

**4th Grade Math at a Glance
2015-2016**

Grading Period	Unit Name	Estimated Time Frame	Start	End
All	Every Day Counts	175 days	8/24	6/2
	Problem Solving	175 days	8/24	6/2
	Number Talks	175 days	8/24	6/2
Grading Period 1 8/24-10/16	Graphing and Setting Up Guided Math	5 days	8/24	8/28
	Numeration	14 days	8/31	9/18
	Addition and Subtraction (Teach Stem & Leaf and Input/Output tables)	18 days	9/21	10/16
Grading Period 2 10/19-12/18	Multiplication and Division	25 days	10/19	11/20
	Geometry	15 days	11/30	12/18
Grading Period 3 1/5-3/11		Fractions	9 days	1/5
	38 days		1/19	3/11
Grading Period 4 3/21-6/2	Measurement Personal Financial Literacy STAAR Review Strengthening Fourth Grade Skills	4 days	3/21	3/24
		19 days	3/28	4/22
		5 days	4/25	4/29
		5 days	5/2	5/6
		18 days	5/9	6/2

****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)	
Problem Solving (Daily)	
Number Talks	

Grading Period 1	
Graphing and Setting Up Guided Math	<p>(4.9A) represent data on a <u>frequency table, dot plot, or stem-and-leaf plot</u> marked with whole numbers and fractions; and</p> <p>(4.9B) solve one- and two-step problems using data in <u>whole number, decimal, and fraction form in a frequency table, dot plot, or stem-and-leaf plot.</u></p>
Numeration	<p>(4.2B) represent the value of the digit in <u>whole numbers through 1,000,000,000 and decimals to the hundredths using expanded notation and numerals;</u></p> <p>(4.2A) interpret the value of each place-value position as 10 times the position to the right and as one-tenth of the value of the place to its left;</p> <p>(4.2D) round whole numbers to a given place value <u>through the hundred thousands place;</u></p> <p>(4.2C) compare and order whole numbers to <u>1,000,000,000 and represent comparisons</u> using the <u>symbols $>$, $<$, or $=$;</u></p> <p>(4.2E) represent decimals, including <u>tenths and hundredths, using concrete and visual models and money;</u></p> <p>(4.2A) interpret the value of each place-value position as 10 times the position to the right and as <u>one-tenth of the value of the place to its left;</u></p> <p>(4.2H) determine the corresponding decimal to the <u>tenths or hundredths place of a specified point on a number line.</u></p> <p>(4.2F) compare and order decimals using <u>concrete and visual models to the hundredths;</u></p>
Addition and Subtraction (Teach Steam and Leaf and Input/Output tables)	<p>(4.4G) round to the nearest <u>10, 100, or 1,000 or use compatible numbers to estimate</u> solutions involving whole numbers; and</p> <p>(4.4A) add and subtract whole numbers and decimals to the <u>hundredths place using the standard algorithm;</u></p> <p>(4.5A) represent <u>multi-step problems</u> involving the four operations with whole numbers <u>using strip diagrams and equations with a letter</u></p>

	<p>standing for the <u>unknown</u> quantity;</p> <p>(4.5B) represent problems using an <u>input-output table</u> and <u>numerical expressions to generate a number pattern</u> that follows a <u>given rule representing the relationship</u> of the values in the resulting sequence and their position in the sequence;</p> <p>(4.9B) solve one- and two-step problems using data in <u>whole number, decimal, and fraction</u> form in a <u>frequency table, dot plot, or stem-and-leaf plot</u>.</p> <p>(4.10B) calculate <u>profit</u> in a given situation;</p>
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Grading Period 2

Multiplication and Division

(4.4G) **round** to the nearest 10, 100, or 1,000 or use compatible numbers to estimate solutions involving whole numbers; and

(4.4B) **determine** products of a number and 10 or 100 using properties of operations and place value understandings;

(4.4C) **represent** the product of 2 two-digit numbers using arrays, area models, or equations, including perfect squares through 15 by 15;

(4.4D) **use** strategies and algorithms, including the standard algorithm, to multiply up to a four-digit number by a one-digit number and to multiply a two-digit number by a two-digit number. Strategies may include mental math, partial products, and the commutative, associative, and distributive properties;

(4.4E) **represent** the quotient of up to a four-digit whole number divided by a one-digit whole number using arrays, area models, or equations;

(4.4F) **use** strategies and algorithms, including the standard algorithm, to divide up to a four-digit dividend by a one-digit divisor;

(4.4H) **solve** with fluency one- and two-step problems involving multiplication and division, including interpreting remainders.

(4.5A) **represent** multi-step problems involving the four operations with whole numbers using strip diagrams and equations with a letter standing for the unknown quantity;

(4.5B) **represent** problems using an input-output table and numerical expressions to **generate** a number pattern that follows a given rule representing the relationship of the values in the resulting sequence and their position in the sequence;

(4.9A) **represent** data on a frequency table, dot plot, or stem-and-leaf plot marked with whole numbers and fractions; and

(4.9B) **solve** one- and two-step problems using data in whole number, decimal, and fraction form in a frequency table, dot plot, or stem-and-leaf plot.

Geometry

(4.6A) **identify** points, lines, line segments, rays, angles, and

perpendicular and parallel lines;

(4.6B) **identify** and draw one or more lines of symmetry, if they exist, for a two-dimensional figure;

(4.6A) **identify** ~~points, lines, line segments, rays, angles, and perpendicular and parallel lines~~;

(4.7C) **determine** the approximate measures of angles in degrees to the nearest whole number using a protractor;

(4.7D) **draw** an angle with a given measure; and

(4.7E) **determine** the measure of an unknown angle formed by two non-overlapping adjacent angles given one or both angle measures.

(4.7A) **illustrate** the measure of an angle as the part of a circle whose center is at the vertex of the angle that is "cut out" by the rays of the angle. Angle measures are limited to whole numbers;

(4.7B) **illustrate** degrees as the units used to measure an angle, where $\frac{1}{360}$ of any circle is one degree and an angle that "cuts" $\frac{n}{360}$ out of any circle whose center is at the angle's vertex has a measure of n degrees. Angle measures are limited to whole numbers;

(4.6D) **classify** two-dimensional figures based on the presence or absence of parallel or perpendicular lines or the presence or absence of angles of a specified size.

(4.6C) **apply** knowledge of right angles to identify acute, right, and obtuse triangles; and

Grading Period 3	
Geometry	Continue from grading period 2
Fractions	<p>(4.3A) represent a fraction a/b as a sum of fractions $1/b$, where a and b are whole numbers and $b > 0$, including when $a > b$;</p> <p>(4.3F) evaluate the reasonableness of sums and differences of fractions using benchmark fractions 0, $1/4$, $1/2$, $3/4$, and 1, referring to the same whole; and</p> <p>(4.3C) determine if two given fractions are equivalent using a variety of methods;</p> <p>(4.3D) compare <u>two fractions with different numerators and different denominators</u> and represent the comparison <u>using the symbols $>$, $=$, or \leq</u>;</p> <p>(4.3B) decompose a <u>fraction in more than one way</u> into a <u>sum</u> of fractions with the <u>same denominator</u> using <u>concrete and pictorial models</u> and <u>recording</u> results with <u>symbolic representations</u>;</p> <p>(4.3E) represent and solve <u>addition and subtraction of fractions with equal denominators</u> using <u>objects and pictorial models</u> that build to the number line and properties of operations;</p> <p>(4.2G) relate <u>decimals to fractions</u> that name <u>tenths and hundredths</u>; and</p> <p>(4.3G) represent <u>fractions and decimals</u> to the <u>tenths or hundredths</u> as distances <u>from zero on a number line</u>.</p> <p>(4.9A) represent data on a <u>frequency table, dot plot, or stem-and-leaf plot</u> marked with <u>whole numbers and fractions</u>; and</p> <p>(4.9B) solve one- and two-step problems using data in <u>whole number, decimal, and fraction form in a frequency table, dot plot, or stem-and-leaf plot</u>.</p>
Measurement	<p>(4.8A) identify <u>relative sizes of measurement units</u> within the <u>customary and metric</u> systems;</p> <p>(4.8B) convert <u>measurements</u> within the <u>same measurement system, customary or metric</u>, from a <u>smaller unit into a larger unit</u> or a <u>larger unit into a smaller unit</u> when given other equivalent measures represented in</p>

	<p>a table; and</p> <p>(4.2A) interpret the value of each place-value position as 10 times the position to the right and as one-tenth of the value of the place to its left; (metric)</p> <p>(4.8C) solve <u>problems</u> that deal with <u>measurements</u> of <u>length</u>, <u>intervals of time</u>, <u>liquid volumes</u>, <u>mass</u>, and <u>money</u> using <u>addition</u>, <u>subtraction</u>, <u>multiplication</u>, or <u>division</u> as appropriate.</p> <p>(4.5B) represent problems using an <u>input-output table</u> and <u>numerical expressions</u> to generate a <u>number pattern</u> that follows a <u>given rule</u> representing the relationship of the values in the resulting sequence and their position in the sequence;</p> <p>(4.5C) use models to <u>determine the formulas</u> for the <u>perimeter</u> of a rectangle ($l + w + l + w$ or $2l + 2w$), including the special form for <u>perimeter</u> of a <u>square</u> ($4s$) and the <u>area of a rectangle</u> ($l \times w$); and</p> <p>(4.5D) solve problems related to <u>perimeter</u> and <u>area</u> of <u>rectangles</u> where <u>dimensions are whole numbers</u>.</p>

Grading Period 4	
Fractions	Continue from grading period 3
Measurement	<p>(4.8A) identify <u>relative sizes</u> of <u>measurement</u> units within the <u>customary and metric</u> systems;</p> <p>(4.8B) convert <u>measurements</u> within the <u>same</u> measurement <u>system</u>, <u>customary or metric</u>, from a <u>smaller</u> unit <u>into a larger</u> unit or a <u>larger</u> unit into a <u>smaller</u> unit when given other equivalent measures represented in a table; and</p> <p>(4.2A) interpret the value of each place-value position as 10 times the position to the right and as one-tenth of the value of the place to its left; (metric)</p> <p>(4.8C) solve <u>problems</u> that deal with <u>measurements</u> of <u>length</u>, <u>intervals</u> of <u>time</u>, <u>liquid volumes</u>, <u>mass</u>, and <u>money</u> using <u>addition</u>, <u>subtraction</u>, <u>multiplication</u>, or <u>division</u> as appropriate.</p> <p>(4.5B) represent problems using an <u>input-output table</u> and <u>numerical expressions</u> to generate a <u>number pattern</u> that follows a <u>given rule</u> representing the relationship of the values in the resulting sequence and their position in the sequence;</p> <p>(4.5C) use models to <u>determine the formulas</u> for the <u>perimeter</u> of a rectangle ($l + w + l + w$ or $2l + 2w$), including the special form for <u>perimeter</u> of a <u>square</u> ($4s$) and the <u>area of a rectangle</u> ($l \times w$); and</p> <p>(4.5D) solve problems related to <u>perimeter</u> and <u>area</u> of <u>rectangles</u> where <u>dimensions are whole numbers</u>.</p>
Personal Financial Literacy	<p>(4.10) Personal financial literacy. The student applies mathematical process standards to manage one's financial resources effectively for lifetime financial security. The student is expected to:</p> <p>(A) distinguish between fixed and variable expenses;</p> <p>(B) calculate profit in a given situation;</p> <p>(C) compare the advantages and disadvantages of various savings options;</p> <p>(D) describe how to allocate a weekly allowance among spending; saving, including for college; and sharing; and</p> <p>(E) describe the basic purpose of financial institutions, including</p>

	keeping money safe, borrowing money, and lending.
STAAR Review	
Strengthening Fourth Grade Skills	