4th Grade Math

Purpose

The rubrics provide a guide to teachers on how to mark students. This helps with consistency across teachers, although all grading involves some subjectivity. In addition to this broad look, more valuable ongoing assessments are utilized to provide detailed data regarding student progress.

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4th Grade Math

Statement	Exceeds	Secure	Developing	Beginning
Finds factor pairs and multiples	Determines all factor pairs for a whole number, AND determines whether a given whole number is a multiple of a given one-digit number, AND determines whether a given whole number is prime or composite, AND determines the prime factorization of numbers	Determines all factor pairs for a whole number, AND determines whether a given whole number is a multiple of a given one-digit number, AND determines whether a given whole number is prime or composite	Determines factor pairs AND determines whether a given whole number is a multiple of a given one-digit number	Determines factor pairs OR multiples for whole numbers
Uses the four operations with whole numbers to solve problems	Solves multi-step word problems posed with decimal numbers using the four operations, AND represents these problems using equations with a symbol standing for the unknown quantity, AND justifies the reasonableness of answers using mental computation and estimation strategies including rounding	Solves multi-step word problems with whole-numbers using the four operations, including problems in which remainders must be interpreted, AND represents these problems using equations with a symbol standing for the unknown quantity, AND assesses the reasonableness of answers using mental computation and estimation strategies including rounding	Solves word problems posed with whole numbers and having whole-number answers using the four operations, including problems in which remainders must be interpreted, AND represents these problems using equations	Solves word problems posed with whole numbers and having whole-number answers using any of the four operations
Represents and interprets data	Creates and solves problems involving information from the line plot	Creates and interprets a line plot to display a data set of measurements in fractions of a unit, AND solves addition and subtraction problems involving information from the line plot	Creates and interprets a line plot to display a data set of measurements in fractions of a unit, OR solves addition and subtraction problems involving information from the line plot	Creates or interprets a line plot to display a data set of measurements in whole number units

Draws and identifies lines and angles, and classifies shapes by properties	Classifies shapes by multiple properties and justifies their classification	Draws and identifies lines and angles, AND classifies shapes by properties of their lines and angles	Draws and identifies lines and angles, OR classifies shapes by properties of their lines and angles	Identifies lines and angles
Applies concepts of angles to measure angles	Uses knowledge of angles to determine the measurement of an unknown angle	Draws AND measures angles using a protractor	Draws OR measures angles using a protractor	Finds the approximate measurement of an angle using a protractor
Solves problems involving measurement and conversion of measurements	Solves problems involving units of measurement and is able to convert measurement units. Represents the word problem using an equation	Solves problems involving units of measurement and converts measurement units	Applies a strategy to solve problems involving units of measurement AND converts measurement units, BUT may not obtain an accurate answer	Applies a strategy to solve word problems involving units of measurement OR converts measurement units
Applies concepts of place value to multi-digit whole numbers	Reads and writes multi-digit whole numbers and compares the values of the digits (beyond seven digits) using relational symbols, AND rounds numbers to a given place	Reads and writes multi-digit whole numbers and compares the values of the digits (up to seven digits) using relational symbols, AND rounds numbers to a given place	Reads and writes multi-digit whole numbers and compares the values of the digits (up to seven digits) using relational symbols, OR reads and writes multi-digit whole numbers and rounds numbers to a given place	Reads and writes multi-digit whole numbers OR compares the values of the digits using relational symbols, OR rounds numbers to a given place
Uses properties of operations to perform multi-digit arithmetic	Adds, subtracts, multiplies, and divides multi-digit numbers including decimals	Adds, subtracts, multiplies, and divides multi-digit whole numbers	Applies a strategy to add, subtract, and multiply or divide multi-digit whole numbers	Applies a strategy to add, subtract, multiply, or divide multi-digit whole numbers
Applies knowledge of fraction equivalence and ordering	Applies knowledge of equivalent fractions to solve problems	Generates equivalent fractions for a given fraction, AND records the comparison of two fractions with different numerators and denominators	Identifies equivalent fractions for a given fraction, OR records the comparison of two fractions with different numerators and denominators	Compares fractions with like numerators or denominators

Builds fractions from unit fractions.	Adds and subtracts fractions with unlike denominators.	Adds and subtracts fractions and mixed numbers with like denominators, AND multiplies whole numbers by a fraction.	Adds and subtracts fractions and mixed numbers with like denominators, OR multiplies whole numbers by a fraction.	Adds and subtracts fractions with like denominators.
Understands decimal notation for fractions and compares decimals and fractions.	Converts and compares fractions and decimals, represents them in simplest form.	Converts AND compares fractions and decimals (tenths and hundredths).	Converts OR compares fractions and decimals (tenths and hundredths).	Converts OR compares fractions OR decimals (tenths and hundredths).

The asterisk (*) denotes one possible way a student could demonstrate enrichment or extension that would be designated as Exceeds Standard.