Mathseeds Lessons and Quebec Preschool Education Program

Mathseeds Lesson #

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FRESCHOOL		Knowledge and Skills Assessment Higher Order Thinking Skills		Fluency	Assessment		
	Observable behaviours The child:	Pedagogical strategies The child is encouraged to:	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
	manipulates various objects to count; selects games that involve counting	count the items in a small collection	1, 2, 3, 5, 7, 10, 11, 12, 14 46, 48, 50	4, 16, 17, 18, 19, 20	, 21, 25, 28, 31, 33, 41, 43, 45,	DT Early Number 1-4	Kindergarten Number Tests 1, 2
NOMBER	manipulates various objects to group and compare; selects games that involve counting and matching; recognizes the difference between «a lot» and «a little»		22			DT Early Number 6-8	Kindergarten Number Tests 3, 4
Patterns	creates regular patterns and sequences		27, 37 D		DT Early Patterns 1–9		
Operations	tries to find a solution to a problem	find various strategies for solving a problem; consider more than one possible solution	24, 30, 32, 34, 36, 40, 47, 49		DT Early Operations 1, 2, 6-9 MM Addition Sprints MM Subtraction Sprints	Kindergarten Operations Tests 1-4	
Mogeurement	manipulates various objects to compare; selects games that involve matching and classifying; recognizes the difference between «a lot» and «a little»	compare objects in his/her immediate environment; sort or classify objects by size	13, 26, 29, 38			DT Early Measurement 2, 3, 5–12, 15, 16, 20	Kindergarten Measurement Tests 1–5
Measuremenn	follows a simple itinerary		39, 42			DT Early Measurement 1, 4, 13, 14, 17–19	
Geometry	recognizes shapes (squares, triangles, circles, rectangles) in his/her envionment; selects games that involve matching and classifying	sort or classify objects by shape	4, 6, 9, 15, 23, 35, 44			DT Early Geometry 1, 5, 6, 8	Kindergarten Geometry Tests 1–3
Data	manipulates various objects to group, count, classify, compare, organize, etc.; selects games that involve counting, matching and classifying	associate various elements in play areas; sort, classify, group, compare and organize objects in his/her immediate environment; sort or classify objects by size, colour, shape, etc	8	<u>o</u>		DT Early Data 1–10	Kindergarten Data Tests 1, 2





Additional Mathseeds Resources

Mathseeds Lessons and Quebec Elementary Mathematics Program

GRADE 1			A			
		ORADET	Knowledge and Skills	Assessment	Higher Order Thinking Skills	Fluency
Essential Knowledges	Learning	Strategy	Online Lesson and Printable Resources	End-of-lesson Quiz	Critical Thinking and Problem Solving Worksheets	Driving Tests (DT Mental Minute (
Arithmetic: Understanding and writing	Natural numbers	reading, writing, digit, number, counting, one-to-one correspondence, representation, comparison, classification, order, equivalent expressions, patterns, number line, approximation	56, 60, 63, 67, 75, 77, 79, 81, 86, 88, 90		DT Early Number 9- DT Grade 1 Numbe	
numbers	Fractions	fractions related to the student's everyday life	61, 66			DT Grade 1 Patterns 11, 13, 14
Arithmetic:	Al and some 1	operation, operation sense: addition, sum, subtraction, difference, number line, multiplication (repeated addition) and division (repeated subtraction, sharing)	51, 53, 58, 68, 71, 72, 74, 85, 88, 91, 95, 96, 98, 100			DT Early Operations DT Grade 1 Operat
operations involving numbers	numbers	meaning of an equality relation (equation)	76			DT Early Operations DT Grade 1 Operations
Meaning of operations involving numbersNatural numbers(repeated subtraction, sharing)76Meaning of an equality relation (equation)76relationships between the operations93, 100Arithmetic: Operations involving numbersown processes for mental computation: addition, subtraction; operations to be memorized: additions (0 + 0 to 10 + 10) related to the corresponding subtraction; computation: addition, subtraction51, 53, 65, 68, 72, 83, 85, 91,Arithmetic: operations involving numberspatterns: series of numbers77, 79, 90	00					
Arithmetic: Operations involving	Natural numbers	own processes for mental computation: addition, subtraction; operations to be memorized: additions (0 + 0 to 10 + 10) related to the corresponding subtractions; own processes for written computation: addition, subtraction	51, 53, 65, 68, 72, 83, 85, 91, 92, 95, 96, 98, 100			DT Early Operations DT Grade 1 Operati MM Addition Sprints MM Subtraction Spr
numbers		patterns: series of numbers	77, 79, 90			DT Grade 1 Patterns 12
	Space	locating objects and getting one's bearings in space, spatial relationships (e.g. in front, on, to the left)	57, 78, 94		DT Early Geometry DT Grade 1 Geome	
Geometry: Geometric figures and	Solids	comparing prisms, spheres, cylinders, cones; comparing objects in the environment with solids; attributes (number of faces, base)	62, 99		DT Early Geometry DT Grade 1 Geome	
spatial sense	Plane figures	comparing and constructing figures made with closed curved lines or closed straight lines; identifying a square, rectangle, triangle, circle; describing a square, rectangle, triangle	52, 69		DT Early Geometry 2 DT Grade 1 Geome	
	Lengths	dimensions of an object; unconventional units: comparison, construction of rulers	55, 84			DT Grade 1 Measur
Measurement	Surface areas	unconventional units	59			
Estimating and	Capacities	unconventional units	89			DT Grade 1 Measur
measuring	Masses	unconventional units	73			
	Time	conventional units, duration (day, hour, minute, second, daily cycle, weekly cycle, yearly cycle)	54, 70, 87			DT Grade 1 Measur
Statistics and	Statistics	collecting, describing and organizing data using tables; interpreting data using a pictograph and a data table; displaying data using a pictograph and a data table	80, 97			DT Grade 1 Data 1
Probability	Probability	experimentation with activities involving chance; predicting the likelihood of an event (certainty, possibility or impossibility)	82	C		DT Grade 1 Data 5,
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Additional Mathseeds Resources

	Assessment
Г) (MM)	Printable Achievement Standards Assessment
-25 er 1-24	Grade 1 Number and Algebra: Whole Numbers Tests 1-9 Grade 1 Number and Algebra: Place Value Tests 1-5
s and Fractions 3, 5, 6,	Grade 1 Number and Algebra: Fractions and Money Tests 1, 2
s 11-25 tions 1-20	
s 10 tions 10, 11	
tions 16	
s 10-25 tions 1-20 is rints	Grade 1 Number and Algebra: Operations Tests 1-6
s and Fractions 7–10,	Grade 1 Number and Algebra: Patterns Tests 1-7
9-11, 13, 14 etry 4, 5, 11, 12, 14-16	
15-18, 21-23 etry 7, 8, 17-19	Grade 1 Geometry: Shape Tests 3-6
2-4, <i>7</i> , 12, 19, 20 etry 1-3, 6, 9, 10, 13	Grade 1 Geometry: Shape Tests 1, 2, 5-7
rement 2, 4, 13, 14	Grade 1 Measurement: Length Tests 1–5
rement 11, 17-19	
	Grado 1 Mogguroment Time
rement 1, 8-10, 15, 16	Tests 1-5
-4, 6, 9, 10, 12-16	Grade 1 Statistics: Data Tests 1-5
, 7, 8, 11	

Mathseeds Lessons and Quebec Elementary Mathematics Program

GPADE 2						
		GRADE Z	Knowledge and Skills	Assessment	Higher Order Thinking Skills	Fluency
Essential Knowledges	Learning	Strategy	Online Lesson and Printable Resources	End-of-lesson Quiz	Critical Thinking and Problem Solving Worksheets	Driving Tests Mental Minu
Arithmetic: Understanding and writing	Natural numbers	natural numbers less than 1000 (units, tens, hundreds), reading, writing, digit, number, counting, one-to-one correspondence, representation, comparison, classification, order, equivalent expressions, writing numbers in expanded form, patterns, properties (even numbers, odd numbers), number line, approximation	101, 105, 106, 108, 117, 12	22, 129	1	DT Grade 2 Nu DT Grade 2 Op
numbers	Fractions	fractions related to the student's everyday life	132, 138			DT Grade 2 Pat 12, 14-17
		operation, operation sense: addition, sum, subtraction, difference, term, missing term, number line, multiplication and division	110, 111, 113, 115, 120, 13	0, 131, 136, 141		DT Grade 2 Op
Arithmetic:		choice of operation: addition, subtraction	118, 139			
Meaning of operations	Natural numbers	meaning of an equality relation (equation), meaning of an equivalence relation	125			
numbers		relationships between the operations	131, 141, 142			DT Grade 2 Op
		property of operations: commutative law	142			
Arithmetic:		own processes for mental computation: addition, subtraction; operations to be memorized: additions (0 + 0 to 10 + 10) related to the corresponding subtractions; own processes for written computation: addition, subtraction	103, 110, 118, 120, 131, 139, 141, 142, 144, 146, 147, 148, 150		146, 147, 148, 150	DT Grade 2 Op 14, 15, 21, 22, 2 MM Addition Sp MM Subtraction
Operations involving numbers	Natural numbers	conventional processes for written computation: adding two four-digit numbers; subtracting a four-digit number from a four-digit number such that the difference is greater than 0	124, 128, 134, 144, 146, 1	50		DT Grade 2 Op 25
		patterns: series of numbers, family of operations	117, 133, 142			DT Grade 2 Pat 6-10, 13
Geometry:	Solids	comparing prisms, pyramids, spheres, cylinders, cones; comparing objects in the environment with solids; attributes (number of faces, base): prisms, pyramids	121			DT Grade 2 Ge
Geometric figures and spatial sense	Plane figures	comparing and constructing figures made with closed curved lines or closed straight lines; identifying a square, rectangle, triangle, circle and rhombus; describing a square, rectangle, triangle and rhombus	119, 145			DT Grade 2 Ge
	Frieze patterns and tessellations	observing and producing patterns using geometric figures; congruent figures	102			DT Grade 2 Ge
	Lengths	dimensions of an object; conventional units (m, cm)	104, 126, 143			DT Grade 2 Me 15, 19, 21-24
14t	Surface areas	unconventional units	112, 149			DT Grade 2 Me
Geometry: Geometric figures and spatial sense Measurement: Estimating and	Volumes	unconventional units	116		Δ	DT Grade 2 Me
measuring	Masses	unconventional units	135		R	DT Grade 2 Me
	Time	conventional units, duration (day, hour, minute, second, daily cycle, weekly cycle, yearly cycle)	109, 114, 123, 127			DT Grade 2 Me 14, 16, 20
Statistics and	Statistics	formulating questions for a survey; collecting, describing and organizing data using tables; interpreting data using a bar graph, a pictograph and a data table; displaying data using a bar graph, a pictograph and a data table	135, 137, 143			DT Data and Ch
Probability	Probability	experimentation with activities involving chance; predicting the likelihood of an event (certainty, possibility or impossibility); enumerating the possible outcomes of a simple random experiment	107	A R	Mª.	DT Data and Ch





Additional Mathseeds Resources

	Assessment
(DT) ite (MM)	Printable Achievement Standards Assessment
umber 1–24 perations 3	Grade 2 Number and Algebra: Numbers to 1000 Tests 1 - 8
tterns and Fractions 5, 11,	Grade 2 Number and Algebra: Fractions and Money Tests 1-3
perations 6, 8–12, 19	Grade 2 Number and Algebra: Equal Groups Tests 1-5
perations 20, 26	
perations 1, 2, 4, 5, 7, 13, 24, 27, 28 prints n Sprints	Grade 2 Number and Algebra: Addition and Subtraction Tests 1-9
perations 16, 17, 18, 23,	
tterns and Fractions 1–4,	Grade 2 Number and Algebra: Number Patterns Tests 1-7
cometry 3, 5, 6, 7	Grade 2 Geometry: Shape Tests 3, 4, 5
eometry 4, 6, 7, 10	Grade 2 Geometry: Shape Tests 1, 2, 5
eometry 1, 9, 11, 12	
easurement 6, 9, 11, 13,	Grade 2 Measurement: Length Tests 1-8
easurement 6	
easurement 8	
easurement 17, 18	
easurement 1–5, 7, 10,	Grade 2 Measurement: Time Tests 1-7
hance 1, 4, 5, 7-14	Grade 2 Statistics: Data Tests 1-4
hance 2, 3, 6	

Mathseeds Lessons and Quebec Elementary Mathematics Program

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Mathseeds Le	esson #

			Knowledge and Skills	Assessment	Higher Ord	
Essential Knowledges	Learning	Strategy	Online Lesson and Printable Resources	End-of-lesson Quiz	Critical Thir Solving Wo	
Arithmetic: Understanding	Natural numbers	reading, writing, representation, comparison, classification, order, equivalent expressions, writing numbers in expanded form, patterns, properties, number line, approximation	151, 156, 161, 166, 194			
and writing numbers	Fractions	fractions based on a whole or a collection of objects: reading, writing, numerator, denominator, various representations (using objects or pictures), equivalent parts, comparison with 0, ½ and 1	160, 175, 180, 191, 197			
		operation sense: multiplication, product, division, quotient, properties of divisibility	155, 165			
Arithmetic:		choice of operation: multiplication, division	188			
operations	Natural numbers	meaning of an equality relation (equation), meaning of an equivalence relation	159, 163			
numbers		relationships between the operations	163, 181, 190			
		property of operations: associative law	171			
A. 111		own processes for mental computation: addition, subtraction, multiplication, division; operations to be memorized: multiplications (0 × 0 to 10 × 10) related to the corresponding divisions	155, 158, 165, 168, 171, 1	73, 176, 181, 183, 1	188, 190, 193,	
Arithmetic: Operations	Natural numbers own processes for written computation: multiplying a three-digit number by a one-digit number conventional processes for written computation: adding two four-digit numbers, subtracting a four-digit number such that the difference is greater than 0 patterns: series of numbers, family of operations	own processes for written computation: multiplying a three-digit number by a one-digit number	186			
numbers		conventional processes for written computation: adding two four-digit numbers, subtracting a four-digit number from a four-digit number such that the difference is greater than 0	170, 178			
		patterns: series of numbers, family of operations	153, 163, 181, 195			
Geometry	Space	locating objects on an axis; locating objects in a plane; locating objects in a Cartesian plane	164			
Geometric figures and	Solids	describing prisms and pyramids in terms of faces, vertices and edges; nets for prisms and pyramids; classification of prisms and pyramids	169			
spatial sense	Plane figures	describing quadrilaterals, including trapezoids and parallelograms; classifying quadrilaterals	184			
	Longtha	conventional units (m, cm, mm); relationships between units of measure	182, 198			
	Lengins	perimeter, calculating the perimeter	192			
Magguromont	Angles	comparing angles	177			
Estimating and	Surface areas	unconventional units; conventional units (m ²)	157, 200			
measuring	Capacities	unconventional units, conventional units (L, mL), relationships between the units of measure	154			
	Masses	unconventional units; conventional units (kg, g), relationships between the units of measure	172			
	Time	conventional units, duration (day, hour, minute, second, daily cycle, weekly cycle, yearly cycle)	162, 179, 185, 189			
Ctatistics and	Statistics	formulating questions for a survey; collecting, describing and organizing data using tables; interpreting data using a bar graph, a pictograph and a data table; displaying data using a bar graph, a pictograph and a data table	174, 187, 198		1	
Statistics and Probability	Probability	experimentation with activities involving chance; predicting the likelihood of an event (certainty, possibility or impossibility); probability that a simple event will occur (more likely, just as likely, less likely); enumerating the possible outcomes of a random experiment using a table; doing simulations with or without a computer	167			

