Mathletics

Victorian Mathematics V2.0

Activities (Courses) and Skill Quests

Years F – 2

January, 2025

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Foundation

1 Number

VC2MFN01 name, represent and order numbers, including zero to at least 20, using physical and virtual materials and numerals	
Course Topics	**Activities**
Read & write numbers to 10	Count to 5
	How Many?
	Concept of Zero
	Matching Numbers to 10
	Arranging Numbers
	Order Numbers to 10
	More, Less or the Same to 10
	Ordinal Numbers
	Balance Numbers to 10

VC2MFN02 recognise and name the number of objects within a collection up to 5 using subitising	
Course Topics	**Activities**
Read & write numbers to 10	Dot Display

VC2MFN03 quantify and compare collections to at least 20 using counting and explain or demonstrate reasoning	
Course Topics	**Activities**
Read & write numbers to 20	Counting Up to 20
	Counting Back Within 20
	Matching Numbers to 20
	Before, After and Between to 20
	Order Numbers to 20
	More, Less or the Same to 20
	Making Teen Numbers
	Reading Numbers to 30
	1 to 30
	1st to 31st

VC2MFN04 partition and combine collections up to 10 using part-part-whole relationships and subitising to recognise and name the parts	
Course Topics	**Activities**
Partition & combine numbers to 10	How Many Dots?
	Adding to Make 5 and 10
	Add and Subtract Using Graphs

VC2MFN05 represent practical situations, including simple financial situations, involving addition, subtraction and quantification with physical and virtual materials and use counting or subitising strategies	
Course Topics	**Activities**
Read & write numbers to 20	Making Teen Numbers
Partition & combine numbers to 10	Adding to Make 5 and 10
	Add and Subtract Using Graphs

VC2MFN06 represent practical situations that involve equal sharing and grouping with physical and virtual materials and use counting or subitising strategies	
Course Topics	**Activities**
Equal sharing & grouping	Share the Treasure
	Divide Into Equal Groups
	Fill the Jars
	Groups

2 Algebra

VC2MFA01 follow a short sequence of instructions; recognise, copy, continue and create repeating patterns represented in different ways	
Course Topics	**Activities**
Patterns	Simple Patterns
	Missing it!
	Colour Patterns
	Complete the Pattern
	Pattern Error

3 Measurement

VC2MFM01 identify and compare attributes of objects and events, including length, capacity, mass and duration, use direct comparisons and communicate reasoning	
Course Topics	**Activities**
Measurement	Everyday Length
	Comparing Length
	Which Holds More?
	Balancing Act

VC2MFM02 sequence days of the week and times of the day, including morning, lunchtime, afternoon and night-time, and connect them to familiar events and actions	
Course Topics	**Activities**
Time: Days	Days of the Week
	Days: After and Before
	Weekdays and Weekends
	Tomorrow and Yesterday (Scaffolded)

4 Space

VC2MFSP01 sort, name and create familiar shapes; recognise and describe familiar shapes within objects in the environment, giving reasons	
Course Topics	**Activities**
Shape & position	Match the Solid 1
	Collect Simple Shapes

VC2MFSP02 describe the position and location of themselves and objects in relation to other people and objects within a familiar space	
Course Topics	**Activities**
Shape & position	Where is it?

5 Statistics

VC2MFST01 collect, sort and compare data represented by objects and images in response to given investigative questions that have only 2 outcomes and relate to familiar situations	
Course Topics	**Activities**
Sort & compare data	Same and Different
	Sort It
	Picture Graphs: Who has the Goods?

Year 1

1 Number

VC2M1N01 recognise, represent and order numbers to at least 120 using physical and virtual materials, numerals, number lines and charts	
Course Topics	**Activities**
Read, write, compare & order numbers	Going Up
	Going Down
	Counting Forwards
	Counting Backwards
	Before, After & Between to 100
	Arranging Numbers
	Number Lines
	Number Line Order
	Matching Numbers to 10
	Matching Numbers to 20
	Reading Numbers to 30
	1st to 31st
	More, Less or the Same to 20
	Greater or Less to 100
	Order Numbers to 20
	1 to 30
	Compare Numbers to 20
	Compare Numbers to 50
	Compare Numbers to 100
Topics	**Skill Quests**
Count to at least 120	Counting forwards & backwards to 100
	Finding numbers before & after to 100
	Counting forwards & backwards to 120
	Numbers before & after to 120
	Reading, writing & comparing to 120
	Counting in tens & ones
Read & write numbers to 100	Reading & writing 2-digit numbers
Compare & order numbers to 100	Comparing numbers to 100
	Ordering numbers to 100
Read, write & order numbers to 200	Reading & writing 3-digit numbers to 200
Identify ordinal numbers to 31st	Identifying ordinal numbers up to 31st

VC2M1N02 partition one- and two-digit numbers in different ways using physical and virtual materials, including partitioning two-digit numbers into tens and ones	
Course Topics	**Activities**
Place value to 2 digits	Making Teen Numbers
	Place Value 1
	Repartition Two-digit Numbers

	Nearest 10?
Topics	**Skill Quests**
Recognise & recall bonds to 10	Recognising & recalling bonds to 10
Place value of 2-digit numbers	Identifying place value up to 2 digits
	Solving problems using place value up to 2 digits
Partition 2-digit numbers	Partitioning 2-digit numbers (standard)
	Partitioning 2-digit numbers (non-standard)

VC2M1N03 quantify sets of objects, to at least 120, by partitioning collections into equal groups using number knowledge and skip counting	
Course Topics	**Activities**
Count in groups	Making Numbers Count
	Making Big Numbers Count
Topics	**Skill Quests**
Skip counting	Skip counting by 2s
	Skip counting by 5s
	Skip counting by 10s
	Skip counting with money
	Skip counting by 2s, 5s & 10s
Count collections	Counting collections 0 to 100
	Using groups of 10 to count large collections
Count money	Counting Australian notes & coins

VC2M1N04 add and subtract numbers within 20, using physical and virtual materials, part-part-whole knowledge to 10 and a variety of calculation strategies	
Course Topics	**Activities**
Add & subtract within 20	Model Addition
	Adding to 5
	Adding to Ten
	Adding to Make 5 and 10
	Addictive Addition
	Add 3 Numbers Using Bonds to 10
	Add 3 Single Digit Numbers
	Doubles and Near Doubles
	Model Subtraction
	Subtracting From 5
	Subtracting from Ten
	Subtracting from 20
	Simple Subtraction
	All about Ten
	All about Twenty
	Doubles and Halves to 10
	Doubles and Halves to 20
	Balance Numbers to 20
	1 More, 2 Less

Topics	Skill Quests
Combinations that add up to 20	Model & record combinations that make 5 – 9
	Model & record combinations that make 11 – 20
	Adding zero to a number (up to 20)
Addition & subtraction strategies	Introducing the commutative property of addition
	Adding doubles up to 20
	Adding & subtracting near doubles
	Relating counting to adding & subtracting
	Adding & subtracting within 10 fluently
	Finding the difference between 2 numbers (to 20)
	Adding compatible numbers (doubles or bonds to 10)
Explore equality & inequality	Exploring equality & inequality up to 10 & 20

VC2M1N05 use mathematical modelling to solve practical problems involving additive situations, including simple money transactions; represent the situations with diagrams, physical and virtual materials; use calculation strategies to solve the problem	
Course Topics	**Activities**
Word problems: Add & subtract within 20	Who's got the Money?
	Adding to 10 Word Problems
	Add and Subtract Problems
	Problems: Addition and Subtraction
	Adding In Any Order
Topics	**Skill Quests**
Add & subtract practical problems	Solving addition & subtraction word problems to 20

VC2M1N06 use mathematical modelling to solve practical problems involving equal sharing and grouping; represent the situations with diagrams, physical and virtual materials, and use calculation strategies to solve the problem	
Course Topics	**Activities**
Multiply & divide by grouping	Share the Treasure
	Divide Into Equal Groups
	Fill the Jars
	Grouping in Twos
	Grouping in Fives
	Grouping in Tens
Topics	**Skill Quests**
Explore arrays & repeated addition	Exploring arrays (no x symbol)
	Using repeated addition to multiply
Equal sharing & grouping	Solving equal group problems
	Grouping & skip counting to multiply
	Sharing to divide up to 20
	Grouping to divide
	Solving grouping & sharing problems

2 Algebra

VC2M1A01 recognise, continue and create pattern sequences, with numbers, symbols, shapes and objects including Australian coins, formed by skip counting, initially by twos, fives and tens	
Course Topics	**Activities**
Skip counting patterns	Count by Twos
	Count by Fives
	Count by Tens
	Count by 2s, 5s and 10s
	Counting on a 100 grid
	Count Forward Patterns
	Count Backward Patterns
	Skip Counting
	Skip Counting with Coins
Topics	**Skill Quests**
Pattern sequences	Relating number & object patterns
	Exploring number patterns (1, 2, 5, 10)
	Additive & subtractive patterns (within 5)
	Shape patterns

VC2M1A02 recognise, continue and create repeating patterns with numbers, symbols, shapes and objects, identifying the repeating unit and recognising the importance of repetition in solving problems	
Course Topics	**Activities**
Patterns	Simple Patterns
	Missing it!
	Colour Patterns
	Complete the Pattern
	Pattern Error
Topics	**Skill Quests**
Repeating patterns	Exploring repeating numeric patterns
	Recognising repeating patterns
	Manipulating repeating patterns
	Extending repeating patterns
	Describing & creating repeating patterns
	Exploring repeating patterns with objects

3 Measurement

VC2M1M01 compare directly and indirectly and order objects and events using attributes of length, mass, capacity and duration, communicating reasoning	
Course Topics	**Activities**
Length, capacity & mass	Comparing Length
Topics	**Skill Quests**
Identify measurable attributes	Introducing the attribute of length
	Introducing the attribute of mass
Compare lengths	Indirect comparisons of lengths

Explore, compare & order capacity	Exploring capacity using informal units
	Comparing & ordering capacity, informal units
Comparing & ordering capacity, informal units	Comparing & ordering mass, informal units

VC2M1M02 measure the length of shapes and objects using informal units, recognising that units need to be uniform and used end-to-end	
Course Topics	**Activities**
Length, capacity & mass	Measuring Length with Blocks
	Filling Fast!
	Everyday Length
	Everyday Mass
	Balancing Objects
Topics	**Skill Quests**
Explore & measure length	Exploring informal units of length & distance

VC2M1M03 describe the duration and sequence of events using years, months, weeks, days and hours	
Course Topics	**Activities**
Time: Days & hours	Days of the Week
	Days: After and Before
	Tomorrow and Yesterday (without scaffold)
	Weekdays and Weekends
	Set Time to the Hour
	Hour Times
Topics	**Skill Quests**
Duration & sequence of events	Introducing the months of the year
	Working with years & months
	Comparing & sequencing intervals of time
	Describing duration

4 Space

VC2M1SP01 make, compare and classify familiar shapes; recognise familiar shapes and objects in the environment, identifying the similarities and differences between them	
Course Topics	**Activities**
Shape & position	Match the Solid 1
	Collect Simple Shapes
	Count Sides and Corners
Topics	**Skill Quests**
2D shapes	Sorting quadrilaterals from other 2D shapes
	Comparing 2D shapes

VC2M1SP02 give and follow directions to move people and objects to different locations within a space	
Course Topics	**Activities**
Shape & position	Where is it?
	Left or Right?
Topics	**Skill Quests**
Position & direction	Position using left, right & ordinal numbers
	Giving directions to others

5 Statistics

VC2M1ST01 acquire and record data for categorical variables in various ways including using digital tools, objects, images, drawings, lists, tally marks and symbols	
Course Topics	**Activities**
Read, represent & interpret data	Read Graphs
	Picture Graphs: Who has the Goods?
	Picture Graphs: More or Less
	Picture Graphs: single-unit scale
Topics	**Skill Quests**
Gather & record data	Asking suitable questions for data collection
	Completing tally charts
	Gathering, sorting & recording data

VC2M1ST02 represent collected data for a categorical variable using one-to-one displays and digital tools where appropriate; compare the data using frequencies and discuss the findings	
Course Topics	**Activities**
Read, represent & interpret data	Making Picture Graphs: With Scale
	Tallies
Topics	**Skill Quests**
Represent & read data	Representing data in a simple display
	Reading simple data displays using objects
	Picture graphs
	Ordering category data

Year 2

1 Number

VC2M2N01 recognise, represent and order numbers to at least 1000 using physical and virtual materials, numerals and number lines	
Course Topics	**Activities**
Read & write numbers to 1000	Missing Numbers 1
	Numbers in Words
	Which is Bigger?
	Which is Smaller?
	Greater Than or Less Than?
	Concept of Zero
	Ascending Order
	Descending Order
	Number Lines
Topics	**Skill Quests**
Count within 1000	Counting in ones up to 1000
	Identifying numbers before & after up to 1000
Count in tens	Counting in tens with 2- & 3-digit numbers
	Finding numbers 10 before & 10 after, up to 1000
Place value up to 3 digits	Reading & representing 3-digit numbers
	Identifying place value in 3-digit numbers
Compare & order numbers to 1000	Comparing numbers to 1000
	Ordering numbers to 1000

VC2M2N02 partition, rearrange, regroup and rename two- and three-digit numbers using standard and non-standard groupings; recognise the role of a zero digit in place value notation	
Course Topics	**Activities**
Place value to 3 digits	Place Value 2
	Place Value to Thousands
	Model Numbers
	Expanding Numbers
	Partition and Rename 1
	Place Value Partitioning
	Repartition Two-digit Numbers
Topics	**Skill Quests**
Hundreds, tens & ones	Counting in hundreds, tens & ones
Partition 2- & 3-digit numbers	Partitioning 3-digit numbers (standard)
	Partitioning 3-digit numbers (non-standard)
Round numbers to nearest 100	Rounding numbers up to 1000 to the nearest 100

VC2M2N03 recognise and describe one-half as one of 2 equal parts of a whole and connect halves, quarters and eighths through repeated halving	
Course Topics	**Activities**
Halves & quarters	Halves
	Is it Half?
	Halves and Quarters
	Doubles and Halves to 10
	Doubles and Halves to 20
	Doubles and Near Doubles
Topics	**Skill Quests**
Halves & quarters	Finding half of a set or quantity (no symbols)
	Finding quarters of sets or shapes (no symbols)
	Finding halves & quarters (no symbols)
Halves, quarters & eighths	Finding eighths of objects or shapes
	Finding halves, quarters & eighths of shapes

VC2M2N04 add and subtract one- and two-digit numbers, represent problems using number sentences and solve using part-part-whole reasoning and a variety of calculation strategies	
Course Topics	**Activities**
Add & subtract to 2 digits	Model Addition
	Model Subtraction
	Adding to 2-digit numbers
	Complements to 10, 20, 50
	Complements to 50 and 100
	Add 3 Numbers: Bonds to Multiples of 10
	Magic Mental Addition
	Subtract Tens
	Related Facts 1
	Commutative Property of Addition
	Bar Model Problems 1
	Bar Model Problems 2
	Partition Puzzles 1
Topics	**Skill Quests**
Add & subtract mental strategies to 100	Add & subtract by counting on/back up to 100
	Add & subtract using bridging to 10 up to 100
	Add & subtract using jump strategy
	Adding using place value up to 100
	Using mental strategies to add & subtract (to 100)
Add & subtract strategies over 100	Adding using place value up to 200
	Adding & subtracting using place value
	Adding using place value (crossing a ten)
	Subtracting using addition
	Adding & subtracting using rounding & compensating

VC2M2N05 multiply and divide by one-digit numbers using repeated addition, equal grouping, arrays and partitioning to support a variety of calculation strategies	
Course Topics	**Activities**
Multiply & divide by 1 digit	Arrays 1
	Arrays 2
	Model Multiplication to 5 × 5
	Counting by Twos
	Counting by Fives
	Counting by Tens
	Count by 2s, 5s and 10s
	Dividing Twos
	Dividing Fives
	Dividing Tens
Topics	**Skill Quests**
Arrays & repeated addition	Using repeated addition to multiply
	Exploring arrays (no x symbol)
Commutative property multiplication	Using the commutative property of multiplication
Divide by sharing & grouping	Dividing by sharing & grouping

VC2M2N06 use mathematical modelling to solve practical problems involving additive and multiplicative situations, including money transactions; represent situations and choose calculation strategies; interpret and communicate solutions in terms of the context	
Course Topics	**Activities**
Multiply & divide by 1 digit	Skip Counting with Coins
Four operations word problems	Word Problems: Add and Subtract
	Problems: Add and Subtract
	Problems: Times and Divide
Topics	**Skill Quests**
Add & subtract practical problems	Solving word problems with start or change unknown
	Writing simple number sentences
	Solving contextual problems
Multiply & divide practical problems	Solving simple multiplication problems (2,5,10x)
	Solving contextual problems

2 Algebra

VC2M2A01 recognise, describe and create additive patterns that increase or decrease by a constant amount, using numbers, shapes and objects, and identify missing elements in the pattern	
Course Topics	**Activities**
Patterns & missing numbers	Increasing Patterns
	Decreasing Patterns
	Odd or Even
	Pattern Error

Topics	Skill Quests
Addition & subtraction sequences	Identify, describe & continue number sequences
	Add or subtract patterns (within 10) up to 100
	Additive visual patterns

VC2M2A02 recall and demonstrate proficiency with addition facts to 20; extend and apply facts to develop related subtraction facts	
Course Topics	**Activities**
Patterns & missing numbers	Missing Numbers
	Fact Families: Add and Subtract
	Balance Additions to 20
Topics	**Skill Quests**
Addition & subtraction relationship	Finding fact families for addition & subtraction
Addition & subtraction facts to 20	Adding & subtracting within 20 fluently
	Number bonds to 20

VC2M2A03 recall and demonstrate proficiency with multiplication facts for twos; extend and apply facts to develop the related division facts using doubling and halving	
Course Topics	**Activities**
Halves & quarters	Doubles and Halves to 10
	Doubles and Halves to 20
	Doubles and Near Doubles
Multiply & divide by 1 digit	Model Multiplication to 5 × 5
	Count by 2s, 5s and 10s
Topics	**Skill Quests**
Multiplication & division facts for 2	Recalling & using multiplication facts for 2
	Recalling & using division facts for 2
	Multiplying & dividing by 2

VC2M2A04 apply repetition in arithmetic operations, including multiplication as repeated addition and division as repeated subtraction	
Course Topics	**Activities**
Teacher directed	
Topics	**Skill Quests**
Repetition in operations	Using repeated subtraction to divide

3 Measurement

VC2M2M01 measure and compare objects based on length, capacity and mass using appropriate uniform informal units and smaller units for accuracy when necessary	
Course Topics	**Activities**
Length, capacity & mass	Measuring Length with Blocks

	Compare Length
	Balancing Act
	How Full?
Topics	**Skill Quests**
Understand & measure length	Comparing & ordering lengths using informal units
Understand & measure capacity & volume	Estimate & measure capacity using informal units
	Comparing & ordering volume
Understand & measure mass	Comparing & ordering mass using informal units

VC2M2M02 identify common uses and represent halves, quarters and eighths in relation to shapes, objects and events	
Course Topics	**Activities**
Length, capacity & mass	Halve it!
Topics	**Skill Quests**
Understand halves, quarters & eighths	Finding half of a set or quantity
	Finding quarters of a set or quantity
	Finding eighths of a set or quantity
	Practical situations

VC2M2M03 identify the date and determine the number of days between events using calendars	
Course Topics	**Activities**
Time: Calendars	Months of the Year
	Months After and Before
	Seasons (AU/NZ)
	Using a Calendar
	Tomorrow and Yesterday (without scaffold)
	Weekdays and Weekends
Topics	**Skill Quests**
Months of the year	Months of the year
Use a calendar	Using a calendar to identify the date
	Using calendars to solve simple problems

VC2M2M04 recognise and read the time represented on an analog clock to the hour, half-hour and quarter hour	
Course Topics	**Activities**
Time: Half & quarter hours	Tell Time to the Half Hour
	Set Time to the Half Hour
	Quarter To and Quarter Past
Topics	**Skill Quests**
Recognise & read time up to quarter hour	Telling time to the hour & half hour (analogue)
	Telling time to the hour & half hour (digital)
	Telling time to the half & quarter hour

VC2M2M05 identify, describe and demonstrate quarter, half, three-quarter and full measures of turn in everyday situations	
Course Topics	**Activities**
Teacher directed	
Topics	**Skill Quests**
Turns of shapes	Turns of shapes

4 Space

VC2M2SP01 recognise, compare and classify shapes, referencing the number of sides and using spatial terms such as 'opposite', 'parallel', 'curved' and 'straight'	
Course Topics	**Activities**
Shape & position	What Line am I?
	Sides, Angles and Diagonals
	Collect the Polygons
	Collect the Objects
Topics	**Skill Quests**
Recognise & classify 2D shapes	Identifying, sorting & naming octagons
	Identifying, sorting & naming pentagons
	Identifying, sorting & naming hexagons
	Identifying & naming simple 2D shapes
	Comparing, describing & sorting simple 2D shapes
	Representing & describing regular polygons
Identify types of lines	Identifying vertical & horizontal lines
	Identifying parallel lines
Recognise & classify 3D objects	Exploring surfaces & faces
	Recognising & describing spheres
	Recognising & describing cones
	Recognising & describing cubes
	Recognising & describing cylinders
	Recognising, sorting & naming 3D objects
	Recognising & describing prisms (no formal names)
	Comparing 2D shapes & 3D objects
	Identifying faces, edges & vertices on 3D objects
	Faces, edges, vertices & surfaces of 3D objects

VC2M2SP02 locate positions in two-dimensional representations of a familiar space; move positions by following directions and pathways	
Course Topics	**Activities**
Shape & position	Map Coordinates
	Where is it?
	Left or Right?
Topics	**Skill Quests**
Read maps	Reading simple maps

5 Statistics

VC2M2ST01 acquire data for categorical variables through surveys, observation, experiment and using digital tools; sort data into relevant categories and display data using lists and tables	
Course Topics	**Activities**
Sort, represent & interpret data	Sorting Data
	Sort It
Topics	**Skill Quests**
Gather data	Answer questions related to simple data displays

VC2M2ST02 create different graphical representations of data using software where appropriate; compare the different representations, and identify and describe common and distinctive features in response to questions	
Course Topics	**Activities**
Sort, represent & interpret data	Interpreting Tables
	Read Graphs
	Picture Graphs: Who has the Goods?
	Picture Graphs: More or Less
	Making Picture Graphs: With Scale
	Tallies
Topics	**Skill Quests**
Create displays of data	Reading & interpreting simple picture graphs
	Representing & reading data in tables or lists
	Using a tally chart, table, picture graph

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