

# Multiplication and Division with 0–5, 9, and 10

## Learning Progressions for the Common Core State Standards Operations and Algebraic Thinking

In Grade 2, students	In Grade 3, students will	In Grade 4, students will
<ul style="list-style-type: none"> <li>mastered all of the problem situations using addition and subtraction within 20.</li> <li>reached fluency with finding sums of two digit numbers.</li> <li>solved simple two-step addition problems with single-digit addends.</li> </ul>	<ul style="list-style-type: none"> <li>use properties of multiplication and division and patterns to multiply and divide within 100.</li> <li>reach fluency with finding products of single digit numbers and their related quotients.</li> <li>solve two-step word problems involving the four operations using a letter for the unknown quantity.</li> </ul>	<ul style="list-style-type: none"> <li>interpret a multiplicative equation as a comparison and solve multiplicative comparison problems.</li> <li>extend number decomposition to factors, multiples, and prime and composite numbers.</li> <li>generate and analyze patterns.</li> <li>solve multistep word problems.</li> </ul>

## Content Standards Across the Grades

Grade 2	Grade 3	Grade 4
<ul style="list-style-type: none"> <li>Represent and solve problems involving addition and subtraction. [CC.2.OA.1]</li> <li>Add and subtract within 20. [CC.2.OA.2]</li> <li>Work with equal groups to build foundation for multiplication. [CC.2.OA.3]</li> </ul>	<ul style="list-style-type: none"> <li>Represent and solve problems involving multiplication and division. [CC.3.OA.1, CC.3.OA.2, CC.3.OA.3, CC.3.OA.4]</li> <li>Apply properties of multiplication and the relationship between multiplication and division to multiply within 100. [CC.3.OA.5, CC.3.OA.6]</li> <li>Fluently multiply and divide within 100. [CC.3.OA.7]</li> <li>Solve problems involving the four operations, and identify and explain patterns in arithmetic. [CC.3.OA.9]</li> <li>Understand concepts of area and relate area to multiplication and to addition. [CC.3.MD.5, CC.3.MD.6, CC.3.MD.7]</li> </ul>	<ul style="list-style-type: none"> <li>Find factors and multiples of whole numbers. [CC.4.OA.4]</li> <li>Analyze and generate patterns. [CC.4.OA.5]</li> <li>Solve problems involving the four operations with whole numbers. [CC.4.OA.1, CC.4.OA.2, CC.4.OA.3]</li> </ul>