


1st Grade Math Curriculum Bundle # 2

Title	Suggested Dates
Patterns and Number Sense 	September 14 – October 2 (14 days) **AMI BOY Window 10/1 – 10/15

Big Idea/Enduring Understanding	Guiding Questions
<p>Patterns can be found all around.</p> <p>Quantities can be represented in different ways.</p>	<p>Where can we find patterns?</p> <p>How do different kinds of patterns repeat?</p> <p>How can understanding patterns be a strategy for solving problems?</p> <p>How can we represent quantities when speaking?</p> <p>How can we represent quantities on paper or on the computer?</p> <p>How can we represent quantities with objects?</p>

The resources included here provide teaching examples and/or meaningful learning experiences to address the District Curriculum. In order to address the TEKS to the proper depth and complexity, teachers are encouraged to use resources to the degree that they are congruent with the TEKS and research-based best practices. Teaching using only the suggested resources does not guarantee student mastery of all standards. Teachers must use professional judgment to select among these and/or other resources to teach the district curriculum.

Knowledge & Skills with Student Expectations	District Specificity/Examples	Suggested Resources (See note above)	
		<p>Teachers will use Math Investigations as the main instructional resource. District resources are listed and categorized to indicate suggested uses. Any additional resources must be aligned with TEKS.</p>	
<p>1.11 The student applies Grade 1 mathematics to solve problems connected to everyday experiences and activities in and outside of school.</p> <p>1.11A Identify mathematics in everyday situations.</p>	<p>Including but not limited to</p> <ul style="list-style-type: none"> ● Find patterns in everyday situations. 	<p><u>Math Investigations</u></p> <p><u>How Many of Each?</u> Unit 1</p> <p>Investigation 2 Sessions 1 – 7 (skip session 4) Pages 55 – 93</p> <p>Teacher Notes: Session 1 - Activity 1: Work with numbers to 20 Session 3 - Extend through the number 20. Session 5 - Do activity 3 only and Session 6 – Do activities 2 – 4 only.</p>	
<p>1.11 The student applies Grade 1 mathematics to solve problems connected to everyday experiences and activities in and outside of school.</p> <p>1.11D Use tools such as real objects, manipulatives, and technology to solve problems.</p>	<p>Including but not limited to</p> <ul style="list-style-type: none"> ● Use a variety of manipulatives when solving problems with patterns. 		<p><u>Whole Group Lessons</u></p> <p><u>Envision</u> Topic 1 Lesson 6</p>

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<p>1.12 The student communicates about Grade 1 mathematics using informal language.</p> <p>1.12A Explain and record observations using objects, words, pictures, numbers, and technology.</p>	<p>Including but not limited to</p> <ul style="list-style-type: none"> • Use objects, words, pictures, and numbers to represent observations when solving problems about patterns. 	<p><u>Color, Shape, and Number Patterns</u> Unit 7</p> <p>Investigation 1 Sessions 1 - 2 Pages 27 - 38</p>	
<p>1.13 The student uses logical reasoning. The student is expected to justify his or her thinking using objects, words, pictures, numbers, and technology.</p> <p>1.13A Justify his or her thinking using objects, words, pictures, numbers, and technology.</p>	<p>Including but not limited to</p> <ul style="list-style-type: none"> • Use objects, words, pictures, and numbers to explain how problems about patterns were solved. 	<p>Teacher Note: Session 2 - Do activities 1 and 2 only.</p>	
<p>1.1 The student uses whole numbers to describe and compare quantities.</p> <p>1.1A Compare and order whole numbers up to 99 (less than, greater than, or equal to) using sets of concrete objects and pictorial models.</p> <p>Teacher Note: Decompose and Compose numbers up to 10; Compare and Order numbers up to 20</p>	<p>Including but not limited to</p> <ul style="list-style-type: none"> • Recognize and generate equivalent forms for the same number using concrete and pictorial models. • Connect concrete to pictorial by making pictorial representations to illustrate concrete examples (Ex. Draw a picture to represent a set of manipulatives.). • Connect pictorial to concrete by making concrete examples to model pictorial representations (Ex. Use manipulatives to represent a set of pictorial objects.) • Compare/order up to three sets of concrete or pictorial objects from least to greatest and greatest to least in different formats (i.e. vertically, horizontally). • Compare/order using correct mathematical vocabulary (ex: 19 is greater than 5) and symbols $>$ $=$ $<$. 	<p><u>Color, Shape, and Number Patterns</u> Unit 7</p> <p>Investigation 2 Sessions 1 - 4 Pages 75 - 96</p> <p><u>Twos, Fives, and Tens</u> Unit 8</p> <p>Investigation 2 Sessions 1 - 4 Pages 55 - 74</p>	<p><u>Whole Group Lessons</u></p> <p><u>Envision</u> Topic 2 Lessons 1 - 4</p> <p><u>Small Group Lessons/ Centers</u></p> <p><u>Kamico</u> Tens of Fun Page 11</p>
<p>1.1 The student uses whole numbers to describe and compare quantities.</p> <p>1.1D Read and write numbers to 99 to describe sets of concrete objects.</p> <p>Teacher Note: Only numbers up to 20</p>	<p>Including but not limited to</p> <ul style="list-style-type: none"> • Write a numeral to describe a set of concrete or pictorial objects. • Create a concrete or pictorial set to illustrate a numeral. 		<p><u>Whole Group Lessons</u></p> <p><u>Envision</u> Topic 1 Lessons 1 – 3</p> <p><u>Envision</u> Topic 9 Lesson 6</p>

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<p>1.4 The student uses repeating patterns and additive patterns to make predictions.</p> <p>1.4A Identify, describe, and extend concrete and pictorial patterns in order to make predictions and solve problems.</p>	<p>Including but not limited to</p> <ul style="list-style-type: none"> • Demonstrate the difference between an additive (growing pattern) and repeating pattern using concrete objects. • Create and extend additive and repeating patterns (Concrete and pictorial). <ul style="list-style-type: none"> – Additive: ab, aab, aaab, aaaab or 2, 4, 6, 8, 10, 12 (The repetitive part is the way it changes.) – Repeating: abababab or 12121212 or repeated shapes 	<p><u>Whole Group Lessons</u></p> <p><u>Envision</u> Topic 8 Lessons 1 - 3</p> <p><u>Small Group Lessons/ Centers</u></p> <p><u>Kamico</u> The Great Saturn Pattern Race Page 89</p> <p><u>Online Resources</u> “Caterpillars” http://www.mathsolutions.com/documents/0-941355-47-0_L1.pdf</p>
<p>1.5 The student recognizes patterns in numbers and operations.</p> <p>1.5A Use patterns to skip count by twos, fives, and tens.</p> <p>Teacher Note: This is not a rote memorization of numbers! Model oral counting by twos, fives, and tens, but the focus should be on the concept of patterns. Students should NOT be assessed on their ability to skip count orally.</p>	<p>Including but not limited to</p> <ul style="list-style-type: none"> • Describe characteristics of concrete, pictorial, and numerical patterns • Create and extend patterns • Model skip counting using concrete objects, 100’s chart, coins, T-chart, etc. 	<p><u>Whole Group Lessons</u></p> <p><u>Envision</u> Topic 9 Lesson 7</p> <p><u>Small Group Lessons/ Centers</u></p> <p><u>Kamico</u> Skip Count Sing-Along, Page 98</p>
<p>1.5 The student recognizes patterns in numbers and operations.</p> <p>1.5B Find patterns in numbers, including odd and even.</p>	<p>Including but not limited to</p> <ul style="list-style-type: none"> • Illustrate and explain the difference between odd and even. • Identify patterns in the environment of even and odd (such as egg cartons, sets of tricycle wheels, etc). • Identify even and odd on a 100’s chart. 	<p><u>Whole Group Lessons</u></p> <p><u>Envision</u> Topic 1 Lessons 4 - 5</p> <p><u>Envision</u> Topic 9 Lesson 8</p> <p><u>Small Group Lessons/ Centers</u></p> <p><u>Online Resources</u> “Evens and Odds” http://www.mathsolutions.com/documents/0-941355-34-9_L2.pdf</p>