# Mathletics New Curriculum Activities

Activities

Skill Quest

620

Early Stage 1 - Stage 3



9 Skill Quests

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Working with integers

January 2024

Well done 🜂

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# Early Stage 1

# 1 Number and Algebra

# 1.1 Representing whole numbers

<b>MAE-RWN-01</b> Demonstrates an understanding of how whole numbers indicate quantity	
Course Topic	Activities Title
Representing whole	Count to 5
numbers ES1	How Many?
	Dot Display
	Counting Up to 20
	Counting Back Within 20
	Before, After and Between to 20
	How Many Dots?
	Counting Forwards
	Counting Backwards
	Order Numbers to 10
	Order Numbers to 20
	1 to 30 (Ordering)
	Compare Numbers to 20
	1st to 31st
	Ordinal Numbers

MAE-RWN-02		
Reads nume	Reads numerals and represents whole numbers to at least 20	
Course Topic	Activities Title	
Representing whole	Matching numbers to 10	
numbers ES1	Matching numbers to 20	
	Making Teen Numbers	
	Reading Numbers to 30	

# 1.2 Combining and separating quantities

MAE-CSQ-01	
Reasons about number relations to model addition and subtraction by combining and	
separating, and comparing collections	
Course Topic	Activities Title
Combining & separating	More, less or the same to 10
quantities ES1	More, Less or the Same to 20

<b>MAE-CSQ-02</b> Represents the relations between the parts that form the whole, with numbers up to 10	
Course Topic	Activities Title
Combining & separating	Adding to 5
quantities ES1	Adding to make 5 and 10
	Model Addition
	Adding to Ten
	Adding to 10 Word Problems
	Model Subtraction
	Subtracting From 5
	Subtracting from Ten

# 1.3 Forming groups

MAE-FG-01	
Recognises, describes and continues repeating patterns	
Course Topic	Activities Title
Forming Groups - Patterns	Simple patterns
ES1	Colour patterns
	Missing it!
	Pattern Error

MAE-FG-02 Forms equal groups by sharing and counting collections of objects	
Course Topic	Activities Title
Forming groups ES1	Share the Treasure
	Fill the jars
	Groups

# 2. Measurement and Space

#### 2.1 Geometric measure

MAE-GM-01	
Describes position and gives and follows simple directions	
Course Topic	Activities Title
Geometric measure -	Where is it?
Position ES1	Left or Right?

MAE-GM-02	
Describes and compares lengths	
Course Topic	Activities Title
Geometric measure -	Everyday Length
Length ES1	Compare Length

MAE-GM-03	
Identifies half the length and the halfway point	
Course Topic	Activities Title
Teacher directed	

#### 2.2 Two-dimensional spatial structure

MAE-2DS-01	
Sorts, describes, names and makes two-dimensional shapes, including triangles, circles,	
squares and rectangles	
Course Topic	Activities Title
2D spatial structure - 2D	Collect Simple Shapes
shapes ES1	Biggest shape

MAE-2DS-02	
Describes and compares areas of similar shapes	
Course Topic	Activities Title
2D spatial structure - 2D shapes ES1	Biggest shape

# 2.3 Three-dimensional spatial structure

MAE-3DS-01	
Manipulates, describes and sorts three-dimensional objects	
Course Topic	Activities Title
3D spatial structure - 3D	Same and Different
objects ES1	Match the Solid 1

MAE-3DS-02	
Describes and compares volumes	
Course Topic	Activities Title
3D spatial structure -	How Full?
Volume ES1	Filling Fast!

# 2.4 Non-spatial measure

MAE-NSM-01	
Describes and compares the masses of objects	
Course Topic	Activities Title
Non-spatial measure - Mass ES1	Balancing Act

MAE-NSM-02 Sequences events and reads hour time on clocks	
Course Topic	Activities Title
Non-spatial measure - Time ES1	Days of the Week
	Days: After and Before
	Weekdays and Weekends
	Tomorrow and Yesterday (Scaffolded)
	Tomorrow and Yesterday (without scaffold)
	Hour Times
	Tell Time to the Hour (UK)

# **3 Statistics and Probability**

# 3.1 Data

MAE-DATA-01	
Contributes to collecting data and interprets data displays made from objects	
Course Topic	Activities Title
Data ES1	Read Graphs
	Picture Graphs: Who has the Goods?
	Add and Subtract Using Graphs
	Sort It

# Stage 1

# 1 Number and Algebra

# 1.1 Representing Whole Numbers (A/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 Topic	Activities Title
Representing whole	Concept of Zero
numbers S1 Part A	Everyday Money
	Arranging Numbers
	Number Lines
	Going Up
	Number line order
	Going Down
	Before, After & Between to 100
	Compare Numbers to 50
	Compare Numbers to 100
	Odd or Even
	Odd and Even Numbers 1
	Which is Bigger?
	Which is Smaller?
	Making Numbers Count
	Making Big Numbers Count
	Place Value 1
	Repartition Two-digit Numbers
	1 More, 2 Less
	Model Numbers

<b>MA1-RWN-02</b> Reasons about representations of whole numbers to 1000, partitioning numbers to use and record quantity values	
Course Topic	Activities Title
Representing whole numbers S1 Part B	Count by Twos
	Count by Tens
	Nearest 10?
	Nearest 100?
	Place Value 2
	Partition and Rename 1
	Place Value Partitioning
	Smallest and largest numbers
	1 More, 10 Less

# 1.2 Combine and separate quantities (A)

MA1-CSQ-01 Uses number bonds and the relationship between addition and subtraction to solve problems involving partitioning	
Course Topic	Activities Title
Combining & separating	All about Ten
quantities S1 Part A	Addition Facts
	Balance Numbers to 10
	Add 3 Numbers: Bonds to Multiples of 10
	Commutative Property of Addition
	Add 3 Single Digit Numbers
	Subtracting from 20
	Simple Subtraction
	Problems: Addition and Subtraction
	Doubles and Halves to 10
	Doubles and Near Doubles

# 1.3 Combine and separate quantities (B)

<b>MA1-CSQ-01</b> Uses number bonds and the relationship between addition and subtraction to solve problems involving partitioning		
Course Topic	Activities Title	
Combining & separating	All about Twenty	
quantities S1 Part B	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	
	Add 3 Numbers Using Bonds to 10	
	Balance Additions to 20/Composing additions to 20	

# 1.4 Forming groups (A)

<b>MA1-FG-01</b> Uses the structure of equal groups to solve multiplication problems, and shares or groups to solve division problems	
Course Topic	Activities Title
Forming groups S1 Part A	Counting by Twos
	Counting by Fives
	Counting by Tens
	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

# 1.5 Forming groups (B)

<b>MA1-FG-01</b> Uses the structure of equal groups to solve multiplication problems, and shares or groups to solve division problems	
Course Topic	Activities Title
Forming groups S1 Part B	Model multiplication to 5 × 5
	Multiplication Arrays
	Dividing Twos
	Dividing Fives
	Dividing Tens
	Dividing Fours
	Frog Jump Multiplication
	Frog Jump Division

# 2 Measurement and Space

#### 2.1 Geometric measure (A/B) (Position)

MA1-GM-01	
Represents and describes the positions of objects in familiar locations	
Course Topic	Activities Title
Geometric measure -	Following Directions
Position S1	

#### 2.2 Geometric measure (A/B) (Length)

MA1-GM-02 Measures, records, compares and estimates lengths and distances using uniform informal units, as well as metres and centimetres	
Course Topic	Activities Title
Geometric measure -	Comparing Length
Length S1	Measuring Length with Blocks
	Ordering Lengths (cm)
	Which Unit of Measurement?
	Which Measuring Tool?

MA1-GM-03	
Creates and recognises ho	alves, quarters and eighths as part measures of a whole length
Course Topic	Activities Title
Teacher directed	

#### 2.3 Two-dimensional spatial structure (A/B)

<b>MA1-2DS-01</b> Recognises, describes and represents shapes including quadrilaterals and other common polygons	
Course Topic	Activities Title
2D spatial structure - 2D	Complete the Pattern
shapes S1	Shapes
	Symmetry

MA1-2DS-02	
Measures and compa	res areas using uniform informal units in rows and columns
Course Topic	Activities Title
2D spatial structure - Area	Area of Shapes
S1	Equal Areas

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

MA1-3DS-01 Recognises, describes and represents familiar three-dimensional objects	
Course Topic	Activities Title
3D spatial structure - 3D	Match the Solid 2
objects S1	Relate Shapes and Solids
	How Many Faces?
	How many Edges?
	How many Vertices?
	Faces, Edges and Vertices

# 2.5 Three-dimensional spatial structure (A/B) (Volume)

MA1-3DS-02	
Measures, records, compares and estimates internal volumes (capacities) and volumes using	
uniform informal units	
Course Topic	Activities Title
3D spatial structure -	How many Blocks?
Volume S1	Comparing Volume
	Which Holds More?

#### 2.6 Non-spatial measure (A/B) (Mass)

MA1-NSM-01	
Measures, records, compares and estimates the masses of objects using uniform informal units	
Course Topic	Activities Title
3D spatial structure -	Everyday Mass
Volume S1	

#### 2.7 Non-spatial measure (A/B) (Time)

MA1-NSM-02 Describes, compares and orders durations of events, and reads half- and quarter-hour time	
Course Topic	Activities Title
Non-spatial measure - Time	Months of the Year
S1	Months After and Before
	Using a Calendar
	Seasons (AU/NZ)
	Half Hour Times
	Tell Time to the Half Hour (UK)

# **3 Statistics and Probability**

# 3.1 Data (A/B)

MA1-DATA-01	
Gathers and organi	ses data, displays data in lists, tables and picture graphs
Course Topic	Activities Title
Data S1	Tallies
	Making Picture Graphs: With Scale

MA1-DATA-02	
Reasons about rep	resentations of data to describe and interpret the results
Course Topic	Activities Title
Data S1	Picture Graphs: More or Less
	Picture Graphs: Single-Unit Scale

# 3.2 Chance (A/B)

MA1-CHAN-01	
Recognises and describes the element of chance in everyday events	
Course Topic	Activities Title
Chance S1	Will it Happen?

# Stage 2

# 1 Number and Algebra

#### 1.1 Representing numbers using place value (A)

MA2-RN-01 Applies an understanding of place value and the role of zero to represent numbers to at least tens of thousands	
Course Topic	Activities Title
Representing numbers -	Place Value – Thousands
place value S2 Part A	Expanding Numbers
	Put in Order 1
	Ascending Order
	Descending Order
	Greater Than or Less Than 1
	Greater or Less to 100
	Place Value 3
	Partition and Rename 2
	Nearest 1000?
	Missing Numbers 1

MA2-RN-02	
Represents and compares decimals up to 2 decimal places using place value	
Course Topic	Activities Title
Representing numbers -	Place Value – Thousands
place value S2 Part A	Expanding Numbers
	Put in Order 1
	Ascending Order
	Descending Order
	Greater Than or Less Than 1
	Greater or Less to 100
	Place Value 3
	Partition and Rename 2
	Nearest 1000?
	Missing Numbers 1

#### **1.2 Representing numbers using place value (B)**

MA2-RN-01 Applies an understanding of place value and the role of zero to represent numbers to at least tens of thousands	
Course Topic	Activities Title
Representing numbers -	Expanded Notation
place value S2 Part B	Numbers in Words
	Partition and Rename 3
	Rounding Numbers
	Numbers from Words to Digits 1
	Missing Numbers 2

MA2-RN-02 Represents and compares decimals up to 2 decimal places using place value	
Course Topic	Activities Title
Representing numbers -	Expanded Notation
place value S2 Part B	Numbers in Words
	Partition and Rename 3
	Rounding Numbers
	Numbers from Words to Digits 1
	Missing Numbers 2

#### 1.3 Additive relations (A)

MA2-AR-01 Selects and uses mental and written strategies for addition and subtraction involving 2- and 3- digit numbers	
Course Topic	Activities Title
Additive relations S2 Part A	Add Two 2-Digit Numbers
	Adding to 2-digit numbers
	Complements to 50 and 100
	Add 3 Numbers: Bonds to 100
	Compensation – Add
	Estimate Sums
	Column Subtraction
	2-Digit Differences: Regroup
	Repartition to Subtract
	Compensation – Subtract
	Estimate Differences
	Bump Add and Subtract
	Bar Model Problems 1
	Bar Model Problems 2
	Strategies for Column Addition
	Columns that Add
	Column Addition 1

#### 1.4 Additive relations (B)

MA2-AR-02	
Completes number sentences involving addition and subtraction by finding missing values	
Course Topic	Activities Title
Additive relations S2 Part B	Missing Values
	Split Add and Subtract
	Pyramid Puzzles 1
	Partition Puzzles 1
	Addition Properties
	Missing Numbers

# 1.5 Multiplicative relations (A)

MA2-MR-01	
Represents and uses the structure of multiplicative relations to $10 imes10$ to solve problems	
Course Topic	Activities Title
Multiplicative relations S2	Count by Fives
Part A	Skip Counting
	Counting up in 4s
	Skip Counting with Coins
	Grouping in Fours
	Grouping in Sevens
	Grouping in Eights
	Arrays 1
	Arrays 2
	Fact Families: Multiply and Divide
	Multiplication Turnarounds
	Halve it!
	Find the Missing Number 1
	Missing Numbers: Variables

MA2-MR-02 Completes number sentences involving multiplication and division by finding missing values	
Course Topic	Activities Title
Multiplicative relations S2	Count by Fives
Part A	Skip Counting
	Counting up in 4s
	Skip Counting with Coins
	Grouping in Fours
	Grouping in Sevens
	Grouping in Eights
	Arrays 1
	Arrays 2
	Fact Families: Multiply and Divide
	Multiplication Turnarounds
	Halve it!
	Find the Missing Number 1
	Missing Numbers: Variables

# 1.6 Multiplicative relations (B)

MA2-MR-01 Represents and uses the structure of multiplicative relations to $10 \times 10$ to solve problems	
Course Topic	Activities Title
Multiplicative relations S2	Multiples of
Part B	Increasing Patterns
	Decreasing Patterns
	Grouping in Sixes
	Grouping in Nines
	Multiplication Turn-Abouts
	Related Facts 2
	Times Tables

Bar model × ÷
Grid Methods 1
Problems: Times and Divide
Find the Missing Number 2
Missing Numbers: × and ÷ facts
Multiplying by 10, 100, 1000
Dividing Sixes
Dividing Nines
Dividing Sevens
Dividing Eights
Mental Methods Division

MA2-MR-02 Completes number sentences involving multiplication and division by finding missing values	
Course Topic	Activities Title
Multiplicative relations S2	Multiples of
Part B	Increasing Patterns
	Decreasing Patterns
	Grouping in Sixes
	Grouping in Nines
	Multiplication Turn-Abouts
	Related Facts 2
	Times Tables
	Bar model × ÷
	Grid Methods 1
	Problems: Times and Divide
	Find the Missing Number 2
	Missing Numbers: × and ÷ facts
	Multiplying by 10, 100, 1000
	Dividing Sixes
	Dividing Nines
	Dividing Sevens
	Dividing Eights
	Mental Methods Division

# 1.7 Partitioned fractions (A)

<b>MA2-PF-01</b> Represents and compares halves, quarters, thirds and fifths as lengths on a number line and	
their related fractions formed by halving (eighths, sixths and tenths)	
Course Topic	Activities Title
Partitioned fractions S2	Halves
Part A	Is it Half?
	Halves and Quarters
	Thirds and Sixths
	Shade fractions
	Identifying Fractions on a Number Line
	Equivalent Fraction Wall 1

# 1.8 Partitioned fractions (B)

MA2-PF-01	
Represents and compares halves, quarters, thirds and fifths as lengths on a number line and	
their related fractions formed by halving (eighths, sixths and tenths)	
Course Topic	Activities Title
Partitioned fractions S2	Compare Fractions 1a
Part B	Compare Fractions 1b
	Comparing Fractions 1

# 2 Measurement and Space

# 2.1 Geometric measure (A/B)

MA2-GM-01	
Uses grid maps and directional language to locate positions and follow routes	
Course Topic	Activities Title
Geometric measure -	Coordinate Meeting Place
Position S2	What Direction was That?
	Using a key
	Map Coordinates

MA2-GM-02 Measures and estimates lengths in metres, centimetres and millimetres	
Course Topic	Activities Title
Geometric measure -	How Long is That?
Length S2	Measuring Length
	Perimeter of Shapes
	Converting cm and mm
	Centimetres and Metres

MA2-GM-03	
Identifies angles and classifies them by comparing to a right angle	
Course Topic	Activities Title
Geometric measure -	Equal Angles
Angles S2	Comparing Angles
	Right Angle Relation
	What Type of Angle?

# 2.2 Two-dimensional spatial structure (A/B)

MA2-2DS-01	
Compares two-dimensional shapes and describes their features	
Course Topic	Activities Title
2D spatial structure - 2D	Collect More Shapes
shapes S2	Collect the Shapes 2
	Count Sides and Corners

MA2-2DS-02	
Performs transformations by combining and splitting two-dimensional shapes	
Course Topic	Activities Title
Teacher directed	

MA2-2DS-03	
Estimates, measures and compares areas using square centimetres and square metres	
Course Topic	Activities Title
2D spatial structure - 2D	Collect More Shapes
shapes S2	Collect the Shapes 2
	Count Sides and Corners

# 2.3 Three-dimensional spatial structure (A/B)

MA2-3DS-01 Makes and sketches models and nets of three-dimensional objects including prisms and pyramids	
Course Topic	Activities Title
3D spatial structure - 3D	Prisms and Pyramids
objects S2	Collect the Objects
	Match the Object
	Faces, Edges, and Vertices 1
	Naming 3D Objects

MA2-3DS-02	
Estimates, measures and compares capacities (internal volumes) using litres, millilitres and	
volumes using cubic centimetres	
Course Topic	Activities Title
3D spatial structure -	Ordering Volumes (I)
Volume S2	Using a Litre
	Litre Conversions

# 2.4 Non spatial measure (A/B)

MA2-NSM-01	
Estimates, measures and compares the masses of objects using kilograms and grams	
Course Topic Activities Title	
Non-spatial measure -	How Heavy?
Mass S2	Ordering Mass (g)
Non-spatial measure - Time	Five Minute Times
S2	What's the Temperature (Celsius)?
	What is the Time?
	Quarter To and Quarter Past

MA2-NSM-02 Represents and interprets analogue and digital time in hours, minutes and seconds	
Course Topic	Activities Title
Non-spatial measure -	How Heavy?
Mass S2	Ordering Mass (g)
Non-spatial measure - Time	Five Minute Times
S2	What's the Temperature (Celsius)?
	What is the Time?
	Quarter To and Quarter Past

# **3 Statistics and Probability**

# 3.1 Data (A/B)

MA2-DATA-01	
Collects discrete data and constructs graphs using a given scale	
Course Topic	Activities Title
Data S2	Sorting Data
	Column Graphs
	Pictographs
	Picture Graphs: with scale & half symbols
	Reading from a Column Graph

MA2-DATA-02 Interprets data in tables, dot plots and column graphs	
Course Topic	Activities Title
Data S2	Sorting Data
	Column Graphs
	Pictographs
	Picture Graphs: with scale & half symbols
	Reading from a Column Graph

#### 3.3 Chance (A/B)

MA2-CHAN-01	
Records and compares the results of chance experiments	
Course Topic	Activities Title
Chance S2	Most Likely and Least Likely
	How many Combinations?
	Introductory probability

# Stage 3

# 1 Number and Algebra

#### 1.1 Represents numbers (A)

MA3-RN-01	
Applies an understanding of place value and the role of zero to represent the properties of	
	numbers
Course Topic	Activities Title
Represents numbers S3	Numbers from Words to Digits 2
Part A	Numbers from Words to Digits 3
	Place Value – Millions
	Place Value to Millions
	Place Value to Billions
	Equal, Less or Greater than?
	Comparing Numbers

MA3-RN-02 Compares and orders decimals up to 3 decimal places	
Course Topic	Activities Title
Decimals S3 Part A	Decimals from Words to Digits 1
	Decimals from Words to Digits 2
	Decimal Place Value
	Who's got the Money?
	Nearest Whole Number
	Comparing Decimals 1
	Comparing Decimals
	Comparing Decimals 2
	Decimal Order
	Decimal Order 2
	Decimals on the Number Line
	Rounding Decimals 1
	Decimal Order 1

#### 1.2 Represents numbers (B)

MA3-RN-02	
Compares and orders decimals up to 3 decimal places	
Course Topic	Activities Title
Decimals & percentages S3	Modelling Percentages
Part B	Percents and Decimals
	Calculating Percentages (Mental)
	Match Decimals and Percentages
	Complementary Percentages
	Percentage of an amount using Fractions (<100%)

# 1.3 Additive relations (A)

MA3-AR-01	
Selects and applies appropriate strategies to solve addition and subtraction problems	
Course Topic	Activities Title
Additive relations S3 Part A	Magic Mental Addition/Mental Addition (US)
	Magic Mental Subtraction/Mental Subtraction (US)
	Pyramid Puzzles 2
	Partition Puzzles 2
	Estimation: Add and Subtract

#### 1.4 Additive relations (B)

MA3-AR-01		
	Selects and applies appropriate strategies to solve addition and subtraction problems	
Course Topic	Activities Title	
Additive relations S3 Part B	Add Three 2-Digit Numbers: Regroup	
	Add 3-Digit Numbers	
	Add 3-Digit Numbers: Regroup	
	Adding Colossal Columns	
	Add Multi-Digit Numbers 1	
	Jump Add and Subtract	
	Complements to 10, 20, 50	
	Magic Symbols 1	
	Adding Decimals	
	Add Decimals 2	
	Subtracting Colossal Columns	
	3-Digit Differences	
	3-Digit Differences: 1 Regrouping	
	3-Digit Differences: 2 Regroupings	
	3-Digit Differences with Zeros	
	Subtracting Decimals	
	Subtract Decimals 2	
	Magic Symbols 2	

# 1.5 Multiplicative relations (A)

MA3-MR-01	
Selects and applies appro	opriate strategies to solve multiplication and division problems
Course Topic	Activities Title
Multiplicative relations S3	Lowest Common Multiple
Part A	Find the Factor
	Factors
	Highest Common Factor
	Prime or Composite?
	Solve Equations: Multiply, Divide 1
	Multiply 2 Digits Area Model
	Multiply 3 single-digit numbers
	Multiply Multiples of 10
	Multiply More Multiples of 10
	Multiplying Whole Numbers by 10, 100, and 1000

	Double and Halve to Multiply
	Mental Methods Multiplication 1
	Estimation: Multiply and Divide
	Estimate Products
	Remainders by Arrays
	Remainders by Tables
	Dividing by 10, 100, 1000

MA3-MR-02 Constructs and completes number sentences involving multiplicative relations, applying the order of operations to calculations	
Course Topic	Activities Title
Multiplicative relations S2	Multiply: 1-Digit Number
Part A	Multiply: 2-Digit Number, Regroup
	Long Multiplication
	Mental Methods Division 1
	Mental Methods Division 2
	Mental Methods Division 3

# 1.6 Multiplicative relations (B)

MA3-MR-01 Selects and applies appropriate strategies to solve multiplication and division problems	
Course Topic	Activities Title
Multiplicative relations S3	Grid Methods 2
Part B	Grid Methods 3
	Equivalent Facts: Multiply
	Division Facts to Twelve
	Short Division
	Multiply Decimals and Powers of 10
	Estimate Quotients
	Divide by Powers of 10
	Table of Values
	Patterns – Decreasing
	Order of Operations 1 (BIDMAS)/Order of Operations 1
	(BEDMAS)
	Identifying Errors in Applying the Order of Operations

MA3-MR-02 Constructs and completes number sentences involving multiplicative relations, applying the order of operations to calculations	
Course Topic	Activities Title
Multiplicative relations S3	Grid Methods 2
Part B	Grid Methods 3
	Equivalent Facts: Multiply
	Division Facts to Twelve
	Short Division
	Multiply Decimals and Powers of 10
	Estimate Quotients
	Divide by Powers of 10

	Table of Values
	Patterns – Decreasing
	Order of Operations 1 (BIDMAS)/Order of Operations 1
	(BEDMAS)
	Identifying Errors in Applying the Order of Operations

# 1.7 Representing quantity fractions (A)

MA3-RQF-01	
Compares and orders fractions with denominators of 2, 3, 4, 5, 6, 8 and 10	
Course Topic	Activities Title
Representing quantity	Add: Common Denominator
fractions S3 Part A	Subtract: Common Denominator
	Common Denominator
	Unit Fractions
	One Take Fraction
	Add Subtract Fractions 1

<b>MA3-RQF-02</b> Determines 1/2, 1/4, 1/5, and 1/10 of measures and quantities	
Course Topic	Activities Title
Representing quantity	Add: Common Denominator
fractions S3 Part A	Subtract: Common Denominator
	Common Denominator
	Unit Fractions
	One Take Fraction
	Add Subtract Fractions 1

# 1.8 Representing quantity fractions (B)

<b>MA3-RQF-01</b> Compares and orders fractions with denominators of 2, 3, 4, 5, 6, 8 and 10	
Course Topic	Activities Title
Representing quantity	Compare Fractions 2
fractions S3 Part B	Shading Equivalent Fractions
	Selecting Equivalent Fractions
	The Equivalent Fraction
	Equivalent Fraction Wall 2
	Equivalent Fractions on a Number Line 1
	Equivalent Fractions on a Number Line 2
	Counting with Fractions on a Number Line
	What Mixed Number Is Shaded?
	Fractions of a Collection 1
	Fractions of a Collection 2
	Fraction Fruit Sets 1
	Fraction Fruit Sets 2
	Fractions of a Collection

<b>MA3-RQF-02</b> Determines 1/2, 1/4, 1/5, and 1/10 of measures and quantities	
Course Topic	Activities Title
Representing quantity	Compare Fractions 2
fractions S3 Part B	Shading Equivalent Fractions
	Selecting Equivalent Fractions
	The Equivalent Fraction
	Equivalent Fraction Wall 2
	Equivalent Fractions on a Number Line 1
	Equivalent Fractions on a Number Line 2
	Counting with Fractions on a Number Line
	What Mixed Number Is Shaded?
	Fractions of a Collection 1
	Fractions of a Collection 2
	Fraction Fruit Sets 1
	Fraction Fruit Sets 2
	Fractions of a Collection

# 2 Measurement and Space

# 2.1 Geometric measure (A/B)

MA3-GM-01	
Locates and describes points on a coordinate plane	
Course Topic	Activities Title
Geometric measure -	Coordinate Graphs: 1st Quadrant
Position S3	Ordered Pairs
	Horizontal and Vertical Change
	Flip, Side, Turn
	Transformations: Coordinate Plane

MA3-GM-02 Selects and uses the appropriate unit and device to measure lengths and distances including perimeters	
Course Topic	Activities Title
Geometric measure -	Kilometre Conversions
Length S3	Perimeter: Squares and Rectangles
	Perimeter: Triangles 2
	Perimeter Detectives 1
	Converting Units of Length
	Metres and Kilometres
	Perimeter: Triangles
	Perimeter Detectives 2
	Operations with Length

MA3-GM-03	
Measures and constructs angles, and identifies the relationships between angles on a straight	
line and angles at a point	
Course Topic	Activities Title
Geometric measure -	Estimating Angles
Angles S3	Measuring Angles

# 2.2 Two-dimensional spatial structure (A/B)

MA3-2DS-01 Investigates and classifies two-dimensional shapes, including triangles and quadrilaterals based on their properties	
Course Topic	Activities Title
2D spatial structure - 2D	Triangle Tasters
shapes S3	Sides, Angles and Diagonals
	Plane Figure Terms
	Collect the Polygons
	Rotational Symmetry of Shapes

MA3-2DS-02	
Selects and uses the appropriate unit to calculate areas, including areas of rectangles	
Course Topic	Activities Title
2D spatial structure - Area	Area: Squares and Rectangles
S3	Calculate Areas of Squares and Rectangles
	Converting Units of Area

# 2.3 Three-dimensional spatial structure (A/B)

MA3-3DS-01	
Visualises, sketches and constructs three-dimensional objects, including prisms and pyramids,	
making connections to two-dimensional representations	
Course Topic	Activities Title
3D spatial structure - 3D	What Prism Am I?
objects S3	What Pyramid Am I?

MA3-3DS-02		
Selects and uses the appropriate unit to estimate, measure and calculate volumes and		
capacities		
Course Topic	Activities Title	
3D spatial structure -	Millilitres and Litres	
Volume S3	Volume of Solids and Prisms - 1cm <sup>3</sup> blocks	
	Volume: Rectangular Prisms 1	

# 2.4 Non spatial structure (A/B)

MA3-NSM-01		
Selects and uses the appropriate unit and device to measure the masses of objects		
Course Topic	Activities Title	
Non-spatial measure -	Kilogram Conversions	
Mass S3	Grams and Kilograms	
	Converting Units of Mass	
	Mass Word Problems	

MA3-NSM-02		
Measures and compares duration, using 12- and 24-hour time and am and pm notation		
Course Topic	Activities Title	
Non-spatial measure - Time	24 Hour Time	
S3	Using Timetables	
	Time Conversions: Whole Numbers 1	
	Time Conversions: Whole Numbers 2	
	Time Conversions: Simple Fractions	
	Time Mentals	
	Elapsed Time	
	Time Conversions: Simple Decimals	
	Australian Time Zones	
	Time Zones	
	What Time Will It Be?	

# **3 Statistics and Probability**

# 3.1 Data (A/B)

MA3-DATA-01		
Constructs graphs using many-to-one scales		
Course Topic	Activities Title	
Data S3	Interpreting Tables	
	Line Graphs: Interpretation	

MA3-DATA-02		
Interprets data displays, including timelines and line graphs		
Course Topic	Activities Title	
Data S3	Mode	
	Data Extremes and Range	

# 3.3 Chance (A/B)

MA3-CHAN-01		
Conducts chance experiments and quantifies the probability		
Course Topic	Activities Title	
Chance S3	Counting Techniques 1	
	What are the Chances?	
	Change Gauge	
	Fair Games	



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