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Problems have detailed teachers' resources suggesting how they can be integrated into lessons

Grade 4	Grade 5	Grade 6	Grade 7	Grade 8
Number Sense				
Represent, Compare and	Represent, Compare and	Represent, Compare and	Represent, Compare and	Represent, Compare and
Order Numbers 0 to 10 000	Order Numbers 0.01 to 10 000	Order Numbers 0.01 to 1	Order Integers	Order Rational Numbers
4m12 Represent, compare,	5m12 Represent, compare,	000 000	7m13 Identify and compare	8m13 Represent, compare,
and order whole numbers to	and order whole numbers and	6m11 Represent, compare,	integers found in real-life	and order rational numbers
10 000, using a variety of	decimal numbers from 0.01 to	and order whole numbers	contexts	(i.e., positive and negative
tools Number Lines in	100 000, using a variety of	and decimal numbers from	7m14 Represent and order	fractions and decimals to
Disguise	tools and strategies	0.001 to 1 000 000, using a	integers, using a variety of	thousandths)
Representing Numbers	Number Lines in Disguise	variety of tools	tools	Number Lines in Disguise
That Number Square!	Representing Numbers	and strategies	Number Lines in Disguise	Greater Than or Less Than?
Number Match	Greater Than or Less Than?	Represent, compare, and	Greater Than or Less Than?	8m14 Translate between
4m13 Demonstrate an	Nice or Nasty	order whole numbers to 10		equivalent forms of a number
understanding of place	5m13 Demonstrate an	000, using a variety of tools	Number Sense and	(i.e., decimals, fractions,
value in whole numbers and	understanding of place value	Number Lines in Disguise	Numeration Overall: 7m8	percents)
decimal numbers from 0.1	in whole numbers and decimal	Greater Than or Less Than?		
to 10 000, using a variety of	numbers from 0.01 to 100 000,	Nice or Nasty		Number Sense and
tools and strategies	using a variety of tools and	Spiralling Decimals		Numeration Overall: 8m8
Nice or Nasty	strategies	6m12 Demonstrate an		
Roman Numerals	Roman Numerals	understanding of place value		
Coded Hundred Square	Coded Hundred Square	in whole numbers and		
The Deca Tree	The Deca Tree	decimal numbers from 0.001		
Which Scripts?	Spiralling Decimals	to 1 000 000, using a		
4m14 Read and print in	Which Scripts?	variety of tools and		
words whole numbers to	5m14 Read and print in words	strategies		
one thousand, using	whole numbers to ten	Coded Hundred Square		
meaningful contexts	thousand, using meaningful	The Deca Tree		
	contexts	Spiralling Decimals		



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4m15 Round four-digit	5m18 Demonstrate and	Which Scripts?		
whole numbers to the	explain equivalent	6m13 Read and print in		
nearest ten, hundred, and	representations of a decimal	words whole numbers to		
thousand, in problems	number, using concrete	one hundred thousand,		
arising from real-life	materials and drawings	using meaningful contexts		
situations	5m19 Read and write money	6m16 Solve problems that		
4m16 Represent, compare,	amounts to \$1000	arise from real-life situations		
and order decimal numbers	5m21 Count forward by	and that relate to the		
to tenths, using a variety of	hundredths from any decimal	magnitude of whole		
tools, and using standard	number expressed to two	numbers up to 1 000 000		
decimal notation	decimal places, using concrete			
4m22 Solve problems that	materials and number lines	Number Sense and		
arise from real-life situations		Numeration Overall: 6m8		
and that relate to the	Number Sense and			
magnitude of whole	Numeration Overalls: 5m8,			
numbers up to 10 000	5m9			
4m24 Count forward by				
tenths from any decimal				
number expressed to one				
decimal place, using				
concrete materials and				
number lines				
Number Sense and				
Numeration Overall: 4m8				
Numeration				



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Operations Involving	Operations Involving	Operations Involving	Represent, Compare, Order	Multi-Step Problems
Numbers 0 to 10 000	Numbers 0.01 to 10 000	Numbers 0.001 to 1 000 000	and Operate Using Decimal	Involving Whole and
4m 13 Demonstrate an	5m13 Demonstrate an	6m12 Demonstrate an	Numbers	Decimal Numbers
understanding of place value	understanding of place value	understanding of place value	7m11 Represent, compare,	8m13 Represent, compare,
in whole numbers and	in whole numbers and	in whole numbers and	and order decimals to	and order rational numbers
decimal numbers from 0.1 to	decimal numbers from 0.01	decimal numbers from 0.001	hundredths and fractions,	(i.e., positive and negative
10 000, using a variety of	to 100 000, using a variety of	to 1 000 000, using a variety	using a variety of tools	fractions and decimals to
tools and strategies	tools and strategies	of tools and strategies	Spiralling Decimals	thousandths)
Nice or Nasty	Roman Numerals	Coded Hundred Square	7m14 Represent and order	Up, Down, Flying Around
Roman Numerals	Coded Hundred Square	The Deca Tree	integers, using a variety of	8m16 Solve multi-step
Coded Hundred Square	The Deca Tree	Spiralling Decimals	tools	problems arising from real-
The Deca Tree	Spiralling Decimals	6m19 Solve problems	7m18 Divide whole numbers	life contexts and involving
Spiralling Decimals	5m15 Round decimal	involving the multiplication	by simple fractions and by	whole numbers and
4m26 Solve problems	numbers to the nearest tenth,	and division of whole	decimal numbers to	decimals, using a variety of
involving the addition and	in problems arising from real-	numbers (four-digit by two-	hundredths, using concrete	tools and strategies
subtraction of four-digit	life situations <u>Round the Dice</u>	digit), using a variety of tools	materials	8m18 Use estimation when
numbers, using student-	Decimals 2	and strategies	7m19 Use a variety of	solving problems involving
generated algorithms and	5m20 Solve problems that	Long Multiplication	mental strategies to solve	operations with whole
standard algorithms	arise from real-life situations	Method in Multiplying	problems involving the	numbers, decimals,
4m32 Multiply two-digit	and that relate to the	Madness?	addition and subtraction of	percents, integers, and
whole numbers by one-digit	magnitude of whole numbers	6m20 Add and subtract	fractions and decimals	fractions, to help judge the
whole numbers, using a	up to 100 000	decimal numbers to	7m20 Solve problems	reasonableness of a solution
variety of tools, student-	5m23 Add and subtract	thousandths, using concrete	involving the multiplication	8m21 Represent the
generated algorithms, and	decimal numbers to	materials, estimation,	and division of decimal	multiplication and division of
standard algorithms	hundredths, including money	algorithms, and calculators	numbers to thousandths by	integers, using a variety of
4m33 Divide two-digit whole	amounts, using concrete	6m21 Multiply and divide	one-digit whole numbers,	tools
numbers by one-digit whole		decimal numbers to tenths		Galley Division



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numbers, using a variety of	materials, estimation, and	by whole numbers, using	using a variety of tools and	8m22 Solve problems
tools and student-generated	algorithms	concrete materials,	strategies	involving operations with
algorithms	5m24 Multiply two-digit	estimation, algorithms, and	7m21 Solve multi-step	integers, using a variety of
4m34 Use estimation when	whole numbers by two-digit	calculators	problems arising from real-	tools
solving problems involving	whole numbers, using	Route Product	life contexts and involving	Napier's Location Arithmetic
the addition, subtraction, and	estimation, student-	6m22 Multiply whole	whole numbers and	8m23 Evaluate expressions
multiplication of whole	generated algorithms, and	numbers by 0.1, 0.01, and	decimals, using a variety of	that involve integers,
numbers, to help judge the	standard algorithms	0.001 using mental	tools and strategies	including expressions that
reasonableness of a solution	Method in Multiplying	strategies	Forgot the Numbers	contain brackets and
4m83 Identify, through	Madness?	6m23 Multiply and divide	7m22 Use estimation when	exponents, using order of
investigation, and use the	5m25 Divide three-digit	decimal numbers by 10, 100,	solving problems involving	operations
commutative property of	whole numbers by one-digit	1000, and 10 000 using	operations with whole	8m62 Evaluate algebraic
multiplication to facilitate	whole numbers, using	mental strategies	numbers, decimals, and	expressions with up to three
computation with whole	concrete materials,	<u>Repetitiously</u>	percents, to help judge the	terms, by substituting
numbers	estimation, student-	6m24 Use estimation when	reasonableness of a solution	fractions, decimals, and
4m84 Identify, through	generated algorithms, and	solving problems involving	7m23 Evaluate expressions	integers for the variables
investigation, and use the	standard algorithms	the addition and subtraction	that involve whole numbers	8m64 Solve and verify linear
distributive property of	The Remainders Game	of whole numbers and	and decimals, including	equations involving a one-
multiplication over addition		decimals, to help judge	expressions that contain	variable term and having
to facilitate computation with	Number Sense and	the reasonableness of a	brackets, using order of	solutions that are integers,
whole numbers	Numeration Overalls: 5m8,	solution	operations	by using inspection guess
	5m10	6m66 Determine the	7m26 Add and subtract	and check and a "balance"
Number Sense and		solution to a simple equation	integers, using a variety of	model
Numeration Overalls: 4m8,		with one variable, through	tools	
4m10		investigation using a variety	Forwards Add Backwards	Number Sense and
Patterning and Algebra		of tools and strategies	<u>Cryptarithms</u>	Numeration Overall: 8m9
Overall: 4m75				



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		Number Sense and	7m35 Solve problems that	
		Numeration Overalls: 6m8,	require conversion between	
		6m9	metric units of measure	
		Patterning and Algebra		
		Overall: 6m56	Number Sense and	
			Numeration Overalls: 7m8,	
			7m9	
			Measurement Overall:	
			7m32	
Mental Math, Multiplicative	Mental Math, Multiplicative	Mental Math, Whole	Whole Number	Whole Number
Relationships and Equality	Relationships and Equality	Number Relationships and	Relationships and	Relationships and Powers of
4m25 Add and subtract two-	5m22 Solve problems	Order of Operations	Operations	Ten
digit numbers, using a variety	involving the addition,	6m17 Identify composite	7m12 Generate multiples	8m11 Express repeated
of mental strategies	subtraction, and	numbers and prime	and factors, using a variety	multiplication using
Diagonal Sums	multiplication of whole	numbers, and explain the	of tools and strategies	exponential notation
4m29 Multiply to 9 x 9 and	numbers, using a variety of	relationship between them	Factor-multiple Chains	Power Mad!
divide to 81 ÷ 9, using a	mental strategies	(i.e., any composite number	Factors and Multiples	8m12 Represent whole
variety of mental strategies	5m30 Demonstrate an	can be factored into prime	Gabriel's Problem	numbers in expanded form
Multiplication Square Jigsaw	understanding of simple	factors)	Dozens	using powers of ten
Shape Times Shape	multiplicative relationships	Various Venns	Missing Multipliers	8m15 Determine common
Times Tables Shifts	involving whole-number	6m18 Use a variety of	Factors and Multiples Puzzle	factors and common
4m30 Solve problems	rates, through investigation	mental strategies to solve	7m16 Represent perfect	multiples using the prime
involving the multiplication of	using concrete materials and	addition, subtraction,	squares and square roots,	factorization of numbers
one-digit whole numbers,	drawings	multiplication, and division	using a variety of tools	Counting Cogs
using a variety of mental	5m69 Demonstrate, through	problems involving whole	Sticky Numbers	<u>Stars</u>
strategies	investigation, an	numbers	7m21 Solve multi-step	<u>14 Divisors</u>
	understanding of variables as		problems arising from real-	



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Grade 4	Grade 5	Grade 6	Grade 7	Grade 8
4m31 Multiply whole	unknown quantities	6m25 Explain the need for a	life contexts and involving	8m24 Multiply and divide
numbers by 10, 100, and	represented by a letter or	standard order for	whole numbers and	decimal numbers by various
1000, and divide whole	other symbol	performing operations, by	decimals, using a variety of	powers of ten
numbers by 10 and 100,	5m70 Determine the missing	investigating the impact that	tools and strategies	8m25 Estimate, and verify
using mental strategies	number in equations	changing the order has when	7m22 Use estimation when	using a calculator, the
4m35 Describe relationships	involving addition,	performing a series of	solving problems involving	positive square roots of
that involve simple whole-	subtraction, multiplication, or	operations	operations with whole	whole numbers, and
number multiplication	division and one- or two-digit	Four Goodness Sake	numbers, decimals, and	distinguish between whole
4m37 Demonstrate an	numbers, using a variety of	<u>Make 100</u>	percents, to help judge the	numbers that have whole-
understanding of simple	tools and strategies		reasonableness of a solution	number square roots (i.e.,
multiplicative relationships		Number Sense and	7m23 Evaluate expressions	perfect square numbers) and
involving unit rates, through	Number Sense and	Numeration Overalls: 6m8,	that involve whole numbers	those that do not
investigation using concrete	Numeration Overalls: 5m10,	6m9	and decimals, including	Powers and Roots - Short
materials and drawings	5m11		expressions that contain	Problems
4m81 Determine, through	Patterning and Algebra		brackets, using order of	
investigation, the inverse	Overall: 5m62		operations	Number Sense and
relationship between			The 24 Game	Numeration Overalls: 8m8,
multiplication and division				8m9
Multiplication Squares			Number Sense and	
4m82 Determine the missing			Numeration Overalls: 7m8,	
number in equations			7m9	
involving multiplication of				
one- and two-digit numbers,				
using a variety of tools and				
strategies				



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Number Sense and				
Numeration Overalls: 4m10,				
4m11				
Patterning and Algebra				
Overall: 4m75				
Numeration: Fractions, Decima	als and Percentages			
Represent, Compare, and	Represent, Compare, and	Fractions, Ratios and Rates	Represent, Compare, Order	Operations Involving
Order Fractions 4m17	Order Fractions	6m14 Represent, compare,	and Operate Using Fractions	Fractions
Represent fractions using	5m16 Represent, compare,	and order fractional	7m11 Represent, compare,	8m18 Use estimation when
concrete materials, words,	and order fractional amounts	amounts with unlike	and order decimals to	solving problems involving
and standard fractional	with like denominators,	denominators, including	hundredths and fractions,	operations with whole
notation, and explain the	including proper and	proper and improper	using a variety of tools	numbers, decimals,
meaning of the	improper fractions and mixed	fractions and mixed	7m18 Divide whole numbers	percents, integers, and
denominator as the number	numbers, using a variety of	numbers, using a variety of	by simple fractions and by	fractions, to help judge the
of fractional parts of a whole	tools and using standard	tools and using standard	decimal numbers to	reasonableness of a solution
or a set, and the numerator	fractional notation	fractional notation	hundredths, using concrete	8m19 Represent the
as the number of fractional	Fractional Triangles	Fractional Triangles	materials	multiplication and division of
parts being considered [part-	Bryony's Triangle	Bryony's Triangle	7m19 Use a variety of	fractions, using a variety of
whole relationships]	5m17 Demonstrate and	Ordering Fractions	mental strategies to solve	tools and strategies
Fraction Match	explain the concept of	6m26 Represent ratios found	problems involving the	8m20 Solve problems
Fractional Triangles	equivalent fractions, using	in real-life contexts, using	addition and subtraction of	involving addition,
Bryony's Triangle	concrete materials	concrete materials,	fractions and decimals	subtraction, multiplication,
4m18 Compare and order	Fraction Match	drawings, and standard	7m24 Add and subtract	and division with simple
fractions (i.e., halves, thirds,	Fair Feast	fractional notation	fractions with simple like and	fractions
fourths, fifths, tenths) by	Matching Fractions	Pumpkin Pie Problem	unlike denominators, using a	8m62 Evaluate algebraic
considering the size and the		Orange Drink	variety of tools and	expressions with up to three
number of fractional parts		Jumping	algorithms	terms, by substituting



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Grade 4	Grade 5	Grade 6	Grade 7	Grade 8
4m19 Compare fractions to	Number Sense and	Mixing Lemonade	Linked Chains	fractions, decimals, and
the benchmarks of 0, ½, and	Numeration Overall: 5m8	6m28 Represent	7m25 Demonstrate, using	integers for the variables
1		relationships using unit rates	concrete materials, the	
4m23 Count forward by			relationship between the	Number Sense and
halves, thirds, fourths, and		Number Sense and	repeated addition of	Numeration Overall: 8m9
tenths to beyond one whole,		Numeration Overalls: 6m8,	fractions and the	Patterning and Algebra
using concrete materials and		6m10	multiplication of that	Overall: 8m55
number lines			fraction by a whole number	
Number Sense and			Number Sense and	
Numeration Overalls: 4m8,			Numeration Overalls: 7m8,	
4m9			7m9	
Fractions and Decimal	Fractions and Decimal	Fractions, Decimals, Ratios	Fractions, Decimals,	Solve Problems involving
Tenths Relationships	Hundredths Relationships	and Rates	Percents, Ratios	Proportions
4m17 Represent fractions	5m16 Represent, compare,	6m14 Represent, compare,	7m15 Select and justify the	8m14 Translate between
using concrete materials,	and order fractional amounts	and order fractional	most appropriate	equivalent forms of a
words, and standard	with like denominators,	amounts with unlike	representation of a quantity	number (i.e., decimals,
fractional notation, and	including proper and	denominators, including	(i.e., fraction, decimal,	fractions, percents)
explain the meaning of the	improper fractions and mixed	proper and improper	percent) for a given context	8m17 Solve problems
denominator as the number	numbers using a variety of	fractions and	Retiring to Paradise	involving percents expressed
of fractional parts of a whole	tools and using standard	mixed numbers, using a	7m22 Use estimation when	to one decimal place and
or a set, and the numerator	fractional notation	variety of tools and using	solving problems involving	whole-number percents
as the number of fractional	5m17 Demonstrate and	standard fractional notation	operations with whole	greater than 100
parts being considered [part-	explain the concept of	A4 Fraction Subtraction	numbers, decimals, and	8m18 Use estimation when
whole relationships]	equivalent fractions, using	6m15 Estimate quantities	percents, to help judge the	solving problems involving
4m20 Demonstrate and	concrete materials	using benchmarks of 10%,	reasonableness of a solution	operations with whole
explain the relationship	Fraction Match	25%, 50%, 75%, and 100%		numbers, decimals,



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between equivalent	Linked Chains	6m26 Represent ratios found	7m27 Determine, through	percents, integers, and
fractions, using concrete	5m18 Demonstrate and	in real-life contexts, using	investigation, the	fractions, to help judge the
materials and drawings	explain equivalent	concrete materials,	relationships among	reasonableness of a solution
Fraction Match	representations of a decimal	drawings, and standard	fractions, decimals, percents,	8m26 Identify and describe
Fair Feast	number, using concrete	fractional notation	and ratios	real-life situations involving
A4 Fraction Subtraction	materials and drawings	Pumpkin Pie Problem	Matching Fractions,	two quantities that are
Matching Fractions	5m28 Describe multiplicative	Orange Drink	Decimals and Percentages	directly proportional
4m36 Determine and explain,	relationships between	Jumping	7m28 Solve problems that	Fruit Basket Ratio
through investigation, the	quantities by using simple	Mixing Lemonade	involve determining whole	8m27 Solve problems
relationship between	fractions and decimals	6m27 Determine and	number percents, using a	involving proportions, using
fractions (i.e., halves, fifths,	5m29 Determine and explain,	explain, through	variety of tools	concrete materials,
tenths) and decimals to	through investigation using	investigation using concrete	7m29 Demonstrate an	drawings, and variables
tenths, using a variety of	concrete materials, drawings,	materials, drawings, and	understanding of rate as a	Tray Bake
tools and strategies	and calculators, the	calculators, the relationships	comparison, or ratio, of two	8m28 Solve problems
	relationship between	among fractions (i.e., with	measurements with	involving percent that arise
Number Sense and	fractions (i.e., with	denominators of 2, 4, 5, 10,	different units	from real-life contexts
Numeration Overalls: 4m8,	denominators of 2, 4, 5, 10,	25, 50, and 100), decimal	7m30 Solve problems	8m29 Solve problems
4m11	20, 25, 50, and 100) and their	numbers, and percents	involving the calculation of	involving rates
	equivalent decimal forms	Fraction Match	unit rates	8m46 Determine, through
		Doughnut Percents	7m74 Collect and organize	investigation using a variety
	Number Sense and		categorical, discrete, or	of tools, relationships among
	Numeration Overalls: 5m8,	Number Sense and	continuous primary data and	area, perimeter,
	5m11	Numeration Overalls: 6m8,	secondary data and display	corresponding side lengths,
		6m10	the data in charts, tables,	and corresponding angles of
			and graphs (including	similar shapes
			relative frequency tables and	8m76 Compare two
			circle graphs) that have	attributes or characteristics,



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			appropriate titles, labels, and	using a scatter plot, and
			scales that suit the range	determine whether or not
			and distribution of the data,	the scatter plot suggests a
			using a variety of tools	relationship
				8m79 Compare two
			Number Sense and	attributes or characteristics,
			Numeration Overalls: 7m8,	using a variety of data
			7m9, 7m10	management tools and
			Data Management and	strategies (i.e., pose a
			Probability Overall: 7m70	relevant question, then
				design an experiment or
				survey, collect and analyse
				the data, and draw
				conclusions)
				Number Sense and
				Numeration Overalls: 8m9,
				8m10
				Geometry and Spatial Sense
				Overall: 8m41
				Data Management and
				Probability Overall: 8m66
Measurement				
Time	Time			
4m42 Estimate, measure (i.e.,	5m33 Estimate, measure (i.e.,			
using an analogue clock) and	using an analogue clock), and			

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represent time intervals to	represent time intervals to			
the nearest minute	the nearest second			
Clocks	<u>Clocks</u>			
4m43 Estimate and	5m34 Estimate and			
determine elapsed time, with	determine elapsed time, with			
and without using a time line,	and without using a time line,			
given the durations of events	given the durations of events			
expressed in five-minute	expressed in minutes, hours,			
intervals, hours, days, weeks,	days, weeks, months, or years			
months, or years	Two Clocks			
Two Clocks	5m39 Solve problems			
4m56 Solve problems	involving the relationship			
involving the relationship	between a 12-hour clock and			
between years and decades,	a 24-hour clock			
and between decades and				
centuries	Measurement Overalls:			
	5m31, 5m32			
Measurement Overalls:	Decimal Time			
4m38, 4m39				
Money	Temperature			
4m21 Read and represent	5m35 Measure and record			
money amounts to \$100	temperatures to determine			
4m28 Add and subtract	and represent temperature			
money amounts by making	changes over time			
simulated purchases and	5m74 Distinguish between			
providing change for	discrete data (i.e., data			
	organized using a variety of			

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amounts up to \$100, using a	tools numbers that have gaps			
variety of tools	between them, such as whole			
	numbers, and often used to			
Number Sense and	represent a count, such as the			
Numeration Overalls: 4m8,	number of times a word is			
4m10	used) and continuous data			
	(i.e., data organized using all			
	numbers on a number line			
	that fall within the range of			
	the data, and used to			
	represent measurements			
	such as heights or ages of			
	trees)			
	5m75 Collect data by			
	conducting a survey or an			
	experiment to do with			
	themselves, their			
	environment, issues in their			
	school or community, or			
	content from another subject,			
	and record observations or			
	measurements			
	5m76 Collect and organize			
	discrete or continuous			
	primary data and secondary			
	data and display the data in			
	charts, tables, and graphs			



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	(including broken-line graphs)			
	that have appropriate			
	titles, labels, and scales that			
	suit the range and			
	distribution of the data, using			
	a variety of tools			
	5m79 Read, interpret, and			
	draw conclusions from			
	primary data and from			
	secondary data, presented in			
	charts, tables, and graphs			
	(including broken-line graphs)			
	5m80 Calculate the mean for			
	a small set of data and use it			
	to describe the shape of the			
	data set across its range of			
	values, using charts, tables,			
	and graphs			
	5m81 Compare similarities			
	and differences between two			
	related sets of data, using a			
	variety of strategies			
	Measurement Overally 5m21			
	Neasurement Overall: 5m31			
	Data Management Overalls:			
	5m/1, 5m/2			



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Linear Measurement	Linear Measurement	Linear, Perimeter, and Area		
4m40 Estimate, measure, and	5m37 Select and justify the	 Measurements and 		
record length, height, and	most appropriate standard	Constructions		
distance, using standard units	unit (i.e., millimetre,	6m31 Demonstrate an		
(i.e., millimetre, centimetre,	centimetre, decimetre,	understanding of the		
metre, kilometre)	metre, kilometre) to measure	relationship between length,		
Olympic Starters	length, height, width, and	height, width, and distance,		
4m41 Draw items using a	distance, and to measure the	and to measure the		
ruler, given specific lengths in	perimeter of various polygons	perimeter of various		
millimetres or centimetres		polygons estimated and		
4m48 Describe, through	Measurement Overall: 5m32	precise measurements, and		
investigation, the relationship		determine and justify when		
between various units of		each kind is appropriate		
length (i.e., millimetre,		Perimeter Expressions		
centimetre, decimetre,		6m32 Estimate, measure,		
metre, kilometre)		and record length, area,		
4m49 Select and justify the		mass, capacity, and volume,		
most appropriate standard		using the metric		
unit (i.e., millimetre,		measurement system		
centimetre, metre, kilometre)		6m33 Select and justify the		
to measure the side lengths		appropriate metric unit (i.e.,		
and perimeters of various		millimetre, centimetre,		
polygons		decimetre, metre,		
		decametre, kilometre) to		
Measurement Overalls:		measure		
4m38, 4m39		length or distance in a given		
		real-life situation		



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Grade 4	Grade 5	Grade 6	Grade 7	Grade 8
		6m35 Construct a rectangle,		
		a square, a triangle, and a		
		parallelogram, using a		
		variety of tools, given the		
		area and/or perimeter		
		Area and Perimeter		
		<u>Fence It</u>		
		Constructing Triangles		
		Perimeter Possibilities		
		Measurement Overalls:		
		6m29, 6m30		
Perimeter and Area	Perimeter and Area	Area of Parallelograms and	Area	Circles
4m26 Solve problems	5m36 Estimate and measure	Triangles	7m17 Explain the	8m33 Solve problems that
involving the addition and	the perimeter and area of	6m32 Estimate, measure,	relationship between	require conversions involving
subtraction of four-digit	regular and irregular	and record length, area,	exponential notation and the	metric units of area, volume,
numbers, using student-	polygons, using a variety of	mass, capacity, and volume,	measurement of area and	and capacity (i.e., square
generated algorithms and	tools and strategies	using the metric	volume	centimetres and square
standard algorithms	Torn Shapes	measurement system	7m33 Research and report	metres; cubic centimetres
4m27 Add and subtract	Smaller and Smaller	6m35 Construct a rectangle,	on real-life applications of	and cubic metres; millilitres
decimal numbers to tenths,	Perimeter Challenge	a square, a triangle, and a	area measurements	and cubic centimetres)
using concrete materials and	5m37 Select and justify the	parallelogram, using a	Warmsnug Double Glazing	8m34 Measure the
student-generated	most appropriate standard	variety of tools, given the	7m36 Solve problems that	circumference, radius, and
algorithms	unit (i.e., millimetre,	area and/or perimeter	require conversion between	diameter of circular objects,
4m31 Multiply whole	centimetre, decimetre,	Area and Perimeter	metric units of area (i.e.,	using concrete materials
numbers by 10, 100, and	metre, kilometre) to measure	Fence It	square centimetres, square	8m35 Determine, through
1000, and divide whole		Constructing Triangles	metres)	investigation using a variety



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Grade 4	Grade 5	Grade 6	Grade 7	Grade 8
numbers by 10 and 100,	the perimeter of various	Perimeter Possibilities	7m37 Determine, through	of tools and strategies, the
using mental strategies	polygons	6m36 Determine, through	investigation using a variety	relationships for calculating
4m32 Multiply two-digit	5m38 Solve problems	investigation using a variety	of tools and strategies, the	the circumference and the
whole numbers by one-digit	requiring conversion from	of tools and strategies, the	relationship for calculating	area of a circle, and
whole numbers, using a	metres to centimetres and	relationship between the	the area of a trapezoid, and	generalize to develop the
variety of tools, student-	from kilometres to metres	area of a rectangle and the	generalize to develop the	formulas [i.e., Circumference
generated algorithms, and	5m40 Create, through	areas of parallelograms and	formula [i.e., Area = (sum of	of a circle = π x diameter;
standard algorithms	investigation using a variety	triangles, by decomposing	lengths of parallel sides x	Area of a circle = πx
4m33 Divide two-digit whole	of tools and strategies, two-	and composing	height) ÷ 2]	(radius)2]
numbers by one-digit whole	dimensional shapes with the	Triangles in a Square	7m38 Solve problems	8m36 Solve problems
numbers, using a variety of	same perimeter or the same	Tilted Squares	involving the estimation and	involving the estimation and
tools and student-generated	area	6m37 Develop the formulas	calculation of the area of a	calculation of the
algorithms	Dicey Perimeter, Dicey Area	for the area of a	trapezoid	circumference and the area
4m44 Estimate, measure	5m41 Determine, through	parallelogram (i.e., Area of	Trapezium Four	of a circle
using a variety of tools and	investigation using a variety	parallelogram = base x	7m39 Estimate and calculate	Circular Area
strategies, and record the	of tools and strategies, the	height) and the area of a	the area of composite two-	Centre Square
perimeter and area of	relationships between the	triangle [i.e., Area of triangle	dimensional shapes by	Rolling Around
polygons	length and width of a	= (base x height) ÷ 2], using	decomposing into shapes	8m44 Construct a circle,
4m49 Select and justify the	rectangle and its area and	the area relationships among	with known area	given its centre and radius,
most appropriate standard	perimeter, and generalize to	rectangles, parallelograms,	relationships	or its centre and a point on
unit (i.e., millimetre,	develop the formulas [i.e.,	and triangles	Tangram Area	the circle, or three points on
centimetre, metre, kilometre)	Area= length x width;	6m38 Solve problems	7m66 Translate phrases	the circle
to measure the side	Perimeter= (2 x length) + (2 x	involving the estimation and	describing simple	
lengths and perimeters of	width)]	calculation of the areas of	mathematical relationships	Measurement Overall:
various polygons	5m42 Solve problems	triangles and the areas of	into algebraic expressions,	8m31
4m50 Determine, through	requiring the estimation and	parallelograms	using concrete materials	Geometry and Spatial Sense
investigation, the relationship		Tangram Area	Quadratic Patterns	Overall: 8m40



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Grade 4	Grade 5	Grade 6	Grade 7	Grade 8
between the side lengths of a	calculation of perimeters and	Isometric Areas	Number Pyramids	
rectangle and its perimeter	areas of rectangles	Isosceles Triangles	Your Number Is	
and area	5m68 Demonstrate, through	6m39 Determine, using	Summing Consecutive	
<u>Fitted</u>	investigation, an	concrete materials, the	Numbers	
Numerically Equal	understanding of variables as	relationship between units	Shifting Times Tables	
4m51 Pose and solve	changing quantities, given	used to measure area (i.e.,	Seven Squares	
meaningful problems that	equations with letters or	square centimetre, square	Odds, Evens and More Evens	
require the ability to	other symbols that describe	metre), and apply the	7m67 Evaluate algebraic	
distinguish perimeter and	relationships involving simple	relationship to solve	expressions by substituting	
area	rates	problems that involve	natural numbers for the	
4m57 Compare, using a	5m69 Demonstrate, through	conversions from square	variables	
variety of tools, two-	investigation, an	metres to square	The Simple Life	
dimensional shapes that have	understanding of variables as	centimetres	Fruity Totals	
the same perimeter or the	unknown quantities	6m63 Demonstrate an	Shape Products	
same area	represented by a letter or	understanding of different		
4m89 Collect and organize	other symbol	ways in which variables are	Number Sense and	
discrete primary data and	5m70 Determine the missing	used	Numeration Overall: 7m8	
display the data in charts,	number in equations	6m64 Identify, through	Measurement Overalls:	
tables, and graphs (including	involving addition,	investigation, the quantities	7m31, 7m32	
stem-and-leaf plots and	subtraction, multiplication, or	in an equation that vary and	Patterning and Algebra	
double bar graphs) that have	division and one- or two-digit	those that remain constant	Overall: 7m59	
appropriate titles, labels, and	numbers, using a variety of	6m65 Solve problems that		
scales that suit the range and	tools and strategies	use two or three symbols or		
distribution of the data, using		letters as variables to		
а	Measurement Overalls:	represent different unknown		
variety of tools	5m31, 5m32	quantities		



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Grade 4	Grade 5	Grade 6	Grade 7	Grade 8
4m90 Read, interpret, and	Patterning and Algebra	6m66 Determine the		
draw conclusions from	Overall: 5m62	solution to a simple equation		
primary data and from		with one variable, through		
secondary data, presented in		investigation using a variety		
charts, tables, and graphs		of tools and strategies		
(including stem-and-leaf plots				
and double bar graphs)		Measurement Overall:		
4m93 Compare similarities		6m29, 6m30		
and differences between two		Patterning and Algebra		
related sets of data, using a		Overall: 6m56		
variety of strategies				
Number Sense and				
Numeration Overall: 4m10				
Measurement Overalls:				
4m38, 4m39				
Data Management Overalls:				
4m85, 4m86				

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Grade 4	Grade 5	Grade 6	Grade 7	Grade 8
Mass	Mass	Mass		
4m55 Estimate, measure, and	5m45 Select and justify the	6m32 Estimate, measure,		
record the mass of objects,	most appropriate standard	and record length, area,		
using the standard units of	unit to measure mass (i.e.,	mass, capacity, and volume,		
the kilogram and the gram	milligram, gram, kilogram,	using the metric		
What's My Weight	tonne)	measurement system		
4m52 Compare and order a		6m34 Solve problems		
collection of objects, using	Measurement Overall: 5m32	requiring conversion from		
standard units of mass (i.e.,		larger to smaller metric units		
gram, kilogram) and/or		Watermelons		
capacity (i.e., millilitre, litre)				
4m53 Determine, through		Measurement Overalls:		
investigation, the relationship		6m29, 6m30		
between grams and				
kilograms				
4m55 Select and justify the				
most appropriate standard				
unit to measure mass (i.e.,				
milligram, gram, kilogram)				
and the most appropriate				
standard unit to measure the				
capacity of a container (i.e.,				
millilitre, litre)				
Measurement Overalls:				
4m38, 4m39				

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Grade 4	Grade 5	Grade 6	Grade 7	Grade 8
Volume and Capacity	Volume and Capacity	Volume, Surface Area and		
4m46 Estimate, measure, and	5m43 Determine, through	Capacity		
record the capacity of	investigation, the relationship	6m32 Estimate, measure,		
containers, using the	between capacity (i.e., the	and record length, area,		
standard units of the litre and	amount a container can hold)	mass, capacity, and volume,		
the millilitre	and volume (i.e., the amount	using the metric		
4m47 Estimate, measure	of space taken up by an	measurement system		
using concrete materials, and	object), by comparing the	6m34 Solve problems		
record volume, and relate	volume of an object with the	requiring conversion from		
volume to the space taken up	amount of liquid it can	larger to smaller metric units		
by an object <u>Pouring Problem</u>	contain or displace	6m40 Determine, through		
4m52 Compare and order a	5m44 Determine, through	investigation using a variety		
collection of objects, using	investigation using stacked	of tools and strategies, the		
standard units of mass (i.e.,	congruent rectangular layers	relationship between the		
gram, kilogram) and/or	of concrete materials, the	height, the area of the base,		
capacity (i.e., millilitre, litre)	relationship between the	and the volume of a		
Next Size Up	height, the area of the base,	triangular prism, and		
4m54 Determine, through	and the volume of a	generalize to develop the		
investigation, the relationship	rectangular prism, and	formula (i.e., Volume = area		
between millilitres and litres	generalize to develop the	of base x height)		
4m55 Select and justify the	formula (i.e., Volume = area	6m41 Determine, through		
most appropriate standard	of the base x height)	investigation using a variety		
unit to measure mass (i.e.,	5m69 Demonstrate, through	of tools and strategies, the		
milligram, gram, kilogram)	investigation, an	surface area of rectangular		
and the most appropriate	understanding of variables as	and triangular prisms		
	unknown quantities	Brush Loads		
		Cubes		



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Grade 4	Grade 5	Grade 6	Grade 7	Grade 8
standard unit to measure the	represented by a letter or	6m42 Solve problems		
capacity of a container (i.e.,	other symbol	involving the estimation and		
millilitre, litre)	5m70 Determine the missing	calculation of the surface		
	number in equations	area and volume of		
Measurement Overalls:	involving addition,	triangular and rectangular		
4m38, 4m39	subtraction, multiplication, or	prisms		
	division and one- or two-digit	Painted Cube		
	numbers, using a variety of	6m63 Demonstrate an		
	tools and strategies	understanding of different		
		ways in which variables are		
	Measurement Overall: 5m32	used		
	Patterning and Algebra	6m64 Identify, through		
	Overall: 5m62	investigation, the quantities		
		in an equation that vary and		
		those that remain constant		
		6m65 Solve problems that		
		use two or three symbols or		
		letters as variables to		
		represent different unknown		
		quantities		
		6m66 Determine the		
		solution to a simple equation		
		with one variable, through		
		investigation using a variety		
		of tools and strategies		
		Measurement Overalls:		
		6m29, 6m30		



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Grade 4	Grade 5	Grade 6	Grade 7	Grade 8			
		Patterning and Algebra					
		Overall: 6m56					
Geometry and Spatial; Sense							
Angles and Geometric	Angles and Geometric	Angles and Geometric	Angles and Geometric	Angles and Geometric			
Properties of 2D Shapes	Properties of 2D Shapes	Properties of 2D Shapes	Properties of 2D Shapes	Properties of 2D Shapes			
4m61 Draw the lines of	5m49 Distinguish among	6m46 Sort and classify	7m46 Construct related lines	8m43 Sort and classify			
symmetry of two-	polygons, regular polygons,	quadrilaterals by geometric	(i.e., parallel; perpendicular;	quadrilaterals by geometric			
dimensional shapes, through	and other two-dimensional	properties related to	intersecting at 30 [°] , 45 [°] , and	properties, including those			
investigation using a variety	shapes Always, Sometimes, or	symmetry, angles, and sides,	60 ^o), using angle properties	based on diagonals, through			
of tools and strategies	Never? Shape	through investigation using a	and a variety of tools and	investigation using a variety			
Symmetry Challenge	5m51 Identify and classify	variety of tools and	strategies	of tools			
4m62 Identify and compare	acute, right, obtuse, and	strategies	7m47 Sort and classify	<u>Diagonals</u>			
different types of	straight angles	National Flags	triangles and quadrilaterals	8m45 Determine, through			
quadrilaterals (i.e., rectangle,	5m52 Measure and construct	Stringy Quads	by geometric properties	investigation using a variety			
square, trapezoid,	angles up to 90º, using a	Completing Quadrilaterals	related to symmetry, angles,	of tools, relationships among			
parallelogram, rhombus) and	protractor	6m47 Sort polygons	and sides, through	area, perimeter,			
sort and classify them by	5m53 Identify triangles (i.e.,	according to the number of	investigation using a variety	corresponding side lengths,			
their geometric properties	acute, right, obtuse, scalene,	lines of symmetry and the	of tools and strategies	and corresponding angles of			
Always, Sometimes, or	isosceles, equilateral), and	order of rotational	Triangles in Circles	similar shapes			
Never? Shape	classify them according to	symmetry, through	Where are They?	8m47 Determine, through			
Stringy Quads	angle and side properties	investigation using a variety	7m48 Construct angle	investigation using a variety			
4m63 Identify benchmark	Triangles All Around	of tools	bisectors and perpendicular	of tools and strategies, the			
angles (i.e., straight angle,	5m54 Construct triangles,	Shady Symmetry	bisectors, using a variety of	angle relationships for			
right angle, half a right	using a variety of tools, given	6m48 Measure and	tools and strategies, and	intersecting lines and for			
angle), using a reference tool,	acute or right angles and side	construct angles up to 180°	represent equal angles and	parallel lines and			
and compare other angles to	measurements	using a protractor, and	equal lengths using	transversals, and the sum of			
these benchmarks			mathematical notation	the angles of a triangle			



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Grade 4	Grade 5	Grade 6	Grade 7	Grade 8
4m64 Relate the names of	Geometry and Spatial Sense	classify them as acute, right,	Bisector Intersection	8m48 Solve angle-
the benchmark angles to	Overall: 5m46	obtuse, or straight angles	7m50 Identify, through	relationship problems
their measures in degrees	Shapes on the Playground	Estimating Angles	investigation, the minimum	involving triangles,
	Polydron	6m49 Construct polygons	side and angle information	intersecting lines, and
Geometry and Spatial Sense		using a variety of tools, given	(i.e., side-side-side; side-	parallel lines and
Overall: 4m58		angle and side	angle-side; angle-side-angle)	transversals
Shapes on the Playground		measurements	needed to describe a unique	Angles in Three Squares
<u>Polydron</u>			triangle	8m49 Determine the
		Geometry and Spatial Sense		Pythagorean relationship,
		Overall: 6m43	Geometry and Spatial Sense	through investigation using a
		Shapes on the Playground;	Overalls: 7m43, 7m44	variety of tools and
		Polydron		strategies
				Pythagoras' Theorem &
				<u>Trigonometry</u>
				8m50 Solve problems
				involving right triangles
				geometrically, using the
				Pythagorean relationship
				Pythagorean Triples
				Pythagoras' Dream
				Geometry and Spatial Sense
				Overalls: 8m40, 8m41
3D Figures	3D Figures	3D Figures	Measurement, Surface Area,	Cylinders
4m65 Identify and describe	5m50 Distinguish among	6m50 Build three-	Volume	8m32 Research, describe,
prisms and pyramids, and	prisms, right prisms,	dimensional models using	7m17 Explain the	and report on applications of
classify them by their		connecting cubes, given	relationship between	



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Grade 4	Grade 5	Grade 6	Grade 7	Grade 8
geometric properties (i.e.,	pyramids, and other three-	isometric sketches or	exponential notation and the	volume and capacity
shape of faces, number of	dimensional figures	different views (i.e., top,	measurement of area and	measurement
edges, number of vertices),	5m55 Identify prisms and	side, front) of the	volume	8m33 Solve problems that
using concrete materials	pyramids from their nets	structure	7m21 Solve multi-step	require conversions involving
4m66 Construct a three-	Cut Nets	6m51 Sketch, using a variety	problems arising from real-	metric units of area, volume,
dimensional figure from a	5m56 Construct nets of	of tools, isometric	life contexts and involving	and capacity (i.e., square
picture or model of the	prisms and pyramids, using a	perspectives and different	whole numbers and	centimetres and square
figure, using connecting	variety of tools	views (i.e., top, side, front) of	decimals, using a variety of	metres; cubic centimetres
cubes		three-dimensional figures	tools and strategies	and cubic metres; millilitres
4m67 Construct skeletons of	Geometry and Spatial Sense	built with interlocking cubes	Tilted Tank	and cubic centimetres)
three-dimensional figures,	Overalls: 5m46, 5m47		7m34 Sketch different	8m37 Determine, through
using a variety of tools, and		Geometry and Spatial Sense	polygonal prisms that share	investigation using a variety
sketch the skeletons		Overall: 6m44	the same volume	of tools and strategies, the
4m68 Draw and describe nets			7m35 Solve problems that	relationship between the
of rectangular and triangular			require conversion between	area of the base and height
prisms			metric units of measure	and the volume of a cylinder,
4m69 Construct prisms and			7m40 Determine, through	and generalize to develop
pyramids from given nets			investigation using a variety	the formula (i.e., Volume =
4m70 Construct three-			of tools and strategies, the	area of base x height)
dimensional figures, using			relationship between the	8m38 Determine, through
only congruent			height, the area of the base,	investigation using concrete
Shapes			and the volume of right	materials, the surface area of
			prisms with simple polygonal	a cylinder
Geometry and Spatial Sense			bases, and generalize to	8m39 Solve problems
Overalls: 4m58, 4m59			develop the formula (i.e.,	involving the surface area
A Chain of Eight Polyhedra			Volume = area of base x	and the volume of cylinders,
			height)	using a variety of strategies



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Grade 4	Grade 5	Grade 6	Grade 7	Grade 8
			Tilted Tank	Efficient Cutting
			7m41 Determine, through	
			investigation using a variety	Measurement Overalls:
			of tools, the surface area of	8m30, 8m31
			right prisms	<u>3D Shapes</u>
			7m42 Solve problems that	
			involve the surface area and	
			volume of right prisms and	
			that require conversion	
			between metric measures of	
			capacity and volume (i.e.,	
			millilitres and cubic	
			centimetres)	
			Changing Areas, Changing	
			<u>Volumes</u>	
			Cuboid Challenge	
			7m49 Investigate, using	
			concrete materials, the	
			angles between the faces of	
			a prism, and identify right	
			prisms	
			7m66 Translate phrases	
			describing simple	
			mathematical relationships	
			into algebraic expressions,	
			using concrete materials	
			Quadratic Patterns	

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			Number Pyramids	
			Your Number Is	
			Summing Consecutive	
			<u>Numbers</u>	
			Shifting Times Tables	
			Seven Squares	
			Odds, Evens and More Evens	
			7m67 Evaluate algebraic	
			expressions by substituting	
			natural numbers for the	
			variables	
			The Simple Life	
			Fruity Totals	
			Shape Products	
			7m69 Solve linear equations	
			of the form ax = c or c = ax	
			and ax + b = c or variations	
			such as b + ax = c and c = bx	
			+ a (where a, b, and c are	
			natural numbers) by	
			modelling with concrete	
			materials, by inspection, or	
			by guess and check, with and	
			without the aid of a	
			calculator	



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Grade 4	Grade 5	Grade 6	Grade 7	Grade 8
			Number Sense and	
			Numeration Overalls: 7m8,	
			7m9	
			Measurement Overall:	
			7m32	
			Geometry and Spatial Sense	
			Overall: 7m43	
			Patterning and Algebra	
			Overall: 7m59	
			3D Shapes	
Location, Movement and	Location, Movement and	Location, Movement and	Location and	Location and Movement
Geometric Patterns	Geometric Patterns	Geometric Patterns	Transformations	8m52 Graph the image of a
4m71 Identify and describe	5m57 Locate an object using	6m52 Explain how a	7m51 Determine, through	point, or set of points, on the
the general location of an	the cardinal directions (i.e.,	coordinate system	investigation using a variety	Cartesian coordinate plane
object using a grid system	north, south, east, west) and	represents location, and plot	of tools, relationships among	after applying a
4m72 Identify, perform, and	a coordinate system	points in the first quadrant	area, perimeter,	transformation to the
describe reflections using a	Chippy's Journeys	of a Cartesian coordinate	corresponding side lengths,	original point(s) (i.e.,
variety of tools	5m58 Compare grid systems	plane	and corresponding angles of	translation; reflection in the
4m73 Create and analyse	commonly used on maps (i.e.,	A Cartesian Puzzle	congruent shapes	x-axis, the y-axis, or the
symmetrical designs by	the use of numbers and	Treasure Island	Shape Draw	angle bisector of the axes
reflecting a shape, or shapes,	letters to identify an area; the	Coordinate Challenge	7m52 Demonstrate an	that passes through the first
using a variety of tools, and	use of a coordinate system	Eight Hidden Squares	understanding that enlarging	and third quadrants; rotation
identify the congruent shapes	based on the cardinal	6m53 Identify, perform, and	or reducing two-dimensional	of 90°, 180°, or 270° about
in the designs	directions to describe a	describe, through	shapes creates similar	the origin)
National Flags	specific location)	investigation using a variety	shapes	Transformation Game
4m79 Make predictions		of tools, rotations of 180°	Twice as Big?	8m53 Identify, through
related to repeating		and clockwise and counter	_	investigation, real-world



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Grade 4	Grade 5	Grade 6	Grade 7	Grade 8
geometric and numeric	5m59 Identify, perform, and	clockwise rotations of 90°,	7m53 Distinguish between	movements that are
patterns	describe translations, using a	with the centre of rotation	and compare similar shapes	translations, reflections, and
Repeating Patterns	variety of tools	inside or outside the shape	and congruent shapes, using	rotations
4m80 Extend and create	5m60 Create and analyse	Peg Rotation	a variety of tools and	
repeating patterns that result	designs by translating and/or	6m54 Create and analyse	strategies	
from reflections, through	reflecting a shape, or shapes,	designs made by reflecting,	7m54 Plot points using all	Geometry and Spatial Sense
investigation using a variety	using a variety of tools	translating, and/or rotating a	four quadrants of the	Overall: 8m42
of tools	5m63 Create, identify, and	shape, or shapes, by 90⁰ or	Cartesian coordinate plane	
	extend numeric and	180º	7m55 Identify, perform, and	
Geometry and Spatial Sense	geometric patterns, using a	Polygon Pictures	describe dilatations (i.e.,	
Overall: 4m60	variety of tools	6m62 Extend and create	enlargements and	
Patterning and Algebra	5m66 Make predictions	repeating patterns that	reductions), through	
Overall: 4m74	related to growing and	result from rotations,	investigation using a variety	
	shrinking geometric and	through investigation using a	of tools	
	numeric patterns	variety of tools	Who is the fairest of them	
	5m67 Extend and create		<u>all?</u>	
	repeating patterns that result	Geometry and Spatial Sense	7m56 Create and analyse	
	from translations, through	Overall: 6m45	designs involving	
	investigation using a variety	Patterning and Algebra	translations, reflections,	
	of tools	Overall: 6m55	dilatations, and/or simple	
			rotations of two-dimensional	
	Geometry and Spatial Sense		shapes, using a variety of	
	Overall: 5m48		tools and strategies	
	Patterning and Algebra		Reflecting Squarely	
	Overall: 5m61		Attractive Rotations	
			Robotic Rotations	



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Grade 4	Grade 5	Grade 6	Grade 7	Grade 8
			7m57 Determine, through	
			investigation using a variety	
			of tools, polygons or	
			combinations of polygons	
			that tile a plane, and	
			describe the	
			transformation(s) involved	
			Semi-regular Tessellations	
			Polygon Rings	
			Geometry and Spatial Sense	
			Overalls: 7m44, 7m45	
Patterning				
Numeric Patterns	Numeric Patterns	Numeric Patterns	Linear Growing Patterns	Linear Relationships
4m76 Extend, describe, and	5m63 Create, identify, and	6m57 Identify geometric	7m60 Represent linear	8m56 Represent, through
create repeating, growing,	extend numeric and	patterns, through	growing patterns, using a	investigation with concrete
and shrinking number	geometric patterns, using a	investigation using concrete	variety of tools and	materials, the general term
patterns	variety of tools	materials or drawings, and	strategies	of a linear pattern, using one
Tables without Tens	Tables without Tens	represent them numerically	7m61 Make predictions	or more algebraic
Carrying Cards	Carrying Cards	Cuisenaire Spirals	about linear growing	expressions
4m77 Connect each term in a	5m64 Build a model to	Up and Down Staircases	patterns, through	Special Numbers
growing or shrinking pattern	represent a number pattern	Sticky Triangles	investigation with concrete	8m57 Represent linear
with its term number, and	presented in a table of values	6m58 Make tables of values,	materials	patterns graphically (i.e.,
record the patterns in a table	that shows the term number	for growing patterns given	7m62 Develop and represent	make a table of values that
of values that	and the term	pattern rules, in words, then	the general term of a linear	shows the term number and
shows the term number and	5m65 Make a table of values	list the ordered pairs (with	growing pattern, using	the term, and plot the
the term	for a pattern that is	the first coordinate		



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Grade 4	Grade 5	Grade 6	Grade 7	Grade 8
4m78 Create a number	generated by adding or	representing the term	algebraic expressions	coordinates on a graph),
pattern involving addition,	subtracting a number (i.e., a	number and the second	involving one operation	using a variety of tools
subtraction, or multiplication,	constant) to get the next	coordinate representing the	7m63 Compare pattern rules	Functions and Graphs - Short
given a pattern rule	term, or by multiplying or	term) and plot the points in	that generate a pattern by	<u>Problems</u>
expressed in words	dividing by a constant to get	the first quadrant, using a	adding or subtracting a	8m58 Determine a term,
4m79 Make predictions	the next term, given either	variety of tools	constant, or multiplying or	given its term number, in a
related to repeating	the sequence or the pattern	6m59 Determine the term	dividing by a constant, to get	linear pattern that is
geometric and numeric	rule in words	number of a given term in a	the next term with pattern	represented by a graph or an
patterns	5m66 Make predictions	growing pattern that is	rules that use the term	algebraic equation
	related to growing and	represented by a pattern	number to describe the	8m60 Model linear
Patterning and Algebra	shrinking geometric and	rule in words, a table of	general term	relationships using tables of
Overall: 4m74	numeric patterns	values, or a graph	Special Numbers	values, graphs, and
		6m60 Describe pattern rules	7m64 Model real-life	equations, through
	Patterning and Algebra	(in words) that generate	relationships involving	investigation using a variety
	Overall: 5m61	patterns by adding or	constant rates where the	of tools
		subtracting a constant, or	initial condition starts at 0,	8m63 Make connections
		multiplying or dividing by a	through investigation using	between solving equations
		constant, to get the next	tables of values and graphs	and determining the term
		term, then distinguish such	7m65 Model real-life	number in a pattern, using
		pattern rules from pattern	relationships involving	the general term
		rules, given in words, that	constant rates, using	Printing Error
		describe the general term by	algebraic equations with	
		referring to the term number	variables to represent the	Patterning and Algebra
		Exploring Number Patterns	changing quantities in the	Overalls: 8m54, 8m55
		You Make	relationship	
		Tables without Tens	7m66 Translate phrases	
		Carrying Cards	describing simple	



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Grade 4	Grade 5	Grade 6	Grade 7	Grade 8
		6m61 Determine a term,	mathematical relationships	
		given its term number, by	into algebraic expressions,	
		extending growing and	using concrete materials	
		shrinking patterns that are	Quadratic Patterns	
		generated by adding or	Number Pyramids	
		subtracting a constant, or	Your Number Is	
		multiplying or dividing by a	Summing Consecutive	
		constant, to get the next	<u>Numbers</u>	
		term	Shifting Times Tables	
			Seven Squares	
		Patterning and Algebra	Odds, Evens and More Evens	
		Overalls: 6m55	7m67 Evaluate algebraic	
			expressions by substituting	
			natural numbers for the	
			variables	
			The Simple Life	
			Fruity Totals	
			Shape Products	
			7m68 Make connections	
			between evaluating	
			algebraic expressions and	
			determining the term in a	
			pattern using the general	
			term	
			Where Can We Visit?	
			7m69 Solve linear equations	
			of the form ax = c or c = ax	

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Grade 4	Grade 5	Grade 6	Grade 7	Grade 8
			and ax + b = c or variations	
			such as b + ax = c and c = bx	
			+ a (where a, b, and c are	
			natural numbers) by	
			modelling with concrete	
			materials, by inspection, or	
			by guess and check, with and	
			without the aid of a	
			calculator	
			The Simple Life	
			Patterning and Algebra	
			Overalls: 7m58, 7m59	
Algebra				
		Equality - Unknown	Unknown Quantities	Unknown Quantities
		Quantities	7m66 Translate phrases	8m51 Determine, through
		6m63 Demonstrate an	describing simple	investigation using concrete
		understanding of different	mathematical relationships	materials, the relationship
		ways in which variables are	into algebraic expressions,	between the numbers of
		used	using concrete materials	faces, edges, and vertices of
		6m64 Identify, through	Quadratic Patterns	a polyhedron (i.e., number of
		investigation, the quantities	Number Pyramids	faces + number of vertices =
		in an equation that vary and	Your Number Is	number of edges + 2)
		those that remain constant	Summing Consecutive	8m59 Describe different
		Diagonal Sums	Numbers	ways in which algebra can be
		6m65 Solve problems that	Shifting Times Tables	used in real-life situations
		use two or three symbols or	Seven Squares	



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Grade 4	Grade 5	Grade 6	Grade 7	Grade 8
		letters as variables to	Odds, Evens and More Evens	8m61 Translate statements
		represent different unknown	7m67 Evaluate algebraic	describing mathematical
		quantities	expressions by substituting	relationships into algebraic
		6m66 Determine the	natural numbers for the	expressions and equations
		solution to a simple equation	variables	Litov's Mean Value Theorem
		with one variable, through	The Simple Life	8m62 Evaluate algebraic
		investigation using a variety	Fruity Totals	expressions with up to three
		of tools and strategies	Shape Products	terms, by substituting
		Interactive Number Patterns	7m69 Solve linear equations	fractions, decimals, and
			of the form ax = c or c = ax	[positive] integers for the
		Patterning and Algebra	and ax + b = c or variations	variables
		Overall: 6m56	such as b + ax = c and c = bx	8m64 Solve and verify linear
		Two and Two	+ a (where a, b, and c are	equations involving a one-
		Price Match	natural numbers) by	variable term and having
			modelling with concrete	solutions that are [positive]
			materials, by inspection, or	integers by using inspection,
			by guess and check, with and	guess and check, and a
			without the aid of a	"balance model"
			calculator	Functions and Graphs - Short
			Creating and Manipulating	<u>Problems</u>
			Linear and Quadratic	
			Expressions - Short Problems	Geometry and Spatial Sense
				Overall: 8m41
			Patterning and Algebra	Patterning and Algebra
			Overall: 7m59	Overall: 8m55
Data Management				

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Grade 4	Grade 5	Grade 6	Grade 7	Grade 8
Collect, Organize, Display	Collect, Organize, and Display	Collect, Organize and	Collect, Organize and	Collect, Organize and
and Interpret Categorical	Primary Data	Display Primary and	Display Data	Display Data
Data	5m75 Collect data by	Secondary Data	7m73 Collect data by	8m68 Collect data by
4m88 Collect data by	conducting a survey or an	6m70 Collect data by	conducting a survey or an	conducting a survey or an
conducting a survey or an	experiment to do with	conducting a survey or an	experiment to do with	experiment to do with
experiment to do with	themselves, their	experiment to do with	themselves, their	themselves, their
themselves, their	environment, issues in their	themselves, their	environment, issues in their	environment, issues in their
environment, issues in their	school or community, or	environment, issues in their	school or community, or	school or community, or
school or the	content from another subject,	school or community, or	content from another	content from another
community, or content from	and record observations or	content from another	subject and record	subject, and record
another subject, and record	measurements	subject, and record	observations or	observations or
observations or	Compare the Squares	observations or	measurements	measurements
measurements	Real Statistics	measurements Compare the	Our Sports	8m69 Organize into intervals
Compare the Squares	5m76 Collect and organize	<u>Squares</u>	The Car That Passes	a set of data that is spread
Real Statistics	discrete or continuous	Real Statistics	7m74 Collect and organize	over a broad range
4m89 Collect and organize	primary data and secondary	6m71 Collect and organize	categorical, discrete, or	8m70 Collect and organize
discrete primary data and	data and display the data in	discrete or continuous	continuous primary data and	categorical, discrete, or
display the data in charts,	charts, tables, and graphs	primary data and secondary	secondary data and display	continuous primary data and
tables, and graphs (including	(including broken-line graphs)	data and display the data in	the data in charts, tables,	secondary data, and display
stem-and-leaf plots and	that have appropriate	charts, tables, and graphs	and graphs (including	the data in charts, tables,
double bar graphs) that have	titles, labels, and scales that	(including continuous line	relative frequency tables and	and graphs (including
appropriate titles, labels and	suit the range and	graphs) that have	circle graphs) that have	histograms and scatter plots)
scales that suit the range and	distribution of the data, using	appropriate titles, labels, and	appropriate titles, labels, and	that have appropriate titles,
distribution of the data, using	a variety of tools Our Sports	scales that suit the range and	scales that suit the range	labels, and scales that suit
a variety of tools	The Car That Passes	distribution of the data,	and distribution of the data,	the range and distribution of
Our Sports		using a variety of tools	using a variety of tools	the data, using a variety of
The Car That Passes		Our Sports		tools



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Grade 4	Grade 5	Grade 6	Grade 7	Grade 8
4m90 Read, interpret, and	Data Management and	The Car That Passes	Tools for Thinking about	Tools for Thinking about
draw conclusions from	Probability Overall: 5m71	6m72 Select an appropriate	<u>Probability</u>	<u>Probability</u>
primary data and from		type of graph to represent a	7m75 Select an appropriate	8m71 Select an appropriate
secondary data presented in		set of data, graph the data	type of graph to represent a	type of graph to represent a
charts, tables, and graphs		using technology, and justify	set of data, graph the data	set of data, graph the data
(including stem-and-leaf plots		the choice of graph (i.e.,	using technology, and justify	using technology, and justify
and double bar graphs)		from types of graphs already	the choice of graph (i.e.,	the choice of graph (i.e.,
		studied, such as pictographs,	from types of graphs already	from types of graphs already
Data Management and		horizontal or vertical bar	studied)	studied, including histograms
Probability Overalls: 4m85,		graphs, stem-and-leaf plots,	Fill Me Up	and scatter plots); – explain
4m86		double bar graphs, broken-	7m76 Distinguish between a	the relationship between a
		line graphs, and continuous	census and a sample from a	census, a representative
		line graphs)	population	sample, sample size, and a
		6m73 Determine, through	7m77 Identify bias in data	population
		investigation, how well a set	collection methods	8m75 Demonstrate an
		of data represents a		understanding of the
		population, on the basis of	Data Management and	appropriate uses of bar
		the method that was used to	Probability Overall: 7m70	graphs and histograms by
		collect the data		comparing their
		How Big Are Classes 5, 6 and		characteristics
		<u>7?</u>		
				Data Management and
		Data Management and		Probability Overalls: 8m65,
		Probability Overall: 6m67		8m66
Collect, Organize, Display	Collect, Organize, Display,	Interpret Data	Data Analysis and	Data Analysis and
and Interpret Numerical	and Interpret Numerical Data	6m74 Read, interpret, and	Interpretation	Interpretation
Data		draw conclusions from		



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Grade 4	Grade 5	Grade 6	Grade 7	Grade 8
4m88 Collect data by	5m74 Distinguish between	primary data and from	7m75 Select an appropriate	8m72 Explain the
conducting a survey or an	discrete data (i.e., data	secondary data, presented in	type of graph to represent a	relationship between a
experiment to do with	organized using numbers that	charts, tables, and graphs	set of data, graph the data	census, a representative
themselves, their	have gaps between them,	(including continuous line	using technology, and justify	sample, sample size, and a
environment, issues in their	such as whole numbers, and	graphs)	the choice of graph (i.e.,	population
school or the	often used to represent a	Real Statistics	from types of graphs already	8m73 Read, interpret, and
community, or content from	count, such as the number of	Going for Gold	studied)	draw conclusions from
another subject, and record	times a word is used) and	Presenting the Project	Fill Me Up	primary data and from
observations or	continuous data (i.e., data	6m75 Compare, through	7m76 Distinguish between a	secondary data, presented in
measurements	organized using all numbers	investigation, different	census and a sample from a	charts, tables, and graphs
Real Statistics	on a number line that fall	graphical representations of	population	(including frequency tables
Going for Gold	within the range of the data,	the same data	7m77 Identify bias in data	with intervals, histograms,
4m89 Collect and organize	and used to represent	Match the Matches	collection methods	and scatter plots)
discrete primary data and	measurements such as	If the World Were a Village	7m78 Read, interpret, and	Bat Wings
display the data in charts,	heights or ages of trees)	6m76 Explain how different	draw conclusions from	What's the Weather Like?
tables, and graphs (including	5m75 Collect data by	scales used on graphs can	primary data and from	8m74 Determine, through
stem-and-leaf plots and	conducting a survey or an	influence conclusions drawn	secondary data presented in	investigation, the
double bar graphs) that have	experiment to do with	from the data	charts, tables, and graphs	appropriate measure of
appropriate titles, labels, and	themselves, their	How Big are Classes 5, 6, and	(including relative frequency	central tendency (i.e., mean,
scales that suit the range and	environment, issues in their	<u>7</u>	tables and circle graphs)	median, or mode) needed to
distribution of the data, using	school or community, or	6m77 Demonstrate an	Bat Wings	compare sets of data
a variety of tools	content from another subject,	understanding of mean, and	What's the Weather Like?	M, M and M
4m90 Read, interpret, and	and record observations or	use the mean to compare	7m79 Identify, through	Unequal Averages
draw conclusions from	measurements	two sets of related data,	investigation, graphs that	8m76 Compare two
primary data and from	Real Statistics	with and without the use of	present data in misleading	attributes or characteristics
secondary data, presented in	Going for Gold	technology	ways	using a scatter plot, and
charts, tables, and graphs		Match the Matches		determine whether or not



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Grade 4	Grade 5	Grade 6	Grade 7	Grade 8
(including stem-and-leaf plots	5m76 Collect and organize	The Mean Problem	7m80 Determine, through	the scatter plot suggests a
and double bar graphs)	discrete or continuous	6m78 Demonstrate, through	investigation, the effect on a	relationship
Presenting the Project	primary data and secondary	investigation, an	measure of central tendency	8m77 Identify and describe
4m91 Demonstrate, through	data and display the data in	understanding of how data	(i.e., mean, median, and	trends, based on the rate of
investigation, an	charts, tables, and graphs	from charts, tables, and	mode) of adding or removing	change of data from tables
understanding of median and	(including broken-line graphs)	graphs can be used to make	a value or values <u>Unequal</u>	and graphs, using informal
determine the median of a	that have appropriate	inferences and convincing	Averages	language
set of data	titles, labels, and scales that	arguments	Average Temperature	Journey to School
4m92 Describe the shape of a	suit the range and	If the World Were a Village	M, M and M	8m78 Make inferences and
set of data across its range of	distribution of the data, using	Going for Gold	7m81 Identify and describe	convincing arguments that
values, using charts, tables,	a variety of tools	Presenting the Project	trends, based on the	are based on the analysis of
and graphs	5m77 Demonstrate an		distribution of the data,	charts, tables, and graphs
4m93 Compare similarities	understanding that sets of	Data Management Overall:	presented in tables and	Bat Wings
and differences between two	data can be samples of larger	6m68	graphs, using informal	8m79 Compare two
related sets of data, using a	populations		language	attributes of characteristics,
variety of strategies	If the World Were a Village		7m82 Make inferences and	using a variety of data
Now and Then	5m78 Describe, through		convincing arguments that	management tools and
	investigation, how a set of		are based on the analysis of	strategies (i.e., pose a
Data Management Overalls:	data is collected and explain		charts, tables, and graphs	relevant question, then
4m85, 4m86	whether the collection		Bat Wings	design an experiment or
	method is appropriate			survey, collect and analyse
	5m79 Read, interpret, and		Data Management and	the data, and draw
	draw conclusions from		Probability Overalls: 7m70,	conclusions)
	primary data and from		7m71	
	secondary data, presented in			Data Management and
	charts, tables, and graphs			Probability Overalls: 8m65,
	(including broken-line graphs)			8m66



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Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	
	Presenting the Project				
	5m80 Calculate the mean for				
	a small set of data and use it				
	to describe the shape of the				
	data set across its range of				
	values, using charts, tables,				
	and graphs				
	Match the Matches				
	5m81 Compare similarities				
	and differences between two				
	related sets of data, using a				
	variety of strategies				
	Now and Then				
	Data Management Overalls:				
	5m71, 5m72				
Probability					
Probability	Probability	Probability	Probability	Probability	
4m88 Collect data by	5m16 Represent, compare,	6m70 Collect data by	7m73 Collect data by	8m68 Collect data by	
conducting a survey or an	and order fractional amounts	conducting a survey or an	conducting a survey or an	conducting a survey or an	
experiment to do with	with like denominators,	experiment to do with	experiment to do with	experiment to do with	
themselves, their	including proper and	themselves, their	themselves, their	themselves, their	
environment, issues in their	improper fractions and mixed	environment, issues in their	environment, issues in their	environment, issues in their	
school or the	numbers, using a variety of	school or community, or	school or community, or	school or community, or	
community, or content from	tools and using standard	content from another	content from another	content from another	
another subject, and record	fractional	subject, and record	subject and record	subject and record	



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Grade 4	Grade 5	Grade 6	Grade 7	Grade 8
observations or	notation	observations or	observations or	observations or
measurements	5m75 Collect data by	measurements	measurements	measurements
4m89 Collect and organize	conducting a survey or an	6m71 Collect and organize	7m74 Collect and organize	8m70 Collect and organize
discrete primary data and	experiment to do with	discrete or continuous	categorical, discrete, or	categorical, discrete, or
display the data in charts,	themselves, their	primary data and secondary	continuous primary data and	continuous primary data and
tables, and graphs (including	environment, issues in their	data and display the data in	secondary data and display	secondary data and display
stem-and-leaf plots and	school or community, or	charts, tables, and graphs	the data in charts, tables,	the data in charts, tables,
double bar graphs) that have	content from another subject,	(including continuous line	and graphs (including	and graphs (including
appropriate titles, labels and	and record observations or	graphs) that have	relative frequency tables and	histograms and scatter plots)
scales that suit the range and	measurements	appropriate titles, labels, and	circle graphs) that have	that have appropriate titles,
distribution of the data, using	5m76 Collect and organize	scales that suit the range and	appropriate titles, labels and	labels, and scales that suit
a variety of tools	discrete or continuous	distribution of the data,	scales that suit the range	the range and distribution of
4m90 Read, interpret, and	primary data and secondary	using a variety of tools	and distribution of the data,	data, using a variety of tools
draw conclusions from	data and display the data in	Tools for Thinking about	using a variety of tools	Tools for Thinking about
primary data and from	charts, tables, and graphs	<u>Probability</u>	Tools for Thinking about	<u>Probability</u>
secondary data presented in	(including broken-line graphs)	6m74 Read, interpret, and	<u>Probability</u>	8m73 Read, interpret, and
charts, tables, and graphs	that have appropriate titles,	draw conclusions from	7m78 Read, interpret, and	draw conclusions from
(including stem-and-leaf plots	labels, and scales that suit the	primary data and from	draw conclusions from	primary data and from
and double bar graphs)	range and distribution of the	secondary data, presented in	primary data and from	secondary data, presented in
4m94 Predict the frequency	data, using a variety of tools	charts, tables, and graphs	secondary data presented in	charts, tables, and graphs
of an outcome in a simple	5m79 Read, interpret, and	(including continuous line	charts, tables, and graphs	(including frequency tables
probability experiment,	draw conclusions from	graphs)	(including relative frequency	with intervals, histograms
explaining their reasoning;	primary data and from	6m79 Express theoretical	tables and circle graphs)	and scatter plots)
conduct the experiment; and	secondary data, presented in	probability as a ratio of the	7m83 Research and report	8m80 Compare, through
compare the result with the	charts, tables, and graphs	number of favourable	on real-world applications of	investigation, the theoretical
prediction	(including broken-line graphs)	outcomes to the total	probabilities expressed in	probability of an event (i.e.,
Same or Different?		number of possible		the ratio of the number of



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Grade 4	Grade 5	Grade 6	Grade 7	Grade 8
4m95 Determine, through	5m82 Determine and	outcomes, where all	fraction, decimal, and	ways a favourable outcome
investigation, how the	represent all the possible	outcomes are equally likely	percent form	can occur compared to the
number of repetitions of a	outcomes in a simple	<u>It's a Tie</u>	Statistical Shorts	total number of possible
probability experiment can	probability experiment, using	6m80 Represent the	7m84 Make predictions	outcomes) with
affect the conclusions drawn	systematic lists and area	probability of an event (i.e.,	about a population when	experimental probability,
It's a Tie	models	the likelihood that the event	given a probability	and explain why they might
Three Spinners	Same or Different?	will occur), using a value	7m85 Represent in a variety	differ
	5m83 Represent, using a	from the range of 0 (never	of ways all the possible	Interactive Spinners
Data Management Overall:	common fraction, the	happens or impossible) to 1	outcomes of a probability	Statistical Shorts
4m85, 4m86, 4m87	probability that an event will	(always happens or certain)	experiment involving two	8m81 Determine, through
	occur in simple games and	Same or Different?	independent events (i.e.,	investigation, the tendency
	probability experiments	6m81 Predict the frequency	one event does not affect	of experimental probability
	5m84 Pose and solve simple	of an outcome of a simple	the other event), and	to approach theoretical
	probability problems, and	probability experiment or	determine the theoretical	probability as the number of
	solve them by conducting	game, by calculating and	probability of a specific	trials in an experiment
	probability experiments and	using the theoretical	outcome involving two	increases, using class-
	selecting appropriate	probability of that outcome	independent events <u>Strange</u>	generated data and
	methods of recording the	Statistical Shorts	Dice	technology-based simulation
	results	Same or Different?	7m86 Perform a simple	models
	Same or Different?	Interactive Spinners	probability experiment	Misunderstanding
	<u>It's a Tie</u>		involving two independent	Randomness
		Data Management Overalls:	events, and compare the	Can't Find a Coin
	Number Sense and	6m67, 6m68, 6m69	experimental probability	8m82 Identify the
	Numeration Overall: 5m8		with the theoretical	complementary event for a
	Data Management Overalls:		probability of a specific	given event, and calculate
	5m71, 5m72, 5m73		outcome	the theoretical probability
			Interactive Spinners	



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Grade 4	Grade 5	Grade 6	Grade 7	Grade 8
				that a given event will not
			Data Management and	occur
			Probability Overalls: 7m70,	
			7m71, 7m72	Data Management and
				Probability Overalls: 8m65,
				8m66, 8m67

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