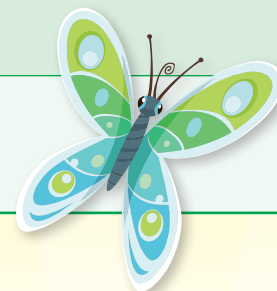# Mathseeds Lessons and the Indiana Academic Standards

KINDERGARTEN

Domains	Standards	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 Sense	Count to 100; Write whole numbers from 0 to 20; Identify number words; Represent objects with a numeral.	K.NS.1, K.NS.2	1, 2, 3, 5, 7, 18, 19, 25, 28, 50		19	**DT** Number 2, 4, 5, 9–13, 16, 17, 21, 23	**Kindergarten Number** Tests 1, 2
	Say the number names in standard order when counting objects.	K.NS.3	10, 11, 12, 14, 16, 17, 20, 21, 33, 48		12, 19, 41, 43	**DT** Number 1, 3, 14, 15, 22	**Kindergarten Number** Test 2
	Identify sets of 1 to 10 objects in patterned arrangements.	K.NS.4	31				
	Identify greater than, less than, or equal; Compare two numbers	K.NS.5, K.NS.6	22, 31, 41, 43, 45, 46, 50		31, 41, 46	**DT** Number 6–8, 18–20	**Kindergarten Number** Test 3
	Define and model "ten"; Model numbers as groups of tens and ones.	K.NS.7	41, 43, 45, 46		41, 43, 46	**DT** Operations 2, 6, 9	
Computation and Algebraic Thinking	Solve real-world problems that add and subtract within 10 using modelling; Decompose numbers; Identify corresponding equations; Find the number that makes 10 when added to the given number.	K.CA.1, K.CA.2, K.CA.3	24, 30, 32, 34, 36, 40, 47, 49		30, 34, 36, 40, 47	**DT** Operations 1–14, 16–20 **MM** Addition Sprints **MM** Subtraction Sprints	**Kindergarten Operations** Tests 1–4
	Create, extend, and give an appropriate rule for simple repeating and growing patterns with numbers and shapes.	K.CA.4	8, 27, 37		8, 27, 37	**DT** Patterns 1–9	**Kindergarten Number** Test 4
Geometry	Compare two-dimensional shapes in different sizes and orientations.	K.G.1	4, 6, 9, 15, 23		6, 15, 23	**DT** Geometry 1–8, 19, 20	**Kindergarten Measurement** Tests 1, 3
	Compare three-dimensional shapes in different sizes and orientations.	K.G.1	35, 44			**DT** Geometry 15–18, 21–23	**Kindergarten Measurement** Test 2
Measurement	Make direct comparisons of length. Identify which object is shorter, longer or taller.	K.M.1	13, 26			**DT** Measurement 2, 3, 5, 6, 9, 10	**Kindergarten Measurement** Tests 1–3
	Make direct comparisons of capacity. Identify which object holds more or holds less.	K.M.1	38		38	**DT** Measurement 11, 15, 16	**Kindergarten Measurement** Test 5
	Make direct comparisons of weight. Identify which object is lighter, or heavier.	K.M.1	29			**DT** Measurement 7, 8, 12	**Kindergarten Measurement** Test 4
	Identify and use terms to describe intervals of time; Describe how calendars and clocks are tools to measure time.	K.M.2	39, 42			**DT** Measurement 1, 4, 13, 14, 17–19	**Kindergarten Measurement** Tests 6, 7
Data Analysis	Collect and organize data into simple bar graphs, pictographs, and/or tables to identify patterns and make comparisons.	K.DA.1			6, 8, 15, 23, 27	**DT** Data 1–10	**Kindergarten Measurement** Tests 1, 2

Mathseeds Lessons and the Indiana Academic Standards

GRADE 1

Domains	Standards	Codes	Mathseeds Lesson # — Knowledge and Skills — Online Lesson, Printable Resources, & Problem Solving Tasks	Mathseeds Lesson # — Assessment — End-of-lesson Quiz	Mathseeds Lesson # — Higher Order Thinking Skills — Critical Thinking and Problem Solving Interactives	Additional Mathseeds Resources — Fluency — Driving Tests (DT) Mental Minute (MM)	Additional Mathseeds Resources — Assessment — Printable Achievement Standards Assessment
Number Sense	Count to 120 by ones, fives, and tens from any given number. Read and write numerals.	1.NS.1	60, 67, 75, 77, 79		60, 67	**DT** Grade 1 Number 1–6, 8, 11–17, 21–24	**Grade 1 Number and Algebra: Whole Numbers** Tests 1–9
	Model place value of two-digit numbers, multiples of 10, and equivalent forms of whole numbers using objects and drawings.	1.NS.2	88		88	**DT** Grade 1 Number 9, 10, 19	**Grade 1 Number and Algebra: Whole Numbers** Tests 1–5
	Match the ordinal numbers with an ordered set of up to 20 items.	1.NS.3	63		63		
	Use place value to compare two-digit numbers using the symbols >, =, <.	1.NS.4	56, 60, 81, 86		60, 80, 83	**DT** Grade 1 Number 7, 18	**Grade 1 Number and Algebra: Whole Numbers** Test 6
Computation and Algebraic Thinking	Demonstrate fluency with addition facts and the corresponding subtraction facts within 20.	1.CA.1	93		93	**DT** Grade 1 Operations 6, 16 **MM** Addition Sprints **MM** Subtraction Sprints	**Grade 1 Number and Algebra: Operations** Test 5
	Solve real-world problems involving addition and subtraction within 20.	1.CA.2	51, 53, 58, 65, 68, 72, 85, 91		51, 65, 68, 77, 83, 91, 93	**DT** Grade 1 Operations 1–5, 7, 9	**Grade 1 Number and Algebra: Operations** Tests 1–4
	Add within 100; Use models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; describe the strategy and explain the reasoning used.	1.CA.3	76, 88, 95, 96, 98, 100		96	**DT** Grade 1 Operations 13, 14, 17-20 **MM** Addition Sprints **MM** Subtraction Sprints	**Grade 1 Number and Algebra: Operations** Test 6
	Create, extend, and give an appropriate rule for number patterns using addition within 100.	1.CA.4	77, 90		77	**DT** Grade Operations 1, 7–10, 12	**Grade 1 Number and Algebra: Patterns** Tests 1–7
Geometry	Distinguish between defining attributes of two- and three-dimensional shapes versus non-defining attributes; Create and draw two-dimensional shapes with defining attributes.	1.G.1	52, 62, 99			**DT** Grade 1 Geometry 10	**Grade 1 Geometry: Shape** Tests 1, 2
	Use shapes to create a composite shape, and compose new shapes.	1.G.2	69		69	**DT** Grade 1 Geometry 9, 13	
	Partition circles and rectangles into two and four equal parts.	1.G.3	61, 66			**DT** Grade 1 Patterns and Fractions 5, 6, 13, 14	**Grade 1 Number and Algebra: Fractions and Money** Tests 1, 2
Measurement	Use direct comparison or a nonstandard unit to compare and order objects according to length.	1.M.1	84			**DT** Grade 1 Measurement 2, 4, 13, 14	**Grade 1 Measurement: Length** Tests 1–5
	Use direct comparison or a nonstandard unit to compare and order objects according to area.	1.M.1	59		59		
	Use direct comparison or a nonstandard unit to compare and order objects according to capacity.	1.M.1	89			**DT** Grade 1 Measurement 11, 17–19	**Grade 1 Measurement: Length** Tests 6, 7
	Use direct comparison or a nonstandard unit to compare and order objects according to weight.	1.M.1	73				**Grade 1 Measurement: Length** Tests 8, 9
	Tell and write time to the nearest half-hour and relate time to events using analog clocks; Explain how to read hours and minutes using digital clocks.	1.M.2	54, 70, 87		87	**DT** Grade 1 Measurement 1, 8–10, 15	**Grade 1 Measurement: Time** Tests 1–5
	Identify the value of a penny, nickel and dime; Find the value of a collection of pennies, nickels, and dimes.	1.M.3	64, 83		83	**DT** Grade 1 Measurement 3, 5–7, 12	**Grade 1 Measurement: Money** Tests 1–4
Data Analysis	Collect data from a simple survey or collaborative investigation; Organize data into appropriate single-unit bar graphs, pictographs, and/or tables and draw conclusions based on mathematical observations, comparisons, and grade-level computation strategies.	1.DA.1	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 Indiana Academic Standards

GRADE 2

Domains	Standards	Codes	Mathseeds Lesson # — Knowledge and Skills: Online Lesson, Printable Resources, & Problem Solving Tasks	Assessment: End-of-lesson Quiz	Higher Order Thinking Skills: Critical Thinking and Problem Solving Interactives	Additional Mathseeds Resources — Fluency: Driving Tests (DT) Mental Minute (MM)	Assessment: Printable Achievement Standards Assessment
Number Sense	Count by ones, twos, fives, tens, and hundreds up to at least 1,000 from any given number.	2.NS.1	101, 105, 106, 117, 129		105, 112, 132, 133	**DT** Grade 2 Number 2, 3, 6, 7, 9–13, 17 **DT** Grade 2 Patterns and Fractions 1–4, 6–10, 13	**Grade 2 Number and Algebra: Number Patterns** Tests 1–7
	Read and write whole numbers up to 1,000.	2.NS.2	106			**DT** Grade 2 Number 1, 5, 23, 24	**Grade 2 Number and Algebra: Numbers to 1000** Tests 1–4
	Determine whether a group of objects is odd or even.	2.NS.3	108			**DT** Grade 2 Operations 3	**Grade 2 Number and Algebra: Numbers to 1000** Test 6
	Define and model "hundred"; Model place value of three-digit numbers using objects and drawings.	2.NS.4	101, 105		105	**DT** Grade 2 Number 4, 8, 16, 18–22	**Grade 2 Number and Algebra: Numbers to 1000** Tests 5, 8
	Use place value understanding to compare two three-digit numbers, using >, =, and <.	2.NS.5	122			**DT** Grade 2 Number 14, 15	**Grade 2 Number and Algebra: Numbers to 1000** Test 7
Computation and Algebraic Thinking	Solve real-world problems involving addition and subtraction within 100.	2.CA.1	103, 110, 111, 113, 118, 120, 124, 128, 131, 133, 134, 137, 139, 141, 142, 144, 146, 148, 150		112, 118, 124, 125, 128, 132, 133, 134, 136, 139, 142, 144, 146, 147, 150	**DT** Grade 2 Operations 1, 2, 4, 5, 7, 13–17, 20, 22, 23 **DT** Grade 2 Measurement 19 **MM** Addition Sprints **MM** Subtraction Sprints	**Grade 2 Number and Algebra: Addition and Subtraction** Tests 1–4, 7, 9 **Grade 2 Measurement: Informal Units T**est 8
	Add and subtract within 1,000.	2.CA.2	128, 134, 144, 146, 148		134, 144, 146	**DT** Grade 2 Operations 18, 24–28 **MM** Addition Sprints **MM** Subtraction Sprints	**Grade 2 Number and Algebra: Addition and Subtraction** Tests 5, 6, 8
	Create, extend, and give an appropriate rule for number patterns using addition and subtraction within 1,000.	2.CA.4	117, 133		133	**DT** Grade 2 Patterns and Fractions 1–4, 6–10, 13	**Grade 2 Number and Algebra: Number Patterns** Tests 1–6
Geometry	Identify, describe, and classify two- and three-dimensional shapes; Draw two-dimensional shapes.	2.G.1	119, 121, 145		102, 119, 121, 140	**DT** Grade 2 Geometry 3–7, 10	**Grade 2 Geometry: Shapes** Tests 1–5
	Partition a rectangle into rows and columns; Partition circles and rectangles into two, three, or four equal parts; describe the shares using the words halves, thirds, half of, a third of; Recognise that equal parts of identical wholes need not be the same shape.	2.G.3, 2.G.4	132			**DT** Grade 2 Patterns and Fractions 11, 12, 14, 16	**Grade 2 Number and Algebra: Fractions and Money** Tests 1–3
Measurement	Describe the relationships among an inch, foot, and yard; Describe the relationship between a centimeter and meter; Estimate and measure the length of an object.	2.M.1, 2.M.2	104, 126			**DT** Grade 2 Measurement 9, 11, 13, 15, 21–24	**Grade 2 Measurement: Informal Units** Tests 3–7 **Grade 2 Measurement: Using Units** Tests 1–3
	Estimate and measure volume (capacity) using cups and pints; Add and subtract to solve real-world problems.	2.M.3	116			**DT** Grade 2 Measurement 8	**Grade 2 Measurement: Using Units** Test 4
	Tell and write time to the nearest five minutes from analog clocks, using a.m. and p.m; Add and subtract to solve real-world problems.	2.M.4	109, 114, 123, 127			**DT** Grade 2 Measurement 7, 20	**Grade 2 Measurement: Time** Tests 1–5
	Describe relationships of time.	2.M.5	109		109	**DT** Grade 2 Measurement 1–5, 14, 16	**Grade 2 Measurement: Time** Test 6
	Find the value of a collection of pennies, nickels, dimes, quarters, and dollars.	2.M.6	125, 147		125, 147	**DT** Grade 2 Measurement 12	**Grade 2 Number and Algebra: Fractions and Money** Tests 4–7
Data Analysis	Collect, organize, and graph data from observations, surveys, and investigations using scaled bar graphs and pictographs; Interpret mathematical relationships within the data using grade-level addition, subtraction, and comparison strategies.	2.DA.1	143			**DT** Grade 2 Data and Chance 1, 4, 5, 7–14	**Grade 2 Statistics: Data** Tests 1–5

Mathseeds Lessons and the Indiana Academic Standards

GRADE 3

Domains	Standards	Codes	Knowledge and Skills — Online Lesson, Printable Resources, & Problem Solving Tasks	Assessment — End-of-lesson Quiz	Higher Order Thinking Skills — Critical Thinking and Problem Solving Interactives	Additional Mathseeds Resources — Fluency — Mental Minute (MM)
Number Sense	Read and write whole numbers up to 10,000.	3.NS.1	151, 156, 161		161	
	Model unit fractions as the quantity formed by 1 part when a whole is partitioned into equal parts; model non-unit fractions as the quantity formed by iterations of unit fractions.	3.NS.2	175		175	
	Model a non-unit fraction on a number line.	3.NS.3	160			
	Model and represent two equivalent fraction; Compare two fractions with the same numerator or the same denominator using the symbols >, =, or <.	3.NS.4, 3.NS.5	180, 197		180, 197	
	Use place value understanding to round two- and three-digit whole numbers to the nearest 10 or 100.	3.NS.6	194		194	
Computation and Algebraic Thinking	Fluently add and subtract multi-digit whole numbers; Solve real-world problems involving addition and subtraction of multi-digit whole numbers.	3.CA.1, 3.CA.2	163, 170, 173, 178, 183, 188, 195		170, 172, 178, 183, 188, 195	**MM** Addition Sprints **MM** Subtraction Sprints
	Model the concept of multiplication of whole numbers using equal-sized groups, arrays, area models, and equal intervals on a number line. Model the properties of 0 and 1 in multiplication using objects or drawings.	3.CA.3	155		153, 168, 176, 181, 186, 188, 196	
	Model the concept of division of whole numbers with partitioning, sharing, and an inverse of multiplication. Model the properties of 0 and 1 in division using objects or drawings.	3.CA.4	165, 181, 190			
	Multiply and divide within 100 using strategies such as the relationship between multiplication and division or properties of operations; Solve real-world problems.	3.CA.5, 3.CA.7	168, 171, 176, 183, 186, 188, 193, 196		168, 176, 186, 193, 196	
	Demonstrate fluency with mastery of multiplication facts and corresponding division facts of 0 to 10.	3.CA.6	158, 181, 199		181, 199	**MM** Multiplication Sprints **MM** Division Sprints
	Create, extend, and give an appropriate rule for number patterns within 100.	3.CA.8	153, 166		153	
Geometry	Define, identify, and classify four-sided shapes such as rhombuses, rectangles, and squares as quadrilaterals. Identify and draw examples and non-examples of quadrilaterals.	3.G.1	182, 184		182	
	Identify, describe, and draw points, lines, and line segments using appropriate tools, and use these terms when describing two-dimensional shapes.	3.G.2	152, 184			
Measurement	Estimate and measure the mass of objects in grams (g) and kilograms (kg). Add, subtract, multiply, or divide to solve one-step real-world problems.	3.M.1	172		172	
	Estimate and measure the volume of objects in quarts, gallons, and liters. Add, subtract, multiply, or divide to solve one-step real-world problems.	3.M.1	154		154	
	Tell and write time to the nearest minute and measure time intervals in minutes. Solve word problems involving addition and subtraction.	3.M.3	162, 179, 185, 189			
	Find the value of any collection of coins and bills. Solve real-world problems.	3.M.4	159		159	
	Find the area of a rectangle with whole-number side lengths.	3.M.5	157, 200			
	Find perimeters of polygons.	3.M.6	192			
Data Analysis	Collect, organize, and graph data from observations, surveys, and experiments using scaled bar graphs and pictographs; Solve real-world problems by analyzing and interpreting the data using grade-level computation and comparison strategies.	3.DA.1	174, 182, 187, 198			