

<b>Grade: 5</b> <b>Subject:</b> Mathematics	<b>Unit 1: Multiplication and Division Word Problems</b>
<b>Big Idea/Rationale</b>	<ul style="list-style-type: none"> <li>• This unit encourages students to analyze the structure and language of different types of word problems and to discuss different models that can be used to solve word problems. They use algebraic notation to examine more complex problems including functions.</li> </ul>
<b>Enduring Understanding (Mastery Objective)</b>	<p>Students will understand that:</p> <ul style="list-style-type: none"> <li>• The properties of multiplication can be used to simplify computation and to verify algorithms.</li> <li>• Information in a problem can often be shown using a diagram and can be solved by writing equations.</li> <li>• There are often “key” words in word problems that help determine which mathematical operation is required for resolution.</li> <li>• Evaluate an expression by substituting different values for the variable and notice that the value of the expression changes accordingly.</li> <li>• Combinations can be calculated by multiplying all factors.</li> </ul>
<b>Essential Questions (Instructional Objective)</b>	<ul style="list-style-type: none"> <li>• How do the properties of multiplication help us to find products?</li> <li>• How can you use pictures to write equations?</li> <li>• How do you know when to use multiplication or division?</li> <li>• How can you write and evaluate expressions with variables?</li> <li>• How can multiplication be used to solve combinations and comparisons?</li> </ul>
<b>Content (Subject Matter)</b>	<ul style="list-style-type: none"> <li>• Connect combinations to multiplication of equal groups.</li> <li>• Write equations to solve word problems that involve multiplication .</li> <li>• Understand multiplicative comparisons expressed two ways.</li> <li>• Solve word problems and complete tables that involve comparisons .</li> <li>• Understand the everyday applications of multiplication and division .</li> <li>• Generate and solve simple algebraic equations to represent multiplicative situations.</li> <li>• Write and share solutions to multiplication and division word problems.</li> <li>• Consolidate single-digit multiplications and corresponding divisions in a variety of contexts.</li> <li>• Describe a function, and express it as an equation.</li> <li>• Connect functions to real world situations.</li> <li>• Understand everyday application of multiplication and division.</li> <li>• Generate and solve algebraic equations that involve grouping with parentheses.</li> <li>• Solve multiple combination and comparison problems.</li> <li>• Find factors to solve puzzles that involve proportional relationships.</li> <li>• Solve multistep problems involving equations with multiplication chains.</li> <li>• Solve questions with several unknowns.</li> </ul>

	<ul style="list-style-type: none"> <li>• Analyze and apply the Commutative, Associative and Distributive Properties.</li> <li>• Solve a variety of problems using mathematical concepts and skills.</li> </ul>
<b>Skills/ Benchmarks (CCSS Standards)</b>	<ul style="list-style-type: none"> <li>• <b>5.OA.A.1:</b> Use parentheses, brackets or braces in numerical expressions and evaluate expressions with these symbols.</li> <li>• <b>5.OA.A.2:</b> Write simple expressions that record calculations with numbers, and interpret numerical expressions without evaluating them.</li> <li>• <b>Mathematical Practices</b></li> </ul>
<b>Materials and Resources</b>	<ul style="list-style-type: none"> <li>• Math Expressions, Student Journals, Manipulatives, Math themed literature, BrainPop, IXL Mathematics</li> </ul>