

Hardin County Schools Combined Curriculum Guide
Math – Third Grade
DRAFT

| Big Idea | MEASUREMENT | | | |
|--|--|--|--|---|
| Academic Expectations | <p>Students translate from measuring using nonstandard units to using standard units of measurement. They identify measurable attributes of objects, estimate and measure weight, length, perimeter, area, angles, temperature, time and money. They convert units within the same measurement system.</p> <p>2.10 Students understand measurement concepts and use measurements appropriately and accurately. 2.11 Students understand mathematical change concepts and use them appropriately and accurately.</p> | | | |
| POS Understandings | MA-P-M-U-1 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>MA-P-M-S-MPA2 Students will use nonstandard units to measure and compare the length, weight, area or volume of familiar objects.</p> <p>MA-P-M-S-MPA5 Students will sort/classify or compare and order objects by shape, size and color (e.g., attribute blocks).</p> <p>MA-P-M-S-MPA8 Students will identify, compare and order amounts of money using coins and bills and use correct symbols for money.</p> <p>MA-P-M-S-MPA10 Students will relate time to daily activities, tell time to the hour, half-hour, quarter-hour, five minutes and one minute and determine elapsed time.</p> | | <p>MA-EP-2.1.1</p> <p>Students will apply standard units to measure length (to the nearest half-inch or the nearest centimeter) and to determine::</p> <ul style="list-style-type: none"> • Weight (nearest pound); • Time (nearest quarter hour); and • Money (identify coins and bills by value) and • Temperature (Fahrenheit). DOK 1 | <p>I can measure length to the nearest half- inch or centimeter.</p> <p>I can identify money and tell its value.</p> | <p>Measurement Inch Ruler Centimeter Length Money Penny Dime Nickel Quarter Dollar bills \$ ¢</p> |
| Strategies & Activities | | Resources | Common Assessments | |
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| | | Essential Questions | Higher Order Questions | |
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| POS Understandings | MA-P-M-U-2 Students will understand that measurements are determined by using appropriate techniques, tools and formulas. | 9 Weeks Taught | 1 2 3 4 | |
|---|--|--|--|---|
| POS Skills & Concepts | Date(s) Taught | Core Content for Assessment | Objective | Essential Vocabulary |
| <p>MA-P-M-S-MPA1 Students will apply standard units to measure length (inches and centimeters), weight (pounds), time (hours, half-hours, quarter-hours, five- and one-minute intervals), money (coins and bills) and temperature (Fahrenheit and Celsius).</p> <p>MA-P-M-S-MPA3 Students will use standard units of measurement to identify, describe and compare measurable attributes of objects (e.g., length, weight, volume) and make estimates using appropriate units of measurement.</p> <p>MA-P-M-S-MPA4 Students will choose and use appropriate tools for specific measurement tasks.</p> <p>MA-P-M-S-MPA7 Students will explore concepts of perimeter and area of rectangles using manipulatives.</p> <p>MA-P-M-S-SM1 Students will determine equivalent U.S. customary measurements.</p> <p>MA-P-M-S-SM2 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, time, money, temperature (Fahrenheit and Celsius) and weight.</p> | | <p><i>MA-EP-2.1.2</i> Students will use standard units to measure temperature in Fahrenheit and Celsius to the nearest degree.</p> <p><i>MA-EP-2.1.3</i> Students will choose and use appropriate tools (e.g., thermometer, scales, balances, clock, ruler) for specific measurement tasks.</p> <p><i>MA-EP 2.1.4</i> Students will nonstandard and standard units of measurement to identify measurable attributes of an object (length – in, cm; weight – oz, lb) and make an estimate using appropriate units of measurement.</p> <p><i>MA-EP-2.15</i> Students will use units of measurement to describe and compare attributes of objects to include length (in, cm), width, height, money (cost), temperature (F), and weight (oz, lb), and sort objects and compare attributes by shape, size and color.</p> <p><i>MA-EP-2.1.6</i> Students will estimate weight, length, perimeter, area, angle measures and time using appropriate units of measurement.</p> <p><i>MA-EP-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 to include length (in., cm.), time, money, temperature (Fahrenheit) and weight (oz., lb).</p> <p><i>MA-EP 2.2.3</i> Students will convert units within the same measurement system including money (dollars, cents), time (minutes, hours, days, weeks, months), weight (ounce, pound) and length (inch, foot).</p> <p><i>MA-EP-2.2.2</i> Students will determine elapsed time by half hours.</p> | <p>I can measure temperature in Fahrenheit and Celsius.</p> <p>I can choose and use the appropriate tools (e.g., thermometer, clock ruler) to measure.</p> <p>I can use standard and nonstandard measurement to measure objects.</p> <p>I can sort objects and compare them by shape, size, and color.</p> <p>I can estimate length, perimeter, and area.</p> <p>I can give examples of nonstandard measurements of length and temperature.</p> <p>I can give examples of standard measurements of length and temperature.</p> | <p>Thermometer Temperature Fahrenheit Celsius Degrees</p> <p>Standard Nonstandard</p> <p>Attributes</p> |
| Strategies & Activities | Resources | Common Assessments | | |
| How Do You Measure a Dad? – p. 161 (Exploring Mathematics through Literature, NCTM publication) | | | | |

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| | Essential Questions | Higher Order Questions |
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| | What if we didn't have standard units of measure? How do you measure temperature? How do you measure length? How do you measure amounts of money? | How many different ways can you make 20 cents? I am a coin with a building on me. What might I be? Which would you like better – 20 degrees Celsius or 20 degrees Fahrenheit? Can you find something that is as long as you are tall? <i>(from Good Questions for Math Teaching by Sullivan and Lilburn)</i> |