

3rd Grade Math at a Glance 2016-2017

Grading Period	Unit Name	Estimated Time Frame	Start	End
All	Every Day Counts	176 days	8/22	6/1
	Problem Solving	176 days	8/22	6/1
	Number Talks	176 days	8/22	6/1
Grading Period 1 8/22-10/14	Graphing / Set Up Guided Math / Written DNA	5 days	8/22	8/26
	Numeration	14 days	8/29	9/16
	Addition and Subtraction	11 days	9/19	10/4
	District Checkpoint	Testing Window: 10/4 – 10/6		
	Addition & Subtraction / Graphing / Money	7 days	10/6	10/14
Grading Period 2 10/18-12/16		4 days	10/18	10/21
	Multiplication & Division	22 days	10/24	11/29
	District Checkpoint	Testing Window: 11/29 – 12/1		
	Multiplication & Division/ Numeration	12 days	12/1	12/16
Grading Period 3 1/2-3/10	Fractions	33 days	1/3	2/17
	Geometry	6 days	2/21	2/28
	District Checkpoint	Testing Window: 2/28 – 3/2		
	Geometry	7 days	3/2	3/10
Grading Period 4 3/20-6/1	Measurement	19 days	3/20	4/13
	Multiplication & Division to 100	5 days	4/17	4/21
	Personal Financial Literacy	5 days	4/24	4/28
	STAAR Review	5 days	5/1	5/5
	STAAR	May 8 th		
	Strengthening Third Grade Skills	17 days	5/9	6/1

****Note: Also see Testing Blueprint**

All Year Long	
Process Standards	<p>(1) Mathematical process standards. The student uses mathematical processes to acquire and demonstrate mathematical understanding. The student is expected to:</p> <p>(A) apply <u>mathematics</u> to problems arising in <u>everyday life</u>, society, and the workplace;</p> <p>(B) use a <u>problem-solving model</u> 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;</p> <p>(C) select <u>tools</u>, including real objects, <i>manipulatives</i>, <i>paper and pencil</i>, and <i>technology</i> as appropriate, and techniques, including <i>mental math</i>, <i>estimation</i>, and <i>number sense</i> as appropriate, <u>to solve problems</u>;</p> <p>(D) communicate mathematical ideas, reasoning, and their implications using <u>multiple representations</u>, including symbols, diagrams, graphs, and language as appropriate;</p> <p>(E) create and use <u>representations</u> to organize, record, and communicate <u>mathematical ideas</u>;</p> <p>(F) analyze mathematical <u>relationships</u> to connect and communicate <u>mathematical ideas</u>; and</p> <p>(G) display, explain, and justify <u>mathematical ideas and arguments</u> using precise mathematical language in <u>written or oral communication</u>.</p>
EDC (Daily)	<p><i>Math Vocabulary Development.</i></p> <p><i>Measurement</i> <i>Geometry</i></p>
Problem Solving (Daily)	
Number Talks (Daily)	

Grading Period 1	
Graphing	(3.8A) summarize a <u>data set with multiple categories</u> using a <u>frequency table, dot plot, pictograph, or bar graph with scaled intervals</u> ; and
Setting Up Guided Math	(3.8B) solve one- and <u>two-step problems</u> using <u>categorical data represented with a frequency table, dot plot, pictograph, or bar graph with scaled intervals</u> .
Numeration	<p>(3.2A) compose and decompose numbers <u>up to 100,000</u> as a <u>sum of so many ten thousands, so many thousands, so many hundreds, so many tens, and so many ones</u> using <u>objects, pictorial models, and numbers</u>, including <u>expanded notation</u> as appropriate;</p> <p>(3.2B) describe the mathematical <u>relationships</u> found in the <u>base-10 place value</u> system <u>through</u> the <u>hundred thousands place</u>;</p> <p>(3.2C) represent a number on a <u>number line</u> as being between <u>two consecutive multiples of 10; 100; 1,000; or 10,000</u> and use <u>words</u> to <u>describe</u> relative size of numbers in <u>order to round</u> whole numbers; and</p> <p>(3.2D) compare and order whole numbers <u>up to 100,000</u> and <u>represent comparisons</u> using <u>the symbols >, <, or =</u>.</p>
Addition and Subtraction (Teach Graphing)	<p>(3.4B) round to the <u>nearest 10 or 100</u> or use <u>compatible numbers</u> to <u>estimate</u> solutions to <u>addition and subtraction</u> problems;</p> <p>(3.5A) represent one- and <u>two-step problems</u> involving <u>addition and subtraction</u> of whole numbers <u>to 1,000</u> using <u>pictorial models, number lines, and equations</u>;</p> <p>(3.4C) determine the <u>value</u> of a <u>collection of coins and bills</u>;</p> <p>(3.5E) represent <u>real-world</u> relationships using <u>number pairs</u> in a <u>table and verbal</u> descriptions.</p> <p>(3.4A) solve with fluency <u>one-step and two-step problems</u> involving <u>addition and subtraction</u> within <u>1,000</u> using strategies based on <u>place value, properties of operations</u>, and the <u>relationship between addition and subtraction</u>;</p> <p>(3.8A) summarize a <u>data set with multiple categories</u> using a <u>frequency table, dot plot, pictograph, or bar graph with scaled</u></p>

	<p><u>intervals</u>; and</p> <p>(3.8B) solve one- and <u>two-step problems</u> using <u>categorical data</u> represented with a <u>frequency table, dot plot, pictograph, or bar graph with scaled intervals</u>.</p>
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Grading Period 2	
Addition and Subtraction	Continued from Grading Period 1
Multiplication and Division / Numeration	<p>(3.4D) determine the <u>total</u> number of objects when <u>equally-sized</u> groups of objects are <u>combined</u> or <u>arranged</u> in <u>arrays</u> up to 10 by 10;</p> <p>(3.4E) represent <u>multiplication facts</u> by using a variety of approaches such as <u>repeated addition</u>, <u>equal-sized groups</u>, <u>arrays</u>, <u>area models</u>, <u>equal jumps on a number line</u>, and <u>skip counting</u>;</p> <p>(3.5C) describe a <u>multiplication expression</u> as a <u>comparison</u> such as <u>3 x 24 represents 3 times as much as 24</u>;</p> <p>(3.4H) determine the number of <u>objects</u> in each group when a set of objects is <u>partitioned into equal shares</u> or a set of objects is <u>shared equally</u>;</p> <p>(3.4I) determine if a <u>number</u> is <u>even</u> or <u>odd</u> using <u>divisibility rules</u>;</p> <p>(3.4J) determine a <u>quotient</u> using the <u>relationship between multiplication and division</u>; and</p> <p>(3.4F) recall <u>facts</u> to <u>multiply up to 10 by 10</u> with <u>automaticity</u> and <u>recall</u> the corresponding <u>division facts</u>;</p> <p>(3.5D) determine the <u>unknown</u> whole <u>number</u> in a <u>multiplication or division equation</u> relating <u>three whole numbers</u> when the <u>unknown</u> is either a <u>missing factor or product</u>; and</p> <p>(3.4K) solve <u>one-step</u> and <u>two-step problems</u> involving <u>multiplication and division within 100</u> using strategies based on <u>objects</u>; <u>pictorial models</u>, including <u>arrays</u>, <u>area models</u>, and <u>equal groups</u>; <u>properties of operations</u>; or <u>recall of facts</u>.</p> <p>(3.5B) represent and solve <u>one- and two-step multiplication and division problems within 100</u> using <u>arrays</u>, <u>strip diagrams</u>, and <u>equations</u>;</p> <p>(3.5E) represent <u>real-world</u> relationships <u>using number pairs</u> in a <u>table</u> and <u>verbal descriptions</u>.</p> <p>(3.2B) describe the mathematical <u>relationships</u> found in the <u>base-10 place value</u> system <u>through</u> the <u>hundred thousands place</u>;</p> <p>(3.8A) summarize a <u>data set with multiple categories</u> using a <u>frequency table</u>, <u>dot plot</u>, <u>pictograph</u>, or <u>bar graph with scaled</u></p>

	<p><u>intervals</u>; and</p> <p>(3.8B) solve one- and <u>two-step problems</u> using <u>categorical data</u> represented with a <u>frequency table, dot plot, pictograph, or bar graph with scaled intervals</u>.</p>
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Grading Period 3	
Fractions	<p>(3.3D) compose and decompose a <u>fraction a/b with a numerator greater than zero and less than or equal to b as a sum of parts $1/b$</u>;</p> <p>(3.3C) explain that the unit fraction $1/b$ represents the quantity formed by one part of a whole that has been partitioned into b equal parts where b is a non-zero whole number;</p> <p>(3.6E) decompose two congruent two-dimensional figures into parts with equal areas and <u>express the area of each part as a unit fraction of the whole</u> and recognize that <u>equal shares</u> of identical wholes need not have the same shape.</p> <p>(3.3A) represent fractions greater than zero and <u>less than or equal to one with denominators of 2, 3, 4, 6, and 8 using concrete objects and pictorial models, including strip diagrams and number lines</u>;</p> <p>(3.7A) represent <u>fractions of halves, fourths, and eighths</u> as distances <u>from zero on a number line</u>;</p> <p>(3.3B) determine the corresponding <u>fraction greater than zero and less than or equal to one with denominators of 2, 3, 4, 6, and 8 given a specified point on a number line</u>;</p> <p>(3.3E) solve <u>problems involving partitioning an object or a set of objects among two or more recipients using pictorial representations of fractions with denominators of 2, 3, 4, 6, and 8</u>;</p> <p>(3.3F) represent <u>equivalent fractions with denominators of 2, 3, 4, 6, and 8 using a variety of objects and pictorial models, including number lines</u>;</p> <p>(3.3G) explain that <u>two fractions are equivalent</u> if and only if they are both represented by the same point on the number line or represent the same portion of a same size whole for an area model; and</p> <p>(3.3H) compare <u>two fractions having the same numerator or denominator in problems</u> by reasoning about their sizes and justifying the conclusion <u>using symbols, words, objects, and pictorial models</u>.</p>
Geometry	<p>(3.6A) classify and sort <u>two- and three-dimensional figures, including cones, cylinders, spheres, triangular and rectangular prisms, and cubes, based on attributes using formal geometric</u></p>

	<p><u>language:</u></p> <p>(3.6B) use <u>attributes</u> to recognize <u>rhombuses, parallelograms, trapezoids, rectangles, and squares</u> as examples of <u>quadrilaterals</u> and <u>draw examples</u> of quadrilaterals that <u>do not belong</u> to any of these <u>subcategories</u>;</p>
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Grading Period 4	
Measurement	<p>(3.7B) determine the <u>perimeter of a polygon</u> or a <u>missing length</u> when given perimeter and remaining side lengths <u>in problems</u>;</p> <p>(3.6C) determine the <u>area of rectangles</u> with whole number side lengths in problems using <u>multiplication</u> related to the number of rows times the number of unit squares in each row;</p> <p>(3.6D) decompose <u>composite figures</u> formed by <u>rectangles</u> into <u>non-overlapping</u> rectangles to determine the <u>area</u> of the original figure using the <u>additive property of area</u>; and</p> <p>(3.6E) decompose <u>two congruent two-dimensional figures</u> into <u>parts with equal areas</u> and express the area of each part as a unit fraction of the whole and recognize that equal shares of identical wholes need not have the same shape.</p> <p>(3.7D) determine when it is appropriate to <u>use measurements</u> of liquid volume (capacity) or weight; and</p> <p>(3.7E) determine <u>liquid volume</u> (capacity) or <u>weight</u> using appropriate <u>units and tools</u>.</p> <p>(3.7C) determine the <u>solutions to problems</u> involving <u>addition</u> and <u>subtraction of time intervals</u> in <u>minutes</u> using <u>pictorial models</u> or <u>tools</u> such as a <u>15-minute</u> event <u>plus</u> a <u>30-minute</u> event <u>equals 45 minutes</u>;</p>
Multiplication and Division 100	<p>(3.4G) use <u>strategies</u> and <u>algorithms</u>, including the <u>standard algorithm</u>, to <u>multiply a two-digit number by a one-digit number</u>. Strategies may include <u>mental math</u>, <u>partial products</u>, and the <u>commutative, associative, and distributive properties</u>;</p> <p>(3.4K) solve <u>one-step</u> and <u>two-step problems</u> involving <u>multiplication</u> and <u>division within 100</u> using strategies based on <u>objects</u>; <u>pictorial models</u>, including <u>arrays</u>, <u>area models</u>, and <u>equal groups</u>; <u>properties of operations</u>; or <u>recall of facts</u>.</p>
Personal Financial Literacy	<p>(3.9A) explain the connection between human capital/labor and income;</p>

	<p>(3.9B) describe the relationship between the availability or scarcity of resources and how that impacts cost;</p> <p>(3.9C) identify the costs and benefits of planned and unplanned spending decisions;</p> <p>(3.9D) explain that credit is used when wants or needs exceed the ability to pay and that it is the borrower's responsibility to pay it back to the lender, usually with interest;</p> <p>(3.9E) list reasons to save and explain the benefit of a savings plan, including for college; and</p> <p>(3.9F) identify decisions involving income, spending, saving, credit, and charitable giving.</p>
STAAR Review	
Strengthening Third Grade Skills	