Grade Four Mathematics
Year at a Glance for Families

Teachers work very hard to pace their teaching in a way that matches their students’ needs. Because of this, not every teacher will teach the same lesson on the same day as other teachers in their grade. For consistency, however, the grade level topics are taught and assessed in the same sequence, as described below. We invite you to visit our website for additional resources and upcoming events.

Order of Topics:
- Unit 1: Place Value and Estimation
- Unit 2: Multiplication
- Unit 3: Division
- Unit 4: Fractions
- Unit 5: Decimals
- Unit 6: Geometry
- Unit 7: Area and Perimeter
- Unit 8: Measurement

Problem Solving:
In Fourth grade students are expected to:
- Continue to use problem structures from earlier grades to solve one step word problems
- Solve more complex, multi-step word problems with mixed operations
- Apply structures to solve problems involving addition, subtraction, & multiplication of fractions
- Use a variety of strategies to solve open-ended, non-routine problems
- Work accurately and communicate clearly in problem solving situations

Mathematics Progression through the Years:

<table>
<thead>
<tr>
<th></th>
<th>Kindergarten</th>
<th>First Grade</th>
<th>Second Grade</th>
<th>Third Grade</th>
<th>Fourth Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Operations</strong></td>
<td>Addition &amp; Subtraction</td>
<td>Addition &amp; Subtraction</td>
<td>Addition &amp; Subtraction</td>
<td>Addition, Subtraction, Multiplication &amp; Division</td>
<td>Addition, Subtraction, Multiplication &amp; Division</td>
</tr>
<tr>
<td><strong>Problem Structures</strong></td>
<td>Join and separate, part-part-whole, and comparison</td>
<td>Join, separate, part-part-whole, comparison, and equal groups (as repeated addition)</td>
<td>Join, separate, part-part-whole, comparison, equal groups, array/area, and multiplicative comparison</td>
<td>Join, separate, part-part-whole, comparison, equal groups, array/area, and multiplicative comparison</td>
<td></td>
</tr>
<tr>
<td><strong>Complexity</strong></td>
<td>One step with unknown result</td>
<td>One step with unknown in any place and non-routine</td>
<td>One step with unknown in any place, multi-step, and non-routine</td>
<td>One step with unknown in any place, multi-step, and non-routine</td>
<td>One step with unknown in any place, multi-step, and non-routine</td>
</tr>
<tr>
<td><strong>Non-Routine Problem Solving Strategy Focus</strong></td>
<td>Look for Patterns Act it Out</td>
<td>Act it Out Draw a Picture</td>
<td>Draw a Picture Try a Simpler Problem</td>
<td>Make a Table Use Logic</td>
<td>Make an Organized List Work Backwards</td>
</tr>
</tbody>
</table>
Fact Fluency:
In Fourth grade students are expected to:
  ● Maintain mastery of addition and subtraction facts within 20 at a rate of 40 problems per 2 minutes
  ● Maintain mastery of multiplication facts within 100
  ● Master division facts within 100- all fact families 0 through 10

Fact Fluency Progression through the Years:

<table>
<thead>
<tr>
<th>Assessments</th>
<th>Kindergarten</th>
<th>First Grade</th>
<th>Second Grade</th>
<th>Third Grade</th>
<th>Fourth Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type of Problems</td>
<td>Addition &amp; Subtraction within 5</td>
<td>Addition &amp; Subtraction within 10</td>
<td>Addition &amp; Subtraction within 20</td>
<td>Multiplication within 100</td>
<td>Division within 100</td>
</tr>
<tr>
<td>Number of Problems</td>
<td>assessed through observation &amp; conferencing</td>
<td>30</td>
<td>30</td>
<td>40</td>
<td>40</td>
</tr>
<tr>
<td>Time Given</td>
<td>assessed through observation &amp; conferencing</td>
<td>2 minutes</td>
<td>2 minutes</td>
<td>2 minutes</td>
<td>2 minutes</td>
</tr>
</tbody>
</table>

Report Card Indicators for all subject areas:
  ● **3 - Meeting Learning Standards/Competencies** - Student currently demonstrates an understanding and application of this particular knowledge and/or skill expected at this grade level.
  ● **2 - Approaching Learning Standards/Competencies** - Student currently demonstrates progress towards an understanding and application of this particular knowledge and/or skill expected at this grade level.
  ● **1 - Not Yet Meeting Learning Standards/Competencies** - Student currently demonstrates limited progress towards an understanding and application of this particular knowledge and/or skill expected at this grade level.
  ● **N/A - Not Assessed at this Time** - Learning standard has not been practiced as a class

Grade Level Common Assessments:
  ● Pre-Assessments (Show What You Know) and Formative Assessments (StopLights) for each unit
  ● Problem Solving work samples collected throughout the year
  ● Fact Fluency Benchmarks: October and May
  ● Measures of Academic Achievement (MAP) Math Section: October and May
  ● Content & Skills Benchmark Assessments: October, January, and May
  ● PARCC Standardized Assessment: Testing window May 6-14

Online Textbook Access:
Go to: [www-k6.thinkcentral.com](http://www-k6.thinkcentral.com) - Select ALL drop down options appropriately

**Username AND Password:** mtsd with the student id directly after.
  ○ Example: mtsd123456

Go to My Library to access Math in Focus online materials.
If you do not use the current username and password the student will not have the correct access to materials.

You can always access additional resources posted on our school website:
[http://www.mtsd.k12.nj.us/Page/3897](http://www.mtsd.k12.nj.us/Page/3897).