First Grade Math
Scope and Sequence
The following is a recommended sequence in which to teach the standards within the clusters.

Grade 1 District Snapshot #1 Blueprint

Cluster 1: Addition and Subtraction within 20 and Data Analysis
Cluster 1 Preassessment [SPAN]

In this cluster, the student applies mathematical process standards to develop and use strategies for whole number addition and subtraction computations in order to solve problems, and identify and apply number patterns within properties of numbers and operations to describe relationships. Additionally, students will organize data to make it useful for interpreting information and solving problems.

Process Standards should be taught throughout all lessons.

1.1 The student uses mathematical processes to acquire and demonstrate mathematical understanding.
1.1(A) Apply mathematics to problems arising in everyday life, society, and the workplace
1.1(B) Use a problem-solving model that incorporates analyzing given information, formulating a plan or strategy, determining a solution, justifying the solution, and evaluating the problem-solving process and the reasonableness of the solution
1.1(C) Select tools, including real objects, manipulatives, paper and pencil, and technology as appropriate, and techniques, including mental math, estimation, and number sense as appropriate, to solve problems
1.1(D) Communicate mathematical ideas, reasoning, and their implications using multiple representations
1.1(E) Create and use representations to organize, record, and communicate ideas
1.1(F) Analyze mathematical relationships to connect and communicate math ideas
1.1(G) Display, explain, and justify mathematical ideas and arguments using precise mathematical language in written or oral communication

Daily Numeracy

A number sense routine is an engaging, accessible, purposeful routine to begin your math class that promotes a community of positive mathematics discussion and thinking. Number Sense standards are **addressed and spiraled throughout the year during daily number sense routines.** The numeracy activities should be rotated and varied in the mode delivered. Number sense routines do not necessarily have to align to the content that is currently being taught during mini lessons.
Some number sense activities include, but not limited to, are noted here.

The following supporting standards are not included directly in the scope and sequence. They should be spiraled through daily number sense routines and learning stations throughout the school year.

1.2 (A) recognize instantly the quantity of structured arrangements
1.2 (E) use place value to compare whole numbers up to 120 using comparative language
1.5 (A) recite numbers forward and backward from any given number between 1 and 120

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1.5 (B) skip count by twos, fives, and tens to determine the total number of objects up to 120 in a set		
Cluster 1: Addition and Subtraction, Data Analysis **Suggested Pacing:** August 12 - November 12 **Snapshot Window:** November 8 - November 19	Knowledge and Skills	1.3 **Number and operations.** The student applies mathematical process standards to develop and use strategies for whole number addition and subtraction computations in order to solve problems. The student is expected to:
	Supporting	1.3 (B) use objects and pictorial models to solve word problems involving joining, separating, and comparing sets within 20 and unknowns as any one of the terms in the problem such as 2 + 4 = ___; 3 + ___= 7; 5 = ___ - 3
	Supporting	1.3 (C) compose 10 with two or more addends with and without concrete objects
	Supporting	1.3 (E) explain strategies used to solve addition and subtraction problems up to 20 using spoken words, objects, pictorial models, and number sentences
	Knowledge and Skills	1.5 **Algebraic reasoning.** The student applies mathematical process standards to identify and apply number patterns within properties of numbers and operations in order to describe relationships. The student is expected to:
	Readiness **Essential**	**1.5 (D)** represent word problems involving addition and subtraction of whole numbers up to 20 using concrete and pictorial models and number sentences **1.5D Resources to Support Blended Learning**
	Knowledge and Skills	1.3 **Number and operations.** The student applies mathematical process standards to develop and use strategies for whole number addition and subtraction computations in order to solve problems. The student is expected to:
	Supporting	1.3 (D) apply basic fact strategies to add and subtract within 20, including making 10 and decomposing a number leading to a 10
	Knowledge and Skills	1.5 **Algebraic reasoning.** The student applies mathematical process standards to identify and apply number patterns within properties of numbers and operations in order to describe relationships. The student is expected to:
	 Supporting	1.5 (E) understand that the equal sign represents a relationship where expression on each side of the equal sign represent the same value
	Supporting	1.5(F) determine the unknown whole number in an addition or subtraction equation when the unknown may be any one of the three or four terms in the equation
	Readiness	1.5 (G) apply properties of operations to add and subtract two or three numbers
	Knowledge and Skills	1.3 **Number and operations.** The student applies mathematical process standards to develop and use strategies for whole number addition and subtraction computations in order to solve problems. The student is expected to:

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	Supporting	1.3 (B) use objects and pictorial models to solve word problems involving joining, separating, and comparing sets within 20 and unknowns as any one of the terms in the problem such as 2 + 4 = ___; 3 + ___= 7; 5 = ___ - 3
	Readiness **Essential** 	**1.3 (F)** generate and solve problem situations when given a number sentence involving addition or subtraction of numbers within 20 **1.3F Resources to Support Blended Learning**
	Knowledge and Skills	1.5 **Algebraic reasoning.** The student applies mathematical process standards to identify and apply number patterns within properties of numbers and operations in order to describe relationships. The student is expected to:
	Readiness **Essential**	**1.5 (D)** represent word problems involving addition and subtraction of whole numbers up to 20 using concrete and pictorial models and number sentences **1.5D Resources to Support Blended Learning**
	Knowledge and Skills	1.8 **Data analysis**. The student applies mathematical process standards to organize data to make it useful for interpreting information and solving problems. The student is expected to:
	Readiness	**1.8 (C)** draw conclusions and generate and answer questions using info from picture & bar-type graph **1.8C Resources to Support Blended Learning**
	Supporting	1.8 (A) collect, sort, and organize data in up to three categories using models/representations such as tally marks or T-charts
	Supporting	1.8 (B) use data to create picture and bar-type

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Grade 1 District Snapshot #2 Blueprint

Cluster 2: Geometry and Measurement
Cluster 2 Preassessment [SPAN]

In this cluster, students apply mathematical process standards to analyze attributes of two-dimensional and three-dimensional solids to develop generalizations about their properties, and select and use units to describe length and time.

Daily Numeracy

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The following supporting standards are not included directly in the scope and sequence. They should be spiraled through daily number sense routines and learning stations throughout the school year.

1.2 (A) recognize instantly the quantity of structured arrangements
1.2 (E) use place value to compare whole numbers up to 120 using comparative language
1.5 (A) recite numbers forward and backward from any given number between 1 and 120
1.5 (B) skip count by twos, fives, and tens to determine the total number of objects up to 120 in a set

Spiral Essentials

The following essential standard from the previous cluster should be spiraled throughout this cluster during **number sense routines, learning stations, and small group instruction** based on formative assessments. *Process Standards should be taught throughout all components of the workshop (see page 1).*

1.5 (D) represent word problems involving addition and subtraction of whole numbers up to 20 using concrete and pictorial models and number sentences
1.5D Resources to Support Blended Learning

1.3 (F) generate and solve problem situations when given a number sentence involving addition or subtraction of numbers within 20
1.3F Resources to Support Blended Learning

	Knowledge and Skills	1.6 **Geometry and measurement**. The student applies mathematical process standards to analyze attributes of two-dimensional shapes and three-dimensional solids to develop generalizations about their properties. The student is expected to:
	Readiness	**1.6 (D)** identify two-dimensional shapes, including circles, triangles, rectangles, and squares, as special rectangles, rhombuses, and hexagons and describe their attributes using formal geometric language **1.6D Resources to Support Blended Learning**

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Cluster 2: Geometry and Measurement **Suggested Pacing:** November 15 - February 4	Readiness 	**1.6 (A)** classify and sort regular and irregular two-dimensional shapes based on attributes using informal geometric language **1.6A Resources to Support Blended Learning**
	Supporting	1.6 (B) distinguish between attributes that define a two-dimensional or three-dimensional figure and attributes that do not define the shape
	Supporting	1.6 (C) create two-dimensional figures, including circles, triangles, rectangles, and squares, as special rectangles, rhombuses, and hexagons
	Supporting	1.6 (F) compose two-dimensional shapes by joining two, three, or four figures to produce a target shape in more than one way if possible
	Supporting	1.6 (B) distinguish between attributes that define a two-dimensional or three-dimensional figure and attributes that do not define the shape
	Readiness	**1.6 (E)** identify three-dimensional solids, including sphere, cones, cylinder, rectangular prisms (including cubes), and triangular prisms, and describe their attributes using formal geometric language **1.6E Resources to Support Blended Learning**
	Supporting **Essential** 	**1.6 (G)** partition two-dimensional figures into two and four fair shares or equal parts and describe the parts using words **1.6G Resources to Support Blended Learning**
	Supporting	1.6 (H) identify examples and nonexamples of halves and fourths
	Knowledge and Skills	1.7 **Geometry and measurement**. The student applies mathematical process standards to select and use units to describe length and time. The student is expected to:
	Readiness	**1.7 (E)** tell time to the hour and half hour using analog and digital clocks **1.7E Resources to Support Blended Learning**
	Supporting	1.7(A) use measuring tools to measure the length of objects to reinforce the continuous nature of linear measurement
	Supporting	1.7(B) illustrate that the length of an object is the number of same-size units of length that, when laid end-to-end with no gaps or overlaps, reach from one end of the object to the other

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	Supporting	1.7(C) measure the same object/distance with units of two different lengths and describe how and why the measurements differ
	Readiness	**1.7 (D)** describe a length to the nearest whole unit using a number and a unit **1.7D Resources to Support Blended Learning**

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Grade 1 District Snapshot #2 Blueprint

Cluster 3: Developing Base 10 Number Sense
Cluster 3 Preassessment [SPAN]

In this cluster, the student applies mathematical process standards to represent and compare whole numbers, the relative position and magnitude of whole numbers, and the relationships within the numeration system related to place value. Additionally, the student applies mathematical process standards to develop and use strategies for whole number addition and subtraction computations in order to solve problems.

Daily Numeracy

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Some number sense activities include, but not limited to, are noted here.

The following supporting standards are not included directly in the scope and sequence. They should be spiraled through daily number sense routines and learning stations throughout the school year.

1.2 (A) recognize instantly the quantity of structured arrangements
1.2 (E) use place value to compare whole numbers up to 120 using comparative language
1.5 (A) recite numbers forward and backward from any given number between 1 and 120
1.5 (B) skip count by twos, fives, and tens to determine the total number of objects up to 120 in a set

Spiral Essentials

The following essential standard from the previous cluster should be spiraled throughout this cluster during **number sense routines, learning stations, and small group instruction** based on formative assessments. *Process Standards should be taught throughout all components of the workshop (see page 1).*

1.5 (D) represent word problems involving addition and subtraction of whole numbers up to 20 using concrete and pictorial models and number sentences
1.5D Resources to Support Blended Learning

1.3 (F) generate and solve problem situations when given a number sentence involving addition or subtraction of numbers within 20
1.3F Resources to Support Blended Learning

1.6 (G) partition two-dimensional figures into two and four fair shares or equal parts and describe the parts using words; and
1.6G Resources to Support Blended Learning

	Knowledge and Skills	1.2 **Number and operations.** The student applies mathematical process standards to represent and compare whole numbers, the relative position and magnitude of whole numbers, and the relationships within the numeration system related to place value. The student is expected to:

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Cluster 3: Developing Base 10 Number Sense **Suggested Pacing:** February 7 - April 22 **Snapshot Window:** April 18 - April 29	Supporting	1.2(B) use concrete and pictorial models to compose and decompose numbers up to 120 in more than one way as so many hundreds, so many tens, and so many ones
	Readiness **Essential**	**1.2(C)** use objects, pictures, and expanded and standard forms to represent numbers up to 120 **1.2C Resources to Support Blended Learning**
	Knowledge and Skills	1.3 **Number and operations.** The student applies mathematical process standards to develop and use strategies for whole number addition and subtraction computations in order to solve problems. The student is expected to:
	Supporting	1.3 (A) use concrete and pictorial models to determine the sum of a multiple of 10 and a one-digit number in problems up to 99
	Knowledge and Skills	1.5 **Algebraic reasoning.** The student applies mathematical process standards to identify and apply number patterns within properties of numbers and operations in order to describe relationships. The student is expected to:
	Supporting	1.5 (C) use relationships to determine the number that is 10 more and 10 less than a given number up to 120
	Knowledge and Skills	1.2 **Number and operations.** The student applies mathematical process standards to represent and compare whole numbers, the relative position and magnitude of whole numbers, and the relationships within the numeration system related to place value. The student is expected to:
	Supporting	1.2(D) generate a number that is greater than or less than a given whole number up to 120
	Supporting	1.2(E) use place value to compare whole numbers up to 120 using comparative language
	 Supporting	1.2(F) order whole numbers up to 120 using place value and open number lines
	Readiness **Essential** 	**1.2(G)** represent the comparison of two numbers to 100 using the symbols >,<,or = **1.2G Resources to Support Blended Learning**

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Cluster 4: Money and Personal Financial Literacy
Cluster 4 Preassessment [SPAN]

In this cluster, students will apply mathematical process standards to identify coins, their values, and the relationships among them in order to recognize the need for monetary transactions. Students will also learn to manage one's own financial resources effectively for lifetime financial security.

Daily Numeracy

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The following supporting standards are not included directly in the scope and sequence. They should be spiraled through daily number sense routines and learning stations throughout the school year.

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1.2 (E) use place value to compare whole numbers up to 120 using comparative language
1.5 (A) recite numbers forward and backward from any given number between 1 and 120
1.5 (B) skip count by twos, fives, and tens to determine the total number of objects up to 120 in a set

Spiral Essentials

The following essential standard from the previous cluster should be spiraled throughout this cluster during **number sense routines, learning stations, and small group instruction** based on formative assessments. *Process Standards should be taught throughout all components of the workshop (see page 1).*

1.5 (D) represent word problems involving addition and subtraction of whole numbers up to 20 using concrete and pictorial models and number sentences
1.5D Resources to Support Blended Learning

1.3 (F) generate and solve problem situations when given a number sentence involving addition or subtraction of numbers within 20
1.3F Resources to Support Blended Learning

1.6 (G) partition two-dimensional figures into two and four fair shares or equal parts and describe the parts using words; and
1.6G Resources to Support Blended Learning

1.2(C) use objects, pictures, and expanded and standard forms to represent numbers up to 120
1.2C Resources to Support Blended Learning

1.2(G) represent the comparison of two numbers to 100 using the symbols >,<,or =
1.2G Resources to Support Blended Learning

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Cluster 4: Personal Financial Literacy **Suggested Pacing:** April 25 - May 20 **Snapshot Window:** April 18 - April 29	Knowledge and Skills	1.4 **Number and operations**. The student applies mathematical process standards to identify coins, their values, and the relationships among them in order to recognize the need for monetary transactions. The student is expected to:
	Supporting	1.4 (A) identify US coins, including pennies, nickels, dimes, and quarters, by value and describe the relationships among them
	Supporting	1.4 (B) write a number with the cent symbol to describe the value of a coin
	Readiness	**1.4 (C)** use relationships to count by twos, fives, and tens to determine the value of a collection of pennies, nickels, and/or dimes **1.4C Resources to Support Blended Learning**
	Knowledge and Skills	1.9 **Personal financial literacy**. The student applies mathematical process standards to manage one's own financial resources effectively for lifetime financial security. The student is expected to:
	Supporting	1.9 (A) define money earned as income
	Supporting	1.9 (B) identify income as a means of obtaining goods and services, oftentimes making choices between wants and needs
	Supporting	1.9 (C) distinguish between spending and saving
	Supporting	1.9 (D) consider charitable giving

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