

Reporting Categories	Needs Support	Close	Ready	Exceeding
<b>Operations and Algebraic Thinking</b> Focus is on developing deeper understanding of operations and thinking about rules that give patterns.	<i>A student performing at the Needs Support level:</i> <ul style="list-style-type: none"> <li>solves two-step number sentences.</li> <li>identifies, describes, and expands shape patterns.</li> </ul>	<i>A student performing at the Close level:</i> <ul style="list-style-type: none"> <li>recognizes and differentiates between prime and composite numbers.</li> <li>identifies, describes, and expands number patterns.</li> </ul>	<i>A student performing at the Ready level:</i> <ul style="list-style-type: none"> <li>solves problems involving prime numbers, factors, and multiples.</li> <li>extends a number pattern that is presented in a context to solve a problem.</li> <li>makes sense of multi-step problems involving all four operations with whole numbers.</li> <li>attends to the meaning of quantities.</li> </ul>	<i>A student performing at the Exceeding level:</i> <ul style="list-style-type: none"> <li>answers questions and solves problems involving prime numbers, factors, and multiples and explains their reasoning.</li> <li>solves multi-step word problems with whole numbers and having whole-number answers.</li> <li>finds a point of entry to solve problems involving whole numbers, fractions, and decimals.</li> <li>contextualizes and decontextualizes real-world situations.</li> </ul>
<b>Number and Operations in Base Ten</b> Focus is on multi-digit whole numbers and developing fluency using place-value thinking.	<i>A student performing at the Needs Support level:</i> <ul style="list-style-type: none"> <li>uses place value understanding and a given model to round whole numbers within 100,000.</li> <li>multiplies a one-digit whole number by a two-digit whole number.</li> <li>converts visual representations of multi-digit whole numbers to base-ten numerals.</li> </ul>	<i>A student performing at the Close level:</i> <ul style="list-style-type: none"> <li>converts number names for multi-digit whole numbers to base-ten numerals.</li> <li>multiplies a one-digit whole number by a three-digit whole number.</li> <li>uses place value for recognizing the value of digits within 100,000.</li> <li>converts multi-digit whole numbers between word form and base-ten numerals.</li> <li>recognizes how repeated addition and subtraction relate to multiplication and division.</li> </ul>	<i>A student performing at the Ready level:</i> <ul style="list-style-type: none"> <li>multiplies a one-digit whole number by a four-digit whole number; multiplies two two-digit whole numbers.</li> <li>uses place value to understand the value of whole numbers within 100,000.</li> <li>writes a multi-digit whole number in expanded form using addition. Example: <math>328 = 300 + 20 + 8</math></li> <li>uses the distributive property to decompose and recompose numbers.</li> <li>estimates to check the result of a calculation.</li> </ul>	<i>A student performing at the Exceeding level:</i> <ul style="list-style-type: none"> <li>solves multi-step real-world problems involving operations with multi-digit numbers.</li> <li>writes a multi-digit whole number in expanded form using addition and multiplication. Example: <math>328 = 3 \cdot 100 + 2 \cdot 10 + 8</math></li> </ul>
<b>Number and Operations—Fractions</b> Focus is on fraction equivalence and on strategies for comparing and adding fractions with unlike denominators. Students multiply fractions by whole numbers, and decimals are introduced.	<i>A student performing at the Needs Support level:</i> <ul style="list-style-type: none"> <li>adds and subtracts fractions with common denominators.</li> <li>compares decimals to the hundredths using a given model (number lines, visual models, etc.).</li> </ul>	<i>A student performing at the Close level:</i> <ul style="list-style-type: none"> <li>solves mathematical or real-world problems involving addition and subtraction of fractions referring to the same whole with equal denominators.</li> </ul>	<i>A student performing at the Ready level:</i> <ul style="list-style-type: none"> <li>compares decimals between 0 and 1 to hundredths.</li> <li>solves mathematical or real-world problems involving addition and subtraction of mixed numbers referring to the same whole with like common denominators.</li> <li>recognizes and generates equivalent fractions using visual fraction models.</li> <li>uses the mathematical symbols <math>&lt;</math>, <math>=</math>, <math>&gt;</math> appropriately.</li> <li>decomposes and recomposes mixed numbers.</li> </ul>	<i>A student performing at the Exceeding level:</i> <ul style="list-style-type: none"> <li>compares two fractions with different numerators and different denominators by creating common denominators and explains how they know their comparison is correct.</li> <li>compares decimals to hundredths when presented in a real-world context.</li> <li>uses decimal notation for fractions with denominators of 10 or 100.</li> </ul>
<b>Measurement and Data</b> Focus is on understanding measurement units and equivalent measurements in different units. Angle measure is explored.	<i>A student performing at the Needs Support level:</i> <ul style="list-style-type: none"> <li>answers basic questions about a simple line plot.</li> <li>selects the appropriate tool to use in a situation.</li> </ul>	<i>A student performing at the Close level:</i> <ul style="list-style-type: none"> <li>applies geometric properties, and the relationships between angles in a two-dimensional figure, to solve problems involving quadrilaterals.</li> <li>recognizes the correct line plot to represent measurement data.</li> <li>constructs a line plot with whole number data.</li> <li>attends to precision when using a ruler and measures within <math>\frac{1}{2}</math> inch.</li> </ul>	<i>A student performing at the Ready level:</i> <ul style="list-style-type: none"> <li>uses a protractor to measure and compare angles.</li> <li>converts measurements in fractional amounts expressed in a measurement system's larger unit in terms of as smaller unit in real-world situations.</li> <li>constructs a line plot with tick marks that are multiples of <math>\frac{1}{2}</math>, <math>\frac{1}{4}</math>, or <math>\frac{1}{8}</math> to display a data set of measurements.</li> <li>attends to precision when using a tool.</li> </ul>	<i>A student performing at the Exceeding level:</i> <ul style="list-style-type: none"> <li>solves problems involving length and distance, using all four operations with whole numbers, fractions, and decimals.</li> <li>performs computations based on data presented in a line plot that includes fractions.</li> <li>uses a protractor to apply the additive property of non-overlapping angles in order to explain solutions for problems involving addition and subtraction of angle measures.</li> <li>selects and uses appropriate tools to solve complex and multi-step problems.</li> <li>uses models to visualize results and compare predictions with data.</li> </ul>
<b>Geometry</b> Focus is on the idea that shapes can be categorized by their properties. Symmetry is a property of some shapes.	<i>A student performing at the Needs Support level:</i> <ul style="list-style-type: none"> <li>identifies representations of points, lines, line segments, rays, and angles.</li> </ul>	<i>A student performing at the Close level:</i> <ul style="list-style-type: none"> <li>identifies representations of perpendicular and parallel lines.</li> </ul>	<i>A student performing at the Ready level:</i> <ul style="list-style-type: none"> <li>classifies two-dimensional figures based on the presence of parallel sides.</li> <li>identifies angles in a diagram or drawing of two-dimensional figures as right, acute, or obtuse.</li> <li>understands that a line of symmetry for a two-dimensional figure is a line across the figure such that the figure would be divided into matching parts if it were folded on the line.</li> </ul>	<i>A student performing at the Exceeding level:</i> <ul style="list-style-type: none"> <li>classifies two-dimensional figures based on the presence or absence of parallel or perpendicular lines.</li> <li>identifies multiple lines of symmetry for a two-dimensional figure.</li> </ul>
<b>Modeling</b> Producing, interpreting, understanding, evaluating, and improving mathematical models.	<i>A student performing at the Needs Support level:</i> <ul style="list-style-type: none"> <li>uses a diagram of a 2-dimensional figure to recognize a line of symmetry.</li> <li>uses place value blocks to represent and solve questions with whole numbers.</li> <li>uses number lines to solve addition and subtraction of whole numbers.</li> </ul>	<i>A student performing at the Close level:</i> <ul style="list-style-type: none"> <li>uses a diagram of a two-dimensional figure to identify a line of symmetry and analyzes the relationships between angles.</li> <li>uses a given model to solve real-world situations.</li> <li>uses place-value blocks with fractions and decimals to represent and solve questions.</li> </ul>	<i>A student performing at the Ready level:</i> <ul style="list-style-type: none"> <li>recognizes a two-dimensional figure based on a verbal description of the properties of the figure and creates and uses diagrams of two-dimensional figures to analyze relationships between quantities.</li> <li>determines an appropriate model for a given real-world situation (area and fraction models, number lines, etc.).</li> <li>uses and creates area models for multiplication.</li> </ul>	<i>A student performing at the Exceeding level:</i> <ul style="list-style-type: none"> <li>analyzes a representation such as a geometric model, a frequency plot, a data table, or a Venn diagram to solve a problem presented in a context.</li> <li>creates and uses an appropriate model to solve real-world situations (area and fraction models, number lines, etc.).</li> </ul>
<b>Justification and Explanation</b> Giving reasons, explaining "Why?"	<i>A student performing at the Needs Support level:</i> <ul style="list-style-type: none"> <li>restates the problem and supplies reasoning statements that are true but not effective.</li> <li>provides an example, computation, or one more steps in a procedure.</li> <li>states a property, definition, or relationships between two or more objects.</li> <li>uses a single statement to draw a conclusion.</li> </ul>	<i>A student performing at the Close level:</i> <ul style="list-style-type: none"> <li>provides a partially effective explanation of their reasoning.</li> <li>explains a pattern using words, algebraic expressions, numeric operations.</li> <li>generates a sequence from a rule.</li> <li>uses conditional statements.</li> <li>draws and labels relevant visual representations.</li> <li>explains steps of a procedure.</li> <li>provides a counterexample.</li> <li>uses a pattern or sequence to support an argument.</li> </ul>	<i>A student performing at the Ready level:</i> <ul style="list-style-type: none"> <li>draws conclusions using both specific and general evidentiary statements.</li> <li>provides general support for a claim in order to reach a conclusion.</li> <li>uses and cites conditional statements, specific aspects of created visual representations, and/or computations or procedures to clarify an argument or draw a conclusion.</li> <li>justifies and defends conclusions by explaining errors in reasoning or calculations, providing counterexamples, applying relevant classification schemes, and/or verifying statements or claims used to draw a conclusion.</li> </ul>	<i>A student performing at the Exceeding level:</i> <ul style="list-style-type: none"> <li>provides a coherent, logical argument or solution pathway by providing evidence to support claims.</li> <li>provides thorough justification and defends conclusions by using multiple, connected statements and incorporating justification techniques such as explaining errors in reasoning or calculations, providing counterexamples, applying relevant classification schemes, and/or verifying statements or claims used to draw a conclusion.</li> </ul>

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<p><b>Foundation</b> Integrate and continue to grow with topics from prior grades.</p>	<p><i>A student performing at the Needs Support level:</i></p> <ul style="list-style-type: none"> <li>• multiplies through <math>12 \times 12</math> with models.</li> <li>• matches the number of parts in a whole to a given a model.</li> <li>• recognizes polygons of up to 8 sides.</li> <li>• identifies a pattern.</li> <li>• identifies and gives the value of the digits in different place values with visual models.</li> <li>• recalls basic facts using the four operations.</li> <li>• uses standard measurement tools to measure objects and uses the measurements to create data.</li> <li>• selects the appropriate tool to use in a situation.</li> </ul>	<p><i>A student performing at the Close level:</i></p> <ul style="list-style-type: none"> <li>• multiplies through <math>12 \times 12</math> without the use of models.</li> <li>• understands that the larger the denominator the smaller the pieces.</li> <li>• names and writes a unit fraction as descriptions of one part of a single whole.</li> <li>• compares fractions with the same denominator or numerator.</li> <li>• solves one-step word problems using the four operations with whole numbers and having whole number answers.</li> <li>• gives the value of a specific digit in a number.</li> <li>• builds rectangular arrays.</li> <li>• solves real-world situations using basic measurement.</li> </ul>	<p><i>A student performing at the Ready level:</i></p> <ul style="list-style-type: none"> <li>• solves multi-step real-world problems addressing concepts from the previous grade, including whole number rounding concepts; multi-digit operations with whole numbers; geometric properties.</li> <li>• explains the desired number of parts, equal sized parts, and exhausting the whole.</li> <li>• relates rectangular arrays to area, multiplication and division.</li> <li>• solves two-step word problems using the four operations with whole numbers and having whole-number answers.</li> <li>• creates numbers sentences from a given situation involving only addition and subtraction or only multiplication and division.</li> </ul>	<p><i>A student performing at the Exceeding level:</i></p> <ul style="list-style-type: none"> <li>• solves and explains their process and solutions for multi-step, multi-part problems addressing concepts from the previous grades, including rounding; area, perimeter, and elapsed time measurements; properties of quadrilaterals; and fraction concepts, including fraction equivalence.</li> <li>• composes and decomposes complex geometric shapes.</li> </ul>
<p><b>Mathematical Practices</b> Collected PLDs that focus on mathematical practices.</p>	<p><i>A student performing at the Needs Support level:</i></p> <ul style="list-style-type: none"> <li>• constructs arguments.</li> <li>• uses a diagram of a two-dimensional figure to recognize a line of symmetry.</li> <li>• uses place value blocks to represent and solve questions with whole numbers.</li> <li>• uses number lines to solve addition and subtraction of whole numbers.</li> <li>• restates the problem and supplies reasoning statements that are true but not effective.</li> <li>• provides an example, computation, or one more steps in a procedure.</li> <li>• states a property, definition, or relationships between two or more objects.</li> <li>• uses a single statement to draw a conclusion.</li> </ul>	<p><i>A student performing at the Close level:</i></p> <ul style="list-style-type: none"> <li>• constructs arguments with minimal errors.</li> <li>• recognizes that repeated addition and subtraction relate to multiplication and division.</li> <li>• attends to precision when using a ruler and measures within <math>\frac{1}{2}</math> inch.</li> <li>• uses a diagram of a two-dimensional figure to identify a line of symmetry and analyzes the relationships between angles.</li> <li>• uses a given model to solve real-world situations.</li> <li>• uses place value blocks with fractions and decimals to represent and solve questions.</li> <li>• provides a partially effective explanation of their reasoning.</li> <li>• explains a pattern using words, algebraic expressions, numeric operations.</li> <li>• generates a sequence from a rule.</li> <li>• uses conditional statements.</li> <li>• draws and labels relevant visual representations.</li> <li>• explains steps of a procedure.</li> <li>• provides a counterexample.</li> <li>• uses a pattern or sequence to support an argument.</li> </ul>	<p><i>A student performing at the Ready level:</i></p> <ul style="list-style-type: none"> <li>• constructs viable arguments and performs simple error analysis.</li> <li>• makes sense of multi-step problems involving all four operations with whole numbers.</li> <li>• attends to the meaning of quantities.</li> <li>• uses the distributive property to decompose and recompose numbers.</li> <li>• estimates to check the result of a calculation.</li> <li>• uses the mathematical symbols <math>&lt;</math>, <math>=</math>, <math>&gt;</math> appropriately.</li> <li>• decomposes and recomposes mixed numbers.</li> <li>• attends to precision when using a tool.</li> <li>• uses appropriate vocabulary.</li> <li>• recognizes a two-dimensional figure based on a verbal description of the properties of the figure and creates and uses diagrams of two-dimensional figures to analyze relationships between quantities.</li> <li>• determines an appropriate model for a given real-world situation (area and fraction models, number lines, etc.).</li> <li>• uses and creates area models for multiplication.</li> <li>• draws conclusions using both specific and general evidentiary statements.</li> <li>• provides general support for a claim in order to reach a conclusion.</li> <li>• uses and cites conditional statements, specific aspects of created visual representations, and/or computations or procedures to clarify an argument or draw a conclusion.</li> <li>• justifies and defends conclusions by explaining errors in reasoning or calculations, providing counterexamples, applying relevant classification schemes, and/or verifying statements or claims used to draw a conclusion.</li> </ul>	<p><i>A student performing at the Exceeding level:</i></p> <ul style="list-style-type: none"> <li>• finds a point of entry to solve problems involving whole numbers, fractions, and decimals.</li> <li>• contextualizes and decontextualizes real-world situations.</li> <li>• selects and uses appropriate tools to solve complex and multi-step problems.</li> <li>• uses models to visualize results and compare predictions with data.</li> <li>• analyzes a geometric model, a frequency plot, a data table, or a Venn diagram to solve a problem presented in a context.</li> <li>• creates and uses an appropriate model to solve real-world situations (area and fraction models, number lines, etc.).</li> <li>• provides a coherent, logical argument or solution pathway by providing evidence to support claims.</li> <li>• provides thorough justification and defends conclusions by using multiple, connected statements and incorporating justification techniques such as explaining errors in reasoning or calculations, providing counterexamples, applying relevant classification schemes, and/or verifying statements or claims used to draw a conclusion.</li> </ul>