

## **Unit Description**

### **Getting to the Heart of Multiplication: Understanding Its Properties and Patterns**

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The purpose of this unit is to address the importance of the properties and patterns of multiplication. Students must go beyond simply learning the properties and identifying the patterns of multiplication and move to applying their deeper understanding of the content in an efficient and strategic manner to new problem-solving situations.

The research offers a focus on number sense; both its meaning and its importance. In addition, it addresses all properties of operations and how they apply to multiplication. Finally, it addresses some interesting patterns not commonly discussed in elementary classrooms. The research helps even seasoned teachers look at multiplication in new ways.

The activities were chosen with purpose, keeping the standards and students in mind. The standards addressed in this unit are: CCSS.Math.Content.3.OA.B.5 Apply properties of operations as strategies to multiply and divide; and CCSS.Math.Content.3.OA.D.9 Identify arithmetic patterns (including patterns in the addition table or multiplication table), and explain them using properties of operations.