

# Calibrating a Bottle

## Lesson 6-7

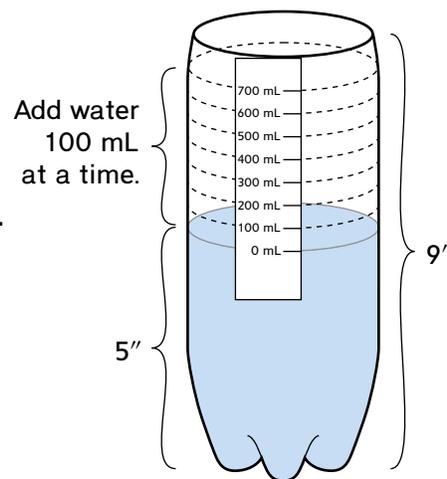
DATE

TIME



- Materials**
- 2-liter bottle with the top cut off
  - bucket or bowl with about 2 liters of water
  - measuring cup marked in milliliters
  - ruler
  - scissors
  - paper
  - tape

- 1 Fill the bottle with about 5 inches of water. (That's a little more than halfway.)
- 2 Cut a 1-inch by 6-inch strip of paper. Tape the strip to the outside of the bottle with one end at the top of the bottle. The other end should be below the water level.
- 3 Mark the paper strip at the water level. Write "0 mL" next to the mark.
- 4 Use the measuring cup to pour exactly 100 mL of water into the bottle. Mark the paper strip at the new water level. Write "100 mL" next to the mark.
- 5 Pour another 100 mL of water into the bottle. Mark the new water level and label the mark with "200 mL."
- 6 Continue adding 100 mL of water at a time until the water is less than 1 inch from the top of the bottle. Mark and label each new water level.
- 7 Pour water out of the bottle until the water level is back at the 0 mL mark.



The calibrated bottle you have created is a tool for measuring volume.

How do you think this tool could be used to find the volume of the orange from the Math Message? *Hint:* What would happen if you put the orange in the bottle?

**Sample answer:** If I put the orange in the bottle and pushed it under the water, the water level would go up and I could use the scale to see how much the volume changed.

Record the volume of the orange. \_\_\_\_\_ mL **Answers vary.**