

**Student:** \_\_\_\_\_

Today's Date	What are my goals / objectives for today?	What learning activities do I want to get done today?	What did I accomplish during this class?

# Science Unit: Measuring with Laboratory Equipment

Student \_\_\_\_\_

## ESSENTIAL SKILLS:

1. Accurately measure length, mass, volume, and temperature using non-electronic lab equipment.
2. Understand, use, and convert common terms and prefixes in the International System of measurement (SI).
3. Be able to read a meniscus, estimate the last digit in a measurement, zero a balance, and measure volume by displacement.

Section	Objectives	Learning Opportunities (Check those that you complete.)	Suggested Completion Date	Date Completed
<b>SI Units</b>  <b>Do 1<sup>st</sup> !</b>	-Know the difference between Mass, Volume, Length, and Measurement -Understand what SI terms mean. -Know the meaning of SI prefixes. -Be able to use SI terms. -Be able to convert SI units. -Identify lab equipment used for measuring.	<input type="checkbox"/> Reading guide: Scientific Measurements <input type="checkbox"/> Computer Tutorial <input type="checkbox"/> Practice Station <input type="checkbox"/> Worksheet: Functions of Laboratory Equipment <input type="checkbox"/> Worksheet: SI Unit Prefixes <input type="checkbox"/> Worksheet: Definitions <input type="checkbox"/> Worksheet: SI Unit Conversions <input type="checkbox"/> Worksheet: Unit of Measurement Conversions <input type="checkbox"/> Discuss with peers <input type="checkbox"/> Discuss with teacher <input type="checkbox"/> <i>OTHER OPPORTUNITIES.....</i>		
<b>Length</b>	-Demonstrate correct techniques for measuring length. -Understand the relationship between length, area, and perimeter. -Accurately estimate the last digit of measurement. -Use and convert SI Units for length.	<input type="checkbox"/> Reading guide: Scientific Measurements <input type="checkbox"/> Reading guide: How-To Checklist <input type="checkbox"/> Reading guide: Study Supplement <input type="checkbox"/> Computer Tutorial <input type="checkbox"/> Practice Station <input type="checkbox"/> Worksheet: <i>5 Step Modeling Sequence</i> 1-Length Modeling 2-Area Modeling 3-Perimeter & Area Modeling 4-Area & Volume Modeling 5-Volume Modeling <input type="checkbox"/> Worksheet: Measuring Length <input type="checkbox"/> Worksheet: Measuring Length II <input type="checkbox"/> Discuss with peers <input type="checkbox"/> Discuss with teacher <input type="checkbox"/> <i>OTHER OPPORTUNITIES.....</i>		

<p><b>Volume</b></p> <p><b>Do Length before Volume !</b></p>	<p>-Demonstrate correct techniques for measuring the volume of liquids and regular solids.</p> <p>-Correctly read a meniscus.</p> <p>-Understand how to measure volume using displacement techniques for large and small objects.</p> <p>-Accurately estimate the last digit of measurement.</p> <p>-Use and convert SI Units for volume.</p>	<p><input type="checkbox"/> Reading guide: Scientific Measurements</p> <p><input type="checkbox"/> Reading guide: How-To Checklist</p> <p><input type="checkbox"/> Reading guide: Study Supplement</p> <p><input type="checkbox"/> Computer Tutorial</p> <p><input type="checkbox"/> Practice Station</p> <p><input type="checkbox"/> Worksheet: Measuring Liquids</p> <p><input type="checkbox"/> Worksheet: Measuring Liquids II</p> <p><input type="checkbox"/> Worksheet: Finding Volume by Displacement</p> <p><input type="checkbox"/> Discuss with peers</p> <p><input type="checkbox"/> Discuss with teacher</p> <p><input type="checkbox"/> <i>OTHER OPPORTUNITIES.....</i></p>		
<p><b>Mass</b></p>	<p>-Demonstrate correct techniques for measuring mass.</p> <p>-Be able to zero a balance.</p> <p>-Accurately estimate the last digit of measurement.</p> <p>-Use and convert SI Units for mass.</p>	<p><input type="checkbox"/> Reading guide: Scientific Measurements</p> <p><input type="checkbox"/> Reading guide: How-To Checklist</p> <p><input type="checkbox"/> Computer Tutorial</p> <p><input type="checkbox"/> Practice Station</p> <p><input type="checkbox"/> Worksheet: Triple-Beam Balance</p> <p><input type="checkbox"/> Worksheet: Using the Balance</p> <p><input type="checkbox"/> Worksheet: Reading a Balance</p> <p><input type="checkbox"/> Discuss with peers</p> <p><input type="checkbox"/> Discuss with teacher</p> <p><input type="checkbox"/> <i>OTHER OPPORTUNITIES.....</i></p>		
<p><b>Temperature</b></p>	<p>-Demonstrate correct techniques for measuring temperature.</p> <p>-Understand the limitations and uses of °F, °C, and °K.</p> <p>-Accurately estimate the last digit of measurement.</p> <p>-Use and convert SI Units for temperature.</p>	<p><input type="checkbox"/> Reading guide: Scientific Measurements</p> <p><input type="checkbox"/> Reading guide: How-To Checklist</p> <p><input type="checkbox"/> Reading guide: Study Supplement</p> <p><input type="checkbox"/> Study Aide: Temperature Scales</p> <p><input type="checkbox"/> Computer Tutorial</p> <p><input type="checkbox"/> Practice Station</p> <p><input type="checkbox"/> Worksheet: Reading Thermometers</p> <p><input type="checkbox"/> Worksheet: Reading Thermometers II</p> <p><input type="checkbox"/> Worksheet: Measuring Temperature</p> <p><input type="checkbox"/> Discuss with peers</p> <p><input type="checkbox"/> Discuss with teacher</p> <p><input type="checkbox"/> <i>OTHER OPPORTUNITIES.....</i></p>		
<p><b>Review &amp; Test</b></p>	<p>Demonstrate knowledge from the <i>Measuring with Laboratory Equipment</i> unit.</p>	<p><input type="checkbox"/> Review section Quizzes</p> <p><input type="checkbox"/> Review Reading Guides and Worksheets</p> <p><input type="checkbox"/> Discuss with peers</p> <p><input type="checkbox"/> Discuss with teacher</p>		