

Knox County Schools Mathematics Curriculum
Unit 5: Measurement and Graphing

4th Grade Planning Guide
Time: About 4 weeks

Knox County Key	Knox County Performance Objectives/ <i>State Assessed Performance Indicators</i>	State Blueprint Key/SPI #	Lessons	Text Pages
A	1. Determine the appropriate linear unit; estimate/compare/measure to the nearest _ inch, foot, yard, centimeter, meter, kilometer, or millimeter <i>Measure length to the nearest _ inch or nearest centimeter; select appropriate standard unit to measure length</i>	A 4.4.4 4.4.9	12.1, 12.2, 12.6, 12.7	306-309, 318-321
A	2. Determine the appropriate unit of capacity; estimate/compare/measure cup, pint, quart, gallon, milliliter, liter <i>Select the appropriate standard units to measure capacity</i>	A 4.4.5, 4.4.9	12.3, 12.8	310-311, 322-325
A	3. Determine the appropriate unit of weight or mass; estimate/compare/measure gram, kilogram, ounce, pound <i>Select the appropriate standard units to measure weight</i>	A 4.4.9	12.4, 12.9	312-314, 326-328
A	4. Solve one-step word problems involving addition and subtraction of measurements <i>Solve real-world problems involving addition and subtraction of measurements</i>	A 4.4.6	12.5	316
A	5. Read/record time to nearest minute <i>Tell time to the nearest minute</i>	A 4.4.3	13.2	336-337
A	6. Write/solve problems involving elapsed time to the quarter-hour <i>Solve real-world problems involving elapsed time to the quarter-hour</i>	A 4.4.7	13.2	336-339
A	7. Read/record temperature (Fahrenheit or Celsius) <i>Read temperature on a thermometer using Fahrenheit and Celsius scales</i>	A 4.4.1	13.4 13.5	344-350
A	8. Connect and interpret data in tables to pictographs, line graphs, or bar graphs <i>Connect data in tables to pictographs, line graphs, or bar graphs; interpret data displayed in bar graphs</i>	A 4.5.1, 4.5.2	14.1, 14.2, 15.3, 15.4, 15.5	356-363, 380-386
A	9. Find the mean, median, and mode for a set of data <i>Determine the median of a data set</i>	A 4.5.5	14.3, 14.4	364-367

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<p>Essential Vocabulary: Refer to Houghton Mifflin <i>Planning The Lesson</i> for vocabulary</p> <p>Writing Prompts: Refer to <i>Keeping a Journal and Writing Prompts in the Quick Check Options</i></p>	<p>Advanced Objectives:</p> <p>Lessons:</p> <ol style="list-style-type: none"> 1. Use guess and check to solve a problem 13.3 2. *Interpret stem-and-leaf plots 14.5 3. Make a double bar graph 15.1 4. Use a circle graph 15.2 <p>* Denotes Advanced Objectives needed for AP Preparation</p>
<p>State Accomplishments</p> <ul style="list-style-type: none"> • Compare how different units in a system of linear measurement relate to each other (ex. inch, foot, yard, mile). (pp. 308, 310, 320, 326) • Communicate/demonstrate an understanding of the relationships among the units within a system of linear measurement. (4.4.tpi.4) D • Estimate using standard units of measure. D • Demonstrate understanding of concepts of length, perimeter, area, weight, capacity, volume, time, and angle measure. D • Estimate using standard units of measure. D • Demonstrate understanding that measurements are approximations. I <p>Literature Resources:</p> <p><u>How Big is a Foot?</u> by Rolf Myller <u>The Librarian who Measured the Earth</u> by Kathryn Lasky <u>Racing Around</u> by Stuart Murphy <u>Game Time!</u> by Stuart Murphy <u>Super Sand Castle Saturday</u> by Stuart Murphy <u>Measuring Penny</u> by Loreen Leedy</p> <p>Commercial Materials/manipulatives:</p> <p><u>A Collection of Math Lessons</u> by Marilyn Burns Containers for liquid measurement</p>	<p>Rulers, meter and yard sticks, tape measures Scales, balance scale Metric and customary weights Clocks Minute timers Fahrenheit, Celsius thermometers TI-10 Calculator Teacher’s Manual p. 32</p> <p>Technology:</p> <p>http://www.exploratorium.edu/ronh/weight/index.html http://oncampus.richmond.edu/academics/education/projects/webunits/measurement/ http://www.math-kitecture.com/ www.eduplace.com</p> <p>Text: <u>Houghton Mifflin Mathematics</u>, Grade 4</p> <p>Assessment: Knox County Mathematics, Fourth Grade, Unit 5 Test</p> <p>Available in Houghton Mifflin Student Text:</p> <ul style="list-style-type: none"> • Chapter Pretest • Quick Checks • Chapter Reviews • Chapter Tests <p>Available in Houghton Mifflin Assessment Book</p> <ul style="list-style-type: none"> • Unit Tests