<table>
<thead>
<tr>
<th>Grade</th>
<th>Standards</th>
<th>Entry Points</th>
<th>Access Skills</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-K</td>
<td>Page 18</td>
<td>Page 19</td>
<td>Pages 19 – 20</td>
</tr>
<tr>
<td>K</td>
<td>Page 21</td>
<td>Page 22</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Page 23</td>
<td>Pages 24 – 26</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Page 27</td>
<td>Pages 28 – 30</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Pages 31 – 32</td>
<td>Pages 33 – 35</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Page 36</td>
<td>Pages 37 – 38</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Page 39</td>
<td>Page 40</td>
<td></td>
</tr>
<tr>
<td>Cluster</td>
<td>Standards as written</td>
<td></td>
<td></td>
</tr>
<tr>
<td>---------</td>
<td>----------------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from.</td>
<td><strong>PK.OA.A.1</strong> Use concrete objects to model real-world addition (putting together) and subtraction (taking away) problems up through five.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## ENTRY POINTS and ACCESS SKILLS for Operations and Algebraic Thinking Standards in Pre-K

<table>
<thead>
<tr>
<th>ACCESS SKILLS</th>
<th>The student will:</th>
<th>More Complex</th>
<th>The student will:</th>
<th>The student will:</th>
<th>The student will:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Less Complex</strong></td>
<td><strong>ENTRY POINTS</strong></td>
<td><strong>More Complex</strong></td>
<td><strong>ENTRY POINTS</strong></td>
<td><strong>More Complex</strong></td>
<td></td>
</tr>
</tbody>
</table>
| Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from. | The student will: | The student will: | Create sets of “more,” starting with 2 or 3 objects | Create sets of “less” starting with 3 objects | ...
| ♦ Respond to materials to be added, subtracted, and/or counted | Combine and take apart sets of objects to represent the concept of addition and subtraction | ♦ Create sets of “more,” starting with 2 or 3 objects | ♦ Demonstrate “add to” using 5 or more objects or manipulatives | ♦ Demonstrate “subtract from” using 5 or more manipulatives or objects |
| ♦ Track object as it is added, subtracted, and/or counted from set | ♦ Add (“put together”) and subtract (“take away”) using up to 2 manipulatives or objects | ♦ Create sets of “less” starting with 3 objects | ♦ Demonstrate “subtract from” using 5 or more manipulatives or objects |
| ♦ Shift focus on materials as they are added, subtracted, and/or counted | ♦ Answer yes/no questions about “adding to” or “taking from” | ♦ Compare groupings of various objects, using comparative terms up to 4 | ♦ Illustrate concept of more or less |
| ♦ Grasp materials to be added, subtracted, and/or counted | ♦ Give materials to be added, subtracted, and/or counted | ♦ Show “one more” starting with 2 or 3 objects use manipulatives | ♦ Illustrate concept of more or less |
| ♦ Release materials to be added, subtracted, and/or counted | ♦ Move materials to be added, subtracted, and/or counted | ♦ Show “one less” starting with 2 or 3 objects use manipulatives | |
| ♦ Orient objects/materials added, subtracted, and/or counted (e.g., turn flowerpots upright as they are added, subtracted, and/or counted) | | | |

Resource Guide to the 2018 Massachusetts Curriculum Frameworks for Students with Disabilities

**MATHEMATICS**

19
## ACCESS SKILLS (continued) for Operations and Algebraic Thinking Standards in Pre-K

<table>
<thead>
<tr>
<th>Less Complex</th>
<th>More Complex</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ACCESS SKILLS</strong></td>
<td><strong>ENTRY POINTS</strong></td>
</tr>
<tr>
<td><strong>The student will:</strong></td>
<td><strong>The student will:</strong></td>
</tr>
<tr>
<td>Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from (continued)</td>
<td>Locate objects partially hidden or out of sight, to add to a set</td>
</tr>
<tr>
<td></td>
<td>Use one object to act on another in an adding, subtracting, and/or counting activity (e.g., use a net to add or subtract blocks to sets)</td>
</tr>
<tr>
<td></td>
<td>Construct/deconstruct or assemble/disassemble object by adding or subtracting pieces (e.g., add or subtract blocks from tower)</td>
</tr>
<tr>
<td></td>
<td>Turn device on/off during an addition, subtraction, and/or counting activity (e.g., turn on voice-generating device to indicate add)</td>
</tr>
<tr>
<td></td>
<td>Imitate action to add, subtract, and/or count</td>
</tr>
<tr>
<td></td>
<td>Initiate cause-and-effect response (e.g., use switch to activate an adding, subtracting, and/or counting cause-and-effect program)</td>
</tr>
<tr>
<td></td>
<td>Sustain addition, subtraction, and/or counting activity through response (e.g., when reading about adding, subtracting, and/or counting stops, vocalizes to request more)</td>
</tr>
<tr>
<td></td>
<td>Gain attention in an addition, subtraction, and/or counting activity</td>
</tr>
<tr>
<td></td>
<td>Make a request during adding, subtracting, and/or counting activity (e.g., to ask for help or request a turn to add or subtract materials)</td>
</tr>
<tr>
<td></td>
<td>Choose from an array of two in an addition, subtraction, and/or counting lesson</td>
</tr>
<tr>
<td></td>
<td>Attend visually, aurally, or tactiley to materials to be added, subtracted, and/or counted</td>
</tr>
</tbody>
</table>
## Kindergarten

<table>
<thead>
<tr>
<th>Cluster</th>
<th>Standards as written</th>
</tr>
</thead>
<tbody>
<tr>
<td>Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from.</td>
<td>K.OA.A.1 Represent addition and subtraction with objects, fingers, mental images, drawings, sounds (e.g., claps), and acting out situations, verbal explanations, expressions, or equations.</td>
</tr>
<tr>
<td>K.OA.A.2 Solve addition and subtraction word problems, and add and subtract within 10, e.g., by using objects or drawings to represent the problem.</td>
<td></td>
</tr>
<tr>
<td>K.OA.A.3 Decompose numbers less than or equal to 10 into pairs in more than one way, e.g., by using objects or drawings, and record each decomposition by a drawing or equation (e.g., 5 = 2 + 3 and 5 = 4 + 1).</td>
<td></td>
</tr>
<tr>
<td>K.OA.A.4 For any number from 1 to 9, find the number that makes 10 when added to the given number, e.g., by using objects or drawings, and record the answer with a drawing or equation.</td>
<td></td>
</tr>
<tr>
<td>K.OA.A.5 Fluently add and subtract within 5.</td>
<td></td>
</tr>
</tbody>
</table>
ENTRY POINTS for
Operations and Algebraic Thinking Standards in Kindergarten

<table>
<thead>
<tr>
<th>Less Complex</th>
<th>More Complex</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>The student will:</strong></td>
<td><strong>The student will:</strong></td>
</tr>
<tr>
<td>♦ Add (“put together”) 1, 2, and 3 fingers, manipulatives, or objects</td>
<td>♦ Add (“put together”) and subtract (“take away”) using the numbers 1–5 (using sounds, e.g., claps)</td>
</tr>
<tr>
<td>♦ Subtract (“take away”) 1, 2, and 3 fingers, manipulatives, or objects</td>
<td>♦ Represent addition and subtraction using the numbers 1–5 (e.g., using manipulatives, acting out situations)</td>
</tr>
<tr>
<td>♦ “Add one” or “take away one” using objects or pictures from sets of up to 3</td>
<td>♦ “Add two” or “take away two” from sets of up to 5 using objects or pictures</td>
</tr>
<tr>
<td>♦ Represent addition and subtraction word problems with up to 3 objects or manipulatives</td>
<td>♦ Represent addition and subtraction word problems with up to 5 objects/manipulatives, or with drawings</td>
</tr>
<tr>
<td>♦ Decompose a number in more than one way using objects or manipulatives (e.g., 3 = 1 + 2; 3 = 2 + 1)</td>
<td>♦ Decompose numbers up to 5 in more than one way using drawings or objects (e.g., 5=2+3, 5=4+1)</td>
</tr>
<tr>
<td>♦ Find the number that makes 3 when using the numbers 1 or 2 added to the given number (using fingers or sounds, e.g., claps)</td>
<td>♦ Find the number that makes 5 when added to a given number (using manipulatives, objects, or drawings)</td>
</tr>
<tr>
<td>♦ Find the number that makes 5 when added to a given number using fingers or manipulatives</td>
<td>♦ Find the number that makes 5 when added to the given number and record the answer using a drawing or manipulatives</td>
</tr>
<tr>
<td>♦ Count up to 5 objects to answer questions about how many altogether, using manipulatives</td>
<td>♦ Count up to 10 objects to answer questions about how many altogether using manipulatives</td>
</tr>
<tr>
<td>♦ Add (“put together”) and subtract (“take away”) within 3 using objects or manipulatives</td>
<td>♦ Add (“put together”) and subtract (“take away”) within 5 using objects and manipulatives</td>
</tr>
</tbody>
</table>

See entry points for earlier grades in this or a related cluster that are challenging and use age-appropriate materials

Continue to address skills and concepts that approach grade-level expectations in this cluster
## Grade 1 Mathematics
### Operations and Algebraic Thinking

<table>
<thead>
<tr>
<th>Cluster</th>
<th>Standards as written</th>
</tr>
</thead>
<tbody>
<tr>
<td>Represent and solve problems involving addition and subtraction.</td>
<td><strong>1.OA.A.1</strong> Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations (number sentences) with a symbol for the unknown number to represent the problem.</td>
</tr>
<tr>
<td></td>
<td><strong>1.OA.A.2</strong> Solve word problems that call for addition of three whole numbers whose sum is less than or equal to 20, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.</td>
</tr>
</tbody>
</table>
| Understand and apply properties of operations and the relationship between addition and subtraction. | **1.OA.B.3** Apply properties of operations to add.  
For example, when adding numbers order does not matter. If \(8 + 3 = 11\) is known, then \(3 + 8 = 11\) is also known (Commutative property of addition). To add \(2 + 6 + 4\), the second two numbers can be added to make a ten, so \(2 + 6 + 4 = 2 + 10 = 12\) (Associative property of addition). When adding zero to a number, the result is the same number (Identity property of zero for addition). |
| | **1.OA.B.4** Understand subtraction as an unknown-addend problem.  
For example, subtract \(10 - 8\) by finding the number that makes 10 when added to 8. |
| Add and subtract within 20. | **1.OA.C.5** Relate counting to addition and subtraction (e.g., by counting on 2 to add 2). |
| | **1.OA.C.6** Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use mental strategies such as counting on; making 10 (e.g., \(8 + 6 = 8 + 2 + 4 = 10 + 4 = 14\)); decomposing a number leading to a 10 (e.g., \(13 - 4 = 13 - 3 - 1 = 10 - 1 = 9\)); using the relationship between addition and subtraction (e.g., knowing that \(8 + 4 = 12\), one knows \(12 - 8 = 4\)); and creating equivalent but easier or known sums (e.g., adding 6 + 7 by creating the known equivalent \(6 + 6 + 1 = 12 + 1 = 13\)). |
| Work with addition and subtraction equations. | **1.OA.D.7** Understand the meaning of the equal sign, and determine if equations involving addition and subtraction are true or false.  
For example, which of the following equations are true and which are false? \(6 = 6, 7 = 8 - 1, 5 + 2 = 2 + 5, 4 + 1 = 5 + 2\). |
| | **1.OA.D.8** Determine the unknown whole number in an addition or subtraction equation relating three whole numbers.  
For example, determine the unknown number that makes the equation true in each of the equations \(8 + ? = 11, 5 = □ - 3, 6 + 6 = □\). |
<table>
<thead>
<tr>
<th>Less Complex</th>
<th>More Complex</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>The student will:</strong></td>
<td><strong>The student will:</strong></td>
</tr>
<tr>
<td>♦ Add and subtract up to three one-digit numbers using manipulatives or objects</td>
<td>♦ Solve problems involving addition and subtraction of one-digit numbers with a result no greater than 10</td>
</tr>
<tr>
<td>♦ Identify sets containing more, less/fewer</td>
<td>♦ Solve word problems using addition and subtraction within 10 to “add to” involving unknowns in all positions. (e.g., using objects and drawing to represent the problem)</td>
</tr>
<tr>
<td>♦ Show “add to”, using manipulatives and examples up to 7</td>
<td>♦ Solve word problems using addition and subtraction within 10 to “take from” involving unknowns in all positions. (e.g., using objects and drawing to represent the problem)</td>
</tr>
<tr>
<td>♦ Show “take from”, using manipulatives and examples up to 7</td>
<td>♦ Solve word problems using addition and subtraction within 10 to “take from” involving unknowns in all positions. (e.g., using objects and drawing to represent the problem)</td>
</tr>
<tr>
<td>♦ Show “put together,” with manipulatives and examples up to 7</td>
<td>♦ Solve word problems using addition and subtraction within 10 to “compare” involving unknowns in all positions. (e.g., using objects and drawing to represent the problem)</td>
</tr>
<tr>
<td>♦ Show “take apart,” with manipulatives and examples up to 7</td>
<td>♦ Solve word problems using addition and subtraction within 10 to “compare” involving unknowns in all positions. (e.g., using objects and drawing to represent the problem)</td>
</tr>
<tr>
<td>♦ Show “compare” with manipulatives and examples up to 7</td>
<td>♦ Express “putting together” and “taking apart” with the appropriate language to describe any aspect of addition (plus, combined, added, more)</td>
</tr>
<tr>
<td>♦ Express “putting together” and “taking apart” with the appropriate language to describe any aspect of addition (plus, combined, added, more)</td>
<td>♦ Express “taking apart” with the appropriate language to describe any aspect of subtraction (minus, take away, less, remove, difference)</td>
</tr>
</tbody>
</table>

See entry points for earlier grades in this or a related cluster that are challenging and use age-appropriate materials
## ENTRY POINTS for
Operations and Algebraic Thinking Standards in Grade 1

### Less Complex

<table>
<thead>
<tr>
<th>The student will:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Understand and apply properties of operations and the relationship between addition and subtraction</td>
</tr>
<tr>
<td>♦ Combine objects to demonstrate addition (&quot;plus,&quot; &quot;combined with,&quot; &quot;more,&quot; &quot;join&quot;)</td>
</tr>
<tr>
<td>♦ Take groups of objects apart to demonstrate subtraction (&quot;minus,&quot; &quot;take away,&quot; &quot;less,&quot; &quot;remove,&quot; &quot;difference&quot;)</td>
</tr>
<tr>
<td>♦ Group objects to demonstrate the commutative property of addition (e.g., one object plus two objects is the same as two objects plus one object)</td>
</tr>
</tbody>
</table>

*See entry points for earlier grades in this or a related cluster that are challenging and use age-appropriate materials*

### More Complex

<table>
<thead>
<tr>
<th>The student will:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Show the commutative property of addition use pairs of numbers 1–5 (e.g., if 1 + 4 = 5 is known, then 4 + 1 = 5 is also known)</td>
</tr>
<tr>
<td>♦ Group objects to demonstrate the associative property of addition</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>The student will:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Combine objects to demonstrate addition (&quot;plus,&quot; &quot;combined with,&quot; &quot;more,&quot; &quot;join&quot;)</td>
</tr>
<tr>
<td>♦ Take groups of objects apart to demonstrate subtraction (&quot;minus,&quot; &quot;take away,&quot; &quot;less,&quot; &quot;remove,&quot; &quot;difference&quot;)</td>
</tr>
<tr>
<td>♦ Group objects to demonstrate the commutative property of addition (e.g., one object plus two objects is the same as two objects plus one object)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>The student will:</th>
</tr>
</thead>
<tbody>
<tr>
<td>♦ Show the associative property of addition use up to three one-digit numbers 1–10 where the first two digits are added together (e.g., 5 + 3 + 2 = 5 + 5 = 10)</td>
</tr>
</tbody>
</table>

*Continue to address skills and concepts that approach grade-level expectations in this cluster*

### Add and subtract within 20.

<table>
<thead>
<tr>
<th>The student will:</th>
</tr>
</thead>
<tbody>
<tr>
<td>♦ Create equal sets using pictures or objects</td>
</tr>
<tr>
<td>♦ Match numerals with up to 5 objects</td>
</tr>
<tr>
<td>♦ Indicate the number that results when adding one more to a given number, use manipulatives or visual representations or a number line (e.g., to find 1 + 4, count 4 objects, then one more)</td>
</tr>
<tr>
<td>♦ Subtract 1 from numbers up to 5 using concept of “one less”</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>The student will:</th>
</tr>
</thead>
<tbody>
<tr>
<td>♦ Add objects by grouping into combinations up to 5 (using manipulatives, fingers, etc.)</td>
</tr>
<tr>
<td>♦ Add and subtract numbers within 5 by using the relationship between addition and subtraction (e.g., if 2 + 3 = 5, then we know that 5 − 2 = 3)</td>
</tr>
<tr>
<td>♦ Match numeral with up to 10 objects</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>The student will:</th>
</tr>
</thead>
<tbody>
<tr>
<td>♦ Add and subtract one-digit numbers in number sentences</td>
</tr>
<tr>
<td>♦ Solve problems involving addition and subtraction using the numbers 1–10</td>
</tr>
<tr>
<td>♦ Add and subtract within 10 using strategies such as counting on and using the relationship between addition and subtraction (e.g., knowing that 8 + 2 = 10, we know that 10 − 8 = 2)</td>
</tr>
<tr>
<td>♦ Match numeral with up to 15 objects</td>
</tr>
</tbody>
</table>

*Continue to address skills and concepts that approach grade-level expectations in this cluster*
ENTRY POINTS for
Operations and Algebraic Thinking in Grade 1

<table>
<thead>
<tr>
<th>Less Complex</th>
<th>More Complex</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>The student will:</strong></td>
<td><strong>The student will:</strong></td>
</tr>
<tr>
<td>Work with addition and subtraction equations.</td>
<td>Identify the terms and corresponding symbols for addition (+) and subtraction (-)</td>
</tr>
<tr>
<td></td>
<td>Show the concept of trading equal amounts</td>
</tr>
<tr>
<td></td>
<td>Add one object to each set to express result</td>
</tr>
<tr>
<td></td>
<td>Match one-to-one equivalents (e.g., put one object in each of multiple sets, match pairs of objects)</td>
</tr>
<tr>
<td></td>
<td>See entry points for earlier grades in this or a related cluster that are challenging and use age-appropriate materials</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Continue to address skills and concepts that approach grade-level expectations in this cluster.
<table>
<thead>
<tr>
<th>Cluster</th>
<th>Standards as written</th>
</tr>
</thead>
<tbody>
<tr>
<td>Represent and solve problems involving addition and subtraction.</td>
<td><strong>2.OA.A.1</strong> Use addition and subtraction within 100 to solve one- and two-step word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.</td>
</tr>
</tbody>
</table>
| Add and subtract within 20. | **2.OA.B.2** Fluently add and subtract within 20 using mental strategies. By end of grade 2, know from memory all sums of two single-digit numbers and related differences.  
*For example, the sum 6 + 5 = 11 has related differences of 11 – 5 = 6 and 11 – 6 = 5.* |
| Work with equal groups of objects to gain foundations for multiplication. | **2.OA.C.3** Determine whether a group of objects (up to 20) has an odd or even number of members, e.g., by pairing objects or counting them by 2s; write an equation to express an even number as a sum of two equal addends.  
**2.OA.C.4** Use addition to find the total number of objects arranged in rectangular arrays with up to five rows and up to five columns; write an equation to express the total as a sum of equal addends. |
<table>
<thead>
<tr>
<th>Less Complex</th>
<th>More Complex</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>The student will:</strong></td>
<td><strong>The student will:</strong></td>
</tr>
<tr>
<td>Represent and solve problems involving addition and subtraction.</td>
<td>Identify the terms and corresponding symbols for addition (+) and subtraction (-)</td>
</tr>
<tr>
<td>Add and subtract numbers within 20 using manipulatives</td>
<td>Add and subtract numbers within 50 using manipulatives and drawings</td>
</tr>
<tr>
<td>Represent addition and subtraction word problems within 20 using manipulatives</td>
<td>Represent one-step addition and subtraction word problems within 50 using manipulatives and drawings</td>
</tr>
<tr>
<td>Manipulate number sentences in a given problem to show that the same sum can be achieved by adding numbers in different arrangements up to 20 (e.g., 1 + 2 = 3 and 2 + 1 = 3)</td>
<td>Express the inverse relationship between addition and subtraction within 50 using number sentences</td>
</tr>
<tr>
<td>Represent simple addition and subtraction number sentences with manipulatives</td>
<td>Create number sentences with unknown numbers up to 50 using pictures/objects</td>
</tr>
<tr>
<td>Create number sentences up to 20 by manipulating objects</td>
<td>Solve word one-step problems using addition and subtraction within 50 to “add to” involving unknowns in all positions with manipulatives and drawings</td>
</tr>
<tr>
<td>Solve word one-step problems using addition and subtraction within 20 to “put together/take apart” involving unknowns in all positions with manipulatives</td>
<td>Solve word problems using addition and subtraction within 50 to “put together/take apart” involving unknowns in all positions with manipulatives and drawings</td>
</tr>
<tr>
<td>Solve word problems using addition and subtraction within 20 to “take from” involving unknowns in all positions with manipulatives</td>
<td>Solve one-step word problems using addition and subtraction within 50 to “take from” involving unknowns in all positions with manipulatives and drawings</td>
</tr>
<tr>
<td>Solve one-step word problems using addition and subtraction within 100 to “compare” involving unknowns in all positions with equations and graphic organizers</td>
<td>Solve one-step word problems using addition and subtraction within 100 to “compare” involving unknowns in all positions with manipulatives and drawings</td>
</tr>
<tr>
<td>Add and subtract two digit numbers within 100</td>
<td>Add and subtract two digit numbers within 100</td>
</tr>
<tr>
<td>Add and subtract numbers within 100 using manipulatives or drawings</td>
<td>Continue to address skills and concepts that approach grade-level expectations in this cluster</td>
</tr>
</tbody>
</table>

Resource Guide to the 2018 *Massachusetts Curriculum Frameworks* for Students with Disabilities Fall 2018

**MATHEMATICS**

28
## ENTRY POINTS for Operations and Algebraic Thinking Standards in Grade 2

<table>
<thead>
<tr>
<th>Less Complex</th>
<th>More Complex</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Represent and solve problems involving addition and subtraction.</strong></td>
<td><strong>Solve one-step word problems using addition and subtraction within 20 to “compare” involving unknowns in all positions with manipulatives</strong></td>
</tr>
<tr>
<td><strong>Solve one-step word problems using addition and subtraction within 50 to “compare” involving unknowns in all positions with manipulatives</strong></td>
<td><strong>Demonstrate addition within 20 as “putting together” and subtraction as “taking away” using manipulatives and drawings</strong></td>
</tr>
<tr>
<td><strong>Add and subtract within 20.</strong></td>
<td><strong>Demonstrate addition within 10 as “putting together” and subtraction as “taking away” using manipulatives and drawings</strong></td>
</tr>
<tr>
<td><strong>Demonstrate addition within 5 as “putting together” and subtraction as “taking away” using manipulatives and drawings</strong></td>
<td><strong>Continue to address skills and concepts that approach grade-level expectations in this cluster</strong></td>
</tr>
<tr>
<td><strong>Work with equal groups of objects to gain foundations for multiplication.</strong></td>
<td><strong>Create sets to demonstrate the meaning of “equal to”</strong></td>
</tr>
<tr>
<td><strong>Create two equal groups from an even number of objects</strong></td>
<td><strong>Group and count by 2’s up to 20</strong></td>
</tr>
<tr>
<td><strong>Create a 2xN array by arranging an even number of objects into groups of twos (N can be 1-10)</strong></td>
<td><strong>Group and count by 5’s up to 20</strong></td>
</tr>
<tr>
<td><strong>Skip count objects by rows arranged in a 2xN array to demonstrate repeated addition (e.g., A carton of eggs with 2 rows of 6 eggs = 2 + 2 + 2</strong></td>
<td><strong>Group and count by 10’s up to 20</strong></td>
</tr>
<tr>
<td><strong>Group objects by multiples of two</strong></td>
<td><strong>Determine if a quantity is odd or even by pairing two groups of up to 20 objects, using manipulatives and drawings</strong></td>
</tr>
<tr>
<td><strong>Match two equal groupings with odd or even quantities with appropriate numeral to represent actual quantities up to 10</strong></td>
<td><strong>Use manipulatives or models to add the number of objects in an array with up to 5 rows and 5 columns</strong></td>
</tr>
</tbody>
</table>

---

*See entry points for earlier grades in this or a related cluster that are challenging and use age-appropriate materials*
<table>
<thead>
<tr>
<th>Less Complex</th>
<th>More Complex</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>The student will:</strong></td>
<td><strong>The student will:</strong></td>
</tr>
<tr>
<td>Work with equal groups of objects to gain foundations for multiplication. (continued)</td>
<td>♦</td>
</tr>
<tr>
<td>Continue to address skills and concepts that approach grade-level expectations in this cluster</td>
<td></td>
</tr>
</tbody>
</table>
**Grade 3 Mathematics**

**DOMA I N Operations and Algebraic Thinking**

### Cluster Standards as written

| Represent and solve problems involving multiplication and division. | **3.OA.1** | Interpret products of whole numbers, e.g., interpret $5 \times 7$ as the total number of objects in five groups of seven objects each.  
*For example, describe a context in which a total number of objects can be expressed as $5 \times 7$.*** |
| --- | --- | --- |
|  | **3.OA.2** | Interpret whole-number quotients of whole numbers, e.g., interpret $56 \div 8$ as the number of objects in each share when 56 objects are partitioned equally into 8 shares, or as a number of shares when 56 objects are partitioned into equal shares of 8 objects each.  
*For example, describe a context in which a number of shares or a number of groups can be expressed as $56 \div 8$.*** |
|  | **3.OA.3** | Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem. |
|  | **3.OA.4** | Determine the unknown whole number in a multiplication or division equation relating three whole numbers.  
*For example, determine the unknown number that makes the equation true in each of the equations $8 \times ? = 48$, $5 = \square \div 3$, $6 \times 6 = ?$.*** |

| Understand properties of multiplication and the relationship between multiplication and division. | **3.OA.B.5** | Apply properties of operations to multiply.  
*For example: When multiplying numbers order does not matter. If $6 \times 4 = 24$ is known, then $4 \times 6 = 24$ is also known (Commutative property of multiplication); The product $3 \times 5 \times 2$ can be found by $3 \times 5 = 15$ then $15 \times 2 = 30$, or by $5 \times 2 = 10$ then $3 \times 10 = 30$ (Associative property of multiplication); When multiplying two numbers either number can be decomposed and multiplied; one can find $8 \times 7$ by knowing that $7 = 5 + 2$ and that $8 \times 5 = 40$ and $8 \times 2 = 16$, resulting in $8 \times (5 + 2) = (8 \times 5) + (8 \times 2) = 40 + 16 = 56$ (Distributive property); When a number is multiplied by 1 the result is the same number (Identity property of 1 for multiplication).*** |
|  | **3.OA.B.6** | Understand division as an unknown-factor problem.  
*For example, find $32 \div 8$ by finding the number that makes 32 when multiplied by 8.*** |
| Multiply and divide within 100. | **3.OA.C.7** | Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that $8 \times 5 = 40$, one knows $40 \div 5 = 8$) or properties of operations. By the end of grade 3, know from memory all products of two single-digit numbers and related division facts.  
*For example, the product $4 \times 7 = 28$ has related division facts $28 \div 7 = 4$ and $28 \div 4 = 7$.*** |
| 3.OA.D.8 | Solve two-step word problems using the four operations for problems posed with whole numbers and having whole number answers. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies, including rounding. \(^1\) |
| 3.OA.D.9 | Identify arithmetic patterns (including patterns in the addition table or multiplication table) and explain them using properties of operations. 

*For example, observe that 4 times a number is always even, and explain why 4 times a number can be decomposed into two equal addends.*

---

\(^1\) Students should know how to perform operations in the conventional order when there are no parentheses to specify a particular order (Order of Operations).
## ENTRY POINTS for Operations and Algebraic Thinking Standards in Grade 3

### Less Complex

<table>
<thead>
<tr>
<th>The student will:</th>
<th>The student will:</th>
<th>The student will:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Represent and solve problems involving multiplication and division.</td>
<td>Represent repeated addition within 20 using two equal groups of objects (e.g., 2 groups of 3 is the same as $3 + 3$)</td>
<td>Represent repeated addition within 30 using two equal groups of objects (e.g., 2 groups of 6 is the same as $6 + 6$)</td>
</tr>
<tr>
<td>• Skip count the number of objects in an array to demonstrate repeated addition</td>
<td>• Group up to 10 objects in an array that demonstrates the concept of repeated addition</td>
<td>• Group up to 20 objects in an array that demonstrates the concept of repeated addition</td>
</tr>
<tr>
<td>• Represent and solve problems involving repeated addition</td>
<td>• Identify the number sentence that demonstrates the concept of multiplication using a given array of objects</td>
<td>• Create a number sentence showing multiplication using arrays of objects and manipulatives</td>
</tr>
<tr>
<td>• Group objects together by 2s using manipulatives or drawings</td>
<td>• Solve simple multiplication number sentences with unknown numbers, using pictures, objects, and/or manipulatives</td>
<td>• Identify common phrases used to indicate the need for multiplication such as “product”, multiplication and “groups”</td>
</tr>
<tr>
<td><strong>See entry points for earlier grades in this or a related cluster that are challenging and use age-appropriate materials</strong></td>
<td><strong>Continue to address skills and concepts that approach grade-level expectations in this cluster</strong></td>
<td><strong>Continue to address skills and concepts that approach grade-level expectations in this cluster</strong></td>
</tr>
</tbody>
</table>

### More Complex

<table>
<thead>
<tr>
<th>The student will:</th>
<th>The student will:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Understand properties of multiplication and the relationship between multiplication and division.</td>
<td>Demonstrate the commutative property of multiplication and addition using arrays (e.g., 2 groups of 3 objects is equal to 3 groups of 2 objects)</td>
</tr>
<tr>
<td>• Create groups of objects to demonstrate the commutative property of multiplication (e.g., 4 groups of 2 squares equals 2 groups of 4 squares)</td>
<td>• Create number sentences to demonstrate the relationship between multiplication and division (e.g., $8 + 2 = 4$ is the same as $4 \times 2 = 8$)</td>
</tr>
<tr>
<td>• Illustrate the concept of multiplication using groups of objects</td>
<td><strong>Continue to address skills and concepts that approach grade-level expectations in this cluster</strong></td>
</tr>
<tr>
<td>• Share up to 10 objects equally between 2 people (divide objects into 2 equal groups)</td>
<td><strong>Continue to address skills and concepts that approach grade-level expectations in this cluster</strong></td>
</tr>
<tr>
<td><strong>See entry points for earlier grades in this or a related cluster that are challenging and use age-appropriate materials</strong></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>The student will:</th>
<th>The student will:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Match written problems that demonstrate the commutative properties of multiplication (e.g., $2 \times 3 = 6$ and $3 \times 2 = 6$) to visual representation</td>
<td>• Demonstrate the commutative property of multiplication and addition using arrays (e.g., 2 groups of 3 objects is equal to 3 groups of 2 objects)</td>
</tr>
<tr>
<td>• Demonstrate the relationship between multiplication and division using manipulatives (e.g., $8 + 2$ is 8 objects divided into 2 groups of 4, which is equal to 4 groups of 2)</td>
<td>• Create number sentences to demonstrate the relationship between multiplication and division (e.g., $8 + 2 = 4$ is the same as $4 \times 2 = 8$)</td>
</tr>
<tr>
<td>• Determine the unknown quantity in a multiplication equation (within 10) using manipulatives and drawings (e.g., how many groups of 4 objects is equal to 4?)</td>
<td><strong>Continue to address skills and concepts that approach grade-level expectations in this cluster</strong></td>
</tr>
</tbody>
</table>

*Resource Guide to the 2018 Massachusetts Curriculum Frameworks for Students with Disabilities*  
Fall 2018

MATHEMATICS  
33
# ENTRY POINTS for Operations and Algebraic Thinking Standards in Grade 3

## Less Complex

- Understand properties of multiplication and the relationship between multiplication and division.
- (continued)

## More Complex

- Illustrate the concept of division using groups of objects
- Visually represent problem situations by sharing up to 20 objects equally between 2 and 5 people
- Match written problems that demonstrate the distributive property (e.g., 4 groups of 2 squares equals 2 groups of 4 squares)
- Determine the unknown quantity in a multiplication equation (within 20) using manipulatives and drawings (e.g., how many groups of 5 objects is equal to 15?)
- Identify common phrases used to indicate the need for multiplication and division
- Write a number sentence representing up to 30 objects divided into equal groups of 2, 5, or 10
- Demonstrate the commutative property of multiplication using manipulatives
- Illustrate division by making equal-sized groups using models (e.g., 2 equal-sized groups up to 10)

*Continue to address skills and concepts that approach grade-level expectations in this cluster*

## Multiply and divide within 100.

- Solve multiplication problems with a multiplier 1, 2, 5, or 10
- Solve division problems within 100 with a divisor of 1, 2, 5, or 10

*See entry points for earlier grades in this or a related cluster that are challenging and use age-appropriate materials*

- Solve multiplication problems with a multiplier 1, 2, 3, 4, 5, or 10
- Solve division problems within 100 with a divisor of 1, 2, 3, 4, 5, or 10

- Solve multiplication problems with multipliers of 1–10
- Solve division problems within 100 with divisors of 1–10

*Continue to address skills and concepts that approach grade-level expectations in this cluster*
## ENTRY POINTS to Standards for Operations and Algebraic Thinking in Grade 3

### Less Complex

- Solve one-step word problems using addition or subtraction
- Identify the required operation to solve one-step word problem
- Reproduce a given number pattern
- Reproduce a given shape pattern
- Extend simple repeating shape patterns, given a model or example
- Extend simple repeating number patterns, given a model or example
- Use rounding strategies to make estimates
- Predict what will come next in a shape pattern with three shapes (e.g., square, circle, triangle)
- Extend a simple addition or subtraction pattern (e.g., adding by 2s, subtracting by 3s)

**See entry points for earlier grades in this or a related cluster that are challenging and use age-appropriate materials**

### More Complex

- Identify the missing component in a multiplication number sentence within 20, using symbols or objects (e.g., identify the array that matches the sentence $2 \times ? = 10$)
- Solve one-step word problems using multiplication or division
- Identify a number or shape pattern
- Create repeating shape patterns given a rule (e.g., given the rule ABCABC, student draws $\nabla\diamond\nabla\diamond\nabla\diamond$
- Choose whether an estimate or exact amount is needed in a given situation
- Identify the missing component in a multiplication number sentence within 30, using symbols or objects (e.g., identify the array that matches the sentence $5 \times ? = 15$)
- Solve two-step word problems using any of the four operations
- Use estimation to determine the reasonableness of a solution to a one-step word problem
- Represent a word problem using a number sentence and appropriate symbols ($+, -, \times, \div, =$)
- Use estimation to approximate the solution to a one-step word problem
- Create a pattern based on a given rule
- Identify the rule of a given number or shape pattern
- Create a simple addition or subtraction pattern

**Continue to address skills and concepts that approach grade-level expectations in this cluster**
### Grade 4

<table>
<thead>
<tr>
<th>Cluster</th>
<th>Standards as written</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Use the four operations with whole numbers to solve problems.</strong></td>
<td></td>
</tr>
<tr>
<td><strong>4.OA.A.1</strong></td>
<td>Interpret a multiplication equation as a comparison, e.g., interpret $35 = 5 \times 7$ as a statement that $35$ is $5$ times as many as $7$ and $7$ times as many as $5$. Represent verbal statements of multiplicative comparisons as multiplication equations.</td>
</tr>
<tr>
<td><strong>4.OA.A.2</strong></td>
<td>Multiply or divide to solve word problems involving multiplicative comparison, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem, distinguishing multiplicative comparison from additive comparison.</td>
</tr>
<tr>
<td><strong>4.OA.A.3</strong></td>
<td>Solve multi-step word problems posed with whole numbers and having whole-number answers using the four operations, including problems in which remainders must be interpreted. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.</td>
</tr>
<tr>
<td><strong>4.OA.A.3a</strong></td>
<td>Know multiplication facts and related division facts through $12 \times 12$.</td>
</tr>
<tr>
<td><strong>Gain familiarity with factors and multiples.</strong></td>
<td></td>
</tr>
<tr>
<td><strong>4.OA.B.4</strong></td>
<td>Find all factor pairs for a whole number in the range 1–100. Recognize that a whole number is a multiple of each of its factors. Determine whether a given whole number in the range 1–100 is a multiple of a given one-digit number. Determine whether a given whole number in the range 1–100 is prime or composite.</td>
</tr>
<tr>
<td><strong>Generate and analyze patterns.</strong></td>
<td></td>
</tr>
</tbody>
</table>
| **4.OA.C.5** | Generate a number or shape pattern that follows a given rule. Identify apparent features of the pattern that were not explicit in the rule itself.  

*For example, given the rule “Add 3” and the starting number $1$, generate terms in the resulting sequence and observe that the terms appear to alternate between odd and even numbers. Explain informally why the numbers will continue to alternate in this way.* |
## ENTRY POINTS for Operations and Algebraic Thinking Standards in Grade 4

### Less Complex

<table>
<thead>
<tr>
<th><strong>The student will:</strong></th>
<th><strong>The student will:</strong></th>
<th><strong>The student will:</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Use the four operations with whole numbers to solve problems.</td>
<td>♦ Identify the missing number in an addition or subtraction problem using manipulatives or drawings</td>
<td>♦ Identify the missing number in number sentences involving addition and subtraction (e.g., 25 - ? = 21)</td>
</tr>
<tr>
<td>♦ Solve a one-step word problem involving addition, subtraction, multiplication, or division</td>
<td>♦ Visually represent single-digit multiplication problems using strategies such as equal-sized groups, repeated addition, equal-sized jumps on a number line, or area models</td>
<td>♦ Solve a two-step word problem</td>
</tr>
<tr>
<td>♦ Visually illustrate a one-step addition or subtraction problem with an unknown number using manipulatives or drawings</td>
<td>♦ Solve number sentences that represent one-step multiplication and division word problems</td>
<td>♦ Solve number sentences derived from one-step word problems using letters or symbols for the unknown quantity</td>
</tr>
<tr>
<td>♦ Determine the reasonableness of an answer to an addition or subtraction problem using estimation strategies of “more” and “less”</td>
<td>♦ Determine the reasonableness of an answer to one-step multiplication and division word problems</td>
<td>♦ Determine the reasonableness of an answer to division problems using estimation strategies (e.g., successive subtraction)</td>
</tr>
<tr>
<td>♦ Replace unknown numbers with given values in two digit by two digit addition/subtraction sentences</td>
<td>♦ Replace unknown numbers with given values in simple mathematical sentences (e.g., solve 2 × ? if ? = 2, 3, or 4)</td>
<td>♦ Visually represent division problems with single-digit divisors using successive subtraction, equal-sized jumps on a number line, sharing, or partitioning</td>
</tr>
</tbody>
</table>

*See entry points for earlier grades in this or a related cluster that are challenging and use age-appropriate materials*

### More Complex

<table>
<thead>
<tr>
<th><strong>The student will:</strong></th>
<th><strong>The student will:</strong></th>
<th><strong>The student will:</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>♦ Identify the missing number in number sentences involving multiplication and division (e.g., 10 ÷ ? = 5)</td>
<td>♦ Solve a two-step word problem</td>
<td>♦ Determine the reasonableness of an answer to division problems using estimation strategies (e.g., successive subtraction)</td>
</tr>
<tr>
<td>♦ Solve number sentences derived from one-step word problems using letters or symbols for the unknown quantity</td>
<td>♦ Solve a two-step word problem</td>
<td>♦ Visually represent division problems with single-digit divisors using successive subtraction, equal-sized jumps on a number line, sharing, or partitioning</td>
</tr>
</tbody>
</table>

*Continue to address skills and concepts that approach grade-level expectations in this cluster*

### Gain Familiarity with Factors and Multiples

<table>
<thead>
<tr>
<th><strong>The student will:</strong></th>
<th><strong>The student will:</strong></th>
<th><strong>The student will:</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>♦ Find multiples of 2 using manipulatives or drawings</td>
<td>♦ Find multiples of 2 and 3 using manipulatives or drawings</td>
<td>♦ Find multiples of 2, 3, and 5 using manipulatives, drawings, or symbols</td>
</tr>
<tr>
<td>♦ Find factors within 10 using manipulatives, tables, or drawings</td>
<td>♦ Find factors within 20 using manipulatives, tables, or drawings</td>
<td>♦ Find factors within 50 using manipulatives, tables, or drawings</td>
</tr>
<tr>
<td>♦ Identify prime numbers and numbers that can be factored</td>
<td>♦ Identify prime numbers and numbers that can be factored</td>
<td>♦ Identify prime numbers and numbers that can be factored</td>
</tr>
</tbody>
</table>

*Continue to address skills and concepts that approach grade-level expectations in this cluster*
## ENTRY POINTS for Operations and Algebraic Thinking Standards in Grade 4

### Less Complex

<table>
<thead>
<tr>
<th>The student will:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Generate and analyze patterns.</td>
</tr>
<tr>
<td>♦ Reproduce a given number pattern</td>
</tr>
<tr>
<td>♦ Reproduce a given shape pattern</td>
</tr>
<tr>
<td>♦ Extend repeating shape patterns, given a model or example</td>
</tr>
<tr>
<td>♦ Extend simple repeating number patterns, given a model or example</td>
</tr>
</tbody>
</table>

See entry points for earlier grades in this or a related cluster that are challenging and use age-appropriate materials

### More Complex

<table>
<thead>
<tr>
<th>The student will:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Create a pattern based on a given rule</td>
</tr>
<tr>
<td>♦ Identify the rule of a given number or shape pattern</td>
</tr>
<tr>
<td>♦ Create a simple addition or subtraction pattern</td>
</tr>
</tbody>
</table>

Continue to address skills and concepts that approach grade-level expectations in this cluster
## Grade 5

### Cluster: Write and interpret numerical expressions.

<table>
<thead>
<tr>
<th>Standards as written</th>
<th>5.OA.A.1</th>
<th>Use parentheses, brackets, or braces in numerical expressions, and evaluate expressions with these symbols, e.g., ((6 \times 30) + (6 \times 1/2)).</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.OA.A.2 Write simple expressions that record calculations with numbers, and interpret numerical expressions without evaluating them. For example, express the calculation “Add 8 and 7, then multiply by 2” as (2 \times (8 + 7)). Recognize that (3 \times (18932 + 921)) is three times as large as (18932 + 921), without having to calculate the indicated sum or product.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Cluster: Analyze patterns and relationships.

<table>
<thead>
<tr>
<th>Standards as written</th>
<th>5.OA.B.3</th>
<th>Generate two numerical patterns using two given rules. Identify apparent relationships between corresponding terms. Form ordered pairs consisting of corresponding terms from the two patterns, and graph the ordered pairs on a coordinate plane. For example, given the rule “Add 3” and the starting number 0, and given the rule “Add 6” and the starting number 0, generate terms in the resulting sequences, and observe that the terms in one sequence are twice the corresponding terms in the other sequence. Explain informally why this is so.</th>
</tr>
</thead>
</table>
# ENTRY POINTS for Operations and Algebraic Thinking Standards in Grade 5

## Less Complex

<table>
<thead>
<tr>
<th><strong>The student will:</strong></th>
<th><strong>The student will:</strong></th>
<th><strong>The student will:</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Write and interpret numerical expressions.</td>
<td>♦ Solve numerical expressions in a given problem using the appropriate operation(s)</td>
<td>♦ Use the Order of Operations to solve numerical expressions involving addition and subtraction</td>
</tr>
<tr>
<td>See entry points for earlier grades in this or a related cluster that are challenging and use age-appropriate materials.</td>
<td>♦ List the Order of Operations given a numerical expression involving addition and subtraction (e.g., $10 - 5 + 2 = ?$)</td>
<td>♦ Use the Order of Operations to create a numerical expression based on a real-world problem involving addition before subtraction</td>
</tr>
<tr>
<td></td>
<td>♦ Use the Order of Operations to evaluate numerical expressions involving addition, subtraction, and multiplication</td>
<td>♦ Use the Order of Operations to create a numerical expression based on a real-world problem involving multiplication before addition</td>
</tr>
<tr>
<td></td>
<td>♦ Use the Order of Operations to create a numerical expression based on a real-world problem involving multiplication before addition</td>
<td>♦ Use the Order of Operations to solve numerical expressions containing grouping symbols (e.g., $3 \times (2 - 1) = 3 \times 1 = 3$)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Continue to address skills and concepts that approach grade-level expectations in this cluster</td>
</tr>
</tbody>
</table>

## More Complex

<table>
<thead>
<tr>
<th><strong>The student will:</strong></th>
<th><strong>The student will:</strong></th>
<th><strong>The student will:</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Analyze patterns and relationships.</td>
<td>♦ Extend a simple numerical pattern</td>
<td>♦ Identify a numerical pattern</td>
</tr>
<tr>
<td>See entry points for earlier grades in this or a related cluster that are challenging and use age-appropriate materials.</td>
<td>♦ Count by twos to create a numerical pattern</td>
<td>♦ Extend a numerical pattern using a rule for addition and subtraction</td>
</tr>
<tr>
<td></td>
<td>♦ Count by twos to create a numerical pattern</td>
<td>♦ Count by twos and fives to create a numerical pattern</td>
</tr>
<tr>
<td></td>
<td>♦ Identify what is missing from a numerical pattern</td>
<td>♦ Identify what is missing from a numerical pattern</td>
</tr>
<tr>
<td></td>
<td>♦ Explain the rule of a given numerical pattern</td>
<td>♦ Create a numerical pattern using a rule for addition, subtraction, or multiplication</td>
</tr>
<tr>
<td></td>
<td>♦ Count by twos, fives, tens, and hundreds to create a numerical pattern</td>
<td>♦ Count by twos, fives, tens, and hundreds to create a numerical pattern</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Continue to address skills and concepts that approach grade-level expectations in this cluster</td>
</tr>
</tbody>
</table>