AUSTRALIAN NATIONAL CURRICULUM & MATHLETICS

MATHLETICS

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CONTENTS

Foundation

Australian Curriculum	Mathletics Activities	Mathletics Workbooks
Number and Algebra		
Number and place value		
ACMNA001 Establish understanding of the language and processes of counting by naming numbers in sequences, initially to and from 20, moving from any starting point.	**(NA) Number Order** - Numbers to 10 - Order Numbers to 20 - 1 to 30	**Series A Numbers and Patterns** - Numbers to 10 - Numbers to 20 - Numbers to 30
ACMNA002 Connect number names, numerals and quantities, including zero, initially up to 10 and then beyond.	**(NA) Number Order** - Making Teen Numbers* - Matching Numbers* - The 1 comes first*	**Series A Numbers and Patterns** - Numbers to 10 - Numbers to 20 - Numbers to 30
ACMNA003 Subitise small collections of objects.	**(NA) Number Order** - Count to 5* - 5 Flash*	**Series A Numbers and Patterns** - Numbers to 10
ACMNA289 Compare, order and make correspondences between collections, initially to 20, and explain reasoning.	**(NA) Number Order** - More, less or the same* - First is the worst*	**Series A Numbers and Patterns** - Numbers to 10 - Numbers to 20 - Numbers to 30 - Ordinal Numbers
ACMNA004 Represent practical situations to model addition and sharing.	**(NA) Operations with Number** - Model Addition - Adding to Ten - Model Subtraction - Subtracting from Ten - Share the Treasure - Adding to Make 5 and Ten* - Fair or unfair*	**Series A Operations with Number** - Addition - Subtraction - Grouping and Sharing
Patterns and algebra		
ACMNA005 Sort and classify familiar objects and explain the basis for these classifications. Copy, continue and create patterns with objects and drawings.	**(NA) Patterns - Simple Patterns** - Colour Patterns - Missing it! - Sort it!*	**Series A Numbers and Patterns** - Patterns
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ACMMG006 Use direct and indirect comparisons to decide which is longer, heavier or holds more, and explain reasoning in everyday language.	**(MG) Measurement** - Everyday Length - Everyday Mass - Balancing Act	**Series A Measurement** - Length - Mass - Volume and Capacity

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Australian Curriculum	Mathletics Activities	Mathletics Workbooks
ACMMG007 Compare and order the duration of events using the everyday language of time.	**(MG) Measurement** - Ordering Events*	**Series A Time, Money and Data** - Time
ACMMG008 Connect days of the week to familiar events and actions.	**(MG) Measurement** - Days of the Week	**Series A Time, Money and Data** - Time
Shape		
ACMMG009 Sort, describe and name familiar two-dimensional shapes and three-dimensional objects in the environment.	**(MG) Shape and Location** - Match the Object - Collect the Shape	**Series A Space and Shape** - 2D Space - 3D Space
Location and transformation		
ACMMG010 Describe position and movement.	**(MG) Shape and Location** - Where is it? - Move it!*	**Series A Space and Shape** - Position
Statistics and Probability		
Data representation and interpretation		
ACMSP011 Answer yes/no questions to collect information.	**(SP) Data** - Who has the goods? - Dogs or cats?*	**Series A Time, Money and Data** - Data

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Year 1

Australian Curriculum	Mathletics Activities	Mathletics Workbooks
Number and Algebra		
Number and place value		
ACMNA012 Develop confidence with number sequences to and from 100 by ones from any starting point. Skip count by twos, fives and tens starting from zero.	**(NA) Numbers to 30** - Counting Forwards - Counting Backwards **(NA) Number and Shape Patterns** - Counting by Twos - Counting by Fives - Counting by Tens - Counting Coins* - Continue the count*	**Series B Numbers** - Numbers to 20 - Numbers to 50 - Numbers to 100 - Skip counting
ACMNA013 Recognise, model, read, write and order numbers to at least 100. Locate these numbers on a number line.	**(NA) Numbers to 30** - Reading Numbers to 30 - Order Numbers to 20 - 1 to 30 - 1st to 31st - 1st to 10th* **(NA) Numbers to 100** - Going Up - Going Down - Arranging Numbers - Number Lines - Number Line Order - 1 More, Ten Less* - Put me on the Number Line*	**Series B Numbers** - Ordinal Numbers - Numbers to 20 - Numbers to 50 - Numbers to 100
ACMNA014 Count collections to 100 by partitioning numbers using place value.	**(NA) Numbers to 100** - Making Numbers Count - Making Big Numbers Count - Expand me!* - How many tens and ones?*	**Series B Numbers** - Place Value to 99
ACMNA015 Represent and solve simple addition and subtraction problems using a range of strategies including counting on, partitioning and rearranging parts.	**(NA) Addition and Subtraction** - Model Addition - Adding to Ten - Model Subtraction - Subtracting from Ten - All about Ten - Addition Facts to 18 - Addictive Addition - Subtraction Facts to 18 - Simple Subtraction - Columns that Add - Columns that Subtract - Adding Ten or One* - Double Trouble*	**Series B Operations with Number** - Addition - Subtraction

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Australian Curriculum	Mathletics Activities	Mathletics Workbooks
ACMNA015 (continued)	**(NA) Addition and Subtraction** - Turn me around* - Bonds to Ten* - Bonds to Twenty* - Bridge to Ten*	
Fractions and decimals		
ACMNA016 Recognise and describe one-half as one of two equal parts of a whole.	**(NA) Numbers to 30** - Halves and Quarters - Is it half?* - Fair Shares*	**Series B Numbers** - Fractions
Money and financial mathematics		
ACMNA017 Recognise, describe and order Australian coins according to their value.	**(NA) Money** - Coin Order*	**Series B Time and Money** - Money
Patterns and algebra		
ACMNA018 Investigate and describe number patterns formed by skip counting and patterns with objects.	**(NA) Number and Shape Patterns** - Counting by Twos - Counting by Fives - Counting by Tens - Simple Patterns - Colour Patterns - Missing it! - Pattern Error - 3 Stripes* - On and Off Tens*	**Series B Patterns and Relationships** - Patterns and Rules **Series B Numbers** - Skip counting
Measurement and Geometry		
Using units of measurement		
ACMMG019 Measure and compare the lengths and capacities of pairs of objects using uniform informal units.	**(MG) Length and Capacity** - Everyday Length - How Long is That? - Measuring Length - Filling Fast! - How Full? - Compare the Pairs - Capacity* - Compare the Pairs - Length*	**Series B Measurement** - Length - Volume and Capacity
ACMMG020 Tell time to the half-hour.	**(MG) Time** - Hour Times - Half Hour Times - Digital and Analogue Time*	**Series B Time and Money** - Time

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Australian Curriculum	Mathletics Activities	Mathletics Workbooks
Measurement and Geometry		
Using units of measurement		
ACMMG021 Describe duration using months, weeks, days and hours.	**(MG) Time** - Days of the Week - Months of the Year - Using a Calendar - Month Order*	**Series B Time and Money** - Time
Shape		
ACMMG022 Recognise and classify familiar two-dimensional shapes and three-dimensional objects using obvious features.	**(MG) Shape and Location** - Collect the Shapes - Match the Object - Collect the Objects - Relate Shapes and Solids - Corner, face or edge?* - Corners and sides*	**Series B Space and Shape** - 2D Space - 3D Space
Location and transformation		
ACMMG023 Give and follow directions to familiar locations.	**(MG) Shape and Location** - Where is it? - Left or Right?	**Series B Space and Shape** - Position
Statistics and Probability		
Chance		
ACMSP024 Identify outcomes of familiar events involving chance and describe them using everyday language such as 'will happen', 'won't happen' or 'might happen'.	**(SP) Data** - Will, Won't or Might	**Series B Chance and Data** - Chance
Data representation and interpretation		
ACMSP262 Choose simple questions and gather responses.	**(SP) Data** - Which Question?*	**Series B Chance and Data** - Data
ACMSP263 Represent data with objects and drawings where one object or drawing represents one data value. Describe the displays.	**(SP) Data** - More or Less? - Who has the Goods? - Picture Graphs*	**Series B Chance and Data** - Data

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Year 2

Australian Curriculum	Mathletics Activities	Mathletics Workbooks
Number and Algebra		
Number and place value		
ACMNA026 Investigate number sequences, initially those increasing and decreasing by twos, threes, fives and ten from any starting point, then moving to other sequences.	**(NA) Number and Shape Patterns** - Counting by Twos - Counting by Fives - Counting by Tens - Counting by Threes*	**Series C Numbers** - Skip Counting **Series C Patterns and Relationships** - Patterns and Rules
ACMNA027 Recognise, model, represent and order numbers to at least 1 000.	**(NA) Numbers to 100** - Making Big Numbers Count - Compare Numbers to 100 - 1st to 31st - Number Line Order **(NA) Numbers to 1 000** - Number Line Order to 1 000* - Model Numbers - Which is Bigger? - Which is Smaller?	**Series C Numbers** - Numbers to 999 - Ordinal Numbers
ACMNA028 Group, partition and rearrange collections up to 1 000 in hundreds, tens and ones to facilitate more efficient counting.	**(NA) Numbers to 1 000** - Model Numbers - Hundreds, Tens and Units* - Does It Match?* - Expander Madness*	**Series C Numbers** - Place Value to 999
ACMNA029 Explore the connection between addition and subtraction.	**(NA) Adding and Subtracting** - All About ten - Addition facts to 18 - Subtraction facts to 18 - Basic Fact Families	**Series C Operations with Number** - Addition - Subtraction
ACMNA030 Solve simple addition and subtraction problems using a range of efficient mental and written strategies.	**(NA) Adding and Subtracting** - All About ten - Addition facts to 18 - Subtraction facts to 18 - Subtract Numbers - Addictive Addition - Simple Subtraction - Columns that Add - Subtract Numbers - Columns that Subtract - What is missing?* - Doubles and Halves* - Terrific Turnarounds* - Bridge it* - Add it on the Grid*	**Series C Operations with Number** - Addition - Subtraction

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Year 2

Australian Curriculum	Mathletics Activities	Mathletics Workbooks
Number and Algebra		
Number and place value		
ACMNA031 Recognise and represent multiplication as repeated addition, groups and arrays.	**(NA) Multiplying and Dividing** - Groups of Two - Groups of Three - Groups of Five - Groups of Ten - Multiplication Arrays - Repeated Addition*	**Series C Operations with Number** - Multiplication
ACMNA032 Recognise and represent division as grouping into equal sets and solve simple problems using these representations.	**(NA) Multiplying and Dividing** - Dividing Twos - Dividing Threes - Dividing Fives - Dividing Tens - Fair Shares* - How Many Groups?*	**Series C Operations with Number** - Division
Fractions and decimals		
ACMNA033 Recognise and interpret common uses of halves, quarters and eighths of shapes and collections.	**(NA) Numbers to 100** - Halves and Quarters **(NA) Fractions** - Eighths* - Halves, Quarters and Eighths of a Collection*	**Series C Numbers** - Fractions
Money and financial mathematics		
ACMNA034 Count and order small collections of Australian coins and notes according to their value.	**(NA) Money** - Who has the money? - Counting Coins* - How much?* - Match the Money*	**Series C Time and Money** - Money
Patterns and algebra		
ACMNA035 Describe patterns with numbers and identify missing elements.	**(NA) Number and Shape Patterns** - Counting by Twos - Counting by Fives - Counting by Tens - Twos, Fives or Tens?*	**Series C Patterns and Relationships** - Patterns and Rules
ACMNA036 Solve problems by using number sentences for addition or subtraction.	**(NA) Adding and Subtracting** - Solve it!*	**Series C Patterns and Relationships** - Number Relationships - Addition - Subtraction

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Australian Curriculum	Mathletics Activities	Mathletics Workbooks
Measurement and Geometry		
Using units of measurement		
ACMMG037 Compare and order several shapes and objects based on length, area, volume and capacity using appropriate uniform informal units.	**(MG) Measurement** - Comparing Length - Filling Fast - How full? - Comparing Volume - Find the Area* - Find the Length*	**Series C Measurement** - Length - Volume and Capacity
ACMMG038 Compare masses of objects using balance scales.	**(MG) Measurement** - Everyday Mass - Balancing Act - Balance the Scales*	**Series C Measurement** - Mass
ACMMG039 Tell time to the quarter-hour, using the language of 'past' and 'to'.	**(MG) Time** - Hour Times - Half Hour Times - Quarter to and Past* - Digital Time*	**Series C Time and Money** - Time
ACMMG040 Name and order months and seasons.	**(MG) Time** - Months of the Year - Which Season?*	**Series C Time and Money** - Time
ACMMG041 Use a calendar to identify the date and determine the number of days in each month.	**(MG) Time** - Using a calendar - When is it?*	**Series C Time and Money** - Time
Shape		
ACMMG042 Describe and draw two-dimensional shapes, with and without digital technologies.	**(MG) Shape and Location** - Collect more shapes - More Sides and Corners* - Straight Lines and Curves*	**Series C Space and Shape** - 2D Space
ACMMG043 Describe the features of three-dimensional objects.	**(MG) Shape and Location** - Collect the Objects - Match the Objects - Relate Shapes and Solids - Corners, Edges and Faces*	**Series C Space and Shape** - 3D Space
Location and transformation		
ACMMG044 Interpret simple maps of familiar locations and identify the relative positions of key features.	**(MG) Shape and Location** - Following Directions - Left or Right?	**Series C Space and Shape** - Position

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Australian Curriculum	Mathletics Activities	Mathletics Workbooks
Measurement and Geometry		
Location and transformation		
ACMMG045 Investigate the effect of one-step slides and flips with and without digital technologies.	**(MG) Shape and Location** - Flip, Slide, Turn	**Series C Space and Shape** - 2D Space
ACMMG046 Identify and describe half and quarter turns.	**(MG) Shape and Location** - Half and Quarter Turns*	**Series C Space and Shape** - 2D Space
Statistics and Probability		
Chance		
ACMSP047 Identify practical activities and everyday events that involve chance. Describe outcomes as 'likely' or 'unlikely' and identify some events as 'certain' or 'impossible'.	**(SP) Chance and Data** - What are the chances? - Likely or Unlikely?*	**Series C Chance and Data** - Chance
Data representation and interpretation		
ACMSP048 Identify a question of interest based on one categorical variable. Gather data relevant to the question.	**(SP) Chance and Data** - Match the Data*	**Series C Chance and Data** - Data
ACMSP049 Collect, check and classify data	**(SP) Chance and Data** - Which Graph Works?*	**Series C Chance and Data** - Data
ACMSP050 Create displays of data using lists, table and picture graphs and interpret them.	**(SP) Chance and Data** - Who has the goods? - Sorting Data - Tallies - More Tallies*	**Series C Chance and Data** - Data

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Year 3

Australian Curriculum	Mathletics Activities	Mathletics Workbooks
Number and Algebra		
Number and place value		
ACMNA051 Investigate the conditions required for a number to be odd or even and identify odd and even numbers.	**(NA) Patterns and Algebra** - Odd and even numbers 1	**Series D Reading and Understanding Whole Numbers** - Looking at whole numbers
ACMNA052 Recognise, model, represent and order numbers to at least 10 000.	**(NA) Whole Numbers** - Model numbers - Place the number* - Making big numbers count	**Series D Reading and Understanding Whole Numbers** - Place value of whole numbers
ACMNA053 Apply place value to partition, rearrange and regroup numbers to at least 10 000 to assist calculations and solve problems.	**(NA) Whole Numbers** - Expanded notation	**Series D Reading and Understanding Whole Numbers** - Place value of whole numbers
ACMNA054 Recognise and explain the connection between addition and subtraction.	**(NA) Addition and Subtraction** - Fact families: Add and subtract - Related facts 1	**Series D Addition and Subtraction** - Subtraction mental strategies
ACMNA055 Recall addition facts for single-digit numbers and related subtraction facts to develop increasingly efficient mental strategies for computation.	**(NA) Addition and Subtraction** - Magic mental addition - Magic mental subtraction - Complements to 50 and 100 - Add Two 2-Digit Numbers - Add Three 2-Digit Numbers - Add 3-Digit Numbers - Add 3-Digit Numbers: Regroup - Problems: Add and Subtract	**Series D Addition and Subtraction** - Subtraction mental strategies
ACMNA056 Recall multiplication facts of two, three, five and ten and related division facts.	**(NA) Multiplication** - Related facts 2 - Groups of Two - Groups of Three - Groups of Five - Groups of Ten - Multiplication Arrays **(NA) Division** - Dividing Twos - Dividing Threes - Dividing Fives - Dividing Tens	**Series D Multiplication and Division** - Introducing Multiplication - Multiplication Facts - Division

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Year 3

Australian Curriculum	Mathletics Activities	Mathletics Workbooks
Number and Algebra		
Number and place value		
ACMNA057 Represent and solve problems involving multiplication using efficient mental and written strategies and appropriate digital technologies.	**(NA) Division** - Problems: Times and Divide	**Series D Multiplication and Division** - Mental Multiplication Strategies
Fractions and decimals		
ACMNA058 Model and represent unit fractions including 1/2, 1/4, 1/3, 1/5 and their multiples to a complete whole.	**(NA) Fractions** - Fractions of a Collection - Halves and Quarters - What Fraction is Shaded? - Model Fractions - Place the fractions 1*	**Series D Fractions** - Introducing Fractions
Money and financial mathematics		
ACMNA059 Represent money values in multiple ways and count the change required for simple transactions to the nearest five cents.	**(NA) Money** - Money - How much Change?	**Series D Addition and Subtraction** - Money
Patterns and algebra		
ACMNA060 Describe, continue, and create number patterns resulting from performing addition or subtraction.	**(NA) Patterns and Algebra** - Increasing Patterns - Decreasing Patterns - Find the Missing Number 1	**Series D Patterns and Algebra** - Patterns and Functions
Measurement and Geometry		
Using units of measurement		
ACMMG061 Measure, order and compare objects using familiar metric units of length, mass and capacity.	**(MG) Measurement** - Centimetres and Metres - How many Blocks? - Filling Fast!	**Series D Measurement** - Units of Length - Volume and capacity - Mass
ACMMG062 Tell time to the minute and investigate the relationship between units of time.	**(MG) Time** - What is the Time? - Using Timetables	**Series D Time** - Telling time - Measuring time

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Australian Curriculum	Mathletics Activities	Mathletics Workbooks
Shape		
ACMMG063 Make models of three-dimensional objects and describe key features.	**(MG) Shape and Location** - Prisms and Pyramids - Relate Shapes and Solids	**Series D Space, Shape and Position** - Investigating 3D shapes
Location and transformation		
ACMMG065 Create and interpret simple grid maps to show position and pathways.	**(MG) Shape and Location** - Coordinate Meeting Place - Using a Key - Following Directions	**Series D Space, Shape and Position** - Position
ACMMG066 Identify symmetry in the environment.	**(MG) Shape and Location** - Symmetry or Not?	**Series D Space, Shape and Position** - Investigating 2D shapes
Geometric reasoning		
ACMMG064 Identify angles as measures of turn and compare angle sizes in everyday situations.	**(MG) Shape and Location** - Comparing angles	**Series D Space, Shape and Position** - Lines and Angles
Statistics and Probability		
Chance		
ACMSP067 Conduct chance experiments, identify and describe possible outcomes and recognise variation in results.	**(SP) Chance and Data** - What are the Chances?	**Series D Chance and Data** - Chance
Data representation and interpretation		
ACMSP068 Identify questions or issues for categorical variables. Identify data sources and plan methods of data collection and recording.	**(SP) Chance and Data** - Tallies	**Series D Chance and Data** - Data
ACMSP069 Collect data, organise into categories and create displays using lists, tables, picture graphs and simple column graphs, with and without the use of digital technologies.	**(SP) Chance and Data** - Making Graphs	**Series D Chance and Data** - Data
ACMSP070 Interpret and compare data displays.	**(SP) Chance and Data** - Reading from a Column Graph - Interpreting Tables	**Series D Chance and Data** - Data

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Year 4

Australian Curriculum	Mathletics Activities	Mathletics Workbooks
Number and Algebra		
Number and place value		
ACMNA071 Investigate and use the properties of odd and even numbers.	**(NA) Whole Numbers** - Odd and Even Numbers 1	**Series E Reading and Understanding Whole Numbers** - Looking at whole numbers
ACMNA072 Recognise, represent and order numbers to at least tens of thousands.	**(NA) Whole Numbers** - Which Is Greater? - Which Is Less? - Put in Order 1	**Series E Reading and Understanding Whole Numbers** - Looking at whole numbers
ACMNA073 Apply place value to partition, rearrange and regroup numbers to at least tens of thousands to assist calculations and solve problems.	**(NA) Whole Numbers** - Expanded Notation	**Series E Reading and Understanding Whole Numbers** - Place value of whole numbers
ACMNA074 Investigate number sequences involving multiples of 3, 4, 6, 7, 8, and 9.	**(NA) Multiplication** - Multiples - Multiply Multiples of 10	**Series E Multiplication and Division** - Using known facts
ACMNA075 Recall multiplication facts up to 10 × 10 and related division facts.	**(NA) Multiplication** - Multiplication Facts - Groups of Four - Groups of Eight - Groups of Five - Groups of Ten - Groups of Three - Groups of Six - Groups of Nine - Groups of Seven **(NA) Division** - Dividing Twos - Dividing Fours - Dividing Eights - Dividing Fives - Dividing Tens - Dividing Threes - Dividing Sixes - Dividing Nines - Dividing Sevens - Division Facts **(NA) Multiplication Fact Families** - Multiply and Divide	**Series E Multiplication and Division** - Multiplication facts - Division

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Australian Curriculum	Mathletics Activities	Mathletics Workbooks
ACMNA076 Develop efficient mental and written strategies and use appropriate digital technologies for multiplication and for division where there is no remainder.	**(NA) Multiplication** - Mental Multiplication* **(NA) Division** - Mental Division*	**Series E Multiplication and Division** - Mental multiplication strategies
Fractions and decimals		
ACMNA077 Investigate equivalent fractions used in contexts.	**(NA) Fractions and Decimals** - Shading Equivalent Fractions - Comparing Fractions 1 - What Fraction is Shaded? - Model Fractions	**Series E Fractions** - Types of fractions
ACMNA078 Count by quarters halves and thirds, including with mixed numerals. Locate and represent these fractions on a number line.	**(NA) Fractions and Decimals** - Unit Fractions - Place the fractions 2*	**Series E Fractions** - Working with fractions
ACMNA079 Recognise that the place value system can be extended to tenths and hundredths. Make connections between fractions and decimal notation.	**(NA) Fractions and Decimals** - Decimals from Words to Digits 1 - Decimal Place Value - Nearest Whole Number	**Series E Fractions** - Fractions, decimals and percentages
Money and financial mathematics		
ACMNA080 Solve problems involving purchases and the calculation of change to the nearest five cents with and without digital technologies.	**(NA) Money** - Money - How much Change?	**Series E Addition and Subtraction** - Money
Patterns and algebra		
ACMNA081 Explore and describe number patterns resulting from performing multiplication.	**(NA) Patterns and Algebra** - Number pattern tables*	**Series E Patterns and Algebra** - Patterns and Functions
ACMNA082 Solve word problems by using number sentences involving multiplication or division where there is no remainder.	**(NA) Division** - Problems: Times and Divide	**Series E Multiplication and Division** - Patterns and Functions
ACMNA083 Use equivalent number sentences involving addition and subtraction to find unknown quantities.	**(NA) Patterns and Algebra** - Find the Missing Number 1	**Series E Patterns and Algebra** - Division

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Australian Curriculum	Mathletics Activities	Mathletics Workbooks
Measurement and Geometry		
Using units of measurement		
ACMMG084 Use scaled instruments to measure and compare lengths, masses, capacities and temperatures.	**(MG) Measurement** - Centimetres and Metres - Using scaled instruments*	**Series E Length, Perimeter and Area** - Units of length **Series E Volume, Capacity and Mass** - Volume and capacity - Mass
ACMMG290 Compare objects using familiar metric units of area and volume.	**(MG) Measurement** - Area of Shapes - Converting cm and mm - Equal Areas - How many blocks?	**Series E Length, Perimeter and Area** - Area **Series E Volume, Capacity and Mass** - Volume and capacity
ACMMG085 Convert between units of time.	**(MG) Measurement** - Time facts*	**Series E Time** - Measuring time
ACMMG086 Use am and pm notation and solve simple time problems.	**(MG) Measurement** - What time will it be?	**Series E Time** - Measuring time
Shape		
ACMMG087 Compare the areas of regular and irregular shapes by informal means.	**(MG) Measurement** - Equal Areas	**Series E Length, Perimeter and Area** - Area
ACMMG088 Compare and describe two-dimensional shapes that result from combining and splitting common shapes, with and without the use of digital technologies.	**(MG) 2D Space** - Make composite shapes*	**Series E Space, Shape and Position** - Lines, angles and shapes
Location and transformation		
ACMMG090 Use simple scales, legends and directions to interpret information contained in basic maps.	**(MG) Location** - What Direction was That? - Following Directions - Coordinate Meeting Place - Using a Key	**Series E Space, Shape and Position** - Position
ACMMG091 Create symmetrical patterns, pictures and shapes with and without digital technologies.	**(MG) 2D Space** - Symmetry or not	**Series E Space, Shape and Position** - Lines, angles and shapes

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Australian Curriculum	Mathletics Activities	Mathletics Workbooks
Geometric reasoning		
ACMMG089 Compare angles and classify them as equal to, greater than or less than a right angle.	**(MG) 2D Space** - Comparing Angles - Right Angle Relation	**Series E Space, Shape and Position** - Lines, angles and shapes
Statistics and Probability		
Chance		
ACMSP092 Describe possible everyday events and order their chances of occurring.	**(SP) Chance and Data** - What are the Chances?	**Series E Chance and Data** - Chance
ACMSP093 Identify everyday events where one cannot happen if the other happens.	**(SP) Chance and Data** - That's Impossible!*	**Series E Chance and Data** - Chance
ACMSP094 Identify events where the chance of one will not be affected by the occurrence of the other.	**(SP) Chance and Data** - Could it Happen?*	**Series E Chance and Data** - Chance
Data representation and interpretation		
ACMSP095 Select and trial methods for data collection, including survey questions and recording sheets.	**(SP) Chance and Data** - Tallies - Interpreting Tables	**Series E Chance and Data** - Data
ACMSP096 Construct suitable data displays, with and without the use of digital technologies, from given or collected data. Include tables, column graphs and picture graphs where one picture can represent many data values.	**(SP) Chance and Data** - Reading from a Column Graph - Making Graphs	**Series E Chance and Data** - Data
ACMSP097 Evaluate the effectiveness of different displays in illustrating data features including variability.	**(SP) Chance and Data** - Which graph?*	**Series E Chance and Data** - Data

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Year 5

Australian Curriculum	Mathletics Activities	Mathletics Workbooks
Number and Algebra		
Number and place value		
ACMNA098 Identify and describe factors and multiples of whole numbers and use them to solve problems.	**(NA) Whole Numbers** - Multiples - Divisibility Tests **(NA) Multiplying and Dividing** - Multiply Multiples of 10 - Factors*	**Series F Multiplication and Division** - Mental multiplication strategies
ACMNA099 Use estimation and rounding to check the reasonableness of answers to calculations.	**(NA) Whole Numbers** - Rounding Numbers - Nearest 10? - Nearest 100? - Nearest 1 000? **(NA) Adding and Subtracting** - Estimation: Add and Subtract	**Series F Reading and Understanding Whole Numbers** - Round and estimate
ACMNA100 Solve problems involving multiplication of large numbers by one- or two-digit numbers using efficient mental, written strategies and appropriate digital technologies.	**(NA) Multiplying and Dividing** - Contracted Multiplication - Mental Methods Multiplication 1 - Mental Methods Division 1 - Multiplication Facts	**Series F Multiplication and Division** - Mental multiplication strategies - Written methods
ACMNA101 Solve problems involving division by a one-digit number, including those that result in a remainder.	**(NA) Multiplying and Dividing** - Problems: Times and Divide - Short Division	**Series F Multiplication and Division** - Written methods
ACMNA291 Use efficient mental and written strategies and apply appropriate digital technologies to solve problems.	**(NA) Multiplying and Dividing** - Division Facts - Estimation: Multiply and Divide	**Series F Multiplication and Division** - Mental multiplication strategies - Mental division strategies - Written methods
Fractions and decimals		
ACMNA102 Compare and order common unit fractions and locate and represent them on a number line.	**(NA) Fractions** - Shading Equivalent Fractions - Comparing Fractions 1 - Unit Fractions - Place the fractions 2* **(NA) Decimals** - Decimals on a Number Line	**Series F Fractions, Decimals and Percentages** - Fractions
ACMNA103 Investigate strategies to solve problems involving addition and subtraction of fractions with the same denominator.	**(NA) Fractions** - Add: Common Denominator - Subtract: Common Denominator - One take Fraction	**Series F Fractions, Decimals and Percentages** - Calculating

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Australian Curriculum	Mathletics Activities	Mathletics Workbooks
ACMNA104 Recognise that the number system can be extended beyond hundredths.	**(NA) Decimals** - Divide Decimals: 10, 100, 1 000 - Multiply Decimals: 10, 100, 1 000 - Decimals to Fractions 1 - Fractions to Decimals	**Series F Fractions, Decimals and Percentages** - Fractions, decimals and percentages
ACMNA105 Compare, order and represent decimals.	**(NA) Decimals** - Comparing Decimals - Decimal Order - Nearest Whole Number	**Series F Fractions, Decimals and Percentages** - Fractions, decimals and percentages
Money and financial mathematics		
ACMNA106 Create simple financial plans.	**(NA) Money** - Budgets*	
Patterns and algebra		
ACMNA107 Describe, continue and create patterns with fractions, decimals and whole numbers resulting from addition and subtraction.	**(NA) Patterns and Algebra** - Describing Patterns	**Series F Patterns and Algebra** - Patterns and Functions
ACMNA121 Use equivalent number sentences involving multiplication and division to find unknown quantities.	**(NA) Patterns and Algebra** - Missing Values - Missing Values: Decimals - I am Thinking of a Number!	**Series F Patterns and Algebra** - Equations and Equivalence
Measurement and Geometry		
Using units of measurement		
ACMMG108 Choose appropriate units of measurement for length, area, volume, capacity and mass.	**(MG) Length, Area and Perimeter** - Centimetres and Metres - Metres and Kilometres - Converting cm and mm - Converting Units of Length **(MG) Volume, Capacity and Mass** - Volume: Rectangular Prisms 1 - Litre Conversions - Grams and Kilograms - Converting Units of Mass - How many Blocks?	**Series F Length, Perimeter and Area** - Units of length **Series F Volume, Capacity and Mass** - Volume and capacity - Mass
ACMMG109 Calculate the perimeter and area of rectangles using familiar metric units.	**(MG) Length, Area and Perimeter** - Perimeter of Shapes - Perimeter: Squares and Rectangles - Area of Shapes - Area: Squares and Rectangles	**Series F Length, Perimeter and Area** - Perimeter

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Year 5

Australian Curriculum	Mathletics Activities	Mathletics Workbooks
Measurement and Geometry		
Using units of measurement		
ACMMG110 Compare 12- and 24-hour time systems and convert between them.	**(MG) Time** - 24 Hour Time - Using Timetables - Time Mentals	**Series F Time** - Measuring time
Shape		
ACMMG111 Connect three-dimensional objects with their nets and other two-dimensional representations.	**(MG) Shape and Transformation** - Match the net*	**Series F Geometry** - 3D Shapes
Location and transformation		
ACMMG113 Use a grid reference system to describe locations. Describe routes using landmarks and directional language.	**(MG) Location** - Map Coordinates - Using a Key - Scale - More Directions!	**Series F Position** - Coordinates
ACMMG114 Describe translations, reflections and rotations of two-dimensional shapes. Identify line and rotational symmetries.	**(MG) Shape and Transformation** - Symmetry or Not? - Rotational Symmetry	**Series F Geometry** - Transformation, tessellation and symmetry
ACMMG115 Apply the enlargement transformation to familiar two-dimensional shapes and explore the properties of the resulting image compared with the original.	**(MG) Shape and Transformation** - Transformations	**Series F Geometry** - Transformation, tessellation and symmetry
Geometric reasoning		
ACMMG112 Estimate, measure and compare angles using degrees. Construct angles using a protractor.	**(MG) Angles** - Estimating Angles - Measuring Angles - Classifying Angles - Right Angle Relation	**Series F Geometry** - Lines and angles

*** In Development**

Year 5

Australian Curriculum	Mathletics Activities	Mathletics Workbooks
Statistics and Probability		
Chance		
ACMSP116 List outcomes of chance experiments involving equally likely outcomes and represent probabilities of those outcomes using fractions.	**(SP) Chance and Data** - How many Combinations?	**Series F Chance and Probability** - Chance and probability
ACMSP117 Recognise that probabilities range from 0 to 1.	**(SP) Chance and Data** - Find the Probability	**Series F Chance and Probability** - Chance and probability
Data representation and interpretation		
ACMSP118 Pose questions and collect categorical or numerical data by observation or survey.	**(SP) Chance and Data** - Which question works?*	**Series F Data Representation** - Collecting and analysing data
ACMSP119 Construct displays, including column graphs, dot plots and tables, appropriate for data type, with and without the use of digital technologies.	**(SP) Chance and Data** - Reading from a Column Graph - Divided Bar Graphs	**Series F Data Representation** - Topics 1 to 3
ACMSP120 Describe and interpret different data sets in context.	**(SP) Chance and Data** - Interpreting Tables	**Series F Data Representation** - Collecting and analysing data

* In Development

Year 6

Australian Curriculum	Mathletics Activities	Mathletics Workbooks
Number and Algebra		
Number and place value		
ACMNA122 Identify and describe properties of prime, composite, square and triangular numbers.	**(NA) Whole Numbers** - Prime or Composite? - Square and triangular numbers* - Divisibility Tests	**Series G Multiplication and Division** - Mental division strategies
ACMNA123 Select and apply efficient mental and written strategies and appropriate digital technologies to solve problems involving all four operations with whole numbers.	**(NA) Multiplying and Dividing** - Multiplication Facts - Division Facts - Mental Methods Multiplication 1 - Mental Methods Division 1 **(NA) Adding and Subtracting** - Mental Methods Addition 1* - Mental Methods Subtraction 1*	**Series G Multiplication and Division** **Series G Addition and Subtraction**
ACMNA124 Investigate everyday situations that use positive and negative whole numbers and zero. Locate and represent these numbers on a number line.	**(NA) Whole Numbers** - Negative or Positive? - Ordering integers - Integers: Add and Subtract	**Series G Reading and Understanding Whole Numbers** - Types of numbers
Fractions and decimals		
ACMNA125 Compare fractions with related denominators and locate and represent them on a number line.	**(NA) Fractions** - Equivalent Fractions - Place the fractions 3*	**Series G Fractions, Decimals and Percentages** - Fractions
ACMNA126 Solve problems involving addition and subtraction of fractions with the same or related denominators.	**(NA) Operations with Fractions** - Add: Common Denominator - Subtract: Common Denominator - Fraction Word Problems - More Fraction Problems - One take Fraction	**Series G Fractions, Decimals and Percentages** - Calculating
ACMNA127 Find a simple fraction of a quantity where the result is a whole number, with and without digital technologies.	**(NA) Operations with Fractions** - Unit Fractions - Fraction by Whole Number	**Series G Fractions, Decimals and Percentages** - Fractions of an amount
ACMNA128 Add and subtract decimals, with and without digital technologies, and use estimation and rounding to check the reasonableness of answers.	**(NA) Adding and Subtracting** - Adding Decimals - Subtracting Decimals - Adding and Subtracting Decimals - Decimal Complements **(NA) Decimals and Percentages** - Estimate Decimal Differences 1 - Rounding Decimals	**Series G Fractions, Decimals and Percentages** - Calculating

*** In Development**

Year 6

Australian Curriculum	Mathletics Activities	Mathletics Workbooks
ACMNA129 Multiply decimals by whole numbers and perform divisions that result in terminating decimals, with and without digital technologies .	**(NA) Decimals and Percentages** - Decimal by Whole Number	**Series G Fractions, Decimals and Percentages** - Calculating
ACMNA130 Multiply and divide decimals by powers of 10.	**(NA) Decimals and Percentages** - Multiply Decimals: 10, 100, 1 000 - Divide Decimals: 10, 100, 1 000	**Series G Fractions, Decimals and Percentages** - Calculating
ACMNA131 Make connections between equivalent fractions, decimals and percentages	**(NA) Decimals and Percentages** - Decimal to Percentage - Decimals to Fractions 2	**Series G Fractions, Decimals and Percentages** - Decimal fractions
Money and financial mathematics		
ACMNA132 Investigate and calculate percentage discounts of 10%, 25% and 50% on sale items, with and without digital technologies.	**(NA) Decimals and Percentages** - Percentage of a quantity	**Series G Fractions, Decimals and Percentages** - Fractions of an amount
Patterns and algebra		
ACMNA133 Continue and create sequences involving whole numbers, fractions and decimals. Describe the rule used to create the sequence.	**(NA) Patterns and Algebra** - Describing Patterns - Find the Missing Number 1 - Find the Missing Number 2 - Missing Values: Decimals - Table of Values - I am Thinking of a Number!	**Series G Patterns and Algebra** - Patterns and functions
ACMNA134 Explore the use of brackets and order of operations to write number sentences.	**(NA) Patterns and Algebra** - Order of Operations 1	**Series G Patterns and Algebra** - Properties of arithmetic
Measurement and Geometry		
Using units of measurement		
ACMMG135 Connect decimal representations to the metric system.	**(MG) Length, Area and Perimeter** - Converting Units of Length	**Series G Length, Perimeter and Area** - Units of length
ACMMG136 Convert between common metric units of length, mass and capacity.	**(MG) Length, Area and Perimeter** - Converting Units*	**Series G Length, Perimeter and Area** - Units of length **Series G Volume, Capacity and Mass** - Volume and capacity

* In Development

Year 6

Australian Curriculum	Mathletics Activities	Mathletics Workbooks
Measurement and Geometry		
Using units of measurement		
ACMMG137 Solve problems involving the comparison of lengths and areas using appropriate units.	**(MG) Volume, Capacity and Mass** - Capacity Addition	**Series G Length, Perimeter and Area** - Units of length Topic 3 - Area
ACMMG138 Connect volume and capacity and their units of measurement.	**(MG) Volume, Capacity and Mass** - Volume and capacity*	**Series G Volume, Capacity and Mass** - Volume and capacity
ACMMG139 Interpret and use timetables.	**(MG) Time and Location** - Using Timetables	**Series G Time** - Telling time
Shape		
ACMMG140 Construct simple prisms and pyramids.	**(MG) 3D Space** - Prisms and pyramids	**Series G Geometry** - 3D shapes
Location and transformation		
ACMMG142 Investigate combinations of translations, reflections and rotations, with and without the use of digital technologies.	**(MG) Transformations** - Transformations - Transformations: Coordinate plane	**Series G Geometry** - Transformation, tessellation and symmetry
ACMMG143 Introduce the Cartesian coordinate system using all four quadrants.	**(MG) Transformations** - Graphing from a Table of Values - Ordered Pairs	**Series H** - The Number Plane
Geometric reasoning		
ACMMG141 Investigate, with and without digital technologies, angles on a straight line, angles at a point and vertically opposite angles. Use results to find unknown angles.	**(MG) Lines and Angles** - Estimating Angles - Measuring Angles - Right Angle Relation - Classifying Angles	**Series G Geometry** - Lines and angles
Statistics and Probability		
Chance		
ACMSP144 Describe probabilities using fractions, decimals and percentages.	**(SP) Chance and Data** - Probability Scale - Complementary events	**Series G Chance and Probability** - Chance and probability

*** In Development**

Year 6

Australian Curriculum	Mathletics Activities	Mathletics Workbooks
ACMSP145 Conduct chance experiments with both small and large numbers of trials using appropriate digital technologies.	**(SP) Chance and Data** - Dice and coins	**Series G Chance and Probability** - Chance and probability
ACMSP146 Compare observed frequencies across experiments with expected frequencies.	**(SP) Chance and Data** - Take a chance*	**Series G Chance and Probability** - Chance and probability
Data representation and interpretation		
ACMSP147 Interpret and compare a range of data displays, including side-by-side column graphs for two categorical variables.	**(SP) Chance and Data** - Dot plots - Reading from a Column Graph - Divided Bar Graphs - Line Graphs: Interpretation - Interpreting Tables	**Series G Chance and Probability** - Chance and probability **Series G Data Representation** - Types of graphs 3
ACMSP148 Interpret secondary data presented in digital media and elsewhere.	**(SP) Chance and Data** - Data all around*	**Series G Data Representation** - Collecting and analysing data - Data investigations

*** In Development**

Year 7

Australian Curriculum	Mathletics Activities	Mathletics Workbooks
Number and Algebra		
Number and place value		
ACMNA149 Investigate index notation and represent whole numbers as products of powers of prime numbers.	**Number** - Index Notation - Prime or Composite - Product of Prime Factors	**Series H** - Whole Numbers
ACMNA150 Investigate and use square roots of perfect square numbers.	**Number** - Square Roots - Roots of Fractions* - Estimating Square Roots	**Series H** - Whole Numbers
ACMNA151 Apply the associative, commutative and distributive laws to aid mental and written computation.	**In development**	**Series H** - Whole Numbers
ACMNA280 Compare, order, add and subtract integers.	**Number** - Ordering Integers - Directed Numbers - Add Integers - Negative or Positive? - Subtract Integers - Integers: Add and Subtract	**Series H** - Whole Numbers - Decimals
Real numbers		
ACMNA152 Compare fractions using equivalence. Locate and represent fractions and mixed numerals on a number line.	**Fractions** - Equivalent Fractions - Simplifying Fractions - Mixed to Improper - Improper to Mixed	**Series H** - Fractions
ACMNA153 Solve problems involving addition and subtraction of fractions, including those with unrelated denominators.	**Fractions** - Add: Common Denominator - Add: No Common Denominator - Subtract: Common Denominator - Subtract: No Common Denominator	**Series H** - Fractions
ACMNA154 Multiply and divide fractions and decimals using efficient written strategies and digital technologies.	**Fractions** - Decimal by Whole Number - Decimal by Decimal - Divide Decimal by Decimal - Fraction by Whole Number - Purpose: Multiply Fractions by Whole Number	**Series H** - Fractions - Decimals*

*** In Development**

Year 7

Australian Curriculum	Mathletics Activities	Mathletics Workbooks
ACMNA155 Express one quantity as a fraction of another, with and without the use of digital technologies.	**Fractions** - Fraction of an Amount	**Series H** - Fractions
ACMNA156 Round decimals to a specified number of decimal places.	**Percents and Decimals** - Rounding Decimals 1 - Rounding Decimals 2	**Series H** - Decimals*
ACMNA157 Connect fractions, decimals and percentages and carry out simple conversions.	**Percents and Decimals** - Decimal to Percentage - Decimals to Fractions 1 - Decimals to Fractions 2 - Recurring Decimals - Fraction to Terminating Decimal - Fractions to Decimals - Percentage to Fraction	**Series H** - Decimals* - Percentage Basics*
ACMNA158 Find percentages of quantities and express one quantity as a percentage of another, with and without digital technologies.	**Percents and Decimals** - Percentage of a Quantity - Calculating Percentages - Percentages Greater than Whole* - Solve Percent Equations - Percentage Word Problems	**Series H** - Percentage Basics*
ACMNA173 Recognise and solve problems involving simple ratios.	**Number** - Ratios - Solving Proportion	**Series I** - Rates and Ratios*
Money and financial mathematics		
ACMNA174 Investigate and calculate 'best buys', with and without digital technologies.	**Number** - Best Buys	**Series I** - Rates and Ratios*
Patterns and algebra		
ACMNA175 Introduce the concept of variables as a way of representing numbers using letters.	**Algebra** - Writing Algebraic Expressions	**Series H** - Algebra Basics
ACMNA176 Create algebraic expressions and evaluate them by substituting a given value for each variable.	**Algebra** - Simple Substitution 1 - Simple Substitution 2 - Simple Substitution 3 - Complex Substitution	**Series H** - Algebra Basics
ACMNA177 Extend and apply the laws and properties of arithmetic to algebraic terms and expressions.	**In development**	**Series H** - Algebra Basics

*** In Development**

Year 7

Australian Curriculum	Mathletics Activities	Mathletics Workbooks
Number and Algebra		
Linear and non-linear relationships		
ACMNA178 Given coordinates, plot points on the Cartesian plane, and find coordinates for a given point.	**Algebra** - Ordered Pairs - 3M - Number Plane	**Series H** - The Number Plane
ACMNA179 Solve simple linear equations.	**Algebra** - Solve Equations: Add, Subtract 1 - Solve Equations: Add, Subtract 2 - Solve Equations: Multiply, Divide 1 - Solve Equations: Multiply, Divide 2	**Series H** - Algebra Basics **Series I** - Equations
ACMNA180 Investigate, interpret and analyse graphs from authentic data.	**In development**	**Series H** - Tables and Graphs*
Measurement and Geometry		
Using units of measurement		
ACMMG159 Establish the formulas for areas of rectangles, triangles and parallelograms and use these in problem solving.	**Measurement** - Area: Squares and Rectangles - Area: Right Angled Triangles - Area: Triangles - Area: Quadrilaterals	**Series H** - Perimeter and Area* **Series J** - Perimeter and Area
ACMMG160 Calculate volumes of rectangular prisms.	**Measurement** - Volume: Rectangular Prisms 1 - Volume: Rectangular Prisms 2	**Series H** - Volume and Capacity of Prisms* **Series J** - Measuring Right Prisms
Shape		
ACMMG161 Draw different views of prisms and solids formed from combinations of prisms.	**Measurement** - Different Views*	**Series H** - Volume and Capacity of Prisms* **Series J** - Measuring Right Prisms

*** In Development**

Year 7

Australian Curriculum	Mathletics Activities	Mathletics Workbooks
Location and transformation		
ACMMG181 Describe translations, reflections in an axis, and rotations of multiples of 90° on the Cartesian plane using coordinates. Identify line and rotational symmetries.	**Geometry** - Flip, Slide, Turn - Transformations - Rotational Symmetry - Transformations: Coordinate Plane - Rotations: Coordinate Plane - Transformations: Coordinate Plane	**Series H** - Plane Shapes*
Geometric reasoning		
ACMMG163 Identify corresponding, alternate and co-interior angles when two parallel straight lines are crossed by a transversal.	**Geometry** - Parallel Lines	**Series H** - Angles
ACMMG164 Investigate conditions for two lines to be parallel and solve simple numerical problems using reasoning.	**Geometry** - Equal, Complement, Supplement - Angles and Parallel Lines	**Series H** - Angles
ACMMG165 Classify triangles according to their side and angle properties and describe quadrilaterals.	**Geometry** - Triangles: Acute, Right, Obtuse - Triangle Tasters	**Series H** - Plane Shapes*
ACMMG166 Demonstrate that the angle sum of a triangle is 180° and use this to find the angle sum of a quadrilateral.	**Geometry** - Angle Sum of a Triangle - Angle Sum of a Quadrilateral	**Series H** - Angles in Plane Shapes* **Series J** - Angles and Polygons
Statistics and Probability		
Chance		
ACMSP167 Construct sample spaces for single-step experiments with equally likely outcomes.	**Probability** - Possible Outcomes	**Series H** - Chance*
ACMSP168 Assign probabilities to the outcomes of events and determine probabilities for events.	**Probability** - Probability Scale - Find the Probability - Simple Probability	**Series H** - Chance*

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Year 7

Australian Curriculum	Mathletics Activities	Mathletics Workbooks
Statistics and Probability		
Data representation and interpretation		
ACMSP169 Identify and investigate issues involving continuous or large count data collected from primary and secondary sources.	**Statistics***	**Series I** - Collecting and Analysing Data*
ACMSP170 Construct and compare a range of data displays including stem-and-leaf plots and dot plots.	**Statistics** - Stem and Leaf Introduction - Dot Plots	**Series I** - Collecting and Analysing Data* - Statistical Graphs*
ACMSP171 Calculate mean, median, mode and range for sets of data. Interpret these statistics in the context of data.	**Statistics** - Mode - Mean - Median	**Series I** - Collecting and Analysing Data* **Series J** - Data
ACMSP172 Describe and interpret data displays and the relationship between the median and mean.	**Statistics** - Mode from Frequency Table - Mode from Stem and Leaf Plot - Mean from Frequency Table - Median from Frequency - Median from Stem and Leaf Plot	**Series I** - Collecting and Analysing Data* - Statistical Graphs* **Series J** - Data

*** In Development**

Year 8

Australian Curriculum	Mathletics Activities	Mathletics Workbooks
Number and Algebra		
Number and place value		
ACMSP182 Use index notation with numbers to establish the index laws with positive integral indices and the zero index.	**Integers** - Index Notation - Negative Indices - Multiplication with Indices - The Zero Index	**Series H** - Whole Numbers - Converting Units* **Series I** - Simplifying Algebra **Series J** - Indices
ACMNA183 Carry out the four operations with integers, using efficient mental and written strategies and appropriate digital technologies.	**Integers** - Integers: Add and Subtract - Integers: Multiply and Divide - Problems: Add and Subtract - Problems: Times and Divide	**Series H** - Directed Number
Real numbers		
ACMNA184 Investigate terminating and recurring decimals.	**Real Numbers** - Recurring Decimals - Decimals to Fractions 1 - Decimals to Fractions 2 - Fractions to Decimals	**Series H** - Decimals* - Percentages **Series J** - Decimals*
ACMNA186 Investigate the concept of irrational numbers, including π.	**Real Numbers** - Irrational Numbers*	**Series H** - Directed Number
ACMNA187 Solve problems involving the use of percentages, including percentage increases and decreases, with and without digital technologies.	**Real Numbers** - Percentage of a Quantity - Calculating Percentages - Percentages Greater than Whole - Percentage Word Problems - Percent Increase and Decrease	**Series H** - Percentage Basics **Series I** - Percentage Calculations*
ACMNA188 Solve a range of problems involving rates and ratios, with and without digital technologies.	**Rates and Ratios** - Rates - Rate Word Problems - Ratios - Equivalent Ratios - Dividing a Quantity in a Ratio - Ratio Word Problems	**Series I** - Rates and Ratio*
Money and financial mathematics		
ACMNA189 Solve problems involving profit and loss, with and without digital technologies.	**Real Numbers** - Profit and Loss	**Series I** - Percentage Calculations*

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Year 8

Australian Curriculum	Mathletics Activities	Mathletics Workbooks
Number and Algebra		
Patterns and algebra		
ACMNA190 Extend and apply the distributive law to the expansion of algebraic expressions.	**Patterns and Algebra** - Using the Distributive Law - Expanding with Negatives - Expand then Simplify	**Series I** - Simplifying Algebra - Expanding and Factorising **Series J** - Simplifying Algebra
ACMNA191 Factorise algebraic expressions by identifying numerical factors.	**Patterns and Algebra** - Factorising Expressions	**Series I** - Expanding and Factorising **Series J** - Simplifying Algebra
ACMNA192 Simplify algebraic expressions involving the four operations.	**Patterns and Algebra** - Recognising Like Terms - Like Terms: Add and Subtract - Algebraic Multiplication - Dividing Expressions - Algebraic Fractions 1	**Series I** - Simplifying Algebra **Series J** - Simplifying Algebra
Linear and non-linear relationships		
ACMNA193 Plot linear relationships on the Cartesian plane with and without the use of digital technologies.	**Relationships** - Ordered Pairs - Patterns rules and Tables - Find the Pattern rule - Graphing from a Table of Values - Reading Values from a Line	**Series H** - The Number Plane **Series I** - Straight Lines - Linear Relationships **Series J** - Linear Relationships
ACMNA194 Solve linear equations using algebraic and graphical techniques. Verify solutions by substitution.	**Relationships** - Solve Equations: Add, Subtract 1 - Solve Equations: Add, Subtract 2 - Solve Equations: Multiply, Divide 1 - Solve Equations: Multiply, Divide 2 - Solving Simple Equations - Solving More Equations - Checking Solutions	**Series I** - Equations **Series J** - Equations and Inequalities

*** In Development**

Year 8

Australian Curriculum	Mathletics Activities	Mathletics Workbooks
Measurement and Geometry		
Using units of measurement		
ACMMG195 Choose appropriate units of measurement for area and volume and convert from one unit to another.	**Measurement** - Area: Right Angle Triangles - Area: Triangles - Area: Circles - Area: Quadrilaterals	**Series H** - Converting Units* - Perimeter and Area* - Volume and Capacity of Prisms* **Series I** - Surface Area and Volume* **Series J** - Perimeter and Area
ACMMG196 Find perimeters and areas of parallelograms, rhombuses and kites.	**Measurement** - Area: Quadrilaterals - Plane Figure Terms - Perimeter: Composite Shapes	**Series H** - Perimeter and Area* **Series I** - Surface Area and Volume* **Series J** - Perimeter and Area
ACMMG197 Investigate the relationship between features of circles such as circumference, area, radius and diameter. Use formulas to solve problems involving circumference and area.	**Geometry** - Circle Terms - Circumference: Circles - Area: Circles	**Series I** - Circles and Cylinders* **Series J** - Perimeter and Area
ACMMG198 Develop the formulas for volumes of rectangular and triangular prisms and prisms in general. Use formulas to solve problems involving volume.	**Measurement** - Volume: Rectangular Prisms 1 - Volume: Triangular Prisms - Volume: Prisms	**Series H** - Volume and Capacity of Prisms* **Series J** - Measuring Solids
ACMMG199 Solve problems involving duration, including using 12- and 24-hour time within a single time zone.	**Measurement** - 24 Hour Time - Elapsed Time - Time Mentals	**Series H** - Time Calculations*
Geometric reasoning		
ACMMG200 Define congruence of plane shapes using transformations.	**Geometry** - Flip, Slide, Turn - Transformations	**Series H** - Plane Shapes* **Series I** - Congruence and Similarity* **Series J** - Similarity and Congruence
ACMMG201 Develop the conditions for congruence of triangles.	**Geometry** - Congruent Triangles	**Series I** - Congruence and Similarity* **Series J** - Similarity and Congruence

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Year 8

Australian Curriculum	Mathletics Activities	Mathletics Workbooks
Measurement and Geometry		
Using units of measurement		
ACMMG202 Establish properties of quadrilaterals using congruent triangles and angle properties, and solve related numerical problems using reasoning.	**Geometry** - Congruent Figures - Congruent Figures: Find Values - Plane Figure Theorems	**Series H** - Plane Shapes*
Statistics and Probability		
Chance		
ACMSP204 Identify complementary events and use the sum of probabilities to solve problems.	**Probability** - Complementary Events - Probability Scale - Find the Probability	**Series H** - Chance* **Series I** - Probability* **Series J** - Probability
ACMSP205 Describe events using language of 'at least', exclusive 'or' (A or B but not both), inclusive 'or' (A or B or both) and 'and'.	**Probability** - Probability Tables - `Or' in Probability*	**Series I** - Probability* **Series J** - Probability
ACMSP292 Represent such events in two-way tables and Venn diagrams and solve related problems.	**Probability** - Two-way Table Probability - Venn diagrams	**Series I** - Probability* **Series J** - Probability
Data representation and interpretation		
ACMSP206 Explore the practicalities and implications of obtaining representative data using a variety of investigative processes.	**Statistics***	**Series I** - Collecting and Analysing Data* **Series J** - Data
ACMSP207 Investigate the effect of individual data values , including outliers, on the mean and median.	**Statistics** - Mean - Mean from Frequency Table - Median - Median from Frequency Table	**Series I** - Collecting and Analysing Data* - Statistical Graphs* **Series J** - Data
ACMSP293 Explore the variation of means and proportions in representative data.	**Statistics***	**Series I** - Collecting and Analysing Data* **Series J** - Data

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Year 9

Australian Curriculum	Mathletics Activities	Mathletics Workbooks
Number and Algebra		
Real numbers		
ACMNA208 Solve problems involving direct proportion. Explore the relationship between graphs and equations corresponding to simple rate problems.	**Number** - Solve Proportions - Direct Proportion - Rates - Rate Word Problems - Rates Word Problems	**Series I** - Rates and Ratio*
ACMNA209 Apply index laws to numerical expressions with integer indices.	**Number** - Index Notation - Prime or Composite? - Prime Factorization: Exponents - Negative Integers - The Zero Index	**Series H** - Whole Numbers **Series J** - Indices
ACMNA210 Express numbers in scientific notation.	**Number** - Scientific Notation 1 - Scientific Notation 2 - Scientific Notation to Decimal* - Ordering Scientific Notation*	**Series** - Indices
Money and financial mathematics		
ACMNA211 Solve problems involving simple interest.	**Number** - Simple Interest	**Series K** - Interest
Patterns and algebra		
ACMNA212 Extend and apply the index laws to variables, using positive integral indices and the zero index.	**Algebra** - Index Notation and Algebra - Zero Index and Algebra	**Series H** - Algebra Basics **Series I** - Simplifying Algebra **Series J** - Simplifying Algebra - Indices
ACMNA213 Apply the distributive law to the expansion of algebraic expressions, including binomials, and collect like terms where appropriate.	**Algebra** - Index Laws and Algebra - Index Laws with Brackets - Expanding Brackets - Expanding with Negatives - Expand then Simplify - Recognising Like Terms - Like Terms: Add and Subtract - Algebraic Multiplication	**Series I** - Simplifying Algebra - Expanding and Factorising **Series J** - Simplifying Algebra

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Year 9

Australian Curriculum	Mathletics Activities	Mathletics Workbooks
Number and Algebra		
Patterns and algebra		
ACMNA213 Apply the distributive law to the expansion of algebraic expressions, including binomials, and collect like terms where appropriate.	**Algebra** - Dividing Expressions - Expanding Binomial Products - Special Binomial Products	**Series I** - Simplifying Algebra - Expanding and Factorising **Series J** - Simplifying Algebra
Linear and non-linear relationships		
ACMNA214 Find the distance between two points located on a Cartesian plane using a range of strategies, including graphing software.	**Graphing Relationships** - Distance Between Two Points	**Series J** - Coordinate Geometry - Linear Relationships
ACMNA215 Sketch linear graphs using the coordinates of two points.	**Graphing Relationships** - Equation of a Line 1 - Which straight Line? - Determining a Rule for a Line - Horizontal and Vertical Lines - Graphing from a Table of Values - Equation from Two Points	**Series I** - Straight Lines - Linear Relationships **Series J** - Linear Relationships **Series K** - Straight Lines
ACMNA294 Find the midpoint and gradient of a line segment (interval) on the Cartesian plane using a range of strategies, including graphing software.	**Graphing Relationships** - Midpoint by Formula - Gradient - y = ax	**Series I** - Straight Lines - Linear Relationships **Series J** - Coordinate Geometry - Linear Relationships
ACMNA296 Sketch simple non-linear relations with and without the use of digital technologies.	**Graphing Relationships** - Graphing Parabolas - Graphing Circles - Graphing Hyperbolas - Graphing Exponentials	**Series K** - Simple Nonlinear Graphs
Measurement and Geometry		
Using units of measurement		
ACMMG216 Calculate the areas of composite shapes.	**Measurement** - Area: Composite Shapes - Area: Quadrilaterals - Area: Annulus	**Series I** - Surface area and Volume **Series J** - Perimeter and Area

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Year 9

Australian Curriculum	Mathletics Activities	Mathletics Workbooks
ACMMG216 Calculate the areas of composite shapes.	**Measurement** - Area: Squares and Rectangles - Area: Triangle - Circumference: Circles	**Series I** - Surface area and Volume **Series J** - Perimeter and Area
ACMMG217 Calculate the surface area and volume of cylinders and solve related problems.	**Measurement** - Surface Area: Rectangular Prisms - Surface Area: Cylinders - Volume: Cylinders	**Series I** - Circles and Cylinders **Series J** - Measuring Solids - Perimeter and Area
ACMMG218 Solve problems involving the surface area and volume of right prisms.	**Geometry** - Volume: Rectangular Prisms 2 - Volume: Triangular Prisms	**Series I** - Surface Area and Volume **Series J** - Measuring Solids - Perimeter and Area
ACMMG219 Investigate very small and very large time scales and intervals.	**Measurement***	**In Development**
Geometric reasoning		
ACMMG220 Use the enlargement transformation to explain similarity and develop the conditions for triangles to be similar.	**Geometry** - Scale Factor - Transformations - Using Similar Triangles - Similar Figures - Similarity Proofs	**Series I** - Congruence and Similarity* **Series J** - Similarity and Congruence
ACMMG221 Solve problems using ratio and scale factors in similar figures.	**Geometry** - Converting Units of Area - Converting Volume	**Series I** - Congruence and Similarity* **Series J** - Similarity and Congruence
Pythagoras' theorem and trigonometry		
ACMMG222 Investigate Pythagoras' Theorem and its application to solving simple problems involving right-angled triangles.	**Measurement** - Hypotenuse, Adjacent, Opposite - Pythagoras' Theorem - Pythagoras in 3D* - Pythagorean Triads	**Series I** - Pythagoras' Theorem
ACMMG223 Use similarity to investigate the constancy of the sine, cosine and tangent ratios for a given angle in right-angled triangles.	**Measurement** - Sin A - Cos A - Tan A	**Series J** - Trigonometry

*** In Development**

Year 9

Australian Curriculum	Mathletics Activities	Mathletics Workbooks
Measurement and Geometry		
Pythagoras' theorem and trigonometry		
ACMMG224 Apply trigonometry to solve right-angled triangle problems.	**Measurement** - Find Unknown Sides - Find Unknown Angles - Elevation and Depression	**Series I** - Pythagoras' Theorem **Series J** - Trigonometry
Statistics and Probability		
Chance		
ACMSP225 List all outcomes for two-step chance experiments, both with and without replacement using tree diagrams or arrays. Assign probabilities to outcomes and determine probabilities for events.	**Probability** - Possible Outcomes - Simple Probability - What are the Chances? - Probability Scale - Probability With Replacement - Probability Without Replacement - Tree Diagram	**Series J** - Probability
ACMSP226 Calculate relative frequencies from given or collected data to estimate probabilities of events involving 'and' or 'or'.	**Data** - Relative Frequency	**Series J** - Data
ACMSP227 Investigate reports of surveys in digital media and elsewhere for information on how data were obtained to estimate population means and medians.	**Probability ***	**In development**
Data representation and interpretation		
ACMSP228 Identify everyday questions and issues involving at least one numerical and at least one categorical variable, and collect data directly from secondary sources.	**Statistics***	**Series I** - Statistical Graphs*

*** In Development**

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Australian Curriculum	Mathletics Activities	Mathletics Workbooks
ACMSP282 Construct back-to-back stem-and-leaf plots and histograms and describe data, using terms including 'skewed', 'symmetric' and 'bi modal'.	**Statistics** - Stem and Leaf Introduction - Double Stem and Leaf Plots - Cumulative Frequency Histogram - Cumulative Frequency Table - Frequency Histograms - Histograms for Grouped Data* - Histogram or Polygon?	**Series I** - Statistical Graphs* **Series J** - Data
ACMSP283 Compare data displays using mean, median and range to describe and interpret numerical data sets in terms of location (centre) and spread.	**Statistics** - Mean - Mean from Frequency Table - Mean from Stem and Leaf Plot - Median - Median from Frequency Table - Median from Stem and Leaf Plot - Range* - Mode - Mode from Frequency Table - Mode from Stem and Leaf Plot	**Series I** - Collecting and Analysing Data* **Series J** - Data **Series K** - Interpreting Data
ACMSP284 Investigate techniques for collecting data, including census, sampling and observation.	**Statistics***	**Series I** - Collecting and Analysing Data*

*** In Development**

Year 10

Australian Curriculum	Mathletics Activities	Mathletics Workbooks
Number and Algebra		
Money and financial mathematics		
ACMNA229 Connect the compound interest formula to repeated applications of simple interest using appropriate digital technologies.	**Number** - Compound Interest - Compound Interest by Formula - Simple Interest - Effective Interest Rate	**Series K** - Interest
Patterns and algebra		
ACMNA230 Factorise algebraic expressions by taking out a common algebraic factor.	**Algebra** - Highest Common Algebraic Factor - Factorising a Single Term* - Factorising with Negatives - Factorising with Indices	**Series I** - Expanding and Factorising **Series K** - Factorising
ACMNA231 Simplify algebraic products and quotients using index laws.	**Index Laws** - Simplifying Expressions - Dividing Expressions - Algebraic Fractions 1 - Algebraic Fractions 2	**Series I** - Simplifying Algebra **Series J** - Simplifying Algebra
ACMNA232 Apply the four operations to simple algebraic fractions with numerical denominators.	**Algebra** - Algebraic Fractions 1 - Algebraic Fractions 2 - Algebraic Fractions 3 - Dividing Expressions	**Series I** - Simplifying Algebra **Series J** - Simplifying Algebra - Indices
ACMNA233 Expand binomial products and factorise monic quadratic expressions using a variety of strategies.	**Algebra** - Expand then Simplify - Expanding Binomial Products - Special Binomial Products - Factorising Quadratics 1	**Series I** - Expanding and Factorising **Series J** - Simplifying Algebra **Series K** - Factorising - Quadratic Equations
ACMNA234 Substitute values into formulas to determine an unknown.	- Simple Substitution 1 - Simple Substitution 2 - Complex Substitution	**Series I** - Equations **Series J** - Simplifying Algebra

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Year 10

Australian Curriculum	Mathletics Activities	Mathletics Workbooks
Linear and non-linear relationships		
ACMNA235 Solve problems involving linear equations, including those derived from formulas.	**Equations** - Solve Equations: Add, Subtract 1 - Solve Equations: Add, Subtract 2 - Solve Equations: Multiply, Divide 1 - Solve Equations: Multiply, Divide 2 - Solving Simple Equations - Solving More Equations	**Series I** - Equations **Series J** - Equations and Inequalities
ACMNA236 Solve linear inequalities and graph their solutions on a number line.	**Linear Inequalities** - Solve One-step Inequalities 1 - Solve One-step Inequalities 2 - Solving Inequalities 1 - Solving Inequalities 2 - Solving Inequalities 3 - Graphing Inequalities 1 - Graphing Inequalities 2	**Series I** - Inequalities **Series J** - Equations and Inequalities
ACMNA237 Solve linear simultaneous equations, using algebraic and graphical techniques including using digital technology.	**Graphing Relationships** - Solve Systems by Graphing - Simultaneous Equations - Simultaneous Equations 1 - Simultaneous Equations 2 - Intersecting Lines*	**Series I** - Linear Relationship **Series J** - Coordinate Geometry - Linear Relationships **Series K** - Straight Lines
ACMNA238 Solve problems involving parallel and perpendicular lines.	**Relationships** - Relationships - Are They Parallel? - Are They Perpendicular? - Gradient - y = ax - Finding Parallel and Perpendicular Lines*	**Series J** - Coordinate Geometry - Linear Relationships **Series K** - Straight Lines
ACMNA239 Explore the connection between algebraic and graphical representations of relations such as simple quadratics, circles and exponentials using digital technology as appropriate.	**Relationships** - Graphing Parabolas - Graphing Circles - Graphing Exponentials - Centre and Radius 1 - Centre and Radius 2	**Series K** - Simple Nonlinear Graphs - Parabolas - Exponential and Power Graphs - Graphing Circles

*** In Development**

Year 10

Australian Curriculum	Mathletics Activities	Mathletics Workbooks
Number and Algebra		
Linear and non-linear relationships		
ACMNA240 Solve linear equations involving simple algebraic fractions.	**Equations** - Equations with Fractions - Equations with Fractions 2	**Series I** - Equations **Series J** - Simplifying Algebra - Equations and Inequalities
ACMNA241 Solve simple quadratic equations using a range of strategies.	**Equations** - Quadratic Equations 1	**Series K** - Quadratic Equations
Measurement and Geometry		
Using units of measurement		
ACMMG242 Solve problems involving surface area and volume for a range of prisms, cylinders and composite solids.	**Measurement** - Volume: Rectangular Prisms 1 - Volume: Rectangular Prisms 2 - Volume: Triangular Prisms - Volume: Cones - Volume: Cylinders - Volume: Prisms - Volume: Pyramids - Volume: Spheres - Volume: Composite Figures - Volume: Rearrange Formula - Surface Area: Cones - Frustrum of a Cone* - Surface Area: Rectangular Prisms - Surface Area: Cylinders - Surface Area: Spheres - Surface Area: Square Pyramids - Surface Area: Rectangular Pyramids - Surface Area: Triangular Prisms - Surface Area: Rearrange Formula	**Series I** - Surface Area and Volume **Series J** - Measuring Solids

*** In Development**

Year 10

Australian Curriculum	Mathletics Activities	Mathletics Workbooks
Geometric reasoning		
ACMMG243 Formulate proofs involving congruent triangles and angle properties.	**Geometry** - Equal, Complement, Supplement - Angle Sum of a Triangle - Angle Sum of Quadrilaterals - Angles in a Revolution - Parallel Lines - Angles and Parallel Lines - Exterior Angle of a Triangle - Interior and Exterior Angles	**Series H** - Angles **Series J** - Angles and Polygons
ACMMG244 Apply logical reasoning, including the use of congruence and similarity, to proofs and numerical exercises involving plane shapes.	**Geometry** - Congruent Figures - Congruent Triangles - Similar Figures - Using Similar Triangles - Similarity Proofs - Similar Areas and Volumes	**Series I** - Congruence and Similarity* **Series J** - Similarity and Congruence
Pythagoras' theorem and trigonometry		
ACMMG245 Solve right-angled triangle problems including those involving direction and angles of elevation and depression.	**Triangles** - Find Unknown Angles - Find Unknown Sides - Finding Angles from Ratios* - Elevation and Depression	**Series I** - Pythagoras' Theorem **Series J** - Trigonometry
Statistics and Probability		
Chance		
ACMSP246 Describe the results of two- and three-step chance experiments, both with and without replacements, assign probabilities to outcomes and determine probabilities of events. Investigate the concept of independence.	**Probability** - Tree Diagram - Counting Principle - Find the Probability - Probability Tables - Two-way Table Probability - Probability With Replacement - Probability Without Replacement - Dice and Coins - Probability - Complementary Events - `Or' in Probability* - Conditional Probability*	**Series J** - Probability

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Year 10

Australian Curriculum	Mathletics Activities	Mathletics Workbooks
ACMSP247 Use the language of 'if ....then, 'given', 'of', 'knowing that' to investigate conditional statements and identify common mistakes in interpreting such language.	**Probability***	**Series J** - Probability
Data representation and interpretation		
ACMSP248 Determine quartiles and interquartile range.	**Statistics** - Data Terms - Calculating Interquartile Range	**Series J** - Data **Series K** - Interpreting Data
Statistics and Probability		
Data representation and interpretation		
ACMSP249 Construct and interpret box plots and use them to compare data sets.	**Statistics** - Box-and-Whisker Plots 1 - Box-and-Whisker Plots 2	**Series J** - Data **Series K** - Interpreting Data
ACMSP250 Compare shapes of box plots to corresponding histograms and dot plots.	**Statistics** - Cumulative Frequency Histogram - Frequency Histograms - Histogram or Polygon? - Dot Plots - Histograms for Grouped Data*	**Series J** - Data **Series K** - Interpreting Data
ACMSP251 Use scatter plots to investigate and comment on relationships between two continuous variables.	**Statistics** - Scatter Plots - Scatter Plots*	**In development**
ACMSP252 Investigate and describe bivariate numerical data where the independent variable is time.	**Statistics***	**In development**
ACMSP253 Evaluate statistical reports in the media and other places by linking claims to displays, statistics and representative data.	**Statistics***	**In development**

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Australian Curriculum	Mathletics Activities	Mathletics Workbooks
Number and Algebra		
Real numbers		
ACMNA264 Define rational and irrational numbers and perform operations with surds and fractional indices.	**Number** - In Development: Irrational Numbers - Surd Form to Index Form - Simplifying Surds - Multiplying Surds - Dividing Surds - Adding and Subtracting Surds - Expanding Surd Expressions - Expanding Binomial Surds - Rationalising the Denominator - Rationalising and Binomials - Surd Form to Index Form - Fractional Indices - Simplifying with Index Laws 1 - Simplifying with Index Laws 2	**Series H** - Directed Numbers **Series K** - Surds and Indices
ACMNA265 Use the definition of a logarithm to establish and apply the laws of logarithms.	**Algebra** - Log Laws - Exponential Equations - Change of Base - Equations with Logs	**Series K** - Logarithms
Patterns and algebra		
ACMNA266 Investigate the concept of a polynomial and apply the factor and remainder theorems to solve problems.	**Algebra** - Cubic Division* - Factorising Cubics* - Quartic Functions*	**Series K** - Polynomials
Linear and non-linear relationships		
ACMNA267 Describe, interpret and sketch parabolas, hyperbolas, circles and exponential functions and their transformations.	**Graphing Relationships** - Graphing Parabolas - Vertex of a Parabola - Parabolas and Marbles - Parabolas and Rectangles - Identifying Graphs - Non Linear Graphs - Graphing Hyperbolas - Graphing Circles - Centre and Radius 1 - Centre and Radius 2 - Exponential or Log Graph?	**Series K** - Parabolas - Quadratic Equations - Simple Non Linear Graphs - Graphing Circles - Exponential and Power Graphs - Sketching Polynomials

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Year 10A

Australian Curriculum	Mathletics Activities	Mathletics Workbooks
Number and Algebra		
Patterns and algebra		
ACMNA267 (continued)	**Graphing Exponentials** - Parabolas Intercepts and Turning Points* - Symmetries 1* - Stretching Functions Vertically* - Stretching Functions Horizontally*	
ACMNA268 Apply understanding of polynomials to sketch a range of curves and describe the features of these curves from their equation.	**Graphing Relationships** - Graphing Cubics - Graphing Higher Powers*	**Series I** - Inequalities **Series J** - Equations and inequalities
ACMNA269 Factorise monic and non-monic quadratic expressions and solve a wide range of quadratic equations derived from a variety of contexts.	**Algebra** - Factorising Quadratics 1 - Factorising Quadratics 2 - Quadratic Equations 1 - Quadratic Equations 2 - Equations Reducible to Quadratics - Completing the Square - Completing the Square 2*	**Series K** - Quadratic Equations - Parabolas
ACMNA270 Solve simple exponential equations.	**Algebra** - Equations with Logs - Exponential Equations	**Series K** - Logarithms
Measurement and Geometry		
Using units of measurement		
ACMMG271 Solve problems involving surface area and volume of right pyramids, right cones, spheres and related composite solids.	**Measurement** - Surface Area: Cones - Surface Area: Spheres - Surface Area: Square Pyramids - Surface Area: Rectangular Pyramids - Surface Area: Rearrange Formula - Frustrum of a Cone* - Slant Height of Cones and Pyramids* - Cone and Pyramid Dimensions*	**Series J** - Measuring Solids

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Year 10A

Australian Curriculum	Mathletics Activities	Mathletics Workbooks
Geometric reasoning		
ACMMG272 Prove and apply angle and chord properties of circles.	**Geometric Reasoning** - Circle Theorem - Chords and Angles*	**Series K** - Circle Geometry: Chords and Angles
Pythagoras' theorem and trigonometry		
ACMMG273 Establish the sine, cosine and area rules for any triangle and solve related problems.	**Trigonometry Problems** - Sine Rule 1 - Sine Rule 2 - Cosine Rule 1 - Cosine Rule 2 - Area Rule 1 - Area Rule 2 - Area Problems - Elevation and Depression - Find Unknown Sides - Find Unknown Angles - Trigonometry Problems 1 - Trigonometry Problems 2	**Series K** - Trigonometric Relationships - Non Right Angled Triangles
ACMMG274 Use the unit circle to define trigonometric functions, and graph them with and without the use of digital technologies.	**Trigonometry** - Which Quadrant? - Trigonometric Relationships - Sine and Cosine Curves - Period and Amplitude - The Tan Curve*	**Series J** - Trigonometry **Series K** - Trigonometric Relationships - Non Right Angled Triangle
ACMMG275 Solve simple trigonometric equations.	**Trigonometry Problems** - Trig Equations 1 - Trig Equations 2	**Series J** - Trigonometry **Series K** - Trigonometric Relationships
ACMMG276 Apply Pythagoras' theorem and trigonometry to solving three-dimensional problems in right-angled triangles.	**Trigonometry** - Hypotenuse of a Right Triangle - Pythagoras' Theorem - Pythagorean Triads - Pythagoras in 3D* - 3D Trigonometry*	**Series I** - Pythagoras' Theorem **Series J** - Trigonometry
Statistics and Probability		
Chance		
ACMSP277 Investigate reports of studies in digital media and elsewhere for information on the planning and implementation of such studies, and the reporting of variability.	**Data***	**In development**

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Year 10A

Australian Curriculum	Mathletics Activities	Mathletics Workbooks
Statistics and Probability		
Data representation and interpretation		
ACMSP278 Calculate and interpret the mean and standard deviation of data and use these to compare data sets.	**Statistics and Probability** - Mean - Mean from Frequency Table - Data Terms - Calculating Standard Deviation - Interpreting Standard Deviation	**Series J** - Data **Series K** - Interpreting Data
ACMSP279 Use information technologies to investigate bivariate numerical data sets. Where appropriate use a straight line to describe the relationship allowing for variation.	**Statistics and Probability** - Scatter Plots - Line of Best Fit*	**Series J** - Data **Series K** - Interpreting Data

*** In Development**

