

Grade 4 Math Proficiency Scale-T1

	Novice “1”	Approaching “2”	Proficient “3”	Advanced “4”
Communication MP 3 and 6	Participates in asking questions and sharing ideas, including the construction of arguments.	Asks questions and explains ideas, constructs viable arguments.	Asks questions and explains ideas clearly, constructs viable arguments and critiques the reasoning of others, explanations have clarity and use of some related academic vocabulary.	Asks questions and explains ideas clearly with details, constructs viable arguments, and critiques the reasoning of others using academic related vocabulary, explanations show insight and clarity.
Critical Thinking MP 1, 2, 4, 5, 7, 8	Participates in creating questions, gathering information, and understanding connections; and looking for structure to make sense of problems.	Creates basic questions, gathers information, and understands connections; and begins to reason abstractly and quantitatively to look for structure and make sense of problems, models with mathematics, and perseveres in finding a solution.	Creates questions, gathers information, and understands connections; and reasons abstractly and quantitatively to find structure and make sense of problems, persevere, models and solve problems with precision.	Creates questions, gathers information, and uses connections between systems, and patterns including repeated reasoning to find structure, make sense, persevere, model and solve problems with precision; <u>and</u> reasons abstractly and quantitatively
Geometry			This category is not adequately assessed in this trimester.	
Measurement & Data			This category is not adequately assessed in this trimester.	

Number & Operations in Base Ten 4.NBT.1-3, 5-6	Practices the concepts of place value through three digits; <u>and</u> multiplying 2-digit by 1-digit numbers; and using equations or labeled sketches to explain the strategies used.	Understands place value through three digits; <u>and</u> multiplies 3-digit by 1-digit numbers; using equations or labeled sketches to explain the strategies used.	Understands place value; <u>and</u> multiplies 3-digit by 1-digit numbers; <u>and</u> divides 2-digit numbers by 1-digit using equations or labeled sketches to explain the strategies used.	Understands place value; <u>and</u> multiplies 3-digit by 1-digit numbers; <u>and</u> divides 2-digit numbers by 1-digit using equations or labeled sketches to explain the strategies used; and makes In-depth inferences and applications of mathematics.
Number & Operations in Fractions			This category is not adequately assessed in this trimester.	
Operations & Algebraic Thinking 4.OA. 1-4	Practices solving multiplication and division facts through 100 with visual support; <u>and</u> solving one -step story problems; <u>and</u> participates in activities involving multiples and some factors; <u>and</u> determining if a number is prime or composite with vocabulary support.	Solves division facts through 100 with visual support; <u>and</u> solves one -step story problems including multiplicative comparisons and division within range of computation; <u>and</u> understands multiples and some factors within range of fluency; <u>and</u> can determine prime and composite numbers with support.	Demonstrates fluency with division facts through 100; <u>and</u> solves multi -step story problems including multiplicative comparisons and division; <u>and</u> understands multiples and factors; <u>and</u> can define and give examples of prime and composite numbers.	Demonstrates fluency with division facts through 100; <u>and</u> solves multi -step story problems including multiplicative comparisons and division; <u>and</u> understands multiples and factors; <u>and</u> can define and give examples of prime and composite numbers; and makes In-depth inferences and applications of mathematics.

Grade 4 Math Proficiency Scale-T2

	Novice “1”	Approaching “2”	Proficient “3”	Advanced “4”
Communication Math Practices 3 and 6	Participates in asking questions and sharing ideas, including the construction of arguments.	Asks questions and explains ideas, constructs viable arguments.	Asks questions and explains ideas clearly, constructs viable arguments and critiques the reasoning of others, explains the reasoning with clarity and use of some related academic vocabulary.	Asks questions and explains ideas clearly with details, constructs viable arguments, and critiques the reasoning of others using academic related vocabulary, explanations show insight and clarity.
Critical Thinking Math Practices 1, 2, 4, 5, 7, 8	Participates in creating questions, gathering information, and understanding connections; and looking for structure to make sense of problems.	Creates basic questions, gathers information, and understands connections; and begins to reason abstractly and quantitatively to look for structure and make sense of problems, models with mathematics, and perseveres in finding a solution.	Creates questions, gathers information, and understands connections; and reasons abstractly and quantitatively to find structure and make sense of problems, persevere, models and solve problems with precision.	Creates questions, gathers information, and uses connections between systems, and patterns including repeated reasoning to find structure, make sense, persevere, model, and solve problems with precision; <u>and</u> reasons abstractly and quantitatively
Geometry 4.G.1-3	Practices classifying two-dimensional shapes using given attributes; <u>and</u> drawing and identifying points, lines, line segments, rays, angles, parallel and perpendicular lines, and lines of symmetry in two-dimensional shapes.	Classifies two-dimensional shapes using given attributes; <u>and</u> draws and identifies most points, lines, line segments, rays, angles, parallel and perpendicular lines, and lines of symmetry in two-dimensional shapes.	Classifies two-dimensional shapes; <u>and</u> draws and identifies points, lines, line segments, rays, angles, parallel and perpendicular lines, and lines of symmetry in two-dimensional shapes.	Classifies two-dimensional shapes; <u>and</u> draws and identifies points, lines, line segments, rays, angles, parallel and perpendicular lines, and lines of symmetry in two-dimensional shapes; <u>and</u> uses in-depth inferences and application.
Measurement & Data 4.MD.1-3	Practices identifying and expressing sizes of measurement units with a conversion chart; solving story problems with distance, time, money, mass, and volume; <u>and</u> using visuals to solve for area and perimeter.	Knows and expresses the relative sizes of some measurement units; <u>and</u> uses the four operations with visuals to solve story problems involving distances, intervals of time, money, mass, and volume; <u>and</u> uses formulas for area and perimeter.	Knows and expresses the relative sizes of measurement units; <u>and</u> uses the four operations to solve story problems involving distances, intervals of time, money, mass, and volume; <u>and</u> uses formulas for area and perimeter of a rectangle.	Knows and expresses the relative sizes of measurement units; <u>and</u> solves story problems involving distances, intervals of time, money, mass and volume; <u>and</u> uses area and perimeter formulas; <u>and</u> uses in-depth inferences and application of mathematics.

Number & Operations in Base Ten 4.NBT. 2-4	Practices reading, writing, comparing, and rounding numbers up to 4-digits; <u>and</u> adding and subtracting multi-digit numbers using the standard algorithm; and.	Adds and subtracts multi-digit numbers using the standard algorithms; <u>and</u> reads, writes, and compares four-digit numbers; <u>and</u> rounds four-digit numbers to any place.	Adds and subtracts multi-digit numbers using the standard algorithms, as well as other efficient method; <u>and</u> reads, writes, and compares multi-digit numbers; <u>and</u> rounds multi-digit numbers to any place.	Adds and subtracts multi-digit numbers using the standard algorithms, or other efficient methods; <u>and</u> reads, writes, and compares multi-digit numbers; <u>and</u> rounds multi-digit numbers to any place; <u>and</u> uses in-depth inferences and application
Number & Operations in Fractions 4.NF.1-3, 5-7	Practices comparing fractions and finding equivalent fractions using a visual model; <u>and</u> solving story problems that involve adding and subtracting fractions with like denominators 2, 3, 4, 6, 8; <u>and</u> writing fractions with denominators of 10 or 100 in decimal notation.	Compares fractions and finds equivalent fractions with a visual model; <u>and</u> adds and subtracts fractions with like denominators; <u>and</u> writes fractions with denominators of 10 or 100 in decimal notation.	Compares fractions and finds equivalent fractions with a visual model; <u>and</u> solves story problems that involve adding and subtracting fractions (like denominators); <u>and</u> writes fractions with denominators of 10 or 100 in decimal notation and uses this to add fractions with respective denominators 10 and 100; <u>and</u> compares decimal to the hundredths place.	Compares fractions and finds equivalent fractions with a visual model; <u>and</u> solves story problems that involve adding and subtracting fractions (like denominators); <u>and</u> writes fractions (denominators of 10 and 100) in decimal notation; <u>and</u> compares decimals to the hundredths; <u>and</u> uses in-depth inferences and application of mathematics.
Operations & Algebraic Thinking 4.OA.3	Practices multiplication facts through 100; <u>and</u> solving multi-step story problems including multiplicative comparisons and division; <u>and</u> finding examples of prime and composite numbers.	Demonstrates fluency with division facts through 100; <u>and</u> solves multi -step story problems including division and multiplicative comparisons <u>and</u> understands multiples and factors; <u>and</u> can define and give examples of prime and composite numbers.	Solves multi-step story problems using all operations; using mental math, estimation, or rounding to determine whether answers to multistep story problems are reasonable.	Solves multi-step story problems using all operations; using mental math, estimation, or rounding to determine whether answers to multistep story problems are reasonable; <u>and</u> uses in-depth inferences and application of mathematics.

Grade 4 Math Proficiency Scale-T3

	Novice “1”	Approaching “2”	Proficient “3”	Advanced “4”
Communication Math Practices 3 and 6	Participates in asking questions and sharing ideas, including the construction of arguments.	Asks questions and explains ideas, constructs viable arguments.	Asks questions and explains ideas clearly, constructs viable arguments and critiques the reasoning of others, explanations show clarity and use of some related academic vocabulary.	Asks questions and explains ideas clearly with details, constructs viable arguments, and critiques the reasoning of others using academic related vocabulary, explanations show insight and clarity.
Critical Thinking Math Practices 1, 2, 4, 5, 7, 8	Participates in creating questions, gathering information, and understanding connections; and looking for structure to make sense of problems.	Creates basic questions, gathers information, and understands connections; and begins to reason abstractly and quantitatively to look for structure and make sense of problems, models with mathematics, and perseveres in finding a solution.	Creates questions, gathers information, and understands connections; and reasons abstractly and quantitatively to find structure and make sense of problems, persevere, models and solve problems with precision.	Creates questions, gathers information, and uses connections between systems, and patterns including repeated reasoning to find structure, make sense, persevere, model, and solve problems with precision; <u>and</u> reasons abstractly and quantitatively
Geometry 4.G.1-3	Practices classifying two-dimensional shapes using given attributes; <u>and</u> drawing and identifying points, lines, line segments, rays, angles, parallel and perpendicular lines, and lines of symmetry in two-dimensional shapes.	Classifies two-dimensional shapes using given attributes; <u>and</u> draws and identifies most points, lines, line segments, rays, angles, parallel and perpendicular lines, and lines of symmetry in two-dimensional shapes.	Classifies two-dimensional shapes; <u>and</u> draws and identifies points, lines, line segments, rays, angles, parallel and perpendicular lines, and lines of symmetry in two-dimensional shapes.	Classifies two-dimensional shapes; <u>and</u> draws and identifies points, lines, line segments, rays, angles, parallel and perpendicular lines, and lines of symmetry in two-dimensional shapes; and uses In-depth inferences and application.

Measurement & Data 4.MD.1, 3-4, 6	Practices using a conversion chart to identify and express sizes of measurement units, including metric length, mass, time, volume, and customary weight; <u>and</u> using visuals to solve for area and perimeter; <u>and</u> making line plots, and using the information to solve basic problems; <u>and</u> measuring angles.	Knows and expresses the relative sizes of some measurement units, including metric length, mass, and volume, time, and customary weight; <u>and</u> uses formulas for area and perimeter; <u>and</u> uses the information on a line plot to solve problems; and uses a protractor to measure angles.	Knows and expresses the relative sizes of measurement units, including metric length, mass, time, volume, and customary weight; <u>and</u> uses formulas for area and perimeter; <u>and</u> makes line plots, using the information to solve problems; <u>and</u> uses a protractor to sketch and measure angles.	Knows and expresses the relative sizes of measurement units, including metric length, mass, volume, time, and customary weight; <u>and</u> uses area and perimeter formulas; <u>and</u> makes line plots, using the information to solve problems; <u>and</u> uses a protractor to sketch and measure angles; and uses In-depth inferences and application.
Number & Operations in Base Ten 4.NBT. 5-6	Practices concepts of place value up to 3-digit numbers; <u>and</u> multiplying 3-digit by 1-digit and dividing 2-digit by 1-digit numbers; and reading, writing, comparing, and rounding numbers with up to 4-digits.	Multiplies 3-digit by 1-digit numbers, <u>and</u> divides multi-digit by 1-digit numbers using strategies based on place value and properties of operations; uses equations or labeled sketches to explain strategies; and reads, writes, compares, and rounds 4-digit numbers.	Multiplies 3-digit by 1-digit numbers, <u>and</u> 2-digit by 2-digit numbers, <u>and</u> divides multi-digit by 1-digit numbers using strategies based on place value and properties of operations; uses equations or labeled sketches to explain strategies.	Multiplies 3-digit by 1-digit numbers, <u>and</u> 2-digit by 2-digit numbers, <u>and</u> divides multi-digit by 1-digit numbers using strategies and properties of operations; uses equations or labeled sketches to explain strategies; and uses In-depth inferences and application.
Number & Operations in Fractions 4.NF.1-7	Practices comparing fractions and finding equivalent fractions using a visual model; <u>and</u> solving story problems that involve adding and subtracting fractions with like denominators 2, 3, 4, 6, 8; <u>and</u> writing fractions with denominators of 10 or 100 in decimal notation.	Compares fractions and finds equivalent fractions; <u>and</u> solves story problems that involve adding and subtracting fractions with like denominators ; <u>and</u> writes fractions with denominators of 10 or 100 in decimal notation.	Compares fractions and finds equivalent fractions; <u>and</u> solves story problems that involve multiplying a fraction by a whole number; <u>and</u> writes fractions with denominators of 10 or 100 in decimal notation; and converts a fraction with 10 in the denominator to a fraction with 100 in the denominator; and uses the strategy to add tenths and hundredths.	Compares fractions and finds equivalent fractions; <u>and</u> solves story problems that involve multiplying a fraction by a whole number; <u>and</u> writes fractions (denominators 10 or 100) in decimal notation; and converts a fraction with denominator 10 to a fraction denominator 100; and uses this to add tenths and hundredths; and uses In-depth inferences and application.

Operations & Algebraic Thinking 4.OA. 2, 3, 5	Practices multiplication facts through 100; <u>and</u> identifying and generating patterns of numbers or shapes in a sequence following a basic rule; <u>and</u> solving multi-step story problems using all computations; <u>and</u> using mental math, estimation, or rounding to determine whether or not answers to multistep story problems are reasonable.	Identifies and generates patterns of numbers or shapes in a sequence following a basic rule; <u>and</u> writes equations with an unknown quantity; <u>and</u> solves multi-step story problems using all computations; using mental math, estimation, or rounding to determine whether or not answers to multistep story problems are reasonable.	Identifies and generates patterns of numbers or shapes in a sequence; <u>and</u> writes equations with an unknown quantity; <u>and</u> solves multi-step story problems using all computations; using mental math, estimation, or rounding to determine whether or not answers to multistep story problems are reasonable.	Identifies and generates patterns of numbers or shapes in a sequence; <u>and</u> writes equations with an unknown quantity; <u>and</u> solves multi-step story problems using all computations; using mental math, estimation, or rounding to determine whether or not answers to multistep story problems are reasonable; and uses In-depth inferences and application of mathematics.
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