

Unit 4 Module 2 Session 1

Problems & Investigations- Measuring Liquid Volume Assessment- Time Checkpoint

Getting Ready-

- TM T1 Time Checkpoint
- SB 115-116 Which Container is Best?
- 1-Cup/250 ml measuring cups (1 per 3 students)
- 1-quart/1-liter measuring cup
- 4-6 Cafeteria Trays (see Preparation)
- 4-6 Bath Towels (See Preparation)

Getting Ready Con't.

- Empty Half-Liter water bottle (1 per 3 Students)
- 4-6 Pitchers or Other Containers With Pour Spouts
- Student Clocks
- 1 Empty 50ml container
- Beverage Containers of Varying Capacity, Labeled (8 or more per table of 6 students; See Preparation

VOCABULARY

Cup

Customary System

Liquid Volume

Liter (l)

Metric System

Milliliter (ml)

Quart (qt)

I
CAN



- Tell and write time to the nearest minute; solve story problems involving addition and subtraction of time intervals in minutes
- Estimate and measure liquid volume in liters and milliliters; solve story problems involving addition, subtraction, multiplication, and division of volume measurements given in liters and milliliters

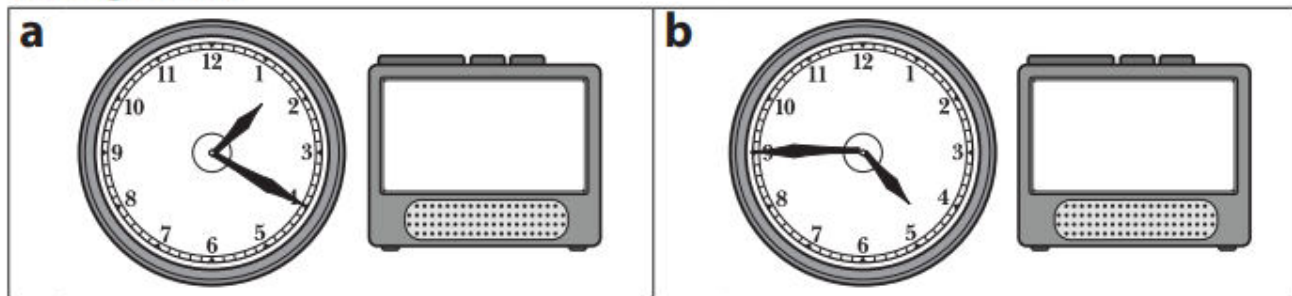
PASS OUT TIME CHECKPOINT



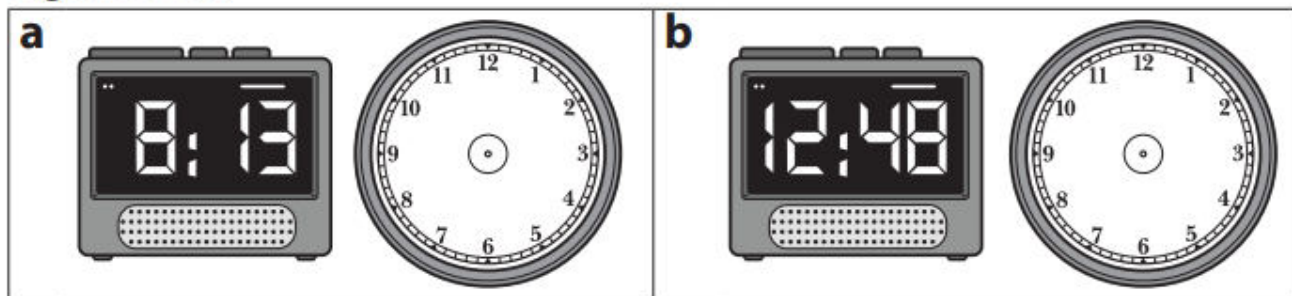


Time Checkpoint

- 1 What time is it? Fill in the digital clock with the time you see on the analog clock.



- 2 What time is it? Fill in the analog clock with the time you see on the digital clock.



3 Jane is making cookies. It takes her 5 minutes to get out all the ingredients, 10 minutes to mix them all together, 3 minutes to put cookie dough on the pan, and then 12 minutes to bake the cookies. Use this information to solve both problems below. Show your work using numbers, sketches, or words.

a How long does it take Jane to make the cookies, from start to finish?

b Jane finished making the cookies at 4:30 p.m. What time did she start?

What do you already know about liquid volume?

- What kinds of liquids do your families buy at the store?
- How are some of those liquids packaged?
- Which holds more, a can of soda or a bottle of water?
- What about a carton of juice and a jug of milk?
- Can you name any units of measure for liquid volume by thinking about some of the containers of liquids you buy at the store?
- Which would you like for breakfast—a cup of milk, a quart of milk, or a gallon of milk? Why?



Pass out small and large measuring cup

- Find the 250 ml mark on the small cup
- Find the 1,000 ml (1l) on the large cup
- How much bigger is the large measuring cup?
- How much smaller is the measuring cup?
- How much more will the large measuring cup hold than the small measuring cup? How do you know?
- What do the different markings on the containers indicate about how much they hold?

Pass out the
rest of the
supplies

OBSERVATIONS?



Each Group-

Fill your small measuring cup with water to the 250 milliliter mark and pour it into the large measuring cup.

Repeat this step until the large measuring cup is full to the 1-liter mark, while keeping track of how many pours it takes to do so.

OBSERVATIONS?



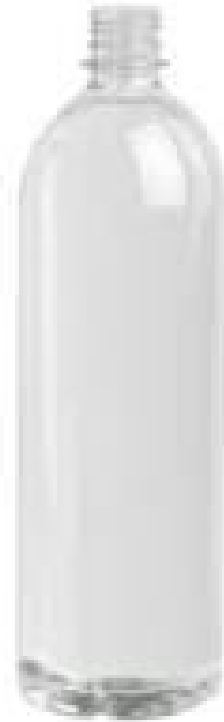
Each Group-

- Fill your small measuring cup with 100 milliliters of water, and estimate how many pours of this volume it would take to fill the large measuring cup.
- Pour the water you just measured from the small to the large measuring cup.
- Repeat the process until the 1-liter container is full, while counting how many 100-milliliter pours it takes to fill the liter container

- Hold up empty bottle.
- Fill your measuring cup with the amount of water you think will fill the bottle almost to the top.



- Pour your water in the empty bottle and see how you did.
- Were you surprised by the amount of water the bottle held?
- About how many milliliters did the bottle hold? How do they know?
- If you had a container that only held 50 milliliters, how many pours would it take to fill the water bottle?



WORKBOOK PAGE
115 PLEASE



Which Container Is Best? page 1 of 2

For each problem below:

- Estimate and record which containers you think will hold the amount of water needed. (It's OK if you choose more than one container that might work.)
- Test your estimates using your liquid measuring cups.
- Decide which beverage container actually works best.
- Record your recommendation.

Sarah needs to bring some water for several different activities this week. Help her choose the best container for each activity.

- 1** For a car trip to her grandma's on Monday, Sarah needs to bring about 500 milliliters of water to drink.
- a** Estimate: Which of the containers look like they would hold about 500 milliliters?
- b** Container holds about 500 milliliters.

2 For her track meet on Saturday, Sarah needs to bring about a liter of water to drink.

a Estimate: Which of the containers look like they would hold about 1 liter? Are there any combinations of two or more containers that might hold 1 liter?

b Container(s) hold(s) about 1 liter.

3 For ballet class on Wednesday, Sarah needs to bring about 800 milliliters of water to drink.

a Estimate: Which of the containers look like they would hold about 800 milliliters? Are there any two containers that look like they would hold 800 milliliters combined?

b Container(s) hold(s) about 800 milliliters.

Last Month

- 4** On the way home from each track meet last month, Sarah bought a 2-liter bottle of juice. How many total milliliters of juice did she drink if there were 6 track meets last month? Show your work.

- 5** Last week Sarah made punch for her friends. The recipe called for 200 milliliters of orange juice, 300 milliliters of cranberry juice, and half a liter of sparkling cider to make enough punch for 4 people. Sarah had 8 people at the party. How much punch did she make? Show your work.

- 6** Two weeks ago, Sarah bought a container of milk that held 2 liters. She drank a 250-milliliter glass of milk every day. How many days did it take her to use the entire container of milk? Show your work.

- 7** Sarah had a cold last month, so she took 5 milliliters of cough syrup every day. Her bottle of cough syrup held 75 milliliters. How many times could she take the cough syrup before the bottle was empty? Show your work.

Work Places

2D Doubles Help

3A Round Ball Tens

3B Add & Round Tens

3C Round Ball Hundreds

3D Round & Add Hundreds

4A Tic-Tac-Tock

Daily Practice

SB 117 Liquid Volume