

Unit 1: Math Is		District Formative Unit Assessment: NONE
Suggested Manipulatives		
Shape Cards 	Pattern Blocks 	
Instructional Skills Sequence		
<u>Optional:</u> - Students complete Diagnostic Assessment for Redbird. (This assessment will create their individual learning paths) - Students complete the Math Attitude Survey - Readiness Diagnostic How Ready Am I? (for Unit 2) - Diagnose students strengths and weaknesses with prerequisite concepts and skills for the upcoming unit. - Unit 1: Fluency Practice		
Lesson 1-1:	NONE	Resources : McGraw Hill Reveal Lesson 1-1 to 1-6
Lesson 1-2: Math is Exploring and Thinking	Proficiency Scale: NONE	
Lesson 1-3		Formative Assessment: Fluency Practice Additional Resources: See Grade1 BIG -M document for an instructional task(s) and item(s).
	NONE	
Lesson 1-5: Math is Finding Patterns	Proficiency Scale: NONE	
Lesson 1-6: Math is Ours	Proficiency Scale: NONE	

Unit 2: Numbers to 5

District Formative Unit Assessment: Unit 2 Assessment A (online)

Scope and Sequence of the Benchmark

MA.K.NSO.1

Develop an understanding for counting using objects in a set.

Kindergarten

MA.K.NSO.1.1

Given a group of up to 20 objects, count the number of objects in that group and represent the number of objects with a written numeral. State the number of objects in a rearrangement of that group without recounting.

Clarification 1: Instruction focuses on developing an understanding of cardinality and one-to-one correspondence.

Clarification 2: Instruction includes counting objects and pictures presented in a line, rectangular array, circle or scattered arrangement. Objects presented in a scattered arrangement are limited to 10.

Clarification 3: Within this benchmark, the expectation is not to write the number in word form.

- 4) Identifies the last number spoken tells "how many" up to 10 (cardinality)
- 5) Constructs and counts sets of objects (one to 10 and beyond)
- 6) Uses counting and matching strategies to find which is more, less than, or equal to 10.
- 7) Reads and writes some numerals one to 10 using appropriate activities.

Compare the number of objects from 0 to 20 in two groups

matching fewer greater
than less than more

0



Unit 3: Numbers to 10	District Formative Unit Assessment: Unit 3 Assessment A (online)
Scope and Sequence of the Benchmark	
MA.K.NSO.1 Develop an understanding for counting using objects in a set. MA.K.NSO.2 Recite number names sequentially within 100 and develop an understanding for place value (also covered in unit 10)	
Instructional Alignment for Benchmark(s) of Focus	

Early Learning
Developmental
Standards

- 1) Subitizes (immediately recognizes without counting) up to five objects.
- 2) Counts and identifies the "31"
- 3) 3.1Sub3.73.4 (mm)13

Instructional Strategies:

MA.K.NSO.1.1

The purpose of this benchmark is to help students develop an understanding of cardinality: the principle that the last number when counted in a set represents the total number within the set, and that the number of objects in a set remains the same regardless of the arrangement of the set. Additionally, this benchmark allows students to begin recognizing and writing numerals.

f Instruction includes the use of manipulatives, pictorial representations and real-world contexts to provide a purpose for counting.

f Instruction includes symbolic representation of numbers 0 – 20. (MTR.7.1)

MA.K.NSO.1.2

The purpose of this benchmark is to help students further develop the concept that counting gives the number of objects in a set and to reinforce the counting sequence. Students should count out a given number of objects, and if the counted set is rearranged or moved, students should restate the number of objects without counting.

f Instruction includes the use of manipulatives and pictorial representations

f Instruction may use ten-frames or similar organizers to help students organize their counting. (MTR.5.1)

f Instruction includes context to provide a purpose for counting. (MTR.7.1)

MA.K.NSO.1.4

The purpose of this benchmark is to develop student understanding of comparing numbers and values relative to others. This benchmark may be used to connect to the counting sequence, forwards and backwards, and to addition and subtraction as strategies to compare numbers.

f Instructions encourage students to explain “how they know” a number is greater than, less than or equal to. (MTR.6.1)

o For example, a student could explain that 5 is after 3 so 5 is greater than 3. A student could also pair objects one-to-one to determine that 5 is greater than 3.

f Instruction allows for students to compare sets and demonstrate their thinking using various strategies, such as addition and subtraction, counting on or back, and manipulatives. (MTR.2.1)

o For example, 7 is greater than 5 because $5 + 2 = 7$ and because it is like starting at 5 and counting “5, 6, 7.”

f Instruction includes pairing objects in two sets one-to-one, students may observe that a set has more objects when there are no more to pair with. (MTR.5.1)

f Instruction includes the language “which is greater,” “which is less,” and “are they equal,” to help students develop vocabulary.

f Instruction includes comparing sets of objects as well as numbers.

MA.K.NSO.2.3

The purpose of this benchmark is to build on knowledge from comparing in MA.K.NSO.1.4 and to introduce the number line. This benchmark will deepen student understanding of the relationship between numbers, as well as provide the foundation for the number line as a strategy for operations later on.

f Instruction includes varied orientations and ranges of the number line.

o

Lesson 3-7 Skill:
Numbers to 10

Success Criteria:
f I can identify the number that is one more
f I can explain how to identify the number
that is one more

Proficiency Scale:
f Counting & Comparing
Objects (MA.K.NSO.1)

Lesson 3

Unit 4: Sort, Count, and Compare Objects

District Formative Unit Assessment:
Unit 4 Assessment A (online)

MA.K.DP.1
Develop an understanding for collecting, representing and comparing data

Kindergarten

MA.K.DP.1

Develop an understanding for collecting, representing and comparing data.

- f* Clarification 1 : Instruction focuses on supporting work in counting.
- f* Clarification 2 : Instruction includes geometric figures that can be categorized using their defining attributes.
- f* Clarification 3 : Within this benchmark, it is not the expectation for students to construct formal representations or graphs on their own.

First Grade

In FirstGrade , students will begin thinking about how they can organize information in a way that can be interpreted.

(MA.2. DP.1.1)

In FirstGrade , students will begin to understand different displays of data and the information that they can represent.

(MA.2. DP.1.2)

Instructional Strategies:

The purpose of this benchmark is to develop a foundation for statistical thinking, as well as providing a context to support the development of counting skills. (MTR.5.1)

- f* Instruction reinforces the counting and comparing benchmarks within the Number Sense and Operations strand. (MTR.5.1)
- f* Instruction reinforces the identifying and sorting of figures benchmarks within the Geometric Reasoning strand. (MTR.5.1)

Key Vocabulary (may not be comprehensive)
items in bold can be found in the K -5 Glossary

sort shape size

Common Misconceptions:

MA.K.DP.1.1

- f* Students may not clearly define categories for sorting objects which may lead to inaccurate data collection as objects fit into multiple categories.
- f* When students are presented with objects to be sorted into predefined categories, they may be frustrated that some objects don't fit into any category.

Suggested Manipulatives

Shapes



Buttons





Instructional Skills Sequence

Optional: Readiness Diagnostic How Ready Am I?

Diagnose students' strengths and weaknesses with prerequisite concepts and skills for the upcoming unit.

Lesson 4-1 Skill:

Sort Objects into Groups

Success Criteria:

f I can recognize different attributes and

sort objects into groups. g ()>BDC q 167.76 466.56 n. g ()>BDo.2 0 Td (s)7(.q4A8TQ.4 (sric)10-99T Q q 16 1307.8 T4 ()Q q 36.48 55004 Tc K

Unit 5: 2-Dimensional Shapes

District Formative Unit Assessment:
Unit 5 Assessment A (online)

Identify, compare and classify. Describe, .1

- f* It is not the expectation of this benchmark to make distinctions between two
- f* Instruction focuses on using a variety of two-dimensional

- and three-dimensional figures.





Instructional Skills Sequence

Optional: Readiness Diagnostic

Unit 6: Understanding Addition	District Formative Unit Assessment: Unit 6 Assessment A (online)
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Scope and Sequence of the Benchmark
MA.K.NSO.1 Develop an understanding for counting using objects in a set. MA.K.AR.1 Represent and solve addition problems with sums between 0 and 10 and subtraction problems using related facts.

Instructional Alignment for Benchmark(s) of Focus

Early Learning Developmental Standards	Kindergarten
1) Uses counting and matching strategies to find which is more, less than, or equal to 10. 2) Explores quantities up to eight using objects, fingers, and dramatic play to solve real-world joining and separating problems.	<u>MA.K.NSO.3.1</u> Explore addition of two whole numbers from 0 to 10, and related subtraction facts. <i>f</i> Clarification 1: Instruction includes objects, fingers, drawings, number lines and equations. <i>f</i> Clarification 2: Instruction focuses on the connection that addition is “putting together” or “counting on” and that subtraction is “taking apart” or “taking from.” Refer to Situations Involving Operations with Numbers (Appendix A). <i>f</i> Clarification 3: Within this benchmark, it is the expectation that one problem can be represented in multiple ways and understanding how the different representations are related to each other. <u>MA.K.AR.1.3</u> Solve addition and subtraction real-world problems using objects, drawings or equations to represent the problem. <i>f</i> Clarification 1: Instruction includes understanding the context of the problem, as well as the quantities within the problem.

Instructional Strategies:

MA.K.NSO.3.1

The purpose of this benchmark is to begin building strategies for addition and subtraction using skills developed through previous benchmarks; such as counting forwards and backwards, counting objects and using number lines. Procedural reliability with these same addition and subtraction facts is expected in MA.K.NSO.3.2, and automaticity is to be achieved in grade 1 (MA.1.NSO.2.1).

f Instruction encourages students to use and explore various strategies as they begin to discover which strategies are best for them and best for given situations.

Unit 7: Understanding Subtraction

District Formative Unit Assessment:
Unit 7 Assessment A (online)

Scope and Sequence of the Benchmark
MA.K.NSO.3

f Instruction includes the use of context to provide a purpose for adding or subtracting, and to develop conceptual understanding for addition and subtraction of whole numbers (MTR.7.1)

standing for addition and subtraction of whole numbers





Instructional Skills Sequence

Optional: Readiness Diagnostic How Ready Am I?

Diagnose students' strengths and weaknesses with prerequisite concepts and skills for the upcoming unit.

Lesson 7-1 Skill: Represent Take Apart Problems	Success Criteria: f I can represent take apart problems f I can explain how to represent take apart problems	Proficiency Scale: f Understand Addition and Subtraction to 10 (MA.K.AR.1) f Understand Addition and Subtraction to 10 (NSO.3)	Resources: McGraw Hill Reveal f Lesson 7-1 to 7-5 Formative Assessment:
Lesson 7-2 Skill: Represent and Solve Take from Problems	Success Criteria: f I can represent and solve take from problems. f I can explain how to represent and solve take from problems.	Proficiency Scale: f Understand Addition and Subtraction to 10 (MA.K.AR.1)	f Work Together (during a lesson) f Exit Ticket (at the end of a lesson) f Math probe (during a unit)
Lesson 7-3 Skill: Represent and Solve More Take from Problems	Success Criteria: f I can represent and solve take from problems f I can explain how to represent and solve take from problems	Proficiency Scale: f Understand Addition and Subtraction to 10 (MA.K.AR.1) f Understand Addition and Subtraction to 10 (NSO.3)	Additional Resources: See Grade K BIG-M document for an instructional task(s) and item(s).

Lesson 7-4 Skill:
Represent and Solve Subtraction Problems

Unit 8: Addition and Subtraction Strategies	District Formative Unit Assessment: Unit 8 Assessment A (online)
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Scope and Sequence of the Benchmark	
MA.K.NSO.3 Develop an understanding of addition and subtraction operations with one	-digit whole numbers.
MA.K.AR.1 Represent and solve addition problems with sums between 0 and 10 and subtraction problems using related facts.	

Instructional Alignment for Benchmark(s) of Focus

Early Learning Developmental Standards	Kindergarten
1) Begin to demonstrate how to compose and decompose (build and take apart) sets up to eight using objects, fingers, and acting out. 2) Explores quantities up to eight using objects, fingers, and dramatic play to solve real-world joining and separating problems.	<u>MA.NSO.3.1</u> Explore addition of two whole numbers from 0 -10, and related subtraction facts. <i>f</i> Clarification 1: Instruction includes objects, fingers, drawings, number lines and equations. <i>f</i> Clarification 2: Instruction focuses on the connection that addition is “putting together” or “counting on” and that subtraction is “taking apart” or “taking from.” Refer to Situations Involving Operations with Numbers (Appendix A). <i>f</i> Clarification 3:

Instructional Strategies:

MA.K.NSO.3.1

The purpose of this benchmark is to begin building strategies for addition and subtraction using skills developed through previous benchmarks; such as counting forwards and backwards, counting objects and using number lines. Procedural reliability with the same addition and subtraction facts is expected in MA.K.NSO.3.2, and automaticity is to be achieved in grade 1 (MA.1.NSO.2.1).

- f Instruction encourages students to use and explore various strategies as they begin to discover which strategies are best for them and best for given situations. (MTR.5.1, MTR.2.1)
- f Strategies include the use of manipulatives; the use of fingers, counting both sets separately and combining or removing, counting on and counting back, and using the relationship between addition and subtraction.
- f Instruction includes the use of manipulatives and pictorial representations.
- f Instruction includes multiple representations of expressions and equations. (MTR.2.1)
 - o For example, $3+7=$ and $=3+7$.
- f Instruction includes examples of all four situations for addition and subtraction as described in Appendix A.
- f

Key Vocabulary

(may not be
comprehensive) items
in bold can be found
in the K -5 Glossary

Equation
Expression
Number Line
count on
count
back



Instructional Skills Sequence

Unit 9: Numbers 11 to 15

MA.K.NSO.1.2

Given a number from 0 to 20, count out that many objects.

f Clarification 1 : Instruction includes giving a number verbally or with a written numeral.

MA.K.NSO.2.2

Represent whole numbers from 10 to 20, using a unit of ten and a group of ones, with objects, drawings and expressions or equations.

MA.K.NSO.2.3

Locate, order and compare numbers from 0 to 20 using the number line and terms less than, equal to or greater than.

f Clarification 1: Within this benchmark, the expectation is not to use the relational symbols =, > or

First Grade

In First Grade, students will interact with patterns found in counting.

(MA. 1.NSO.1.1)

In First Grade, students will understand that the value of a digit is impacted by its position in a number. A three in the tens place has a value of 30 while a 3 in the ones place has a value of 3.

(MA. 1.NSO.1.2)

In First Grade, students will recognize the relationship between addition and subtraction and use that relationship as a possible strategy (i.e., if $12 + 3$ is 15, then $15 - 3$ is 12).

(MA.1. NSO.2.2)

In First Grade, students will focus on place

4 0.6 re

Instructional Strategies:

MA.K.NSO.1.1

The purpose of this benchmark is to help students develop an understanding of cardinality: the principle that the last number when counted in a set represents the total number within the set, and that the number of objects in a set remains the same regardless of the arrangement of the set. Additionally, this benchmark allows students to begin recognizing and writing numerals.

f Instruction includes the use of manipulatives, pictorial representations and real -world contexts to provide a purpose for counting. (MTR.2.1, MTR.7.1)

f Instruction includes symbolic representation of numbers 0 – 20. (MTR.7.1)

MA.K.NSO.1.2

The purpose of this benchmark is to help students further develop the concept that counting gives the number of objects in a set and to reinforce the counting sequence. Students should count out a given number of objects, and if the counted set is rearranged or moved, students should restate the number of objects without counting.

f Instruction includes the use of manipulatives and pictorial representations.

f Instruction may use ten -frames or similar organizers to help students organize their counting. (MTR.5.1)

f Instruction includes context to provide a purpose for counting. (MTR.7.1)

MA.K.NSO.2.2

The purpose of this benchmark is to help students build the foundation of place value. By decomposing and viewing a number as its 10s and 1s students can begin to use strategies for adding and subtracting in later benchmarks and grade levels as the scale increases.

f Instruction helps students develop the meaning of numbers beyond the conventional names.

f Instruction focuses on multiple ways to represent numbers. (MTR.2.1)

f Instructions build the foundation for expanded form and decomposing numbers, which can be used as a strategy for operations later. (MTR.5.1)

MA.K.NSO.2.3

The purpose of this benchmark is to build on knowledge from comparing in MA.K.NSO.1.4 and to introduce the number line. This benchmark will deepen student understanding of the re

Lesson 9-6 Skill: Make 14 and 15	Success Criteria: <i>f</i> I can make groups of 14 and 15 objects. <i>f</i> I can explain how to make groups of 14 and 15 objects.	Proficiency Scale: <i>f</i> Recite & Represent Number Sequence (MA.K.NSO.2)	
Lesson 9-7 Skill: Decompose 14 and 15	Success Criteria: <i>f</i> I can decompose groups of 14 and 15 objects. <i>f</i> I can explain how to decompose groups of 14 and 15 objects.	Proficiency Scale: <i>f</i> Recite & Represent Number Sequence (MA.K.NSO.2)	NOTES
Lesson 9-8 Skill: Compare and Order Numbers to 15	Success Criteria: <i>f</i> I can locate and order numbers to 15 on a number line. <i>f</i> I can compare numbers to 15 on a number line using the terms greater than, less than, and equal to.	Proficiency Scale W n (be8.6 158.DC	

Unit 10: Numbers 1 6 to 20		District Formative Unit Assessment: Unit 10 Assessment A (online)
Scope and Sequence of the Benchmark		
MA.K.NSO.1 Develop an understanding for counting using objects in a set MA.K.NSO.2 Recite number names sequentially within 100 and develop an understanding for place value		
Instructional Alignment for Benchmark(s) of Focus		
Early Learning Developmental Standards 1) Subitizes (immediately recognizes without counting) up to five objects 2) Counts and identifies the number sequence “1 to 31” 3) Demonstrates one-to-one correspondence when 10. 7) Reads and writes some numerals one to 10 using	<u>MA.K.NSO.1.2</u> Given a number from 0 to 20, count out that many objects. f Clarification 1: Instruction includes giving a number verbally or with a written numeral. <u>MA.K.NSO.2.2</u> Represent whole numbers from 10 to 20, using a unit of ten and a group of ones, with objects, drawings and expressions or equations. <u>MA.K.NSO.2.3</u> Locate, order and compare numbers from 0 to 20 using the number line and terms less than, equal to or greater than. f Clarification 1: Within this benchmark, the expectation is not to use the relational symbols =, > or	First Grade <u>In First Grade</u> , students will interact with patterns found in counting. (MA.1.NSO.1.1) <u>In First Grade</u> , students will understand that the value of a digit is impacted by its position in a number. A three in the tens place has a value of 30 while a 3 in the ones place has a value of 3. (MA.1.NSO.1.2) <u>In First Grade</u> , students will recognize the relationship between addition and subtraction and use that relationship as a possible strategy (i.e., if $12 + 3$ is 15, then $15 - 3$ is 12). (MA.1.NSO.2.2) <u>In First Grade</u> , students will focus on place value and patterns that are found in numbers. (MA.1.NSO.2.3)

cardinality principle natural number whole number equation expression equal sign number line	MA.K.NSO.2.2 - f Students may attach too much meaning to certain number names. - o Example: sixteen linguistically makes sense as six and teen, or six and ten; while eleven and twelve do not have linguistic cues. - f Students may think there is only one way to represent numbers with tens and ones. MA.K.NSO.2.3 - f Students may assume that all number lines start at 0 or 1. - f When looking at number lines with hash marks, students may number the spaces between the hash marks instead of the hash marks.
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Suggested Manipulatives

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Instructional Alignment for Benchmark(s) of Focus		
Early Learning Developmental Standards 1) Recognize and names two-dimensional shapes (circles, square, triangle and rectangle) of different size and orientation. 2) Describes, sorts and classifies two- and three-dimensional shapes using some attributes such as size, sides and other properties (e.g., vertices) 3) Creates two-dimensional shapes using other shapes (e.g., putting two squares together to make a rectangle.) 4) Constructs with three-dimensional shapes in the environment through play (e.g., building castles in the construction area)	Kindergarten <u>MA.K.GR.1.1</u> Identify two- and three-dimensional figures regardless of their size or orientation. Figures are limited to circles, triangles, rectangles, squares, spheres, cubes, cones and cylinders Benchmark Clarification 1: Instruction includes a wide variety of circles, triangles, rectangles, squares, spheres, cubes, cones and cylinders. Clarification 2: Instruction includes a variety of non-examples that lack one or more defining attributes. Clarification 3: Two-dimensional figures can be either filled, outlined or both.	First Grade distinctions between two- and three-dimensional figures, including different orientations, such as scale and position. At students learn these terms, but it is important to make similarities and differences, and the relationship between them.



Suggested Manipulatives

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Instructional Skills Sequence

Optional: Readiness Diagnostic How Ready Am I?

Diagnose students' strengths and weaknesses with prerequisite concepts and skills for the upcoming unit.

Lesson 11-

Unit 12: Count to 100

District Formative Unit Assessment:
Unit 12 Assessment A (online)

Scope and Sequence of the Benchmark

MA.K.NSO.1

Develop an understanding for counting using objects in a set

MA.K.NSO.2

Recite number names sequentially within 100 and develop an understanding for place value

Instructional Alignment for Benchmark(s) of Focus

Early Learning
Developmental Standards
1)



Suggested Manipulatives

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Instructional Skills Sequence

Optional: Readiness Diagnostic How Ready Am I?

Diagnose students' strengths and weaknesses with prerequisite concepts and skills for the upcoming unit.

Lesson 12-1 Skill:

Success Criteria:

Count 1s to 50

Unit 13: Analyze, Compare, and Compose Shapes		District Formative Unit Assessment: Unit 13 Assessment A (online)
Scope and Sequence of the Benchmark		
MA.K.GR.1		
Identify, compare and compose two- and three-dimensional figures.		
Instructional Alignment for Benchmark(s) of Focus		

Early Learning Developmental Standards

- 1) Recognize and names two-dimensional shapes (circles,

Instructional Strategies:

MA.K.GR.1.2

The purpose of this benchmark is for students to build on their understanding of classification of two-dimensional figures by finding similarities and differences between shapes. (MTR.5.1)

Instruction includes opportunities for students to sort images based on various criteria, such as same number of sides, and figures with all straight sides. (MTR.2.1, MTR.5.1)

Instruction includes helping students describe objects based on relative position.

Scope and Sequence of the Benchmark

Instructional Alignment for Benchmark(s) of Focus

Early Learning Developmental Standards

Kindergarten

MA.K.M.1.1

Identify the attributes of a single object that can be measured such as length, volume or weight.

Clarification 1: Within this benchmark, measuring is not required.

MA.K.M.1.2

Directly compare two objects that have an attribute which can be measured in common. Express the comparison using language to describe the difference.

Clarification 1: To directly compare length, objects are placed next to each other with one end of each object lined up to determine which one is longer.

Clarification 2: Language to compare length includes short, shorter, long, longer, tall, taller, high or higher.

Language to compare volume includes has more, has less, holds more, holds less, more full, less full, full, empty, takes up more space or takes up less space. Language to compare weight includes heavy, heavier, light, lighter, weighs more or weighs less.

First Grade

In First Grade, students will estimate length and formally and accurately measure the length of objects using a ruler.

(MA.2.M.1.1)

In First Grade, students will explore transitivity. Transitivity is a relation between three elements. For example, if object A is longer than object B and object B is longer than object C, then object A must be longer than C as well.

(MA.2.M.1.2)



Suggested Manipulatives

Connecting Cubes

Cups of different sizes
Objects to compare length, height,
weight, and capacity

Instructional Skills Sequence

Optional: