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| **Unit Name:**  **Measurement and Data** |
| **Common Core State Standards:**  **5.MD.1** Convert among different-sized standard measurement units within a given measurement system (e.g., convert 5 cm to 0.05 m), and use these conversions in solving multi-step, real world problems.  **5.MD.2** Make a line plot to display a data set of measurements in fractions of a unit (1/2, 1/4, 1/8). Use operations on fractions for this grade to solve problems involving information presented in line plots. *For example, given different measurements of liquid in identical beakers, find the amount of liquid each beaker would contain if the total amount in all the beakers were redistributed equally*. |
| **Essential Vocabulary:**   |  |  |  | | --- | --- | --- | | * metric measurement * customary measurement * millimeters * centimeters * meters * kilometers * inches * feet * yards | * miles * conversion/ convert * capacity * liter * cup * pint * quart * gallon * kilograms | * grams * mass * ounces * pounds * tons * line plot * scale (as in the ratio of the measurements in a drawing to the actual measurements) | |
| **Unit Overview:**  In this unit students will convert measurements within the same system of measurement in multi-step, real-world problems. Students worked with both metric and customary units of length in second grade. In third grade, students worked with metric units of mass and liquid volume. In fourth grade, students worked with both systems and began conversions within systems. Students will explore how the base-ten system supports conversions within the metric system. Teachers will reinforce place value for whole numbers and decimals, and discuss connections between fractions and decimals. Students work with fractions by measuring objects to one-eighth of a unit. This includes length, mass, and liquid volume. Students create line plots of data and then add and subtract fractions based on data in the line plot. |
| **Strategies/Skills:**  Students will use multiple tools to explore measurement in both customary and metric systems. Students will convert measurements within the same system.   * Ruler * Measuring tape * Meter sticks * Jugs (capacity- cup, pint, quart, gallon, liter) * Scales (mass- grams, kilograms) |
| **Video Support:**  No videos are referenced for this unit. |
| **Additional Resources:**  If you have limited/no internet access, please contact your child’s teacher for hard copies of the resources listed in this document.   * NCDPI Unpacking Document: [5th Grade Unpacking Document](http://maccss.ncdpi.wikispaces.net/file/view/Unpacking%205%20July%202013.pdf/443030336/Unpacking%205%20July%202013.pdf) |