

## Threshold Achievement Level Descriptors Grade 3 Mathematics

The student who just enters Level 2 should be able to:	
<p>CONCEPTS AND PROCEDURES Targets A, B, C, and D: Operations and Algebraic Thinking</p>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Use multiplication and division within 100 to solve one-step mathematical problems involving arrays.</li> <li><input type="checkbox"/> Determine the unknown number in a multiplication equation relating three whole numbers.</li> <li><input type="checkbox"/> Apply the Commutative property of multiplication to mathematical problems with one-digit factors.</li> <li><input type="checkbox"/> Recall from memory all products of two one-digit numbers.</li> <li><input type="checkbox"/> Solve one- and two-step problems using all four operations with one- and two-digit numbers.</li> <li><input type="checkbox"/> Identify patterns in the addition table.</li> </ul>
<p>CONCEPTS AND PROCEDURES Target E: Number and Operations – Base Ten</p>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Round whole numbers to the nearest 10 or 100.</li> </ul>
<p>CONCEPTS AND PROCEDURES Target F: Number and Operations– Fractions</p>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Identify a fraction on a number line.</li> </ul>
<p>CONCEPTS AND PROCEDURES Targets G and I: Measurement and Data</p>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Tell and write time to the nearest minute and measure liquid volumes and masses of objects using metric units of liters, grams, and kilograms.</li> <li><input type="checkbox"/> Count unit squares to find the area of rectilinear figures.</li> </ul>
<p>CONCEPTS AND PROCEDURES Targets H and J: Measurement and Data</p>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Generate measurement data by measuring lengths using rulers marked with half-inch intervals.</li> <li><input type="checkbox"/> Solve mathematical problems involving perimeters of polygons, including finding an unknown side length given the perimeter.</li> </ul>
<p>CONCEPTS AND PROCEDURES Target K: Geometry</p>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Partition shapes into parts with equal areas.</li> </ul>
<p>PROBLEM SOLVING &amp; MODELING AND DATA ANALYSIS</p>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Select tools to solve a familiar and moderately scaffolded problem and apply them with partial accuracy.</li> <li><input type="checkbox"/> Use the necessary elements given in a problem situation to solve a problem.</li> <li><input type="checkbox"/> Apply mathematics to propose solutions by identifying important quantities and by locating missing information from relevant external resources.</li> </ul>
<p>COMMUNICATING REASONING</p>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Find and identify the flaw in an argument.</li> </ul>

## Threshold Achievement Level Descriptors Grade 3 Mathematics

The student who just enters Level 3 should be able to:	
<p>CONCEPTS AND PROCEDURES</p> <p>Targets A, B, C, and D: Operations and Algebraic Thinking</p>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Select the appropriate operation to solve one-step problems involving equal groups and arrays.</li> <li><input type="checkbox"/> Use the properties of operations to multiply within the 10 by 10 multiplication table.</li> <li><input type="checkbox"/> Fluently multiply within 100.</li> <li><input type="checkbox"/> Solve two-step problems using addition and subtraction with numbers larger than 100 and solutions within 1,000.</li> </ul>
<p>CONCEPTS AND PROCEDURES</p> <p>Target E: Number and Operations – Base Ten</p>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Fluently add within 1,000, using strategies or algorithms based on place value understanding, properties of arithmetic, and/or the relationship between addition and subtraction.</li> </ul>
<p>CONCEPTS AND PROCEDURES</p> <p>Target F: Number and Operations– Fractions</p>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Represent a fraction on a number line with partitioning.</li> </ul>
<p>CONCEPTS AND PROCEDURES</p> <p>Targets G and I: Measurement and Data</p>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Estimate liquid volumes and masses of objects using standard units of grams, kilograms, and liters.</li> <li><input type="checkbox"/> Find the area of a rectilinear figure by multiplying side lengths and by decomposing a rectilinear figure into non-overlapping rectangles and adding them together.</li> </ul>
<p>CONCEPTS AND PROCEDURES</p> <p>Targets H and J: Measurement and Data</p>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Generate measurement data by measuring length using rulers marked with quarter-inch intervals and represent the data on a line plot marked with quarter-inch intervals.</li> <li><input type="checkbox"/> Solve word problems involving perimeters of polygons.</li> </ul>
<p>CONCEPTS AND PROCEDURES</p> <p>Target K: Geometry</p>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Draw examples of quadrilaterals that do not belong to given subcategories by reasoning about their attributes.</li> </ul>
<p>PROBLEM SOLVING &amp; MODELING AND DATA ANALYSIS</p>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Use appropriate tools to accurately solve problems arising in everyday life, society, and the workplace.</li> <li><input type="checkbox"/> Apply mathematics to solve problems by identifying important quantities and mapping their relationship and by stating and using logical assumptions.</li> </ul>
<p>COMMUNICATING REASONING</p>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Use stated assumptions, definitions, and previously established results and examples to identify and repair a flawed argument.</li> <li><input type="checkbox"/> Use previous information to support his or her own reasoning on a routine problem.</li> </ul>

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The student who just enters Level 4 should be able to:	
<p>CONCEPTS AND PROCEDURES Targets A, B, C, and D: Operations and Algebraic Thinking</p>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Use multiplication and division within 100 to solve one-step problems involving measurement quantities of two- or three-digit whole numbers.</li> <li><input type="checkbox"/> Apply strategies in multiplication.</li> <li><input type="checkbox"/> Use relevant ideas or procedures to multiply.</li> <li><input type="checkbox"/> Explain arithmetic patterns.</li> </ul>
<p>CONCEPTS AND PROCEDURES Target E: Number and Operations – Base Ten</p>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Use multiple strategies to fluently add within 1,000.</li> </ul>
<p>CONCEPTS AND PROCEDURES Target F: Number and Operations– Fractions</p>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Represent a fraction approximately on a number line with no partitioning.</li> </ul>
<p>CONCEPTS AND PROCEDURES Targets G and I: Measurement and Data</p>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Solve one-step addition problems involving all time intervals from hours to minutes.</li> <li><input type="checkbox"/> Find the area of a rectilinear figure in a word problem.</li> </ul>
<p>CONCEPTS AND PROCEDURES Targets H and J: Measurement and Data</p>	<ul style="list-style-type: none"> <li><input type="checkbox"/> N/A</li> </ul>
<p>CONCEPTS AND PROCEDURES Target K: Geometry</p>	<ul style="list-style-type: none"> <li><input type="checkbox"/> N/A</li> </ul>
<p>PROBLEM SOLVING &amp; MODELING AND DATA ANALYSIS</p>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Analyze and interpret the context of an unfamiliar situation for problems of increasing complexity.</li> <li><input type="checkbox"/> Begin to solve problems optimally.</li> <li><input type="checkbox"/> Construct multiple plausible solutions and approaches.</li> </ul>
<p>COMMUNICATING REASONING</p>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Begin to construct chains of logic about abstract concepts autonomously.</li> </ul>