

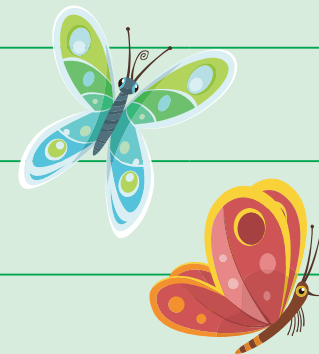


Alabama Course of Study: Mathematics



KINDERGARTEN

				Mathseeds Lesson #			Additional Mathseeds Resources	
				Knowledge and Skills	Assessment	Higher Order Thinking Skills	Fluency	Assessment
Content Area	Cluster	Content Standard	Standard Number	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
Foundations of Counting	Know number names and the count sequence.	Count forward to 100; Count backwards from 10; Write numerals to 20.	1, 2, 3	1, 2, 3, 5, 7, 10, 11, 12, 14, 16, 17, 18, 19, 20, 21, 25, 28, 33, 41, 43, 45, 46, 48, 50			DT Kindergarten Number 2, 4, 5, 9–13, 16, 17, 21, 23	Kindergarten Number Tests 1, 2
	Count to tell the number of objects.	Connect counting to cardinality; Answer “how many?” questions.	4, 5	5, 7, 8, 11, 12, 16, 25, 31, 33, 36, 43, 45, 47, 48, 50, 63		12, 19, 30, 31, 46, 47	DT Kindergarten Number 1, 3, 14, 15, 22	Kindergarten Number Test 2
	Compare numbers.	Identify greater/more than, less/fewer than, or equal/the same as the number of object; Compare two numbers.	6, 7	18, 22, 31, 41, 43, 45, 46		38	DT Kindergarten Number 6–8, 18–20	Kindergarten Number Test 3
Operations and Algebraic Thinking	Understanding addition as putting together and adding to, and understand subtraction as taking apart and taking from.	Represent addition and subtraction up to 10; Solve addition and subtraction word problems; Add and subtract within 10; Decompose numbers; Find the number that makes 10 when added to the given number; Fluently add and subtract within 5.	8, 9, 10, 11, 12	21, 24, 25, 30, 31, 32, 34, 36, 40, 41, 45, 46, 47, 49, 50		34, 36, 40, 41	DT Kindergarten Operations 1–14, 16–20 MM Addition Sprints MM Subtraction Sprints	Kindergarten Operations Tests 1–4
	Understand simple patterns.	Duplicate and extend simple patterns.	13	27, 37		6, 8, 15, 23, 27, 37	DT Kindergarten Patterns 1–9	Kindergarten Number Test 6
Operations with Numbers	Work with numbers 11–19 to gain foundations for place value.	Compose and decompose numbers from 11 to 19.	14	41, 43, 45, 46, 48, 50		43, 46, 47	DT Kindergarten Operations 2, 6, 9	Kindergarten Number Test 4
Data Analysis	Collection and analyze data and interpret results.	Classify objects into given categories of 10; Count and sort the number of objects in each category.	15				DT Kindergarten Data 1–10	Kindergarten Data Test 1
Measurement	Describe and compare measurable attributes.	Identify and describe measurable attributes (length, height); Directly compare two objects with a measurable attribute.	16, 17	13, 26, 55			DT Kindergarten Measurement 2, 3, 5, 6, 9, 10	Kindergarten Measurement Tests 1–3
		Identify and describe measurable attributes (weight); Directly compare two objects with a measurable attribute.	16, 17	29, 73, 135			DT Kindergarten Measurement 7, 8, 11, 12	Kindergarten Measurement Test 4
		Identify and describe measurable attributes; Directly compare two objects with a measurable attribute.	16, 17	38, 39, 89		38	DT Kindergarten Measurement 1, 4, 11, 13–20	Kindergarten Measurement Test 5–7
Geometry	Identify and describe shapes. Analyze, compare, create, and compose shapes.	Describe objects in the environment and describe the relative positions of these objects.	18	57, 78, 94			DT Kindergarten Geometry 9–11, 13, 14 DT Grade 1 Geometry 4, 5, 11, 12, 14–16	Kindergarten Geometry Tests 5, 6 Grade 1 Geometry: Shape Tests 7, 8
		Correctly name shapes regardless of their orientations or overall sizes’	19, 20, 21	4, 6, 9, 15, 23		6, 8, 15, 23, 27	DT Kindergarten Geometry 1–8, 20	Kindergarten Geometry Tests 1, 3
		Correctly name shapes (3D) regardless of their orientations or overall sizes	19, 20, 21, 22	35, 44			DT Kindergarten Geometry 15–23	Kindergarten Geometry Tests 2, 3
		Use simple shapes to compose larger shapes.	23	69			DT Kindergarten Geometry 12	Kindergarten Geometry Test 4


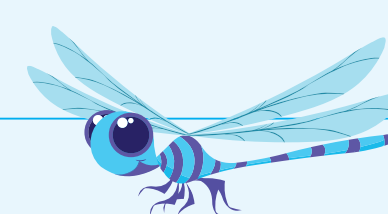




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GRADE 1

<div><h1>GRADE 1</h1></div>				Mathseeds Lesson #			Additional Mathseeds Resources	
				Knowledge and Skills	Assessment	Higher Order Thinking Skills	Fluency	Assessment
Content Area	Cluster	Content Standard	Standard Number	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
Operations and Algebraic Thinking	Represent and solve problems involving addition and subtraction.	Use addition and subtraction within 20; Solve problems that call for addition of three whole numbers.	1, 2	51, 53, 58, 65, 68, 72, 85, 91		65, 68, 77, 83, 91, 93	DT Grade 1 Operations 2	Grade 1 Number and Algebra: Operations Tests 3, 4
	Understand and apply properties of operations and the relationship between addition and subtraction.	Apply properties of operations as strategies to add and subtract; Explain subtraction as an unknown-addend problem.	3, 4	93, 100		93	DT Grade 1 Operations 6, 16 MM Addition Sprints MM Subtraction Sprints	Grade 1 Number and Algebra: Operations Test 5
	Add and subtract within 20.	Relate counting to addition and subtraction; Add and subtract within 20.	5, 6	56, 58, 68, 72, 77, 85		56, 68, 77	DT Grade 1 Operations 1, 3, 4, 5, 7, 9 MM Addition Sprints MM Subtraction Sprints	Grade 1 Number and Algebra: Operations Tests 1, 2
	Work with addition and subtraction equations.	Explain that the equal sign means “the same as”; Determine whether equations involving addition and subtraction as true or false.	7	76			DT Grade 1 Operations 10, 11 MM Addition Sprints MM Subtraction Sprints	
		Solve for the unknown number in various positions in an addition or subtraction equation.	8	51, 53, 56, 58, 65, 68, 72, 85, 91, 93, 95, 96, 98, 100			DT Grade 1 Operations 8, 10, 11 MM Addition Sprints MM Subtraction Sprints	
	Understand simple patterns.	Reproduce, extend, and create patterns and sequences of numbers.	9	77, 79, 90		77	DT Grade 1 Patterns and Fractions 7-10, 12	Grade 1 Number and Algebra: Patterns Tests 1–7
Operations with Numbers: Base Ten	Extend the counting sequence.	Extend the number sequence from 0 to 120.	10	60, 67, 75, 90		60, 67	DT Grade 1 Number 1–6, 8, 11–17, 21–24	
	Understand place value.	Explain that the two digits of a two-digit number represents amounts of tens and ones.	11	88		88	DT Grade 1 Number 9, 10, 19	Grade 1 Number and Algebra: Whole Numbers Tests 1–5
		Compare pairs of two-digit numbers with the symbols >, =, and <.	12	56, 60, 81, 86		60, 80, 83	DT Grade 1 Number 7, 18	Grade 1 Number and Algebra: Whole Numbers Test 6
	Use place value understanding and properties of operations to add and subtract.	Add within 100, using concrete models or drawings and strategies based on place value.	13	88, 95, 96, 98		96	DT Grade 1 Operations 18 MM Addition Sprints MM Subtraction Sprints	Grade 1 Number and Algebra: Operations Test 6
		Given a two-digit number, mentally find 10 more ot 10 less than the number; Subtract multiples of 10 from multiples of 10 in the range 10-90.	14, 15	79, 98			DT Grade 1 Operations 13, 14, 19, 20 MM Addition Sprints MM Subtraction Sprints	Grade 1 Number and Algebra: Patterns Tests 1–7
Data Analysis	Collect and analyze data and interpret results.	Organize, represent, and interpret data with up to three categories.	16	80, 97		80	DT Grade 1 Data 1—4, 6, 9, 10, 12—16	Grade 1 Statistics: Data Tests 1–5
Measurement	Describe and compare measurable attributes.	Order three objects by length; Compare the lengths of two objects indirectly; Determine the length of an object using non-standard units.	17, 18	84			DT Grade 1 Measurement 2, 4, 13, 14	Grade 1 Measurement: Length Tests 1–5
	Work with time and money.	Tell and write time to the hours and half hours using analog and digital clocks.	19	54, 70, 87		87	DT Grade 1 Measurement 1, 8, 9, 10, 15	Grade 1 Measurement: Time Tests 1–5
		Identify pennies and dimes by name and value.	20	64, 83, 92			DT Grade 1 Measurement 3, 5, 6, 7, 12	Grade 1 Number and Algebra: Fractions and Money Tests 4–8
Geometry	Reason with shapes and their attributes.	Build and draw shapes which have defining attributes; Compose two-dimensional shapes or three-dimensional shapes to create a composite shape.	21, 22	52, 62, 69, 99		69	DT Grade 1 Geometry 9, 10, 13	Grade 1 Geometry: Shape Tests 1–7 Grade 1 Number and Algebra: Fractions and Money Tests 1, 2
		Partition circles and rectangles into two and four equal shares and describe the shares.	23	61, 66			DT Grade 1 Patterns and Fractions 5, 6, 13, 14	Grade 1 Number and Algebra: Fractions and Money Tests 1, 2





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GRADE 2

				Mathseeds Lesson #			Additional Mathseeds Resources	
Content Area	Cluster	Content Standard	Standard Number	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	Fluency Driving Tests (DT) Mental Minute (MM)	Assessment Printable Achievement Standards Assessment
Operations and Algebraic Thinking	Represent and solve problems involving addition and subtraction.	Use addition and subtraction within 100 to solve one- and two-step word problems.	1	103, 110, 111, 113, 118, 120, 124, 128, 131, 133, 134, 137, 139, 148, 150		112, 118, 124, 125, 128, 132, 133, 134, 136, 139, 144, 146, 147, 150		Grade 2 Number and Algebra: Addition and Subtraction Test 9
	Add and subtract within 20.	Fluently add and subtract within 20 using mental strategies.	2	142			DT Grade 2 Operations 2, 5, 22 MM Addition Sprints MM Subtraction Sprints	Grade 2 Number and Algebra: Addition and Subtraction Test 1
	Work with equal groups of objects to gain foundations for multiplication.	Determine whether a group of up to 20 objects is even or odd.	3	108			DT Grade 2 Operations 3	Grade 2 Number and Algebra: Numbers to 1000 Test 6
		Determine the total number of objects in a rectangular array.	4	111, 113, 115, 130		113, 130, 136	DT Grade 2 Operations 8, 9, 10, 19 MM Multiplication Sprints	Grade 2 Number and Algebra: Equal Groups Tests 1–5
Operations with Numbers: Base Ten	Understand place value.	Explain that the three digits of a three-digit number represent amounts of hundreds, tens, and ones.	6	101, 105		105	DT Grade 2 Number 4, 8, 16, 18–22	Grade 2 Number and Algebra: Numbers to 1000 Tests 5, 8
		Count within 1000 by ones, fives, tens, and hundreds.	7	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 numbers to 1000 using base-ten numerals, number names, and expanded form.	8	106			DT Grade 2 Number 1, 5, 23, 24	Grade 2 Number and Algebra: Numbers to 1000 Tests 1, 2, 3, 4
	Use place value understanding and properties of operations to add and subtract.	Compare two three-digit numbers based on the value of the hundreds, tens, and ones digits, using the symbols $>$, $=$, and $<$.	9	122			DT Grade 2 Number 14, 15	Grade 2 Number and Algebra: Numbers to 1000 Test 7
		Fluently add and subtract within 100 using strategies based on place value; Add up to four two-digit numbers.	10, 11	103, 110, 118, 120, 124, 133, 144, 146, 150		118, 124, 133, 139, 144, 146, 150	DT Grade 2 Operations 1, 4, 7, 13–17, 20, 23 MM Addition Sprints MM Subtraction Sprints	Grade 2 Number and Algebra: Addition and Subtraction Tests 2, 3, 4, 7
		Add and subtract within 1000.	12	128, 129, 134, 144, 146		134, 144, 146	DT Grade 2 Operations 18, 24, 25, 26 MM Addition Sprints MM Subtraction Sprints	Grade 2 Number and Algebra: Addition and Subtraction Tests 5, 6, 8
		Mentally add and subtract 10 or 100 to a given number between 100 and 900.	13	148			DT Grade 2 Operations 27, 28 MM Addition Sprints MM Subtraction Sprints	
Data Analysis	Collect and analyze data and interpret results.	Measure lengths of several objects to the nearest whole unit; Create a picture graph and bar graph to represent data with up to four categories.	15, 16	143			DT Grade 2 Data and Chance 1, 4, 5, 7–14	Grade 2 Statistics: Data Tests 1–5
Measurement	Measure and estimate length in standard units.	Measure and estimate length of an object using standard units of measurement.	17, 18, 19, 20	104, 126			DT Grade 2 Measurement 9, 11, 13, 15, 21–24	Grade 2 Measurement: Informal Units Tests 3–7
	Relate addition and subtraction to length.	Use addition and subtraction within 100 to solve word problems involving same units of length; Create a number line diagram using whole numbers.	21, 22	141			DT Grade 2 Measurement 19	Grade 2 Measurement: Informal Units Test 8
	Work with time and money.	Tell and write time from analog and digital clocks to the nearest five minutes, using a.m. and p.m.	23	109, 114, 123, 127			DT Grade 2 Measurement 7, 20	Grade 2 Measurement: Time Tests 1–6
		Solve problems with money.	24	125, 147, 159		125, 147	DT Grade 2 Measurement 12	Grade 2 Number and Algebra: Fractions and Money Tests 4–7
Geometry	Reason with shapes and their attributes.	Identify triangles, quadrilaterals, pentagons, hexagons, and cubes.	25	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 of same-size squares and count to find the total; Partition circles and rectangles into two, three, or four equal shares.	26, 27	132			DT Grade 2 Patterns and Fractions 11, 12, 14, 16	Grade 2 Number and Algebra: Fractions and Money Tests 1–3



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GRADE 3

Content Area	Cluster	Content Standard	Standard Number	Mathseeds Lesson #			Additional Mathseeds Resources	
				Knowledge and Skills	Assessment	Higher Order Thinking Skills	Fluency	Assessment
Operations and Algebraic Thinking	Represent and solve problems involving multiplication and division	Illustrate the product of two whole numbers as equal groups.	1	74, 155		153, 168, 176, 181, 186, 188, 196	MM Multiplication Sprints	
		Illustrate and interpret the quotient of two whole numbers.	2	71, 136, 165, 181, 190			MM Division Sprints	
		Solve word situations using multiplication and division within 100.	3	168, 196		168, 196		
		Determine the unknown whole number in a multiplication or division equation relating three whole numbers.	4	186		186	MM Multiplication Sprints MM Division Sprints	
	Understand properties of multiplication and the relationships between multiplication and division	Develop and apply properties of operations as strategies to multiply and divide; Represent division as an equation with an unknown factor.	5, 6	181, 190		181	MM Multiplication Sprints MM Division Sprints	
	Multiply and divide within 100.	Demonstrate fluency with multiplication and division within 100.	7	155, 158, 165, 171, 176, 196, 199		186, 188, 193, 199	MM Multiplication Sprints MM Division Sprints	
	Solve problems involving the four operations and identify and explain patterns in arithmetic.	Determine and justify solutions for two-step word problems using the four operations.	8	183, 188, 195		183, 188, 195		
		Recognize and explain arithmetic patterns using properties of operations.	9	153, 158, 166, 195				
Operations with Numbers: Base Ten	Use place value understanding and properties of operations to perform multi-digit arithmetic.	Identify the nearest 10 or 100 when rounding whole numbers.	10	129, 194		194		
		Add and subtract fluently within 1000.	11	163, 170, 173, 178		170, 172, 178, 183, 188, 195	MM Addition Sprints MM Subtraction Sprints	
		Find the product of a one-digit whole number by a multiple of 10.	12	193			MM Multiplication Sprints	
Operations with Numbers: Fractions	Develop understanding of fractions as numbers.	Demonstrate that a unit fraction represents one part of a whole that has been equally partitioned.	13	138, 175		175		
		Interpret a fraction as a number on the number line; represent fractions on a number line.	14	160, 191				
		Explain equivalence and compare fractions by reasoning about their size.	15	180, 191, 197		180, 197		
Data Analysis	Represent and interpret data.	Create a scaled picture graph and scaled bar graph to represent a data set with several categories; Measure lengths to generate data and create a line plot.	16, 17	174, 182, 187, 198				
Measurement	Solve problems involving measurement and estimation of intervals of time, liquid volumes, and masses of objects.	Tell and write time to the nearest minute; measure time intervals in minutes	18	162, 179, 185, 189				
		Estimate and measure liquid volumes and masses of objects.	19	116, 135, 154, 172		154		
	Geometric measurement	Understand concepts of area and relate area to multiplication and to addition.	20, 21, 22, 23	59, 149, 157, 200		182		
		Recognize perimeter as an attribute of plane figures and distinguish between linear and area measures.	24, 25	192				
Geometry	Reason with shapes and their attributes.	Recognize and describe polygons.	26	169, 184				

