Mathseeds Lessons and the Manitoba Mathematics Curriculum Framework

KINDERGARTEN

				Mathseeds Lesson #			Additional Mathseeds Resources	
				Knowledge and Skills	Assessment	Higher Order Thinking Skills	Fluency	Assessment
Strand	**General Learning Outcomes**	**Specific Learning Outcomes**	**Codes**	**Online Lesson and Printable Resources**	**End-of-lesson Quiz**	**Critical Thinking and Problem Solving Worksheets**	**Driving Tests (DT) Mental Minute (MM)**	**Printable Achievement Standards Assessment**
NUMBER	Develop number sense.	Say the number sequence by 1s, starting anywhere from 1 to 30 and from 10 to 1.	K.N.1	10, 16, 18, 20, 21, 25, 28, 31			**DT** Early Number 2, 4, 5, 9	
		Subitize and name familiar arrangements of 1 to 6 dots (or objects).	K.N.2	1, 2, 3, 5, 7, 11, 12, 14, 17, 19, 33				
		Relate a numeral, 1 to 10, to its respective quantity.	K.N.3				**DT** Early Number 1, 6, 7	
		Represent and describe numbers 2 to 10 in two parts, concretely and pictorially.	K.N.4				**DT** Early Number 3, 10	
		Demonstrate an understanding of counting to 10 by indicating that the last number said identifies "how many", and showing that any set has only one count.	K.N.5					
		Compare quantities, 1 to 10, using one-to-one correspondence and by ordering numbers representing different quantities.	K.N.6	22			**DT** Early Number 8	**Kindergarten Number** Test 3
PATTERNS AND RELATIONS (Patterns)	Use patterns to describe the world and solve problems.	Demonstrate an understanding of repeating patterns (two or three elements) by identifying, reproducing, extending,and creating patterns.	K.PR.1	8, 27, 37			**DT** Early Patterns 1–9	
SHAPE AND SPACE (Measurement)	Use direct or indirect measurement to solve problems.	Use direct comparison to compare two objects based on a single attribute, such as length (height).	K.SS.1	13, 26			**DT** Early Measurement 2, 3, 5, 6, 9, 10	**Kindergarten Measurement** Tests 1, 2, 3
		Use direct comparison to compare two objects based on a single attribute, such as mass (weight).	K.SS.1	29			**DT** Early Measurement 7, 8, 11, 12	**Kindergarten Measurement** Test 4
		Use direct comparison to compare two objects based on a single attribute, such as volume (capacity).	K.SS.1	38			**DT** Early Measurement 15, 16, 20	**Kindergarten Measurement** Test 5
SHAPE AND SPACE (3-D Objects and 2-D Shapes)	Describe the characteristics of 3-D objects and 2-D shapes, and analyze the relationships among them.	Sort 3-D objects, using a single attribute.	K.SS.2	35, 44			**DT** Early Geometry 15–18, 21–23	**Kindergarten Geometry** Tests 2, 3

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GRADE 1

Strand	General Learning Outcomes	Specific Learning Outcomes	Codes	Mathseeds Lesson # — Knowledge and Skills: Online Lesson and Printable Resources	Mathseeds Lesson # — Assessment: End-of-lesson Quiz	Mathseeds Lesson # — Higher Order Thinking Skills: Critical Thinking and Problem Solving Worksheets	Additional Mathseeds Resources — Fluency: Driving Tests (DT) Mental Minute (MM)	Additional Mathseeds Resources — Assessment: Printable Achievement Standards Assessment
NUMBER	Develop number sense.	Say the number sequence by 1s forward and backward (0 to 100); by 2s to 30; by 5s and 10s to 100.	1.N.1	56, 60, 67, 75, 77, 79, 81, 86, 90			**DT** Grade 1 Number 1–6, 10, 11, 13, 16, 21 **DT** Grade 1 Patterns and Fractions 7–10	**Grade 1 Number and Algebra: Whole Numbers** Tests 1, 3–9 **Grade 1 Number and Algebra: Patterns** Tests 1, 4, 6, 7
		Subitize and name familiar arrangements of 1 to 10 dots.	1.N.2					
		Demonstrate an understanding of counting.	1.N.3					
		Represent and describe numbers to 20.	1.N.4					
		Compare and order sets up to 20.	1.N.5					
		Estimate quantities to 20 by using referents.	1.N.6					
		Demonstrate how a number up to 30 can be represented by a variety of equal groups with and without singles.	1.N.7					
		Identify the number, up to 20, that is one more, two more, one less, and two less than a given number.	1.N.8				**DT** Grade 1 Operations 4–12, 16	**Grade 1 Number and Algebra: Operations** Tests 1–3
		Demonstrate an understanding of addition of numbers with answers to 20 and their corresponding subtraction facts.	1.N.9	51, 53, 58, 65				
		Demonstrate how a number up to 30 can be represented by a variety of equal groups with and without singles.	1.N.10	68, 72, 85, 91, 93, 100			**DT** Grade 1 Operations 1–3 **MM** Addition Sprints **MM** Subtraction Sprints	
PATTERNS AND RELATIONS (Patterns)	Use patterns to describe the world and solve problems.	Demonstrate an understanding of repeating patterns (two to four elements). Translate repeating patterns from one representation to another.	1.PR.1, 1.PR.2				**DT** Grade 1 Patterns and Fractions 1, 2, 4	
PATTERNS AND RELATIONS (Variables and Equations)	Represent algebraic expressions in multiple ways.	Describe equality as a balance and inequality as an imbalance, concretely and pictorially (0 to 20). Record equalities using the equal symbol (0 to 20).	1.PR.3, 1.PR.4	76				
SHAPE AND SPACE (Measurement)	Use direct or indirect measurement to solve problems.	Demonstrate an understanding of measurement as a process of comparing by identifying attributes, ordering, making statements of comparison and matching. (length)	1.SS.1	55, 73, 84			**DT** Grade 1 Measurement 2, 4, 13, 14	**Grade 1 Measurement: Length** Tests 1–5
		Demonstrate an understanding of measurement as a process of comparing by identifying attributes, ordering, making statements of comparison, and filling. (capacity)	1.SS.1	89			**DT** Grade 1 Measurement 11, 17–19	
		Demonstrate an understanding of measurement as a process of comparing by identifying attributes, ordering, making statements of comparison, and covering. (area)	1.SS.1	59				
SHAPE AND SPACE (3-D Objects and 2-D Shapes)	Describe the characteristics of 3-D objects and 2-D shapes, and analyze the relationships among them.	Sort 3-D objects and 2-D shapes using one attribute, and explain the sorting rule.	1.SS.2	52, 62			**DT** Grade 1 Geometry 1–3, 6–8, 10, 17–19	**Grade 1 Geometry: Shape** Tests 1–6
		Replicate composite 2-D shapes and 3-D objects.	1.SS.3	99			**DT** Grade 1 Geometry 9, 13	**Grade 1 Geometry: Shape** Test 7
		Compare 2-D shapes to parts of 3-D objects in the environment.	1.SS.4	69				

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GRADE 2

Strand	General Learning Outcomes	Specific Learning Outcomes	Codes	Mathseeds Lesson # — Knowledge and Skills: Online Lesson and Printable Resources	Mathseeds Lesson # — Assessment: End-of-lesson Quiz	Mathseeds Lesson # — Higher Order Thinking Skills: Critical Thinking and Problem Solving Worksheets	Additional Mathseeds Resources — Fluency: Driving Tests (DT) Mental Minute (MM)	Additional Mathseeds Resources — Assessment: Printable Achievement Standards Assessment
NUMBER	Develop number sense.	Say the number sequence 0 to 100 by 2s, 5s and 10s, forward and backward.	2.N.1	117			**DT** Grade 2 Patterns and Fractions 1–3	
		Demonstrate if a number (up to 100) is even or odd.	2.N.2	108			**DT** Grade 2 Operations 3	
		Describe order or relative position using ordinal numbers.	2.N.3	63			**DT** Early Number 24, 25	
		Represent and describe numbers to 100.	2.N.4				**DT** Grade 1 Number 8, 12, 22	
		Compare and order numbers up to 100.	2.N.5	122			**DT** Grade 1 Number 7, 14, 18, 20, 23	
		Estimate quantities to 100 using referents.	2.N.6	129				
		Illustrate the meaning of place value for numbers to 100.	2.N.7				**DT** Grade 1 Number 9, 17, 19, 24	**Grade 1 Number and Algebra: Place Value** Tests 1–6
		Demonstrate an understanding of addition (limited to 1- and 2-digit numerals) with answers to 100 and the corresponding subtraction.	2.N.9	103, 110, 118, 120, 124, 128, 131, 139, 150			**DT** Grade 2 Operations 7, 13–17, 20, 22, 23 **MM** Addition Sprints **MM** Subtraction Sprints	**Grade 1 Number and Algebra: Operations** Tests 4–6 **Grade 2 Number and Algebra: Addition and Subtraction** Tests 2–6
		Apply mental mathematics strategies to develop recall of basic addition facts to 18 and related subtraction facts.	2.N.10	142			**DT** Grade 2 Operations 1, 2, 4, 5	**Grade 2 Number and Algebra: Addition and Subtraction** Test 1
PATTERNS AND RELATIONS (Patterns)	Use patterns to describe the world and solve problems.	Demonstrate an understanding of increasing patterns (numbers to 100).	2.PR.2	133			**DT** Grade 2 Patterns and Fractions 6–9	**Grade 2 Number and Algebra: Number Patterns** Tests 1–3
SHAPE AND SPACE (Measurement)	Use direct or indirect measurement to solve problems.	Relate the number of days to a week and the number of months to a year in a problem-solving context.	2.SS.1	109			**DT** Grade 2 Measurement 1–5, 14, 16	
		Relate the size of a unit of measure to the number of non-standard units used to measure length. Compare and order objects by length, height, distance around. Measure length to the nearest non-standard unit.	2.SS.2, 2.SS.3, 2.SS.4	104, 126, 141			**DT** Grade 2 Measurement 6, 9, 11, 13, 15, 21, 22, 23, 24	**Grade 2 Measurement: Length** Tests 1, 2
		Relate the size of a unit of measure to the number of non-standard units used to measure mass. Compare and order objects by mass (weight).	2.SS.2, 2.SS.3	135			**DT** Grade 2 Measurement 17, 18	
		Demonstrate that changing the orientation of an object does not alter the measurements of its attributes.	2.SS.5	102				
SHAPE AND SPACE (3-D Objects and 2-D Shapes)	Describe the characteristics of 3-D objects and 2-D shapes, and analyze the relationships among them.	Sort 2-D shapes and 3-D objects, using two attributes, and explain the sorting rule.	2.SS.6	145			**DT** Grade 2 Geometry 3–7, 10	**Grade 2 Geometry: Shape** Tests 1–5
		Describe, compare and construct 3-D objects, including cubes, spheres, cones, cylinders, prisms, and pyramids.	2.SS.7				**DT** Grade 2 Geometry 5-7, 10	**Grade 2 Geometry: Shape** Tests 1, 2
		Describe, compare and construct 2-D shapes, including triangles, squares, rectangles, circles.	2.SS.8	119			**DT** Grade 2 Geometry 3	**Grade 2 Geometry: Shape** Tests 3, 4
		Identify 2-D shapes as parts of 3-D objects in the environment.	2.SS.9	121			**DT** Grade 2 Geometry 4	
STATISTICS AND PROBABILITY (Data Analysis)	Collect, display and analyze data to solve problems.	Gather and record data about self and others to answer questions.	2.SP.1	143				**Grade 1 Statistics: Data** Test 1
		Construct and interpret concrete graphs and pictographs to solve problems.	2.SP.2				**DT** Grade 2 Data 4, 5, 7-14	**Grade 1 Statistics: Data** Tests 2–5

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GRADE 3

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NUMBER	Develop number sense.	Say the number sequence forward and backward from 0 to 1000 by 10s, 100s, 5s or 25s, and from 0 to 100 by 3s and 4s.	3.N.1					**Grade 2 Number and Algebra: Numbers to 1000** Test 4
		Represent and describe numbers to 1000.	3.N.2					**Grade 2 Number and Algebra: Numbers to 1000** Tests 1–3, 8
		Compare and order numbers to 1000.	3.N.3					**Grade 2 Number and Algebra: Numbers to 1000** Test 7
		Estimate quantities less than 1000, using referents.	3.N.4	194				
		Illustrate the meaning of place value for numerals to 1000.	3.N.5					**Grade 2 Number and Algebra: Numbers to 1000** Test 5
		Describe and apply mental mathematics strategies for adding and subtracting two 2-digit numerals.	3.N.6, 3.N.7	173			**MM** Addition Sprints **MM** Subtraction Sprints	
		Demonstrate an understanding of addition and subtraction with answers to 1000 (limited to 1-, 2- and 3-digit numerals).	3.N.9	170, 178, 183				**Grade 2 Number and Algebra: Addition and Subtraction** Tests 7–9
		Demonstrate an understanding of multiplication to 5 × 5.	3.N.11	155, 158, 168, 176			**MM** Multiplication Sprints	**Grade 2 Number and Algebra: Equal Groups** Tests 1, 3, 5
		Demonstrate an understanding of division (limited to division related to multiplication facts up to 5 × 5).	3.N.12	165, 190, 196			**MM** Division Sprints	**Grade 2 Number and Algebra: Equal Groups** Tests 2, 4
		Demonstrate an understanding of fractions.	3.N.13	160, 175, 180, 191, 197				
PATTERNS AND RELATIONS (Patterns)	Use patterns to describe the world and solve problems.	Demonstrate an understanding of increasing patterns (to 1000). Demonstrate an understanding of decreasing patterns (from 1000).	3.PR.1, 3.PR.2	153, 166, 195				**Grade 2 Number and Algebra: Number Patterns** Tests 4–7
PATTERNS AND RELATIONS (Variables and Equations)	Represent algebraic expressions in multiple ways.	Solve one-step addition and subtraction equations involving symbols representing an unknown number.	3.PR.3	163				
SHAPE AND SPACE (Measurement)	Use direct or indirect measurement to solve problems.	Relate the passage of time to common activities, using non-standard and standard units.	3.SS.1	179				
		Relate the number of seconds to a minute, the number of minutes to an hour and the number of days to a month.	3.SS.2	162, 185, 189				**Grade 2 Measurement: Time** Tests 1–7
		Demonstrate an understanding of measuring length (cm, m).	3.SS.3	182				**Grade 2 Measurement: Length** Tests 4, 6
		Demonstrate an understanding of measuring mass (g, kg).	3.SS.4	172				
		Demonstrate an understanding of perimeter of regular and irregular shapes.	3.SS.5	192				
SHAPE AND SPACE (3-D Objects and 2-D Shapes)	Describe the characteristics of 3-D objects and 2-D shapes, and analyze the relationships among them.	Describe 3-D objects according to the shape of the faces and the number of edges and vertices.	3.SS.6	169				
		Sort regular and irregular polygons according to the number of sides.	3.SS.7	184				
STATISTICS AND PROBABILITY (Data Analysis)	Collect, display and analyze data to solve problems.	Collect first-hand data and organize it using tally marks, line plots, charts, lists, to answer questions.	3.SP.1	174, 198				**Grade 2 Statistics: Data** Tests 1–3, 5
		Construct, label and interpret bar graphs to solve problems.	3.SP.2	187				**Grade 2 Statistics: Data** Test 4