**DOMAIN:** Measurement and Data

**CLUSTER:** Solve problems involving measurement and estimation of intervals of time, liquid volumes, and masses of objects.

**Big Idea:** Some attributes of objects are measurable and can be quantified using unit amounts.

**Enduring Understandings:**
- Time can be expressed using different units that are related to each other. The minute hand takes 5 minutes to move from one number to the next on a typical clock face. The minute hand takes 1 minute to move from one mark to the next on a typical clock face. The duration of an event can be measured if one knows the start and end times for the event.
- Capacity is a measure of the amount of liquid a container can hold. Mass is a measure of the quantity of matter in an object.

<table>
<thead>
<tr>
<th>STANDARDS FOR MATHEMATICAL CONTENT</th>
<th>STANDARDS FOR MATHEMATICAL PRACTICE</th>
<th>RESOURCES</th>
<th>ASSESSMENTS</th>
</tr>
</thead>
</table>
| 3MD.1 Tell and write time to the nearest minute and measure time intervals in minutes. Solve word problems involving addition and subtraction of time intervals in minutes, e.g., by representing the problem on a number line diagram. | Make sense of problems and persevere in solving them. Reason abstractly and quantitatively. Construct viable arguments and critique the reasoning of others. Model with mathematics. Use appropriate tools strategically. Attend to precision. Look for and express regularity in repeated reasoning. | Common Core Georgia Performance Standard Unit 6
- Let's Talk About Time, pp. 13-16
- Time to Get Clean, pp. 17-21
- How Do I Spend My Day?, pp. 39-43
[https://www.georgiastandards.org/Georgia-Standards/Frameworks/3rd-Math-Unit-6.pdf](https://www.georgiastandards.org/Georgia-Standards/Frameworks/3rd-Math-Unit-6.pdf) engageNY
[https://www.engageny.org/ccls-math/3md1](https://www.engageny.org/ccls-math/3md1)
My Math
- 11-5 Tell Time to the Minute
- 11-6 Time Intervals
- 11-7 Problem-Solving Investigation: Work Backward | **My Math** Assessment Masters
- Ch.11, pp. 259-279

**My Math** Think Smart for the SBAC
- Chapter 11 Test, p. 113
- Chapter 11 Performance Tasks, p. 157

**My Math** eAssessment |
# Measurement and Data

**STANDARDS FOR MATHEMATICAL CONTENT**

- **3.MD.2**: Measure and estimate liquid volumes and masses of objects using standard units of grams (g), kilograms (kg), and liters (l). Add, subtract, multiply, or divide to solve one-step word problems involving masses or volumes that are given in the same units, e.g., by using drawings (such as a beaker with a measurement scale) to represent the problem.

**STANDARDS FOR MATHEMATICAL PRACTICE**

- **MP1**: Make sense of problems and persevere in solving them.
- **MP2**: Reason abstractly and quantitatively.
- **MP3**: Construct viable arguments and critique the reasoning of others.
- **MP4**: Model with mathematics.
- **MP5**: Use appropriate tools strategically.
- **MP6**: Attend to precision.
- **MP7**: Look for and make use of structure.
- **MP8**: Look for and express regularity in repeated reasoning.

**RESOURCES**

- **Common Core Georgia Performance Standard Unit 6**
  - Making a Kilogram, pp. 58-61
  - Worth the Weight, pp. 62-68
  - Fill it Up! pp. 69-74
  - More Punch Please! pp. 74-78

- **My Math**
  - My Math Assessment Masters
    - Ch.11, pp. 259-279
  - My Math Think Smart for the SBAC
    - Chapter 11 Test, p. 113
    - Chapter 11 Performance Tasks, p. 157
  - My Math eAssessment

## My Math

- 11-1 Estimate and Measure Capacity
- 11-2 Solve Capacity Problems
- 11-3 Estimate and Measure Mass
- 11-4 Solve Mass Problems

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Grade 3 Curriculum Map 3.11.16  
Measurement and Data
## CLUSTER: Represent and interpret data

**Big Idea:** Some questions can be answered by collecting and analyzing data, and the question to be answered determines the data that needs to be collected and how best to collect it. Data can be represented visually using tables, charts and graphs. The type of data determines the best choice of visual representation.

**Enduring Understandings:** Each type of graph is most appropriate for certain kinds of data. Line plots can be used to organize and represent data generated by measuring lengths. Line plots allow data to be compared more easily than in a list or a table. The key for a pictograph determines the number of pictures needed to represent each number in a set of data. In a bar graph, the scale determines how long the bar needs to be to represent each number in a set of data.

### STANDARDS FOR MATHEMATICAL CONTENT

<table>
<thead>
<tr>
<th>Standard</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.MD.3</td>
<td>Draw a scaled picture graph and a scaled bar graph to represent a data set with several categories. Solve one- and two-step “how many more” and “how many less” problems using information presented in scaled bar graphs. For example, draw a bar graph in which each square in the bar graph might represent 5 pets.</td>
</tr>
</tbody>
</table>

### STANDARDS FOR MATHEMATICAL PRACTICE

<table>
<thead>
<tr>
<th>Standard</th>
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</thead>
<tbody>
<tr>
<td>MP1</td>
<td>Make sense of problems and persevere in solving them.</td>
</tr>
<tr>
<td>MP2</td>
<td>Reason abstractly and quantitatively.</td>
</tr>
<tr>
<td>MP3</td>
<td>Construct viable arguments and critique the reasoning of others.</td>
</tr>
<tr>
<td>MP4</td>
<td>Model with mathematics.</td>
</tr>
<tr>
<td>MP5</td>
<td>Use appropriate tools strategically.</td>
</tr>
<tr>
<td>MP6</td>
<td>Attend to precision.</td>
</tr>
<tr>
<td>MP7</td>
<td>Look for and make use of structure.</td>
</tr>
<tr>
<td>MP8</td>
<td>Look for and express regularity in repeated reasoning.</td>
</tr>
</tbody>
</table>

### RESOURCES

- **About Teaching Mathematics, 2nd Ed.** (Burns, 2000)
  - Graphing in the Classroom, p. 75
- **Common Core Georgia Performance Standards Unit 6:**
  - How Do I Spend My Day?, p. 41
  - The Data Station, p. 80
  - The Magic Number, p. 86
  - It’s in the Data, p. 90
  - [https://www.georgiastandards.org/Georgia-Standards/Frameworks/3rd-Math-Unit-6.pdf](https://www.georgiastandards.org/Georgia-Standards/Frameworks/3rd-Math-Unit-6.pdf)
- **engageNY**
  - [https://www.engageny.org/ccls-math/3md3](https://www.engageny.org/ccls-math/3md3)
- **Illustrative Mathematics**
  - Classroom Supplies
  - [http://www.illustrativemathematics.org/illustrations/1315](http://www.illustrativemathematics.org/illustrations/1315)
- **My Math**
  - 12-1 Collect and Record Data
  - 12-2 Draw Scaled Picture Graphs
  - 12-3 Draw Scaled Bar Graphs
  - 12-4 Relate Bar Graphs to Scaled Picture Graphs

### ASSESSMENTS

- **Common Core Georgia Performance Standards Unit 6**
  - Field Trip to the Zoo, pp. 97-104
  - [https://www.georgiastandards.org/Georgia-Standards/Frameworks/3rd-Math-Unit-6.pdf](https://www.georgiastandards.org/Georgia-Standards/Frameworks/3rd-Math-Unit-6.pdf)
- **My Math Assessment Masters**
  - Ch.12, pp. 284-304
- **My Math** Think Smart for the SBAC
  - Chapter 12 Test, p. 119
  - Chapter 12 Performance Tasks, p. 159
- **My Math** eAssessment
### Standards for Mathematical Content

<table>
<thead>
<tr>
<th>Standard</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.MD.4</td>
<td>Generate measurement data by measuring lengths using rulers marked with halves and fourths of an inch. Show the data by making a line plot, where the horizontal scale is marked off in appropriate units—whole numbers, halves, or quarters.</td>
</tr>
</tbody>
</table>

### Standards for Mathematical Practice

<table>
<thead>
<tr>
<th>Practice</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MP1</td>
<td>Make sense of problems and persevere in solving them.</td>
</tr>
<tr>
<td>MP2</td>
<td>Reason abstractly and quantitatively.</td>
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<td>MP4</td>
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<td>MP5</td>
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<td>MP6</td>
<td>Attend to precision.</td>
</tr>
<tr>
<td>MP7</td>
<td>Look for and make use of structure.</td>
</tr>
<tr>
<td>MP8</td>
<td>Look for and express regularity in repeated reasoning.</td>
</tr>
</tbody>
</table>

### Resources

- **Common Core Georgia Performance Standards Unit 6:**
  - The Data Station, p. 80
  - It’s in the Data, p. 90
  - [https://www.georgiastandards.org/Georgia-Standards/Frameworks/3rd-Math-Unit-6.pdf](https://www.georgiastandards.org/Georgia-Standards/Frameworks/3rd-Math-Unit-6.pdf)
  - [https://www.engageny.org/ccls-math/3md4](https://www.engageny.org/ccls-math/3md4)

- **My Math**
  - 12-5 Draw and Analyze Line Plots
  - 12-6 Measure to Halves and Fourths of an Inch
  - 12-7 Collect and Display Measurement Data
  - 12-8 Problem-Solving Investigation: Solve a Simpler Problem

### Assessments

- **My Math Assessment Masters**
  - Ch.12, pp. 284-304
- **My Math** Think Smart for the SBAC
  - Chapter 12 Test, p. 119
  - Chapter 12 Performance Tasks, p. 159
- **My Math** eAssessment
CLUSTER: Geometric measurement: understand concepts of area and relate area to multiplication and addition.

**Big Idea:** Some attributes of objects are measurable and can be quantified using unit amounts.

**Enduring Understandings:** The amount of space inside a shape is its area, and the area can be estimated or found using square units. Square units can be used to create shapes with given areas. Standard measurement units are used for consistency in finding and communicating measurements. Formulas exist for finding the area of some polygons. The area of rectangles can be used to model the Distributive Property. The area of some irregular shapes can be found by breaking apart the original shape into other shapes for which the areas can be found. Equal-area parts of a figure can be used to model unit fractions. In a given measurement situation, the type of measuring tool and the measurement units it contains determine the appropriateness of the tool.

<table>
<thead>
<tr>
<th>STANDARDS FOR MATHEMATICAL CONTENT</th>
<th>STANDARDS FOR MATHEMATICAL PRACTICE</th>
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</tr>
</thead>
</table>
| **3.MD.5:** Recognize area as an attribute of plane figures and understand concepts of area measurement. | **MP1** Make sense of problems and persevere in solving them. | engage^{ny} [https://www.engageny.org/ccls-math/3md5](https://www.engageny.org/ccls-math/3md5) | **My Math** Assessment Masters  
- Ch.13, pp. 309-330 |
| **3.MD.5a:** A square with side length 1 unit, called “a unit square,” is said to have “one square unit” of area, and can be used to measure area. | **MP2** Reason abstractly and quantitatively. |
| **3.MD.5b:** A figure which can be covered without gaps or overlaps by n unit squares is said to have an area of n square units. | **MP3** Construct viable arguments and critique the reasoning of others. |
| **3.MD.6:** A plane figure can be found by counting unit squares. | **MP4** Model with mathematics. |
| **3.MD.7:** Relate area to the operations of multiplication and addition. | **MP5** Use appropriate tools strategically. |
| **3.MD.7a:** Find the area of a rectangle with whole-number side lengths by tiling it, and show that the area is the same as would be found by multiplying the side lengths. | **MP6** Attend to precision. |
| **3.MD.7b:** Multiply side lengths to find areas of rectangles with whole-number side lengths. | **MP7** Look for and make use of structure. |
| **3.MD.7c:** Apply the area and multiplication formulas for rectangles in real world and mathematical problems. | **MP8** Look for and express regularity in repeated reasoning. |

**My Math** Assessment Masters  
- Ch.13, pp. 309-330  
- Chapter 13 Test, p. 125  
- Chapter 13 Performance Tasks, p. 161

**My Math** Think Smart for the SBAC  
- Chapter 13 Test, p. 125  
- Chapter 13 Performance Tasks, p. 161

**My Math** eAssessment
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</table>
| 3.MD.5 Recognize area as an attribute of plane figures and understand concepts of area measurement. 3.MD.5b A plane figure which can be covered without gaps or overlaps by n unit squares is said to have an area of n square units. | MP1 Make sense of problems and persevere in solving them. MP2 Reason abstractly and quantitatively. MP3 Construct viable arguments and critique the reasoning of others. MP4 Model with mathematics. MP5 Use appropriate tools strategically. MP6 Attend to precision. MP7 Look for and make use of structure. MP8 Look for and express regularity in repeated reasoning. | My Math  
- 13-3 Understand Area | My Math Assessment Masters  
- Ch.13, pp. 309-330  
My Math  
Think Smart for the SBAC  
- Chapter 13 Test, p. 125  
- Chapter 13 Performance Tasks, p. 161  
My Math eAssessment |
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</tr>
</thead>
</table>
| 3.MD.6 Measure areas by counting unit squares (square cm, square m, square in., square ft, and improvised units.) | MP1 Make sense of problems and persevere in solving them.  
MP2 Reason abstractly and quantitatively.  
MP3 Construct viable arguments and critique the reasoning of others.  
MP4 Model with mathematics.  
MP5 Use appropriate tools strategically.  
MP6 Attend to precision.  
MP7 Look for and make use of structure.  
MP8 Look for and express regularity in repeated reasoning. | **About Teaching Mathematics, 2nd Ed.** (Burns, 2000)  
- Shape Construction on the Geoboard, p. 97  
**engageNY**  
https://www.engageny.org/ccls-math/3md6  
**Illustrative Mathematics**  
- Finding the Area of Polygons  
http://www.illustrativemathematics.org/illustrations/1515  
- The Square Counting Shortcut  
http://www.illustrativemathematics.org/illustrations/516 |
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</thead>
</table>
| 3.MD.7a Relate area to the operations of multiplication and addition. | MP1. Make sense of problems and persevere in solving them. | Illustrative Mathematics  
- Finding the Area of Polygons  
Unit 6  
- Field Trip to the Zoo, pp. 97-104  
  [https://www.georgiastandards.org/Georgia-Standards/Frameworks/3rd-Math-Unit-6.pdf](https://www.georgiastandards.org/Georgia-Standards/Frameworks/3rd-Math-Unit-6.pdf) |
| 3.MD.7b Find the area of a rectangle with whole number side lengths by tiling it, and show that the area is the same as would be found by multiplying the side lengths. | MP2. Reason abstractly and quantitatively. | [engageNY](https://www.engageny.org/ccls-math/3md7) |
| 3.MD.7c. Understand that area involves the size of a surface. | MY Math  
- Tile Rectangles to Find Area  
- Area of Rectangles | My Math  
- 13-5 Tile Rectangles to Find Area  
- 13-6 Area of Rectangles | My Math Assessment Masters  
- Ch.13, pp. 309-330 |
| 3.MD.7d Recognize area as additive. Find areas of rectilinear figures by decomposition into non-overlapping rectangles, and relate this to multiplication. | MP4. Model with mathematics. | My Math  
- Think Smart for the SBAC  
- Chapter 13 Test, p. 125  
- Chapter 13 Performance Tasks, p. 161 |
| 3.MD.7e Relate area to the operations of multiplication and addition. | MP5. Use appropriate tools strategically. | My Math eAssessment | |
### STANDARDS FOR MATHEMATICAL CONTENT

3.MD.7b. Multiply side lengths to find areas of rectangles with whole-number side lengths in the context of solving real-world and mathematical problems, and represent whole-number products as rectangular areas in mathematical reasoning.

### STANDARDS FOR MATHEMATICAL PRACTICE

- **MP1** Make sense of problems and persevere in solving them.
- **MP2** Reason abstractly and quantitatively.
- **MP3** Construct viable arguments and critique the reasoning of others.
- **MP4** Model with mathematics.
- **MP5** Use appropriate tools strategically.
- **MP6** Attend to precision.
- **MP7** Look for and make use of structure.
- **MP8** Look for and express regularity in repeated reasoning.

### RESOURCES

**My Math**
- 13-8 Area of Composite Figures

### ASSESSMENTS

**Common Core Georgia Performance Standards Unit 6**
- Field Trip to the Zoo, pp. 97-104
  [https://www.georgiastandards.org/GeorgiasStandards/Frameworks/3rd-Math-Unit-6.pdf](https://www.georgiastandards.org/GeorgiasStandards/Frameworks/3rd-Math-Unit-6.pdf)

**My Math**
- Assessment Masters
  - Ch.13, pp. 309-330

**My Math**
- Think Smart for the SBAC
  - Chapter 13 Test, p. 125
  - Chapter 13 Performance Tasks, p. 161

**My Math**
eAssessment
<table>
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</tr>
</thead>
</table>
| 3.MD.7c Use tiling to show in a concrete case that the area of a rectangle with whole-number side lengths a and b + c is the sum of a \times b and a \times c. Use area models to represent the distributive property in mathematical reasoning. | MP1 Make sense of problems and persevere in solving them. MP2 Reason abstractly and quantitatively. MP3 Construct viable arguments and critique the reasoning of others. MP4 Model with mathematics. MP5 Use appropriate tools strategically. MP6 Attend to precision. MP7 Look for and make use of structure. MP8 Look for and express regularity in repeated reasoning. | My Math 13-7 Area and the Distributive Property | Common Core Georgia Performance Standards Unit 6  
• Field Trip to the Zoo, pp. 97-104  
[https://www.georgiastandards.org/GeorgiaStandards/Frameworks/3rd-Math-Unit-6.pdf](https://www.georgiastandards.org/GeorgiaStandards/Frameworks/3rd-Math-Unit-6.pdf)  
• My Math Assessment Masters  
  • Ch.13, pp. 309-330  
My Math Think Smart for the SBAC  
• Chapter 13 Test, p. 125  
• Chapter 13 Performance Tasks, p. 161  
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</thead>
<tbody>
<tr>
<td>3.MD.7d Recognize area as additive. Find areas of rectilinear figures by decomposing them into non-overlapping rectangles and adding the areas of the non-overlapping parts, applying this technique to solve real-world problems.</td>
<td>MP1 Make sense of problems and persevere in solving them. MP2 Reason abstractly and quantitatively. MP3 Construct viable arguments and critique the reasoning of others. MP4 Model with mathematics. MP5 Use appropriate tools strategically. MP6 Attend to precision. MP7 Look for and make use of structure. MP8 Look for and express regularity in repeated reasoning.</td>
<td>Common Core Georgia Performance Standards Unit 6 • Field Trip to the Zoo, pp. 97-104 <a href="https://www.georgiastandards.org/Georgia-Standards/Frameworks/3rd-Math-Unit-6.pdf">https://www.georgiastandards.org/Georgia-Standards/Frameworks/3rd-Math-Unit-6.pdf</a></td>
<td></td>
</tr>
</tbody>
</table>
**CLIUSTER:** Geometric measurement: recognize perimeter as an attribute of plane figures, and distinguish between linear and area measurements.

**Big Idea:** Some attributes of objects are measurable and can be quantified using unit amounts.

**Enduring Understandings:** The distance around a figure is its perimeter. To find the perimeter of a polygon, add the lengths of the sides. Shapes can be made with a given perimeter. Different shapes can have the same perimeter. There are relationships between the perimeter and the area of a polygon.

<table>
<thead>
<tr>
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</tr>
</thead>
</table>
| 3.MD.8. Solve real-world and mathematical problems involving perimeter of polygons, including finding the perimeter given the side lengths, finding other unknown side length, and exhibiting rectangles with the same area and different perimeters. | MP1 Make sense of problems and persevere in solving them.  
MP2 Reason abstractly and quantitatively.  
MP3 Construct viable arguments and critique the reasoning of others.  
MP4 Model with mathematics.  
MP5 Use appropriate tools strategically.  
MP6 Attend to precision.  
MP7 Look for and make use of structure.  
MP8 Look for and express regularity in repeated reasoning. | About Teaching Mathematics, 2nd Ed. (Burns, 2000)  
- Foot Area and Perimeter, p. 53  
- Yarn Shapes, p. 58  
- Area and Perimeter, p. 87 | Common Core Georgia Performance Standards  
Unit 6  
- Field Trip to the Zoo, pp. 97-104  
| My Math Assessment Masters  
- Ch.13, pp. 309-330 | My Math Think Smart for the SBAC  
- Chapter 13 Test, p. 125  
- Chapter 13 Performance Tasks, p. 161 |
| My Math eAssessment | |

**Domain Legend**

▲ **Major Cluster:** Areas of intensive focus, where students need fluent understanding and application of the core concepts (approximately 75%)

s/a **Supporting Cluster:** Rethinking & linking; some material is being covered, but in a way that applies core understandings (s/a approximately 25%)

**Additional Cluster:** Expose students to other subjects, may not connect explicitly to the major work of the grade
## ADDITIONAL SUPPORT

<table>
<thead>
<tr>
<th>ESSENTIAL QUESTIONS</th>
<th>LANGUAGE OBJECTIVES AND SUPPORTS</th>
<th>KEY VOCABULARY</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. How can lengths of time be measured and found?</td>
<td>Students will orally explain how they read time to the half hour, quarter hour and minute using transitional phrases and domain specific vocabulary. <em>(Teacher may provide sentence stems to support explanation.</em>)</td>
<td>Analog clock</td>
</tr>
<tr>
<td>2. What strategies can I use to help tell and write time to the nearest minute and measure time intervals in minutes?</td>
<td>Students will discuss their strategies in pairs as they work with elapsed time using pronouns <em>(we, you, I)</em> and prepositional phrases <em>(by, to…)</em> in complex sentences. <em>(Teacher may provide opportunities for pair-share and reporting what the partner just said.</em>)</td>
<td>Area, Bar graph, Capacity, Composite figures, Decompose, Data, Digital clock, Elapsed time, Estimate, Formula, Frequency table, Gap, Gram <em>(g)</em>, Half inch <em>(1/2)</em>, Hour, Interpret, Key</td>
</tr>
<tr>
<td>3. How can I use what I know about number lines to help figure out how much time has passed between two events?</td>
<td>Students will orally explain their work in cooperative groups to measure a range of time intervals by using complex sentences, comparatives, and superlatives. <em>(Teacher provides manipulatives and time for exploration.</em>)</td>
<td>Gram <em>(kg)</em>, Half inch <em>(1/2)</em>, Hour, Interpret, Key</td>
</tr>
<tr>
<td>4. What are the metric units for measuring capacity and mass?</td>
<td>Students will define the metric units of capacity and mass in small groups, using a variety of measuring tools by using subordinate conjunctions <em>(when you change, whenever…)</em>. <em>(Teacher provides tools, circulates the classroom, recasting the student output.</em>)</td>
<td>Liquid volume, Liter <em>(l)</em>, Mass, Measure, Metric unit</td>
</tr>
<tr>
<td>5. How do we estimate and measure capacity and mass, and choose appropriate tools?</td>
<td>Students will discuss their choice of appropriate tools as they work in pairs to find the capacity of containers by using conjunctions <em>(because)</em> and auxiliary verbs <em>(may, might, should, could, would)</em>. <em>(Teacher encourages multiple representations.</em>)</td>
<td>Milliliter <em>(mL)</em>, Minute, Nonstandard units, Perimeter, Pictograph, Picture graph, Quarter inch <em>(1/4)</em>, Scale, Unusual units</td>
</tr>
<tr>
<td>6. How can data be represented, interpreted and analyzed?</td>
<td>Students will ask clarifying questions of their peers as to how they organized and represented data using present and past tense verbs. <em>(Teachers may provide a variety of grouping structures to allow for various opportunities for language use.</em>)</td>
<td>Scale</td>
</tr>
<tr>
<td>7. How do I make line plots to organize and represent the data collected?</td>
<td>Students will sequentially explain how to organize data and represent it in a line plot using targeted mathematical language and complex sentences. <em>(Teacher may refer students to math word wall for support.</em>)</td>
<td>Scale</td>
</tr>
<tr>
<td>8. How do I read graphs?</td>
<td>Students will compare and contrast using different graph representations of data using superlatives and</td>
<td>Scale</td>
</tr>
</tbody>
</table>
## ESSENTIAL QUESTIONS

<table>
<thead>
<tr>
<th></th>
<th>LANGUAGE OBJECTIVES AND SUPPORTS</th>
<th>KEY VOCABULARY</th>
</tr>
</thead>
<tbody>
<tr>
<td>9.</td>
<td>How can I use a bar graph and a pictograph to display data?</td>
<td>justify why they choose a particular graph. <em>(Teacher circulates the classroom, recasting the student output.)</em></td>
</tr>
<tr>
<td>10.</td>
<td>What does area mean?</td>
<td>Students will ask and answer questions as they collect data for their own surveys. Students discuss how to display the data. Students will restate a partner’s response to how they chose to display data in a survey by using paraphrasing expressions. <em>(Teachers may employ the talk moves during student discussions, allowing for wait time, restating, and recasting.)</em></td>
</tr>
<tr>
<td>11.</td>
<td>What are different ways to find the area of a shape?</td>
<td>Students will discuss and model with multiple representations the meaning of area using sequential language, e.g., first, next. <em>(Teacher may provide sentence stems as support.)</em></td>
</tr>
</tbody>
</table>

## DAILY/WEEEKLY ROUTINES

- Linking body measures to units is one way of internalizing the units. Measure out the distance of at least ten meters, find the average number of paces to mark the distance. How many paces fit in a meter? Estimate and then pace out distances at school. How far is it from the classroom door to the auditorium? The cafeteria? The playground? *Math Matters,* (Chapin, Johnson, 2000), p. 184
- Many classroom routines involve collecting data and making graphs, e.g., In what month is your birthday?. Highlight the line plot during this domain. Ask students questions, and record the data on a line plot for discussion. For example: How much time does the typical student spend riding the bus? Give the students a list of four types of books, and have them tally their favorite type of book. Track the weather and record the days in categories. *Math Matters,* (Chapin, Johnson, 2000), pp. 203-4

## LITERATURE CONNECTIONS

- *Bats Around the Clock* by Kathy Appelt
- *Just a Minute* by Teddy Slater
- *Room for Ripley* by Stuart J. Murphy
- *How Do You Know What Time It Is?* By Robert E. Wells
- *Pigs Go to Market: Fun with Math and Shopping* by Amy Axelrod
- *The Great Graph Contest* by Loreen Leedy
- *Math Counts: Capacity* by Henry Pluckrose
- *How Big Were the Dinosaurs* by Bernard Most
- *Gold Fever* by Verla Kay
- *The Grouchy Ladybug* by Eric Carle
- *The Best Vacation Every* by Stuart J. Murphy
- *Lemonade for Sale* by Stuart J. Murphy
**Grade 3 Curriculum Map 3.11.16** Measurement and Data

**Organized by Standards**

Los Angeles Unified School District • Grade 3 2016-2017

- Tiger Math: Learning to Graph from a Baby Tiger by Ann Whitehead and Cindy Bickel
- Racing Around by Stuart J. Murphy
- Zachary Zormer: Shape Transformer by Joanne Reisberg
- Spaghetti and Meatballs for All!: A Mathematical Story by Marilyn Burns
- Inchworm and a Half by Elinor J. Pinczes
- Round Trip by Ann Jonas
- Bigger, Better, Best! By Stuart J. Murphy
- The Design of My Yard: Perimeter and Area by Christine Dugan

**DIFFERENTIATION**

<table>
<thead>
<tr>
<th>FRONT LOADING¹</th>
<th>ENRICHMENT²</th>
<th>INTERVENTION³</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>My Math</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Each chapter includes: (at beginning of chapter)</td>
<td><strong>My Math</strong></td>
<td><strong>My Math</strong></td>
</tr>
<tr>
<td>• My Math Words</td>
<td>Each lesson includes:</td>
<td>Each lesson includes:</td>
</tr>
<tr>
<td>• My Vocabulary Cards</td>
<td>• a beyond level hands-on activity under differentiated instruction (found after Practice &amp; Apply)</td>
<td>• an approaching level hands-on activity (found after Practice &amp; Apply)</td>
</tr>
<tr>
<td>• My Foldables</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Each lesson includes:</strong> (at beginning of lesson)</td>
<td><strong>Each lesson formative assessment includes:</strong></td>
<td><strong>Each lesson formative assessment includes:</strong></td>
</tr>
<tr>
<td>• ELL Instructional Strategy</td>
<td>• Tier 2 Strategic Intervention, Ch. 11, p. 658A</td>
<td>• Tier 2 Strategic Intervention, Ch. 11, p. 658A</td>
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<td>• Tier 2 Strategic Intervention, Ch. 12, p. 722A</td>
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<td>• Tier 2 Strategic Intervention, Ch. 13, p. 778A</td>
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<td>• Tier 2 Strategic Intervention, Ch. 13, p. 804A</td>
<td>• Tier 2 Strategic Intervention, Ch. 13, p. 804A</td>
</tr>
</tbody>
</table>

**Key:**

¹ Front Loading refers to materials that can be used before the lesson begins to prepare students for success, which may be helpful for English learners, standard English learners, students with disabilities or low achieving students.

² Enrichment refers to materials that can be used with students who are ready to have their thinking extended, which may be helpful for gifted and talented and high achieving students, or any students who are ready for more depth and complexity.

³ Intervention refers to materials that can be used after the lessons with students who are needing additional positive experiences with the mathematics, low achieving students who would benefit from another approach, or students who have gaps in their knowledge.

For more information on Differentiation, please refer to: The California Framework, Universal Access section: