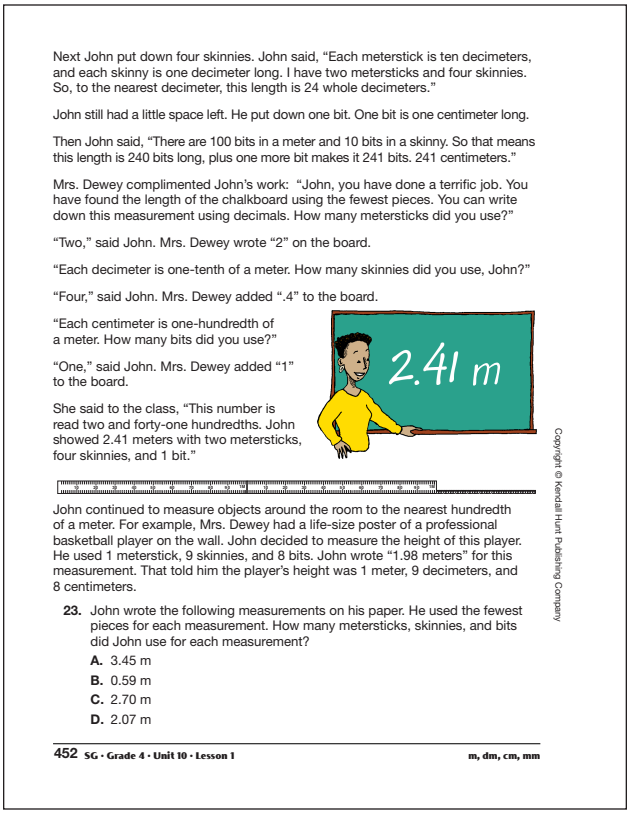
23. A. 3 metersticks, 4 skinnies, 5 bits
B. 5 skinnies, 9 bits
C. 2 metersticks, 7 skinnies
D. 2 metersticks, 7 bits

Homework (SG p. 453)

Questions 1–3

1. Answers will vary.
2. **A–C.** Answers will vary.
3. Answers will vary.



Next John put down four skinnies. John said, "Each meterstick is ten decimeters, and each skinny is one decimeter long. I have two metersticks and four skinnies. So, to the nearest decimeter, this length is 24 whole decimeters."

John still had a little space left. He put down one bit. One bit is one centimeter long.

Then John said, "There are 100 bits in a meter and 10 bits in a skinny. So that means this length is 240 bits long, plus one more bit makes it 241 bits. 241 centimeters."

Mrs. Dewey complimented John's work: "John, you have done a terrific job. You have found the length of the chalkboard using the fewest pieces. You can write down this measurement using decimals. How many metersticks did you use?"

"Two," said John. Mrs. Dewey wrote "2" on the board.

"Each decimeter is one-tenth of a meter. How many skinnies did you use, John?"

"Four," said John. Mrs. Dewey added ".4" to the board.

"Each centimeter is one-hundredth of a meter. How many bits did you use?"

"One," said John. Mrs. Dewey added "1" to the board.

She said to the class, "This number is read two and forty-one hundredths. John showed 2.41 meters with two metersticks, four skinnies, and 1 bit."

John continued to measure objects around the room to the nearest hundredth of a meter. For example, Mrs. Dewey had a life-size poster of a professional basketball player on the wall. John decided to measure the height of this player. He used 1 meterstick, 9 skinnies, and 8 bits. John wrote "1.98 meters" for this measurement. That told him the player's height was 1 meter, 9 decimeters, and 8 centimeters.

23. John wrote the following measurements on his paper. He used the fewest pieces for each measurement. How many metersticks, skinnies, and bits did John use for each measurement?

A. 3.45 m
B. 0.59 m
C. 2.70 m
D. 2.07 m

***Student Guide* - Page 452**

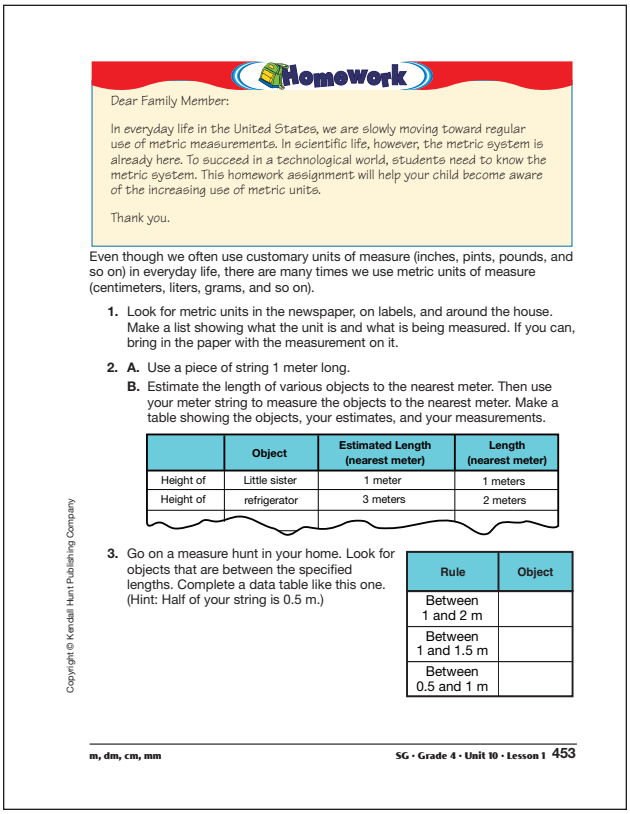
Student Activity Book

Class Measurement Tables (SAB p. 399)

See Questions 4, 11, and 16 in the *Student Guide* Answer Key.

Measure Hunt (SAB pp. 401–402)

Answers will vary.



Homework

Dear Family Member:

In everyday life in the United States, we are slowly moving toward regular use of metric measurements. In scientific life, however, the metric system is already here. To succeed in a technological world, students need to know the metric system. This homework assignment will help your child become aware of the increasing use of metric units.

Thank you.

Even though we often use customary units of measure (inches, pints, pounds, and so on) in everyday life, there are many times we use metric units of measure (centimeters, liters, grams, and so on).

1. Look for metric units in the newspaper, on labels, and around the house. Make a list showing what the unit is and what is being measured. If you can, bring in the paper with the measurement on it.
2. **A.** Use a piece of string 1 meter long.
   B. Estimate the length of various objects to the nearest meter. Then use your meter string to measure the objects to the nearest meter. Make a table showing the objects, your estimates, and your measurements.

	Object	Estimated Length (nearest meter)	Length (nearest meter)
Height of	Little sister	1 meter	1 meters
Height of	refrigerator	3 meters	2 meters

3. Go on a measure hunt in your home. Look for objects that are between the specified lengths. Complete a data table like this one. (Hint: Half of your string is 0.5 m.)

Rule	Object
Between 1 and 2 m	
Between 1 and 1.5 m	
Between 0.5 and 1 m	

***Student Guide* - Page 453**