

**Hardin County Schools Combined Curriculum Guide  
Mathematics -- Fourth Grade – Measurement  
DRAFT**

Big Idea	<b>MEASUREMENT</b>			
Academic Expectations	<b>2.10</b> Students understand measurement concepts and use measurements appropriately and accurately. <b>2.11</b> Students understand mathematical change concepts and use them appropriately and accurately.			
POS Understandings	<b>MA-4-M-U-1</b> Students will understand that there are two major measurement systems (U.S. Customary and metric) and either may be used to solve problems.		9 Weeks Taught	<b>1   2   3   4</b>
POS Skills & Concepts	Date(s) Taught	Core Content for Assessment	Objective	Essential Vocabulary
<b>MA-4-M-S-MPA2</b> Students will relate time to days, weeks, months and years.  <b>MA-4-M-S-MPA3</b> Students will add and subtract time to solve problems.  <b>MA-4-M-S-MPA4</b> Students will read and record temperatures to the nearest degree.  <b>MA-4-M-S-SM1</b> Students will convert units (e.g., linear, weight, money, time) within a measurement system (e.g., 2 feet = 24 inches).  <b>MA-4-M-S-SM2</b> Students will describe, define, give examples of and use to solve real-world and/or mathematical problems both nonstandard and standard (U.S. Customary, metric) units of measurement to include length, weight, time, money and temperature (°F and °C).		<b>MA-04-2.1.1</b> <b>Students will apply standard units to measure length (to the nearest quarter-inch or the nearest centimeter) and to determine:</b> <ul style="list-style-type: none"> <li>● weight (ounce, pound; gram, kilogram);</li> <li>● perimeter;</li> <li>● area (figures that can be divided into rectangular shapes);</li> <li>● time (nearest five minutes) and</li> <li>● temperature (Fahrenheit and Celsius).</li> </ul> <p style="text-align: right;"><b>DOK 2</b></p>	I can measure length to the nearest quarter-inch and nearest centimeter.  I can select the best estimate for weight using ounces, pounds, grams and kilograms.  I can convert ounces to pounds, pounds to ounces, grams to kilograms, and kilograms to grams.  I can calculate the perimeter of a given figure.  I can calculate the area of a rectangle.  I can tell time to the nearest five minutes.  I can identify the customary units of measuring temperature in Fahrenheit and Celsius (freezing and boiling points).  I can read a thermometer using Celsius and Fahrenheit.	Customary Unites Inch Centimeter Ruler Yardstick Meter Stick Length  Metric system Ounces (oz.) Pounds (lbs.) Grams (g) Kilograms (kg) Scale Mass  Sides Length Width Perimeter  Square units (sq.) Area  Minute Hour Quarter hour Half hour  Fahrenheit (F) Celsius © Freezing point Boiling point Thermometer Temperature

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Strategies & Activities	Resources	Common Assessments
	Essential Questions	Higher Order Questions

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POS Understandings	MA-4-M-U-2 Students will understand that measurable attributes of objects and the units, systems and processes of measurement are powerful tools for making sense of the world around them.		9 Weeks Taught	1	2	3	4
POS Skills & Concepts	Date(s) Taught	Core Content for Assessment	Objective	Essential Vocabulary			
<p><b>MA-4-M-S-MPA1</b> Students will explore and compare non-standard and standard units for measuring angles.</p> <p><b>MA-4-M-S-MPA4</b> Students will read and record temperatures to the nearest degree.</p> <p><b>MA-4-M-S-MPA5</b> Students will measure and determine area and perimeter of a rectangle.</p> <p><b>MA-4-M-S-MPA6</b> Students will measure and determine perimeter of regular/irregular shapes.</p> <p><b>MA-4-M-S-MPA7</b> Students will choose and use appropriate tools (e.g., thermometer, scale, balance, clock, meter stick) for specific measurement tasks.</p> <p><b>MA-4-M-S-MPA8</b> Students will use measurements to describe and compare attributes of objects, including length, width, height, money (cost), temperature and weight, and sort and compare objects using attributes.</p>		<p><b>MA-04-2.1.1</b> <b>Students will apply standard units to measure length (to the nearest quarter-inch or the nearest centimeter) and to determine:</b></p> <ul style="list-style-type: none"> <li>● weight (ounce, pound; gram, kilogram);</li> <li>● perimeter;</li> <li>● area (figures that can be divided into rectangular shapes);</li> <li>● time (nearest five minutes) and</li> <li>● temperature (Fahrenheit and Celsius).</li> </ul> <p style="text-align: right;"><b>DOK 2</b></p> <p><i>MA-04-2.1.2</i> <i>Students will choose and use appropriate tools (e.g., thermometer, scales, balances, clock, meter stick, yardstick, ruler) for specific measurement tasks.</i></p> <p><i>MA-04-2.1.3</i> <i>Students will use nonstandard and standard units of measurement to identify measurable attributes of an object (length and width) using appropriate units of measurement.</i></p> <p><i>MA-04-2.1.4</i> <i>Students will use measurements to describe and compare attributes of objects to include length (in, ft, yd, mile; cm, m, km), width, height, money (cost), temperature and weight (oz, lb, ton; g, kg); sort objects and compare attributes of objects.</i></p> <p><i>MA-04-2.1.5</i> <i>Students will use nonstandard and standard units to measure angles (as compared to 90°).</i></p>	<p>See U-1</p> <p>I can use the appropriate tools for specific measuring tasks (e.g., thermometer, scales, balances, clock, meter stick, yardstick, ruler)</p> <p>I can use nonstandard and standard units of measurement to measure the width and length of an object.</p> <p>I can use measurements to describe and compare attributes of objects.</p> <p>I can use a protractor to determine if an angle is acute, obtuse, or right. f</p>	<p>See U-1</p> <p>Attribute Properties Protractor</p>			

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	<p><i>MA-04-2.1.6</i> Students will estimate weight, length, perimeter, area, angle measures and time using appropriate units of measurement.</p> <p><i>MA-04-2.2.1</i> Students will describe, define, give examples of and use to solve real-world and mathematical problems nonstandard and standard (U.S. Customary, metric) units of measurement (e.g., weight - oz., lbs., tons, g, kg; length – in., ft., yd., mile, cm, m, km; area in square units) and money.</p> <p><b>MA-04-2.2.3</b> <b>Students will convert units within the same measurement system, including money, time (seconds, minutes, hours, days, weeks, months, years), weight (ounces, pounds) and length (inches, feet, yards).</b> <b>DOK 1</b></p>	<p>I can estimate weight, length, perimeter, area, angle measures and time using the appropriate units of measurement.</p> <p>I can use measurement to solve real-world and mathematical problems</p> <p>I can show various ways to calculate different monetary amounts.</p> <p>I can convert between units of time using seconds, minutes, hours, days, weeks, months, and years.</p> <p>I can convert between units of length using ounces and pounds.</p> <p>I can convert between units of length using inches, feet, and yards.</p>	<p>Estimate Dollar Quarter Dime Nickel Penny</p> <p>Seconds Minutes Hour Day Week Month Year</p> <p>Ounce Pound</p> <p>Inch Feet Yard</p>
<b>Strategies &amp; Activities</b>	<b>Resources</b>	<b>Common Assessments</b>	
	<b>Essential Questions</b>	<b>Higher Order Questions</b>	

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POS Understandings		MA-4-M-U-4 Students will understand that there is an appropriate degree of accuracy in measurement for each situation.		9 Weeks Taught	1	2	3	4
POS Skills & Concepts		Date(s) Taught	Core Content for Assessment	Objective	Essential Vocabulary			
MA-4-M-S-MPA9 Students will estimate weight, length, perimeter, area, angle measure and time using appropriate units of measurement.			MA-04-2.2.2 <i>Students will determine elapsed time to the nearest quarter hour.</i>	I can calculate elapsed time to the nearest quarter hour.	Elapsed time			
Strategies & Activities			Resources	Common Assessments				
			Essential Questions	Higher Order Questions				