Mathseeds Lessons and the Oklahoma Academic Standards for Mathematics

KINDERGARTEN

Strands	Standards	Objectives	Codes	Mathseeds Lesson #			Additional Mathseeds Resources	
				Knowledge and Skills	Assessment	Higher Order Thinking Skills	Fluency	Assessment
				Online Lesson, Printable Resources, & Problem Solving Tasks	End-of-lesson Quiz	Critical Thinking and Problem Solving Interactives	Driving Tests (DT) Mental Minute (MM)	Printable Achievement Standards Assessment
Number & Operations	**K.N.1** Understand the relationship between quantities and whole numbers.	Recognize that a number can be used to represent how many objects are in a set up to 10. Recognize without counting the quantity of a small group of objects. Count forward from any given number up to 10. Read, write, discuss, and represent whole numbers from 0 to at least 10.	K.N.1.2 K.N.1.4 K.N.1.5 K.N.1.6	1, 2, 3, 5, 7, 10, 11, 12, 14, 16, 17, 18, 19, 20, 21, 25, 28, 31, 33		12	**DT** Early Number 1-7, 9-19, 21-23	**Kindergarten Number** Tests 1-4
		Use ordinal numbers to represent the position of an object in a sequence up to 10.	K.N.1.3	63		63	**DT** Early Number 24, 25	
		Find a number that is 1 more or 1 less than a given number up to 10. Using the words more than, less than or equal to compare and order whole numbers from 0 to 10.	K.N.1.7 K.N.1.8	22, 25, 28, 31			**DT** Early Number 8, 20	
	K.N.2 Develop conceptual fluency with addition and subtraction (up to 10) using objects and pictures.	Compose and decompose numbers up to 10 with objects and pictures.	K.N.2.1	24, 30, 32, 34, 36, 47, 49		19, 30, 34, 36, 40, 47	**DT** Early Operations 1-7, 9-20, 22-25	**Kindergarten Operations** Tests 1-4
	K.N.3 Understand the relationship between whole numbers and fractions through fair share.	Distribute equally a set of objects into at least two smaller equal sets.	K.N.3.1	71			**DT** Early Operations 8, 21	
	K.N.4 Identify coins by name.	Identify pennies, nickels, dimes, and quarters by name.	K.N.4.1	64				**Kindergarten Number** Test 5
Algebraic Reasoning & Algebra	**K.A.1** Duplicate patterns in a variety of contexts.	Sort and group up to 10 objects into a set based upon characteristics such as color, size, and shape. Explain what the objects have in common.	K.A.1.1	8, 23				
		Recognize, duplicate, complete, and extend repeating, shrinking and growing patterns involving shape, color, size, objects, sounds, movement, and other contexts.	K.A.1.2	8, 23, 27, 37		6, 8, 15, 23, 27, 31, 37, 38, 40, 46	**DT** Early Patterns 1-9	
Geometry & Measurement	**K.GM.1** Recognize and sort basic two-dimensional shapes and use them to represent real-world objects	Recognize squares, circles, triangles, and rectangles. Sort two-dimensional objects using characteristics such as shape, size, color, and thickness. Identify attributes of two-dimensional shapes. Use basic shapes and spatial reasoning to represent objects in the real world.	K.GM.1.1 K.GM.1.2 K.GM.1.3 K.GM.1.6	4, 6, 9, 15, 23, 52		6, 15, 23	**DT** Early Geometry 1-8	**Kindergarten Geometry** Tests 1, 3
		Use smaller shapes to form a larger shape when there is an outline to follow. Compose free-form shapes with blocks.	K.GM.1.4 K.GM.1.5	52			**DT** Early Geometry 12	**Kindergarten Geometry** Test 4
	K.GM.2 Compare and order objects according to location and measurable attributes.	Use words to compare objects according to length, size, weight, position, and location. Order up to 6 objects using measurable attributes. Sort objects into sets.	K.GM.2.1 K.GM.2.2 K.GM.2.3	13, 26, 29, 55, 57, 59, 73, 78			**DT** Early Geometry 9-11, 13, 24 **DT** Early Measurement 2, 3, 5-12	**Kindergarten Geometry** Test 5 **Kindergarten Measurement** Tests 1-4
		Compare the number of objects needed to fill two different containers.	K.GM.2.4	38			**DT** Early Measurement 15, 16, 20	**Kindergarten Measurement** Test 5
	K.**GM.3** Tell time as it relates to daily life.	Develop an awareness of simple time concepts.	K.GM.3.1	39, 42			**DT** Early Measurement 1, 4, 13, 14, 17-19	

Mathseeds Lessons and the Oklahoma Academic Standards for Mathematics

GRADE 1

				Mathseeds Lesson #			Additional Mathseeds Resources	
				Knowledge and Skills	Assessment	Higher Order Thinking Skills	Fluency	Assessment
Strands	**Standards**	**Objectives**	**Codes**	**Online Lesson, Printable Resources, & Problem Solving Tasks**	**End-of-lesson Quiz**	**Critical Thinking and Problem Solving Interactives**	**Driving Tests (DT) Mental Minute (MM)**	**Printable Achievement Standards Assessment**
Number & Operations	**1.N.1** Count, compare, and represent whole numbers up to 100, with an emphasis on groups of tens and ones.	Recognize numbers to 20 without counting (subitize).	1.N.1.1	41, 43, 45, 46, 48, 50, 56		41		
		Describe whole numbers between 10 and 100 in terms of tens and ones. Read, write, discuss, and represent whole numbers up to 100. Compare and order whole numbers from 0 to 100. Describe the relative size of numbers, such as more than, less than, and equal to.	1.N.1.2 1.N.1.3 1.N.1.6 1.N.1.8	60, 67, 75, 81, 86, 88		60, 88	**DT** Grade 1 Number 1-24	**Grade 1 Number and Algebra: Whole Numbers** Tests 1-9 **Grade 1 Number and Algebra: Place Value** Tests 1-6
		Count forward from any given number by 1s, 2s, 5s and 10s. Find a number that is 10 more or 10 less than a given number up to 100.	1.N.1.4 1.N.1.5	77, 79, 90		67	**DT** Grade 1 Patterns & Fractions 7-10, 12 **DT** Grade 1 Operations 13, 14	**Grade 1 Number and Algebra: Patterns** Tests 1-7
	1.N.2 Solve addition and subtraction problems up to 10 in real-world and mathematical contexts.	Represent and solve real-world and mathematical problems using addition and subtraction up to ten. Demonstrate fluency with basic addition facts and related subtraction facts up to 10.	1.N.2.1 1.N.2.3	40, 51, 53, 58		43, 53	**DT** Grade 1 Operations 1-9, 12 **MM** Addition Sprints **MM** Subtraction Sprints	**Grade 1 Number and Algebra: Operations** Tests 1-3
		Determine if equations involving addition and subtraction are true.	1.N.2.2	51, 76			**DT** Grade 1 Operations 10, 11	
	1.N.3 Develop foundational ideas for fractions.	Partition a regular polygon and recognize when those parts are equal. Partition (fair share) sets of objects into equal groupings.	1.N.3.1 1.N.3.2	61, 66			**DT** Grade 1 Patterns & Fractions 3, 5, 6, 11, 13, 14	**Grade 1 Number and Algebra: Fractions and Money** Tests 1 & 2
	1.N.4 Identify coins and their values.	Identifying pennies, nickels, dimes, and quarters by name and value. Write a number with the cent symbol to describe the value of a coin. Determine the value of a collection of pennies, nickels, or dimes.	1.N.4.1 1.N.4.2 1.N.4.3	64, 83, 92		83	**DT** Grade 1 Measurement 3, 5-7, 12	**Grade 1 Number and Algebra: Fractions and Money** Tests 3-7
Algebraic Reasoning & Algebra	**1.A.1** Identify patterns found in real-world and mathematical situations.	Identify, create, complete, and extend repeating, growing, and shrinking patterns with numbers.	1.A.1.1	106		63	**DT** Grade 1 Patterns & Fractions 1, 2, 4, 10, 12	**Grade 1 Number and Algebra: Patterns** Tests 1-7
Geometry & Measurement	**1.GM.1** Recognize, compose, and decompose two- and three-dimensional shapes.	Compose and decompose larger shapes using smaller two-dimensional shapes.	1.GM.1.2	52, 69		69	**DT** Grade 1 Geometry 9, 13	**Grade 1 Geometry: Shape** Test 7
		Compose structures with three-dimensional shapes.	1.GM.1.3	69, 99				**Grade 1 Geometry: Shape** Test 7
		Recognize three-dimensional shapes such as cubes, cones, cylinders, and spheres.	1.GM.1.4	35, 44, 62			**DT** Early Geometry 15-18, 21-23 **DT** Grade 1 Geometry 7, 8, 17-19	**Kindergarten Geometry** Test 2 **Grade 1 Geometry: Shape** Tests 3-6
	1.GM.2 Select and use nonstandard and standard units to describe length and volume/capacity.	Use nonstandard measuring tools to measure the length of objects. Illustrate that the length of an object is the number of same-size units of length that reach from one end of the object to the other.	1.GM.2.1 1.GM.2.2	84			**DT** Grade 1 Measurement 2, 4, 13, 14	**Grade 1 Measurement: Length** Tests 1-5
		Use nonstandard tools to identify volume/capacity. Compare and sort containers that hold more, less, or the same amount.	1.GM.2.5	89			**DT** Grade 1 Measurement 11, 17-19	
	1.GM.3 Tell time to the half and full hour.	Tell time to the hour and half-hour (analog and digital).	1.GM.3.1	54, 70, 87		87	**DT** Grade 1 Measurement 1, 8-10, 15, 16	**Grade 1 Measurement: Time** Tests 1-5
Data & Probability	**1.D.1** Collect, organize, and interpret categorical and numerical data.	Collect, sort, and organize data in up to three categories. Use data to create picture and bar-type graphs to demonstrate one-to-one correspondence. Draw conclusions from picture and bar-type graphs.	1.D.1.1 1.D.1.2 1.D.1.3	80, 97		80	**DT** Grade 1 Data 1-4, 6, 9, 10, 12-16	**Grade 1 Statistics: Data** Tests 1-5

Mathseeds Lessons and the Oklahoma Academic Standards for Mathematics

GRADE 2

Strands	Standards	Objectives	Codes	Mathseeds Lesson #			Additional Mathseeds Resources	
				Knowledge and Skills	Assessment	Higher Order Thinking Skills	Fluency	Assessment
				Online Lesson, Printable Resources, & Problem Solving Tasks	End-of-lesson Quiz	Critical Thinking and Problem Solving Interactives	Driving Tests (DT) Mental Minute (MM)	Printable Achievement Standards Assessment
Number & Operations	**2.N.1** Compare and represent whole numbers up to 1,000 with an emphasis on place value and equality.	Read, write, discuss, and represent whole numbers up to 1,000. Use place value to describe whole numbers between 10 and 1,000.	2.N.1.1 2.N.1.3	101, 105, 106, 108		105	**DT** Grade 2 Number 1, 4, 5, 7, 8, 11, 16, 18-24	**Grade 2 Number and Algebra: Numbers to 1000** Tests 1-6, 8
		Use place value to compare and order whole numbers up to 1,000.	2.N.1.6	122		79, 81, 88, 95, 98, 101, 105, 106	**DT** Grade 2 Number 2, 3, 6, 9, 10, 12-15, 17	**Grade 2 Number and Algebra: Numbers to 1000** Test 7
		Find 10 more or 10 less and 100 more or 100 less than a given three-digit number.	2.N.1.4	101, 106, 148				
		Recognize when to round numbers to the nearest 10 and 100.	2.N.1.5	129				
	2.N.2 Add and subtract one- and two-digit numbers in real-world and mathematical problems.	Use the relationship between addition and subtraction to generate basic facts up to 20.	2.N.2.1	93			**DT** Grade 1 Operations 16	
		Demonstrate fluency with basic addition facts and related subtraction facts up to 20.	2.N.2.2	65, 68, 72, 91, 142		51, 56, 65, 67, 68, 75, 76, 82, 85, 88, 91, 93, 142	**DT** Grade 2 Operations 1-5 **MM** Addition Sprints **MM** Subtraction Sprints	**Grade 2 Number and Algebra: Addition and Subtraction** Test 1
		Use strategies and algorithms to add and subtract two-digit numbers. Solve real-world and mathematical addition and subtraction problems.	2.N.2.4 2.N.2.5	85, 95, 96, 98, 100, 103, 110, 118, 120, 124, 128, 131, 134, 139, 141, 144, 146, 147, 148, 150		95, 96, 100, 105, 110, 113, 118, 120, 124, 125, 128, 131, 134, 137, 139, 140, 141, 143, 144, 146, 147, 148, 149, 150	**DT** Grade 1 Operations 15, 17-20 **DT** Grade 2 Operations 7, 13-17, 22, 23	**Grade 1 Number and Algebra: Operations** Tests 4-6 **Grade 2 Number and Algebra: Addition and Subtraction** Tests 2-6
		Use concrete models and structured arrangements to develop understanding of multiplication.	2.N.2.6	71, 74, 111, 113, 115, 130		71, 74, 77, 79, 113, 118, 124, 130, 134, 137, 139, 143, 148, 149	**DT** Grade 2 Operations 6, 8-12, 19	**Grade 2 Number and Algebra: Equal Groups** Tests 1-5
	2.N.3 Explore the foundational ideas of fractions.	Identify halves, thirds, and fourths. Construct equal-sized portions through fair sharing.	2.N.3.1 2.N.3.2	132, 138			**DT** Grade 2 Patterns & Fractions 5, 11, 12, 14-17	**Grade 2 Number and Algebra: Fractions and Money** Tests 1-3
	2.N.4 Determine the value of a set of coins.	Determine the value of a collection(s) of coins. Use coins to represent a given amount of money.	2.N.4.1 2.N.4.2	125, 147			**DT** Grade 2 Measurement 12	**Grade 2 Number and Algebra: Fractions and Money** Tests 4-7
Algebraic Reasoning & Algebra	**2.A.1** Describe the relationship found in patterns to solve real-world and mathematical problems.	Represent, create, describe, complete, and extend growing and shrinking patterns with quantity and numbers.	2.A.1.1	106, 117, 133		109, 117, 120, 132, 133	**DT** Grade 2 Patterns & Fractions 1-4, 6-10, 13	**Grade 2 Number and Algebra: Number Patterns** Tests 1-7
	2.A.2 Use number sentences involving unknowns to represent and solve real-world and mathematical problems.	Use objects and number lines to represent number sentences.	2.A.2.1	137				
		Generate real-world situations to represent number sentences and vice versa.	2.A.2.2	131, 139		118, 124, 130, 131, 134, 135, 137, 139, 147		
		Apply commutative and identity properties and number sense to find values for unknowns in number sentences.	2.A.2.3	108			**DT** Grade 2 Operations 20	
Geometry & Measurement	**2.GM.1** Analyze attributes of two-dimensional figures and develop generalizations about their properties.	Recognize trapezoids and hexagons.	2.GM.1.1	145				
		Describe, compare, and classify two-dimensional figures according to their geometric attributes.	2.GM.1.2	119, 145, 152, 184			**DT** Grade 2 Geometry 4, 6, 7, 10	**Grade 1 Geometry: Shape** Tests 1, 2, 5, 6 **Grade 2 Geometry: Shape** Tests 1, 2, 5
		Compose two-dimensional shapes.	2.GM.1.3	102, 119		102, 104, 106, 108, 115, 119, 133, 145		
		Recognize right angles and classify angles as smaller or larger than a right angle.	2.GM.1.4	177				
	2.GM.2 Understand length as a measurable attribute and explore capacity.	Explain the relationship between the size of the unit and the number of units needed. Use a ruler to measure lengths to the nearest whole unit.	2.GM.2.1 2.GM.2.2	104, 126, 141, 143			**DT** Grade 2 Measurement 6, 9, 11, 13, 15, 19, 21-24	**Grade 2 Measurement: Length** Tests 1-8
		Explore how varying shapes and styles of containers can have the same capacity.	2.GM.2.3	154			**DT** Grade 2 Measurement 8	
	2.GM.3 Tell time to the quarter hour.	Read and write time to the quarter-hour on an analog and digital clock. Distinguish between a.m. and p.m.	2.GM.3.1	109, 114		109	**DT** Grade 2 Measurement 1-5, 7, 10, 14, 16, 20	**Grade 2 Measurement: Time** Tests 1-7
Data & Probability	**2.D.1** Collect, organize, and interpret data.	Explain that the length of a bar in a bar graph or the number of objects in a picture graph represents the number of data points for a given category. Organize a collection of data using pictographs and bar graphs. Write and solve one-step word problems using data represented within pictographs and bar graphs. Draw conclusions and make predictions from information in a graph.	2.D.1.1 2.D.1.2 2.D.1.3 2.D.1.4	135, 143			**DT** Grade 2 Data 1, 4, 5, 7-14	**Grade 2 Statistics: Data** Tests 1-5

Mathseeds Lessons and the Oklahoma Academic Standards for Mathematics

GRADE 3

Strands	Standards	Objectives	Codes	Mathseeds Lesson #			Additional Mathseeds Resources
				Knowledge and Skills	Assessment	Higher Order Thinking Skills	Fluency
				Online Lesson, Printable Resources, & Problem Solving Tasks	End-of-lesson Quiz	Critical Thinking and Problem Solving Interactives	Driving Tests (DT) Mental Minute (MM)
Number & Operations	**3.N.1** Compare and represent whole numbers up to 100,000 with an emphasis on place value and equality.	Read, write, discuss, and represent whole numbers up to 100,000. Use place value to describe whole numbers between 1,000 and 100,000 in terms of ten thousands, thousands, hundreds, tens and ones, including expanded form. Find 10,000 more or less, 1,000 more or less, or 100 more or less than a given number. Use place value to compare and order whole numbers up to 100,000.	3.N.1.1 3.N.1.2 3.N.1.3 3.N.1.4	151, 156, 161		151, 153, 156, 161, 170, 173, 194, 195, 199	
	3.N.2 Add and subtract multi-digit whole numbers; multiply with factors up to 10; represent multiplication and division in various ways; Solve real-world and mathematical problems through the representation of related operations	Represent multiplication facts by using a variety of approaches. Demonstrate fluency of multiplication facts with factors up to 10.	3.N.2.1 3.N.2.2	155, 158, 171, 176, 181, 199		153, 168, 176, 181, 186, 188, 196	**MM** Multiplication Sprints
		Use strategies and algorithms to fluently add and subtract multi-digit numbers.	3.N.2.3	163, 170, 173, 178		154, 178, 183, 195	**DT** Grade 2 Operations 18, 21, 24-28 **MM** Addition Sprints **MM** Subtraction Sprints
		Apply understanding to round numbers to the nearest ten thousand, thousand, hundred, and ten.	3.N.2.4	194			
		Use addition and subtraction to solve real-world and mathematical problems. Use various strategies, including the relationship between addition and subtraction.	3.N.2.5	163, 173, 183, 188, 189		159, 163, 170, 172, 182, 183, 188, 193, 195, 196	
		Represent division facts by using a variety of approaches, such as repeated subtraction, equal sharing and forming equal groups.	3.N.2.6	136, 165		136, 196	**MM** Division Sprints
		Recognize the relationship between multiplication and division to represent and solve real-world problems.	3.N.2.7	165, 181, 190, 196, 199			
		Use strategies and algorithms to multiply a two-digit number by a one-digit number.	3.N.2.8	186, 193		186, 188, 193, 199	
	3.N.3 Understand meanings and uses of fractions in real-world and mathematical situations.	Read and write fractions with words and symbols. Construct fractions using length, set, and area models. Recognize unit fractions and use them to compose and decompose fractions. Use the numerator to describe the number of parts and the denominator to describe the number of partitions. Use models and number lines to order and compare fractions.	3.N.3.1 3.N.3.2 3.N.3.3 3.N.3.4	160, 175, 180, 191, 197		175, 180, 191, 197	
	3.N.4 Determine the value of a set of coins or bills.	Use addition to determine the value of a collection of coins up to one dollar using the cent symbol and a collection of bills up to twenty dollars. Select the fewest number of coins for a given amount of money up to one dollar.	3.N.4.1 3.N.4.2	159		159, 163, 170, 183, 188	
Algebraic Reasoning & Algebra	**3.A.1** Describe and create representations of numerical and geometric patterns.	Create, describe, and extend patterns involving addition, subtraction, or multiplication. Describe the rule for a pattern involving addition, subtraction, or multiplication.	3.A.1.1 3.A.1.2	153, 166, 195		153, 168, 187, 195	
	3.A.2 Use number sentences involving multiplication and unknowns to represent and solve real-world and mathematical problems.	Find unknowns represented by symbols in arithmetic problems. Generate real-world situations to represent number sentences.	3.A.2.1	163, 168, 188, 190, 196		188, 193, 194, 199	
		Recognize, represent and apply properties (commutative, identity, and associative properties of addition and multiplication) to solve problems.	3.A.2.2	163, 171, 176, 181, 193			
Geometry & Measurement	**3.GM.1** Use geometric attributes to describe and create shapes in various contexts.	Sort three-dimensional shapes based on attributes.	3.GM.1.1	121, 169		121, 140	
		Classify angles as acute, right, obtuse, and straight.	3.GM.1.3	177			
	3.GM.2 Understand measurable attributes of real-world and mathematical objects using various tools.	Find perimeter of polygon, given whole number lengths of the sides.	3.GM.2.1	192			
		Develop and use formulas to determine the area of rectangles.	3.GM.2.2	157, 200			
		Measure the length of objects to the nearest whole centimeter or meter.	3.GM.2.3	182			
		Measure the length of objects to the nearest whole yard, whole foot, or half inch.	3.GM.2.4	198			
		Use an analog thermometer to determine temperature to the nearest degree.	3.GM.2.6	154, 172			
		Count cubes systematically to identify number of cubes needed to pack a 3D structure.	3.GM.2.7	116			
		Find the area of two-dimensional figures by counting total number of same size unit squares that fill the shape.	3.GM.2.8	112, 149		59	
	3.GM.3 Solve problems by telling time to the nearest 5 minutes.	Read and write time to the nearest 5-minute (analog and digital).	3.GM.3.1	123, 162, 185			
		Determine the solutions to problems involving addition and subtraction of time.	3.GM.3.2	127, 179, 189		179, 181, 185, 189, 200	
Data & Probability	**3.D.1** Summarize, construct, and analyze data.	Summarize and construct a data set using a frequency table, line plot, pictograph, and/or bar graph with scaled intervals.	3.D.1.1	174, 187, 198			
		Solve one- and two-step problems using a frequency table, pictograph, or bar graph with scaled intervals.	3.D.1.2				