

4th Grade Math Curriculum Bundle # 6

Title		Suggested Dates
Division/Multiplication Cont./ Measurement		December 7 – December 18 (10 days)

Big Idea/Enduring Understanding	Guiding Questions
Relationships can be described and generalizations made for mathematical situations that have numbers or objects that repeat in predictable ways.	<p>How do you decide which operation to use when describing the relationship between two sets of related data (input/output boxes)?</p> <p>How would you find and use a rule to determine the missing number in a data table, including tables with non-consecutive numbers?</p> <p>What is the difference between weight and mass?</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) 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 the TEKS.	
<p>4.14 The student applies Grade 4 mathematics to solve problems connected to everyday experiences and activities in and outside of school.</p> <p>4.14C Select or develop an appropriate problem-solving plan or strategy, including drawing a picture, looking for a pattern, systematic guessing and checking, acting it out, making a table, working a simpler problem, or working backwards to solve a problem.</p> <p><i>Teacher Note: Early Release on the 19th for Christmas Holidays</i></p>	<p>Including but not limited to:</p> <ul style="list-style-type: none"> • Process skill to be addressed with relevant content. 		<p><u>Whole Group Lessons</u></p> <p><u>Envisions</u> Topic 12 Lesson 4</p>
<p>4.7 The student uses organizational structures to analyze and describe patterns and relationships.</p> <p>4.7A Describe the relationship between two sets of related data such as ordered pairs in a table.</p>	<p>Including but not limited to:</p> <ul style="list-style-type: none"> • evaluate two sets of related data presented in a variety of ways (ex: real-life situation, lists, tables, charts, graphic organizers including 		<p><u>Whole Group Lessons</u></p> <p><u>Envision</u> Topic 12 Lessons 1 – 3</p>

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	<p>Venn diagrams and other diagrams)</p> <ul style="list-style-type: none"> • generate a table with columns of paired numbers based on real life applications • Use input and output machines in correlation with non-consecutive numbers • identify patterns in a table (vertical and horizontal) of related number pairs based on real life applications • investigates the relationship between the related pair numbers • describe the pattern "What's the rule?" using mathematical words, numbers and symbols • use reasonableness to verify solution 		<p><u>Small Group Lessons/Centers</u></p> <p><u>A.I.R.R</u> Table Tops #111 It's Our Secret #114</p> <p><u>Kamico</u> Table Time pages 177 – 182</p> <p><u>Navigating through Algebra</u> Tiling a Patio Pages 18 – 22 Growing Patterns Pages 23 – 26 The Ups and Downs of Patterns pages 27 – 30</p> <p><u>Region IV Prep</u> Patterns in Tables Lessons Pages 93 – 103</p>
<p>4.11The student applies measurement concepts. The student is expected to estimate and measure to solve problems involving length, (including perimeter) and area. The student uses measurement tools to measure capacity/volume and weight/mass.</p> <p>4.11A Estimate and use measurement tools to determine length (including perimeter), area, capacity and weight/mass using standard units, SI (metric) and customary.</p> <p>Teacher Note: Continue focus on metric and customary measurement mass and weight.</p> <p>*It is recommended that measurement be taught at least once a week.</p>	<p>Including but not limited to:</p> <ul style="list-style-type: none"> • understand measure means to decide "what" is to be measured and select the appropriate unit • estimates length, area, capacity, weight/mass prior to any measuring • identify tools and units needed to measures length (perimeter), area, capacity, weight/mass and solve problems • use tools to measure and find perimeter and area • demonstrates measurement using a variety of different units and tools • measure using different starting point on measuring tools • identifies what concept (perimeter, area weight/mass) is being asked in a real life situations (ex: the amount of carpet needed to cover the square dining room floor, the length of 	<p><u>Math Investigations</u></p> <p><u>Size, Shape and Symmetry</u> Unit 4</p> <p>Investigations 1 Sessions 1 – 4 Pages 22 – 46 (Measuring Length)</p>	<p><u>Whole Group Lessons</u></p> <p><u>Envision</u> Topic 17 Lessons 6 and 7</p> <p><u>Envision</u> Topic 16 Lessons 1 and 2</p>

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	<p>the fence around the perimeter of a garden)</p> <ul style="list-style-type: none"> • know abbreviations for all metric units 		
<p>4.11 The student is expected to estimate and measure to solve problems involving length, (including perimeter) and area. The student uses measurement tools to measure capacity/volume and weight/mass.</p> <p>4.11E Explain the difference between weight and mass.</p>	<p>Including but not limited to:</p> <ul style="list-style-type: none"> • explain weight as <ul style="list-style-type: none"> ○ the amount of gravitational pull on an object ○ the weight of an object can vary depending on the amount of the gravitational pull ex: Bathroom scale measuring the weight of one self: <ul style="list-style-type: none"> ▪ your body weight would differ on earth when measured compared to your bodily weight on the moon • weight can be measured using a scale (ex: bathroom scale, spring scale or balance (pan balance) • weight is measured using customary or SI (metric) units (ounce, pound, ton, gram, kilogram, milligram) • explain mass as <ul style="list-style-type: none"> ○ the amount of matter something contains ○ mass of an object no matter where measured, will always be the same (constant) ○ mass is measured in SI (metric) units (gram, kilogram, milligram) ○ mass can be measured using a balance ex: Pan balance containing an object(s) in each pan: <ul style="list-style-type: none"> ▪if the arm of the balance is perfectly horizontal, then the mass of the objects in each pan is equal ▪if the arm of the balance is not perfectly horizontal, and then the mass of objects in one of the pans is greater than or less than the mass in the other pan. 		<p><u>Whole Group Lessons</u></p> <p><u>Envision</u> Topic 17 Lesson 7</p> <p><u>Small Group Lessons/Centers</u></p> <p><u>Kamico</u> Solar System Weight and Mass pages 378 – 384</p>