**Third Grade Math Parent Letter - Unit 2: Place Value and Problem Solving with Units of Measure**

In our second unit, students explore measurement using kilograms, grams, liters, milliliters, and intervals of time in minutes. Students will begin with time, using both the number line and clock to represent addition and subtraction problems involving intervals of minutes within 1 hour. They will be asked to solve problems such as the following:

Sydney cleans her room for 45 minutes. She starts at 11:13am. What time does Sydney finish cleaning her room?
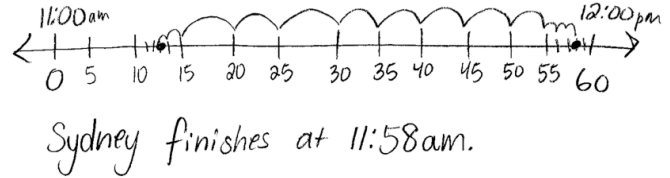
Kilograms and grams are introduced next, measured on digital and spring scales, as students explore the relationship between the size and weight of kilograms and grams. Students also practice measuring liquid volume using the vertical number line and graduated beaker. The learning continues as students use kilograms, grams, liters, and milliliters to make estimates and solve addition, subtraction, multiplication, and division word problems. Here is an example:

The total weight in grams of a can of tomatoes and a jar of baby food is shown at right. The jar of baby food weighs 113 grams. How much does the can of tomatoes weigh?
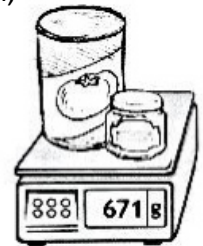
Students will further develop their skills by learning to round, using place value understandings and the number line as tools. They move on to using estimations to test the reasonableness of sums and differences precisely calculated using standard algorithms (traditional methods for solving math problems). From their work with metric measurement students have a deeper understanding of the composition and decomposition of units. They bring this to every step of the addition and subtraction algorithms with two- and three-digit numbers as 10 units are changed for 1 unit or 1 unit is changed for 10 units, as in the following:

The total weight of 3 books is 405 grams. If 2 books weigh 233, how much does the third book weigh? Use a tape diagram to model the problem.