

Level	Basic	Proficient	Advanced
<b>Policy Level Descriptors</b>	Marginal academic performance, work approaching, but not yet reaching, satisfactory performance, indicating partial understanding and limited display of the knowledge and skills included in the Wyoming Content and Performance Standards.	Satisfactory academic performance indicating a solid understanding and display of the knowledge and skills included in the Wyoming Content and Performance Standards.	Superior academic performance indicating an in-depth understanding and exemplary display of the knowledge and skills included in the Wyoming Content and Performance Standards.
<b>Domain</b>	<b>Operations and Algebraic Thinking</b>		
<b>Range PLD: Cluster A -</b> Write and interpret numerical expressions.	Basic students evaluate two-step numerical expressions with no grouping symbols (5.OA.1);	Proficient students evaluate numerical expressions that use one type of grouping symbol to complete the simplification of numerical expressions (5.OA.1);	Advanced students evaluate numerical expressions that use two or more types of grouping symbols to complete the simplification of numerical expressions (5.OA.1);
	Basic students write numerical expressions without grouping symbols (5.OA.2).	Proficient students write numerical expressions that use one type of grouping symbol (5.OA.2).	Advanced students write numerical expressions that use two or more types of grouping symbols (5.OA.2).
<b>Range PLD: Cluster B -</b> Analyze patterns and relationships.	Basic students graph the ordered pairs on the coordinate plane given the ordered pairs of a numeric pattern (5.OA.3).	Proficient students generate the corresponding terms and identify relationships between the corresponding terms, given two rules (5.OA.3).	Advanced students identify and explain features between the corresponding terms of two numerical patterns not explicitly given in the rule (5.OA.3).

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<b>Domain</b>	<b>Number and Operations-Base Ten</b>		
<b>Range PLD: Cluster C -</b> Understand the place-value system.	Basic students recognize that in a multi-digit number, a digit in the ones place represents 10 times as much as it represents in the place to its right (5.NBT.1);	Proficient students recognize that given two different digits in a multi-digit number, one digit can represent a multiple of 10 times the digit to its right, and a multiple of 1/10 the digit to its left (5.NBT.1);	Advanced students recognize that given two different digits in a multi-digit number, one digit can represent a multiple of 100 times the digit two places to its right, and a multiple of 1/100 times the digit two places to its left (5.NBT.1);
	Basic students continue a pattern of a number multiplied by a power of 10 (5.NBT.2);	Proficient students explain patterns in the number of zeros of the product when a number is multiplied by a power of 10 (5.NBT.2);	Advanced students explain patterns in the placement of the decimal point when a decimal is multiplied or divided by a power of 10 and use whole-number exponents to denote powers of 10 (5.NBT.2);
	Basic students read and write decimal numbers to hundredths (5.NBT.3);	Proficient students read and write decimal numbers to thousandths (5.NBT.3);	Advanced students read and write decimal numbers past the thousandths place (5.NBT.3);
	Basic students compare two decimal numbers to hundredths using the symbols >, =, and < to record the results of comparisons (5.NBT.3);	Proficient students compare two decimal numbers to thousandths based on the meaning of the digits in each place using the symbols >, =, and < to record the results of comparisons (5.NBT.3);	
	Basic students round decimals to the nearest tenth (5.NBT.4).	Proficient students round decimals to any place (5.NBT.4).	Advanced students use place value understanding to explain how to round decimals to any place (5.NBT.4).
<b>Range PLD: Cluster D -</b> Perform operations with multi-digit whole numbers and with decimals to the hundredths.	Basic students multiply a multi-digit whole number by a single-digit whole number using the standard algorithm (5.NBT.5);	Proficient students multiply a multi-digit whole number by a two-digit whole number using the standard algorithm (5.NBT.5);	Advanced students multiply multi-digit whole numbers by whole numbers with three or more digits using the standard algorithm (5.NBT.5);
	Basic students determine a whole number quotient of a dividend with up to three digits and a one-digit divisor involving whole numbers (5.NBT.6);	Proficient students determine a whole number quotient of a dividend with up to four digits and a two-digit divisor involving whole numbers, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division (5.NBT.6);	Advanced students explain the division of whole numbers up to four-digit dividends and two-digit divisors by using equations, rectangular arrays, and/or area models (5.NBT.6);
	Basic students add and subtract decimals to the hundredths using concrete models (5.NBT.7).	Proficient students use the four operations with decimals to the hundredths using concrete models (5.NBT.7).	Advanced students use the four operations with decimals to the hundredths using concrete models and justifying why a method is appropriate (5.NBT.7).

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<b>Domain</b>	<b>Number and Operations-Fractions</b>		
<b>Range PLD: Cluster E -</b> Use equivalent fractions as a strategy to add and subtract fractions.	Basic students add and subtract proper fractions with unlike denominators (5.NF.1);	Proficient students add and subtract mixed numbers with unlike denominators that require regrouping by replacing the given fractions with equivalent fractions (5.NF.1);	Advanced students use benchmark fractions and number sense of fractions to assess the reasonableness of answers (5.NF.1-2);
	Basic students solve one-step mathematical and real-world problems involving addition and subtraction of fractions referring to the same whole, including cases of unlike denominators (5.NF.2).	Proficient students solve multi-step mathematical and real-world problems involving addition and subtraction of fractions referring to the same whole, including cases of unlike denominators (5.NF.2).	
<b>Range PLD: Cluster F -</b> Apply and extend previous understandings of multiplication and division to multiply and divide fractions.	Basic students identify a fraction written as the quotient of a numerator divided by a denominator in a mathematical context (5.NF.3);	Proficient students solve both mathematical and real-world problems involving division of whole numbers leading to answers in the form of fractions or mixed numbers (5.NF.3);	
	Basic students multiply a fraction by a whole number (5.NF.4);	Proficient students multiply a fraction by a fraction (5.NF.4);	Advanced students explain how to multiply a fraction by a fraction (5.NF.4) <b>and divide a unit fraction by a fraction;</b>
	Basic students solve for the area of a rectangle with sides represented by a whole number and a fraction by multiplying (5.NF.4);	Proficient students solve for the area of a rectangle with fractional side lengths by multiplying and show that tiling a rectangle with unit squares to find the area is the same as multiplying the side lengths of the rectangle (5.NF.4);	Advanced students predict the result of multiplying a whole number by a fraction less than one, by a fraction equal to one, or by a fraction greater than one and predict the sizes of the factors based on the product without performing the indicated multiplication (5.NF.5);
	Basic students solve real-world problems by multiplying a whole number by a fraction (5.NF.6);	Proficient students solve real-world problems involving multiplication of fractions including mixed numbers (5.NF.6);	Advanced students solve multi-step real-world problems involving multiplication of fractions including mixed numbers (5.NF.6);
	Basic students solve for the quotient of a whole number divided by a unit fraction given a model (5.NF.7).	Proficient students both compute and solve real world problems involving the division of a unit fraction by a non-zero whole number or the division of a whole number by a unit fraction (5.NF.7);	Advanced students identify real-world contexts represented by the division of a unit fraction by a non-zero whole number or the division of a whole number by a unit fraction (5.NF.7).

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<b>Domain</b>	<b>Measurement and Data</b>		
<b>Range PLD: Cluster G -</b> Convert like measurement units within a given measurement system.	Basic students convert among different-sized standard measurement units within a given measurement system, given the conversion equivalence and solve one-step mathematical problems requiring one conversion (5.MD.1).	Proficient students convert units within a given measurement system requiring one conversion and solve two-step problems in both mathematical and real-world contexts involving these conversions (5.MD.1).	Advanced students convert among different-sized standard measurement units within a given measurement system requiring multiple conversions and solve real-world problems with three or more steps involving these conversions (5.MD.1).
<b>Range PLD: Cluster H -</b> Represent and interpret data.	Basic students identify a line plot representing a data set with measurements in fractions of a unit ( $\frac{1}{2}$ , $\frac{1}{4}$ , $\frac{1}{8}$ ) (5.MD.2).	Proficient students use one or two operations with fractions to solve problems involving information presented in line plots (5.MD.2).	Advanced students use three or more operations with fractions to solve problems involving information presented in line plots (5.MD.2).
<b>Range PLD: Cluster I -</b> Geometric measurement: understand concepts of volume and relate volume to multiplication and addition.	Basic students determine the definition of a unit cube (5.MD.3);	Proficient students determine volumes by counting improvised units (5.MD.4);	Advanced students use the associative property of multiplication to represent threefold whole number products as volumes (5.MD.5);
	Basic students determine the volume of a rectangular prism by counting the number of unit cubes in a rectangular prism (5.MD.5);	Proficient students show that counting unit cubes to find the volume of a rectangular prism is the same as multiplying the edge lengths of the prism (5.MD.5);	Advanced students show that counting unit cubes to find the volume of a rectangular prism is the same as multiplying the height by the area of the base (5.MD.5);
	Basic students apply the formula $V = l \times w \times h$ to find volumes of right rectangular prisms given whole number edge lengths (5.MD.5).	Proficient students apply the formula $V = l \times w \times h$ to find volumes of right rectangular prisms with whole number edge lengths in both mathematical and real-world contexts (5.MD.5);	Advanced students apply the formula $V = b \times h$ to find volumes of right rectangular prisms with whole number edge lengths in both mathematical and real-world contexts (5.MD.5);
		Proficient students add two volumes to solve real-world problems (5.MD.5).	Advanced students solve real-world problems by finding volumes of solid figures composed of two non-overlapping right rectangular prisms by adding the volumes of the non-overlapping parts (5.MD.5).

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<b>Domain</b>	<b>Geometry</b>		
<b>Range PLD: Cluster J</b> - Graph points on the coordinate plane to solve real-world and mathematical problems.	Basic students name the components of a coordinate system (5.G.1);	Proficient students describe the components of a coordinate system and understand the use of a coordinate system (1st Quadrant only) (5.G.1);	Advanced students name, use, and describe the components of a coordinate system (1st Quadrant only) (5.G.1);
	Basic students locate a point in the first quadrant using an ordered pair (5.G.1).	Proficient students represent both mathematical and real-world contexts by graphing points in the first quadrant of the coordinate plane (5.G.2).	Advanced students interpret coordinate values of points in the context of the situation (5.G.2).
<b>Range PLD: Cluster K</b> - Classify two-dimensional figures into categories based on their properties.	Basic students classify two-dimensional figures into basic subcategories (5.G.3,4).	Proficient students classify two-dimensional figures in a hierarchy based on properties (5.G.3,4).	Advanced students evaluate simple logical arguments to show that attributes belonging to a category of two-dimensional figures also belong to all subcategories of that category (5.G.3,4).