MATH NEWS

Grade 4, Module 2, Topic B

LAFAYETTE PARISH SCHOOL SYSTEM

4th Grade Math

Module 2: Unit Conversions and Problem Solving with Metric Measurement

Math Parent Letter

This document is created to give parents and students a better understanding of the math concepts found in Eureka Math (© 2013 Common Core, Inc.) that is also posted as the Engage New York material which is taught in the classroom. Module 2 of Eureka Math (Engage New York) covers unit conversions and problem solving with metric measurement.

Words to Know:

Capacity - the maximum amount something can contain
Weight/Mass – the measurement of how heavy something is
Length -the measurement of something from end to end

OBJECTIVES OF TOPIC B

- Know and relate metric units to place value units in order to express measurements in different units.
- Use addition and subtraction to solve multi-step word problems involving length, mass, and capacity.

Focus Area ▸ Topic B: *Application of Metric Unit Conversions*

Understanding Metric Conversions

While practicing mearurement conversions, students will complete tables and fill in the missing parts of number sentences as demonstrated in the examples below.

Conversion Practice with Tables

Complete the following table.

Smaller Unit	Larger Unit	How Many Times as Large
one	hundred	100
centimeter	meter	100
one	thousand	1,000
gram	kilogram	1,000
meter	kilometer	1,000

Conversion Practice with Missing Parts

429 cm is 4 meters 29 cm.

2,456 m is 2 kilometers 456 m.

13,709 g is 13 kg 709 grams.

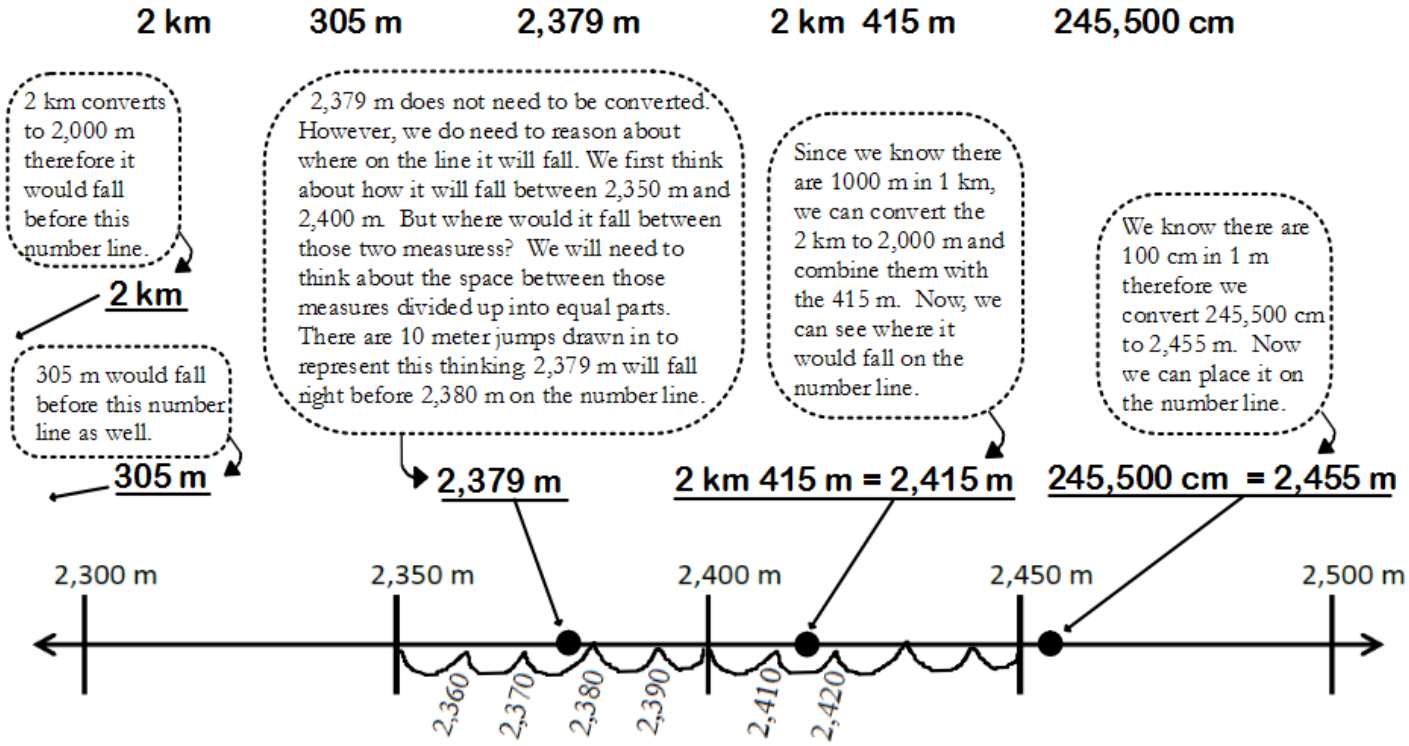
Metric Measurements on a Number Line

Students will need to be able to place various forms of measurements on a number line.

Example Problem and Answer

Place the following measurements on the number line:

2 km 305 m 2,379 m 2 km 415 m 245,500 cm



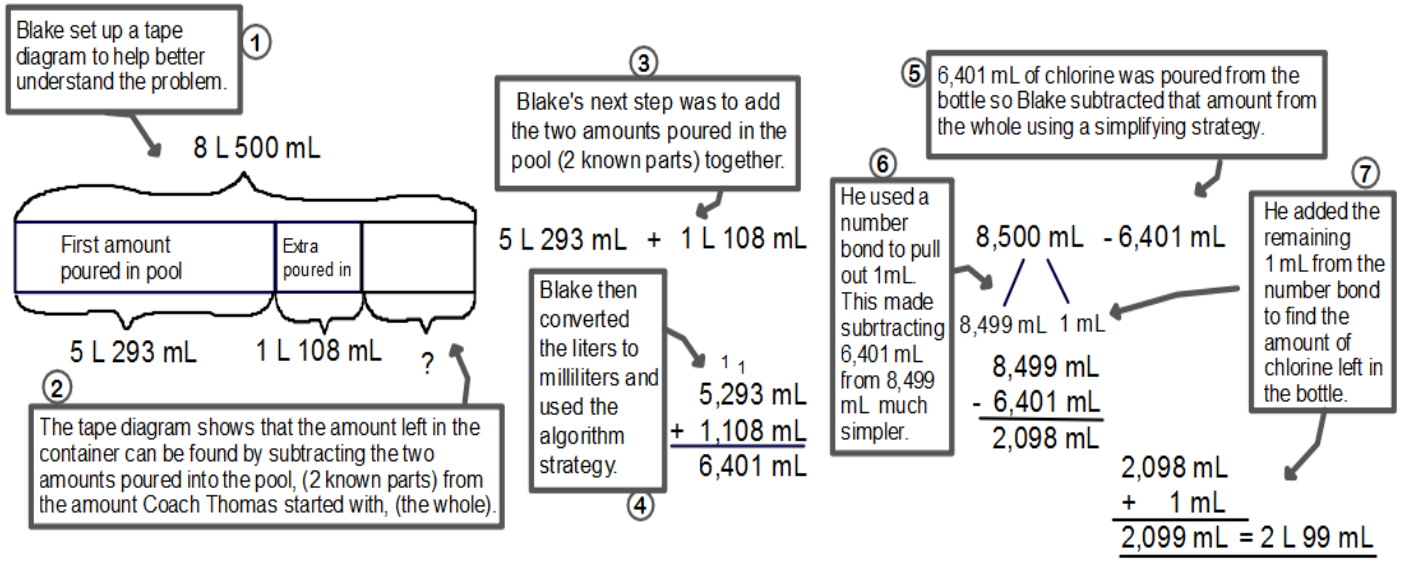
Strategies for Solving Multi Step Problems

As students solve two- and three-step word problems by adding and subtracting metric units, their ability to reason in parts and wholes is taken to the next level, which is important preparation for multi-digit operations and for manipulating fractional units in future modules. Tape diagrams and number lines will serve as models throughout to support applying the standard algorithm to word problems. Students solve problems by converting between units and by using simplifying strategies or algorithms. Examine the student work below to better understand these strategies.

Example Problem and Answers

Coach Thomas had a bottle containing 8 liters 500 milliliters of liquid chlorine. He poured 5 L 293 mL of chlorine into the pool at 6:00 am. At 4:30 pm, he noticed the pool was still cloudy. He put an extra 1 L 108 mL in the pool. By the next morning, the pool was finally clear. How much chlorine did Coach Thomas have left in the bottle?

▸ *Here's how Blake answered the question.*



▸ *Here's how Cara answered the question.*