

MTB4's Focus on Critical Areas in Grade 1

In Grade 1, students focus on the following areas as designated by the Common Core State Standards. Concepts and procedures are regularly revisited throughout the year as students' understanding builds and deepens.

- **Developing understanding of addition, subtraction, and strategies for addition and subtraction within 20.**

In Units 6–17, students systematically review and are assessed on small groups of addition facts and related subtraction facts that can be solved using similar strategies to maintain and increase proficiency and to learn to apply these strategies to larger numbers. This practice can be found regularly in the Daily Practice and Problems and Home Practice.

Unit	Addition Facts	Strategies Used	Focus
6	Group A $0 + 1, 1 + 1, 2 + 1, 3 + 1, 0 + 2, 2 + 2, 3 + 2, 4 + 2$	Counting On, Zero	Develop mental math strategies and number sense.
	Group B $3 + 0, 4 + 0, 4 + 1, 5 + 1, 6 + 1, 5 + 2, 6 + 2, 5 + 3, 7 + 1, 8 + 1$		
7	Group C sums to 10 $1 + 9, 2 + 7, 2 + 8, 3 + 6, 3 + 7, 4 + 6, 5 + 5$	Making Ten, Using Ten	
8	Group D sums to 10 $3 + 3, 3 + 4, 3 + 4, 4 + 5$	Using Doubles	
9	Groups A and B	Counting On, Zero	
10	Group C sums to 10	Making Ten, Using Ten	
11	Group D sums to 10	Using Doubles	
12	Group A	Counting On, Zero	
13	Group B	Counting On, Zero	
14	Group C $1 + 9, 2 + 7, 2 + 8, 2 + 9, 3 + 6, 3 + 7, 3 + 8, 4 + 6, 4 + 7, 5 + 5, 5 + 6$	Making Ten, Using Ten	
15	Group D $3 + 3, 3 + 4, 3 + 4, 4 + 5, 6 + 6, 6 + 7, 7 + 7, 7 + 8, 8 + 8, 10 + 9, 10 + 10$	Using Doubles	Develop mental math strategies and number sense and solve fact families for facts with sums more than ten.
16	Group E $5 + 7, 8 + 4, 8 + 5, 9 + 3, 9 + 4, 9 + 5, 10 + 1, 10 + 2, 10 + 3$	Making Ten, Using Ten	
17	Group F $8 + 6, 9 + 6, 9 + 7, 10 + 4, 10 + 5, 10 + 6, 10 + 7, 10 + 8, 9 + 8, 9 + 9$	Making Ten, Using Ten	

In Unit 1, students learn and practice efficient strategies for counting and comparing numbers using concrete models such as connecting cubes, connecting links, and number lines. Students use the strategies to solve addition problems.

In Unit 3, students extend their work with numbers to partition numbers using ten frames, connecting cubes, tallies, number lines, and number sentences. Students invent strategies to solve and represent addition problems.

In Unit 4, students interpret addition situations in terms of “parts” and “wholes” and represent addition situations with number sentences, ten frames, counters, and number lines.

Unit 6 marks the start of the systematic practice and assessment of the addition facts with sums to 10. Students solve a variety of addition problems to summarize their invented strategies for adding sums to 10 and make connections between addition and subtraction by finding the subtraction facts in the related fact families.

In Unit 9, students look for patterns in the addition facts to build number sense and make connections to number operations.

In Unit 11, students use a variety of tools to “see” the number 100 and to solve addition and subtraction problems.

In Unit 12, students invent and explore strategies for solving the addition facts with sums between 11 and 20, such as visualizing doubles and near doubles facts, and learning how to break apart addends to make ten. These strategies help students develop fluency with the math facts with sums larger than 10.

Unit 14 extends students’ thinking about addition and subtraction to problems with larger numbers. Students also use their prior knowledge of addition and skip counting to solve problems involving repeated addition (multiplication) and subtraction (division).

- **Developing understanding of whole number relationships and place value, including grouping in tens and ones.**

In Unit 1, students learn and practice efficient strategies for counting and comparing numbers using concrete models such as connecting cubes, connecting links, and number lines.

In Unit 3, students extend their work with numbers to partition numbers using ten frames, connecting cubes, tallies, number lines, and number sentences. These models help students visualize numbers using the benchmarks five and ten.

In Unit 4, students interpret addition situations in terms of “parts” and “wholes” and represent addition situations with number sentences, ten frames, counters, and number lines. Students also gain visual number sense of numbers while identifying even and odd numbers.

In Unit 5, students strengthen their number sense about tens and ones while grouping and counting objects by twos, fives, and tens. Students divide a collection of objects into groups of a given size and count the leftovers.

In Unit 7, students apply their grouping and counting skills to measure the length of a variety of objects.

In Unit 8, students compare and order quantities and use symbols to show those comparisons.

In Unit 10, students investigate place value concepts as they group objects by tens to count them by tens and leftover ones and connect groups of ten (i.e. 4 tens and 2 ones) to their names (forty-two) and standard symbols (42).

Unit 11 focuses on the number 100 and multiples of 5 and 10 as students explore number relationships.

In Unit 13, students explore ways to partition numbers into groups and how to represent those partitions with number sentences, descriptions, and models.

In Unit 17, students focus on developing number sense for larger numbers up to 200. They practice estimation, and grouping and counting strategies to find the actual quantities of a collection of objects. Students use counters, number lines, and number charts to represent two- and three-digit numbers. They extend familiar mental math strategies for adding ones ($4 + 2$) and tens ($40 + 20$) to adding multiples of 100 ($400 + 200$).

- **Developing understanding of linear measurement and measuring lengths as iterating length units.**

In Unit 7, students apply their grouping and counting skills to measure the length of a variety of objects using nonstandard and standard units.

In Unit 8, students measure and estimate the area of shapes.

- **Reasoning about attributes of, and composing and decomposing geometric shapes.**

In Unit 2, students identify, analyze, and describe shapes in their environment. They describe and compare and contrast shapes using properties of two-dimensional shapes. Students then use those properties to compose and decompose hexagons and irregular shapes.

In Unit 8, students measure and estimate the area of shapes. They find the area of rectangles and decide if different shapes can have the same area.

In Unit 13, students group and count cubes to find the volume of buildings, towers, and cubic animals to extend their understanding of partitioning numbers into groups to add.

In Unit 15, students partition shapes into two, four, and eight equal pieces to represent and describe fractions. They learn that decomposing a shape into more equal shares creates

smaller shares. Students learn that a fraction represents a part of a whole and that each fractional part must be equal in size but does not need to be the same shape.

In Unit 16, students explore three-dimensional shapes found in their everyday environment: cylinders, rectangular prisms (boxes and cubes), and spheres. As they explore, describe, compare, contrast, and classify three-dimensional shapes, students begin to identify properties of geometric solids.