

## Measurement and Data

<b>Grade: 3</b>	<b>Subject: Math</b>						
<p><b>MAFS.3.MD.1.2</b> 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.</p> <p style="color: red; font-size: small;">Cognitive Complexity: Level 2: Basic Application of Skills &amp; Concepts</p>							
<p><b>Concepts</b>-Students should know</p> <p style="text-align: center;"><b>Nouns</b></p> <ul style="list-style-type: none"> <li>• Liquid Volumes</li> <li>• Liquid Masses</li> <li>• Standard units</li> <li>• Grams</li> <li>• Kilograms</li> <li>• Liters</li> </ul>	<p><b>Skills</b>-Students should be able to do</p> <p style="text-align: center;"><b>Verbs</b></p> <ul style="list-style-type: none"> <li>• Measure liquid volumes and masses</li> <li>• Estimate liquid volumes and masses</li> <li>• Add/Subtract/Multiply/Divide (volumes and masses)</li> <li>• Solve (one-step word problems)</li> </ul>						
<p><b>Big Ideas:</b></p> <ul style="list-style-type: none"> <li>• Measurements of liquid volumes and mass are done in standard units.</li> <li>• Mathematical operations can be used to solve real world problems involving mass and volume.</li> <li>• Estimation is appropriate in situations where an exact amount is not required.</li> </ul>							
<p><b>Essential Questions:</b></p> <ul style="list-style-type: none"> <li>• How do I measure liquid volumes or mass? Why do I need to know how to measure them?</li> <li>• When would I want to estimate instead of use an exact measurement?</li> <li>• Why would I use addition, subtraction, multiplication, or division with mass and liquid volume measurements?</li> </ul>							
<p><b>Learning Goal:</b></p> <p>I will be able to measure and estimate liquid volumes and masses of objects. I will know how to solve one-step word problems involving masses or volumes.</p>							
<p><b>Scale:</b></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10%; text-align: center; vertical-align: middle;"><b>4</b></td> <td style="padding: 5px;"> <p>I can</p> <ul style="list-style-type: none"> <li>• Evaluate when it is appropriate to estimate liquid volumes and mass</li> <li>• Identify errors in problem solving strategies</li> </ul> </td> </tr> <tr> <td style="text-align: center; vertical-align: middle;"><b>3</b></td> <td style="padding: 5px;"> <p>I can</p> <ul style="list-style-type: none"> <li>• Measure liquid volumes and masses.</li> <li>• Estimate liquid volumes and masses.</li> <li>• Solve one-step word problems involving masses given in the same units.</li> <li>• Solve one-step word problems involving liquid volume given in the same units.</li> </ul> </td> </tr> <tr> <td style="text-align: center; vertical-align: middle;"><b>2</b></td> <td style="padding: 5px;"> <p>I can define vocabulary such as:</p> <ul style="list-style-type: none"> <li>• Liquid Volumes, Liquid Masses, Standard units, Grams, Kilograms, Liters</li> </ul> </td> </tr> </table>		<b>4</b>	<p>I can</p> <ul style="list-style-type: none"> <li>• Evaluate when it is appropriate to estimate liquid volumes and mass</li> <li>• Identify errors in problem solving strategies</li> </ul>	<b>3</b>	<p>I can</p> <ul style="list-style-type: none"> <li>• Measure liquid volumes and masses.</li> <li>• Estimate liquid volumes and masses.</li> <li>• Solve one-step word problems involving masses given in the same units.</li> <li>• Solve one-step word problems involving liquid volume given in the same units.</li> </ul>	<b>2</b>	<p>I can define vocabulary such as:</p> <ul style="list-style-type: none"> <li>• Liquid Volumes, Liquid Masses, Standard units, Grams, Kilograms, Liters</li> </ul>
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	<p>I can</p> <ul style="list-style-type: none"> <li>• Determine various strategies to solve a word problem</li> <li>• State the differences between American standard and metric systems</li> <li>• Add, subtract, multiply, and divide whole numbers</li> <li>• Recognize from a list the metric system prefixes.</li> <li>• Identify the correct tool to measure liquid volume.</li> <li>• Identify the correct tool to measure mass</li> </ul>
<p><b>1</b></p>	<p>I need support when defining vocabulary such as:</p> <ul style="list-style-type: none"> <li>• Liquid Volumes, Liquid Masses, Standard units, Grams, Kilograms, Liters</li> </ul> <p>I need support when</p> <ul style="list-style-type: none"> <li>• Determine various strategies to solve a word problem</li> <li>• State the differences between American standard and metric systems</li> <li>• Add, subtract, multiply, and divide whole numbers</li> <li>• Recognize from a list the metric system prefixes.</li> <li>• Identify the correct tool to measure liquid volume.</li> <li>• Identify the correct tool to measure mass</li> </ul>