reads half- and quarter-hour time	
Course Topics	**Activities**
Non-spatial measure: duration (A)	Months of the Year
	Months After and Before
	Using a Calendar
	Seasons (AU/NZ)
	Hour Times
	Half Hour Times
	Set Time to the Hour
	Set Time to the Half Hour
	Quarter To and Quarter Past
Topics	**Skill Quests**
Time – calendars	Months of the year
	Knowing the seasons
	Using a calendar to identify the date
Tell the time - half hours	Telling time to the hour & half hour (analogue)
	Telling time to the hour & half hour (digital)

3 Statistics and Probability

3.1 Data A

MA1-DATA-01 gathers and organises data, displays data in lists, tables and picture graph	
Course Topics	**Activities**
Data: collect & interpret data (A)	Tallies
	Making Picture Graphs: With Scale
Topics	**Skill Quests**
Ask questions to gather data	Asking suitable questions for data collection
Track gathered data	Completing tally charts

MA1-DATA-02 reasons about representations of data to describe and interpret the results	
Course Topics	**Activities**
Data: collect & interpret data (A)	Read Graphs
	Picture Graphs: Who has the Goods?
	Picture Graphs: More or Less
	Picture Graphs: single-unit scale
Topics	**Skill Quests**
Represent data	Representing data in a simple display
	Ordering category data
Describe data displays	Reading simple data displays using objects
	Answer questions related to simple data displays
	Reading & interpreting simple picture graphs

3.2 Chance A

MA1-CHAN-01 recognises and describes the element of chance in everyday events.	
Course Topics	**Activities**
Chance (A)	Will it Happen?
	Most Likely and Least Likely
Topics	**Skill Quests**
Chance - possible outcomes	Using the everyday language of chance

Year 2

1 Number and Algebra

1.1 Representing whole numbers B

MA1-RWN-01 applies an understanding of place value and the role of zero to read, write and order two- and three-digit numbers	
Course Topics	**Activities**
Representing whole numbers (B)	Count by Twos
	Count by Tens
	Nearest 10?
Topics	**Skill Quests**
Read & write 3-digit numbers	Reading & representing 3-digit numbers
Place value of 3-digit numbers	Identifying digit values in 3-digit numbers
Compare & order numbers to 1000	Comparing & ordering numbers to 1000
Whole numbers to 1000 counting in ones	Counting in ones to 1000
	Identifying numbers before & after up to 1000

MA1-RWN-02 reasons about representations of whole numbers to 1000, partitioning numbers to use and record quantity values	
Course Topics	**Activities**
Representing whole numbers (B)	Nearest 100?
	Place Value 2
	Partition and Rename 1
	Place Value Partitioning
	Smallest and largest numbers
	1 More, 10 Less
Topics	**Skill Quests**
Count in tens to 1000	Counting in tens with 2- & 3-digit numbers
	Finding numbers 10 before & 10 after up to 1000
Count in 100s, 10s & 1s	Counting in hundreds, tens & ones
Partition 3-digit numbers	Partitioning 3-digit numbers
	Partitioning 3-digit numbers (non-standard)
Round to the nearest 100	Rounding numbers up to 1000 to the nearest 100
Whole number – money	Counting & ordering Australian notes & coins

1.2 Combining and separating quantities B

MA1-CSQ-01 uses number bonds and the relationship between addition and subtraction to solve problems involving partitioning	
Course Topics	**Activities**
Combine and separate quantities (B)	All about Twenty
	Related Facts 1
	Balance Numbers to 20
	Adding In Any Order
	Addictive Addition
	Subtraction Facts to 18
	Subtract Tens
	10 More, 10 Less
	Doubles and Halves to 20
	Fact Families: Add and Subtract
	Add and Subtract Problems
	More, Less or the Same to 20
Topics	**Skill Quests**
Additive relations	Model & record combinations that make 11 – 20
	Finding fact families for addition & subtraction
	Commutative property for addition
Add & subtract 2-digit numbers	Using the bar model within 20
	Adding 2-digit & 1-digit numbers
	Using mental strategies to add & subtract (to 100)
	Adding & subtracting tens from a 2-digit number
	Introducing place value to add & subtract (to 200)
	Using place value to add & subtract (to 200)
	Using place value (no models) to add & subtract
	Using place value to add (crossing a 10)
	Subtracting using addition
	Solving word problems with start or change unknown
Use equality to solve problems	Determining a missing number
	Recognising equality to 18

1.3 Forming groups B

MA1-FG-01 uses the structure of equal groups to solve multiplication problems, and shares or groups to solve division problems	
Course Topics	**Activities**
Forming groups (B)	Model Multiplication to 5 × 5
	Multiplication Arrays
	Arrays 1
	Multiplication Turnarounds
	Dividing Twos
	Dividing Fives
	Dividing Tens
	Dividing Threes
	Dividing Fours

Topics	Skill Quests
Multiplication as equal groups	Adding to multiply
	Using the commutative property of multiplication
Halves, quarters & eighths	Exploring the meaning of fraction symbols
	Finding quarters of sets or shapes (no symbols)
	Finding quarters of sets or shapes (symbols)
	Finding halves & quarters (no symbols)
	Finding halves & quarters (symbols)
	Finding eighths of objects or shapes
	Finding halves, quarters & eighths of shapes
Explore leftovers	Fair shares with/without remainders
Multiply & divide using equal groups	Dividing by sharing & grouping
	Using repeated subtraction to divide
	Solving simple multiplication problems (2, 5, 10x)

2 Measurement and Space

2.1 Geometric measure B (Position)

MA1-GM-01 represents and describes the positions of objects in familiar locations	
Course Topics	**Activities**
Teacher directed	
Topics	**Skill Quests**
Position with maps	Reading simple maps
	Following a path

2.2 Geometric measure B (Length)

MA1-GM-02 measures, records, compares and estimates lengths and distances using uniform informal units, as well as metres and centimetres	
Course Topics	**Activities**
Geometric measure: length (B)	Comparing Length
	Measuring Length with Blocks
	Measuring Length
	How Long is That?
	Ordering Lengths (cm)
Topics	**Skill Quests**
Compare lengths - informal units	Comparing & ordering lengths using informal units
Measure using formal units	Introducing formal units for length (m)
	Measuring using formal units for length (cm)

MA1-GM-03 creates and recognises halves, quarters and eighths as part measures of a whole length	
Course Topics	**Activities**
Teacher directed	
Topics	**Skill Quests**
Eighths & repeated halving	Relating eighths to repeated halving

2.3 Two-dimensional spatial structure B

MA1-2DS-01 recognises, describes and represents shapes including quadrilaterals and other common polygons	
Course Topics	**Activities**
2D spatial structure: 2D shapes (B)	Collect Simple Shapes
	Count Sides and Corners
	Collect the Shapes 2
	Simple Patterns
	Complete the Pattern
	Flip, Slide, Turn
	Symmetry
Topics	**Skill Quests**
Two-dimensional shapes	Sorting quadrilaterals from other 2D shapes
	Identifying & naming simple 2D shapes
	Comparing, describing & sorting simple 2D shapes
	Representing & describing regular polygons
Slides, flips & turns	Slides, flips & turns
Symmetry	Recognising line symmetry

MA1-2DS-02 measures and compares areas using uniform informal units in rows and columns	
Course Topics	**Activities**
2D spatial structure: 2D shapes (B)	Equal Areas
Topics	**Skill Quests**
Measure area	Measuring & estimating area using square units

2.4 Three-dimensional spatial structure B (3D Objects)

MA1-3DS-01 recognises, describes and represents familiar three-dimensional objects	
Course Topics	**Activities**
3D spatial structure: properties (B)	Faces, Edges, and Vertices 1
	How many Edges?
	How many Vertices?

Topics	Skill Quests
3D objects	Comparing 2D shapes & 3D objects
	Identifying faces, edges & vertices on 3D objects
	Describing & sorting 3D objects

2.5 Three-dimensional spatial structure B (Volume)

MA1-3DS-02 measures, records, compares and estimates internal volumes (capacities) and volumes using uniform informal units	
Course Topics	**Activities**
3D spatial structure: volume (B)	How many Blocks?
	Comparing Volume
	How Full?
	Which Holds More?
	Filling Fast!
Topics	**Skill Quests**
Measure volume & capacity	Measuring volume & capacity (informal units)
Compare & order volume & capacity	Compare & order volume/capacity (informal units)
	Comparing & ordering volume using blocks
	Comparing & ordering volume using displacement

2.6 Non-spatial measure B (Mass)

MA1-NSM-01 measures, records, compares and estimates the masses of objects using uniform informal units	
Course Topics	**Activities**
Non-spatial measure: mass (B)	Balancing Act
	Everyday Mass
Topics	**Skill Quests**
Compare & order mass	Comparing & ordering mass using informal units

2.7 Non-spatial measure B (Time)

MA1-NSM-02 describes, compares and orders durations of events, and reads half- and quarter-hour time	
Course Topics	**Activities**
Non-spatial measure: duration (B)	Months of the Year
	Months After and Before
	Using a Calendar
	Seasons (AU/NZ)
	Hour Times
	Half Hour Times
	Set Time to the Hour
	Set Time to the Half Hour

	Quarter To and Quarter Past
Topics	**Skill Quests**
Time – calendars	Using calendars to solve simple problems
Time – formal units	Choosing appropriate units of time
	Using hours to measure time
	Using minutes to measure time
	Using seconds to measure time
	Comparing hours, minutes & seconds
Tell the time - review hour & half hour	Telling time to the hour & half hour (analogue)
	Telling time to the hour & half hour (digital)
Tell time - half & quarter hours	Telling time to the half & quarter hour

3 Statistics and Probability

3.1 Data B

MA1-DATA-01 gathers and organises data, displays data in lists, tables and picture graphs	
Course Topics	**Activities**
Data: collect & interpret data (B)	Tallies
	Making Picture Graphs: With Scale
Topics	**Skill Quests**
Use tables & lists	Representing & reading data in tables or lists

MA1-DATA-02 reasons about representations of data to describe and interpret the results	
Course Topics	**Activities**
Data: collect & interpret data (B)	Read Graphs
	Picture Graphs: Who has the Goods?
	Picture Graphs: More or Less
	Picture Graphs: single-unit scale
Topics	**Skill Quests**
Create & interpret data displays	Using a tally chart, table or picture graph
	Reading & interpreting simple picture graphs

3.2 Chance B

MA1-CHAN-01 recognises and describes the element of chance in everyday events	
Course Topics	**Activities**
Chance (B)	Will it Happen?
	Most Likely and Least Likely
Topics	**Skill Quests**
Chance - basic language	Using basic probability language

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