

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> Use the four operations with whole numbers to solve problems.	Basic students identify multiplicative comparisons involving equal groups and arrays using multiplication symbols (4.OA.1);	Proficient students identify equations involving multiplicative comparisons using either multiplication or division symbols (4.OA.1);	Advanced students generate equations involving multiplicative comparisons using either multiplication or division symbols;
	Basic students solve one-step problems involving multiplicative comparisons in mathematical contexts (4.OA.2);	Proficient students solve one-step problems involving multiplicative comparisons in both mathematical and real-world contexts (4.OA.2);	Advanced students solve real-world problems and explain answers;
	Basic students solve one-step problems involving all four operations (+, -, x, and ÷) in both mathematical and real-world contexts (4.OA.3);	Proficient students solve two-step problems involving all four operations (+, -, x, and ÷) in both mathematical and real-world contexts (4.OA.3);	Advanced students solve three-step problems involving all four operations (+, -, x, and ÷) in both mathematical and real-world contexts (4.OA.3);
	Basic students determine if two whole numbers divide evenly (4.OA.3).	Proficient students determine the remainder when two whole numbers are divided (4.OA.3).	Advanced students interpret the meaning of a remainder when two whole numbers are divided (4.OA.3);
			Advanced students assess the reasonableness of answers using estimation strategies (4.OA.3).
<b>Range PLD: Cluster B -</b> Gain familiarity with factors and multiples.	Basic students recognize that a whole number is a multiple of each of its factors (4.OA.4);	Proficient students determine if a whole number in the range of 1-100 is a multiple of a 1-digit number (4.OA.4);	Advanced students determine if a whole number is a multiple of 11, 12, or 15;
	Basic students determine one factor pair for a whole number in the range of 1-100 (4.OA.4).	Proficient students determine all factor pairs for a whole number in the range of 1-100 (4.OA.4).	Advanced students determine if a whole number in the range of 1-100 is prime or composite (4.OA.4).
<b>Range PLD: Cluster C -</b> Generate and analyze patterns.	Basic students predict a term in a pattern (4.OA.5).	Proficient students generate a pattern involving an addition or a subtraction rule and predict a term in a number pattern (4.OA.5).	Advanced students generate a pattern involving multiplication and predict a term in a number pattern (4.OA.5);
			Advanced students identify features of the terms of a pattern that are not explicitly given in the rule (4.OA.5).

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<b>Domain</b>	<b>Number and Operations-Base Ten</b>		
<b>Range PLD: Cluster D -</b> Generalize place value understanding for multi-digit whole numbers.	Basic students recognize that a digit in the tens place is a multiple of 10 (4.NBT.1);	Proficient students recognize that a digit in one place represents 10 times what the same digit represents in the place to the right (4.NBT.1);	Advanced students recognize that a digit in one place represents a multiple of 10 times what another digit represents in the place to the right and apply this relationship as an equation (4.NBT.1);
	Basic students read and write multi-digit whole numbers up to 10,000 (4.NBT.2);	Proficient students read and write multi-digit whole numbers up to 1,000,000 (4.NBT.2);	Advanced students read and write multi-digit whole numbers up to 100,000,000;
	Basic students compare two multi-digit whole numbers up to 1,000 based on the meaning of the digits in each place using $<$ , $>$ , and $=$ (4.NBT.2);	Proficient students compare two multi-digit whole numbers up to 1,000,000 based on the meaning of the digits in each place using $<$ , $>$ , and $=$ (4.NBT.2);	Advanced students explain how to use the digits in multi-digit whole numbers to compare numbers up to 1,000,000 (4.NBT.2);
	Basic students round any multi-digit whole number up to 10,000 to any place (4.NBT.3).	Proficient students round any multi-digit whole number up to 1,000,000 to any place (4.NBT.3).	Advanced students explain how to use the digits in multi-digit whole numbers to round numbers up to 1,000,000 (4.NBT.3).
<b>Range PLD: Cluster E -</b> Use place value understanding and properties of operations to perform multi-digit arithmetic.	Basic students add or subtract two or more numbers whose sum or difference is less than 1,000 using the standard algorithm (4.NBT.4);	Proficient students add or subtract two or more numbers whose sum or difference is less than 1,000,000 using the standard algorithm (4.NBT.4);	Advanced students add or subtract two or more numbers whose sum or difference is greater than 1,000,000 using the standard algorithm;
	Basic students multiply a two-digit number by a one-digit number using strategies based on place value, properties of operations, or models (4.NBT.5);	Proficient students multiply up to a four-digit number by a one-digit number using strategies based on place value, properties of operations, or models (4.NBT.5);	Advanced students multiply a two-digit number by a two-digit number using strategies based on place value, properties of operations, or models (4.NBT.5);
	Basic students determine the quotient of a two-digit dividend by a one-digit divisor with no remainder using strategies based on place value, properties of operations, the relationship between multiplication and division, or models (4.NBT.6).	Proficient students determine the quotient of a dividend with up to four digits and a one-digit divisor with no remainder using strategies based on place value, properties of operations, the relationship between multiplication and division, or models (4.NBT.6).	Advanced students determine the quotient of a dividend with up to four digits and a one-digit divisor with a remainder using strategies based on place value, properties of operations, the relationship between multiplication and division, or models (4.NBT.6).

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<b>Domain</b>	<b>Number and Operations-Fractions</b>		
<b>Range PLD: Cluster F -</b> Extend understanding of fraction equivalence and ordering.	Basic students identify equivalent fractions with unlike denominators (4.NF.1);	Proficient students identify and generate equivalent fractions with unlike denominators (4.NF.1);	Advanced students justify why two fractions are equivalent (4.NF.1);
	Basic students compare two fractions with different numerators or different denominators by using simple fractions such as $1/2$ (4.NF.2).	Proficient students compare two fractions with different numerators and denominators using the symbols $<$ , $>$ , or $=$ (4.NF.2).	Advanced students justify how and when valid fractional comparisons can be made (4.NF.2).
<b>Range PLD: Cluster G -</b> Build fractions from unit fractions by applying and extending previous understandings of operations on whole numbers.	Basic students interpret a fraction as a sum of unit fractions (4.NF.3);	Proficient students add and subtract two fractions with like denominators (2, 3, 4, 5, 6, 8, 10, 12, or 100) including mixed numbers in both mathematical and real-world contexts (4.NF.3);	Advanced students use properties of operations and inverse operations to add or subtract two fractions with like denominators including mixed numbers (4.NF.3);
		Proficient students represent addition and subtraction of fractions with like denominators by equations (4.NF.3);	Advanced students identify and represent addition and subtraction of fractions with like denominators in multiple ways (4.NF.3);
	Basic students solve one-step problems involving addition or subtraction of fractions with like denominators in mathematical contexts (4.NF.3);	Proficient students solve one-step problems involving addition or subtraction of fractions with like denominators in real-world contexts (4.NF.3);	Advanced students solve two-step problems involving addition or subtraction of fractions with like denominators in mathematical or real-world contexts (4.NF.3);
	Basic students multiply 2 by a fraction (doubling) (4.NF.4).	Proficient students multiply a whole number times a fraction in the form $a/b$ in both mathematical and real-world contexts (4.NF.4).	Advanced students generalize the multiplication of a whole number and a fraction as $n \times (a/b) = (n \times a)/b$ (4.NF.4).
<b>Range PLD: Cluster H -</b> Understand decimal notation for fractions, and compare decimal fractions.		Proficient students generate equivalent fractions with denominators of 10 and 100 and to add these fractions (4.NF.5);	
		Proficient students write in decimal form, fractions with denominators of 10 or 100 (4.NF.6);	Advanced students justify why two decimals are equivalent (4.NF.6);
	Basic students compare two decimals of the same place value using the symbols $<$ , $>$ , or $=$ (4.NF.7).	Proficient students compare two decimals to hundredths using the symbols $<$ , $>$ , or $=$ (4.NF.7).	Advanced students justify how and when a valid decimal comparison can be made (4.NF.7).

Level	Basic	Proficient	Advanced
<b>Domain</b>	<b>Measurement and Data</b>		
<b>Range PLD: Cluster I -</b> Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit.	Basic students recognize the relative sizes of units of measure within one system (4.MD.1);	Proficient students express measurements within either the metric or customary systems in a larger unit in terms of a smaller unit (4.MD.1);	
	Basic students solve one-step problems involving measurements requiring no conversions using addition or subtraction (4.MD.2);	Proficient students solve one-step problems involving measurements requiring conversions using the four operations (4.MD.2);	Advanced students solve multi-step problems involving measurements requiring conversions using the four operations (4.MD.2);
	Basic students solve for the area or perimeter of a rectangle given a drawing with all four measurements (4.MD.3).	Proficient students solve for the area or perimeter of a rectangle given its length and width in both mathematical and real-world contexts (4.MD.3).	Advanced students solve for the length or width of a rectangle given its area or perimeter in both mathematical and real-world contexts (4.MD.3).
<b>Range PLD: Cluster J -</b> Represent and interpret data.	Basic students identify a line plot that displays a set of data involving fractional measurements ( $1/2$ , $1/4$ , or $1/8$ ) (4.MD.4).	Proficient students solve problems involving addition and subtraction of fractions ( $1/2$ , $1/4$ , or $1/8$ ) based on data in a line plot (4.MD.4).	Advanced students gather measurement data, plot this data on a line plot, and solve problems involving addition and subtraction of fractions.
<b>Range PLD: Cluster K -</b> Geometric measurement: understand concepts of angles and measure angles.		Proficient students identify the relationship between an angle measure and a circle in which the vertex of the angle is the center of the circle (4.MD.5);	Advanced students explain the relationship between angle measure and a circle in which the vertex of the angle is the center of the circle;
	Basic students identify angles with a specified measure (4.MD.7).	Proficient students solve one-step addition and subtraction problems to find unknown angles on a diagram in mathematical or real-world contexts (4.MD.7).	Advanced students solve multi-step addition and subtraction problems to find unknown angles on a diagram in mathematical or real-world contexts (4.MD.7).
<b>Domain</b>	<b>Geometry</b>		
<b>Range PLD: Cluster L -</b> Draw and identify lines and angles, and classify shapes by properties of their lines and angles.	Basic students to classify/identify lines, angles, simple two-dimensional figures, and line-symmetric figures (4.G.1-3).	Proficient students identify lines, segments, rays, angles (right, acute, obtuse), perpendicular and parallel lines on a figure (4.G.1);	
		Proficient students use parallel lines, perpendicular lines, and angles (acute, obtuse, and right) to classify two-dimensional figures including right triangles (4.G.2);	Advanced students compare various two-dimensional figures (4.G.2).
		Proficient students identify line-symmetric figures and identify lines of symmetry (4.G.3).	