

KEY CONCEPT OVERVIEW

During the next few days, our math class will get an introduction to the idea of a **length unit**, taking the concepts of *longer than* and *shorter than* to a new level of precision. We will lay **centimeter** cubes end to end along the length of an object with no gaps or overlaps. Then we will learn that the total number of cubes represents the length of that object in centimeters. Finally, we will compare lengths by using statements such as, “The pencil measures 10 centimeters. The crayon measures 6 centimeters. So the pencil is longer than the crayon.”

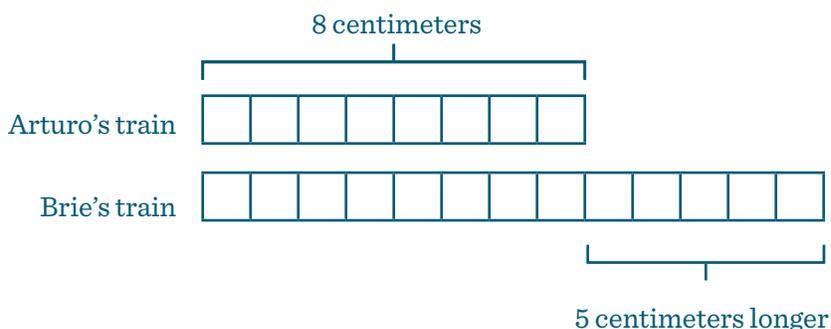
You can expect to see homework that asks your child to do the following:

- Measure objects by using centimeter cubes, and then complete comparison statements about the relative lengths of the objects.
- Measure objects by using centimeter cubes, and order the objects from shortest to longest.
- Use the **RDW process** to solve word problems about length.

SAMPLE PROBLEM *(From Lesson 6)*

Use the centimeter cubes that your teacher gave you to model each length, and answer the question.

Brie makes a cube train that is 5 centimeters longer than Arturo’s train. If Arturo’s train is 8 centimeters long, how long is Brie’s train?



$8 + 5 = 13$

Brie's train is 13 centimeters long.

HOW YOU CAN HELP AT HOME

- Help your child practice addition and subtraction up to 20. Starting at zero, partners take turns rolling a die, adding the number on the die to the total, and stating the addition number sentence. For example, Partner A rolls 6 and says, “ $0 + 6 = 6$.” Partner B rolls 3 and says, “ $6 + 3 = 9$.” Partners continue until they get to 20, without going over. (If the total is 18, for example, partners take turns rolling until someone rolls a 2.) Play a similar game with subtraction, starting at 20 and subtracting each roll of the die until you reach zero.
- Ask your child to order objects in your home from shortest to longest or vice versa. For example, your child might say, “The couch is longer than the coffee table. The coffee table is longer than the chair. The order from shortest to longest is chair, coffee table, couch.”
- When solving word problems where the difference is unknown (e.g., “If Sam has 9 apples and Maria has 12, how many more apples does Maria have than Sam?”), encourage your child to share more than one solution strategy. She might think in terms of addition: “Nine plus which mystery number gives me 12?” (3) Alternatively, she might think in terms of subtraction: “When I take 9 away from 12, I get 3.”

TERMS

Centimeter: A metric unit of length. One inch is about as long as 2.5 centimeters.

Length unit: A unit that can be used to measure distance from end to end (e.g., centimeter, meter, inch, foot).

RDW process: A three-step process used in solving word problems. **RDW** stands for **Read**, **Draw**, **Write**: **Read** the problem for understanding; **Draw** a picture to help make sense of the problem; **Write** an equation and a statement of the answer.

