

AR Remediation Plan: Length, Weight/Mass, Liquid Volume and Temperature

Liquid Measurement in Metric Units

STRAND: Measurement and Geometry

STRAND CONCEPT: Length, Weight/Mass, Liquid Volume and Temperature

SOL 5.9a

Remediation Plan Summary

Students will practice using liquid measurement to identify equivalent units of measure in milliliter and liters.

Common Misconceptions

Students have a difficult time understanding the relationship between milliliter and liter. They confuse units, which one is smaller and which one is the bigger unit. They do not understand how to convert them to decimal units.

Materials

- water
- Eye droppers
- Measuring cups with metric units
- Liters
- Equivalent liquid metric measurement worksheet
- Exit ticket

Introductory Activity

Show the students all the measuring cups, liters and eye droppers. Tell them they have to fill up the liter cup with the eye dropper. Ask them *“How many milliliters do you think it takes to fill up the liter container?”* Let them use the eye dropper to add water up to 50 ml using the metric marks on a measuring cup. Ask *“How long did it take you? How many eye droppers did you use to fill to the 50 ml mark? What part of a liter did you fill?”*

Plan for Instruction

1. Write the equivalent measures on the board to show the students. $1,000 \text{ ml} = 1 \text{ liter (L)}$ and $1 \text{ ml} = 0.001 \text{ L}$.
2. After they have filled up to the 50 ml mark, how many liters do they have? Ask them if they have one liter or less than one. Pour the water into a liter cup. If they have 50 ml but need 1000 ml. What is the whole?
3. Work with the students filling in the equivalent liquid metric measurement sheet.
4. Draw a chart on the board with the heading Liter and milliliter. Practice with the students with different amounts of liters and milliliters. Convert in both directions from liters to milliliters and from milliliters to liters until the students are comfortable going in both directions.

Pulling It All Together (Reflection)

Exit ticket. Have the students write down on an index card what is the relationship between milliliters and liters? How can we change units of measure between milliliters and liters?

Note: The following pages are intended for classroom use for students as a visual aid to learning.

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Equivalent Liquid Metric Measurement

Name _____

Use the equivalent measurements chart to fill in the table below.
Use the measuring cups and water if you need a visual.

1000 ml = 1 liter
1 ml = 0.001 liter

Milliliters (ml)	Liters (L)
250 ml	_____ L
_____ ml	3 L
826 ml	_____ L
_____ ml	7 L
457 ml	_____ L
_____ ml	1 L
509 ml	_____ L

Name _____

Exit Card

Write a few sentences about the relationship between milliliters and liters.

What is the relationship between milliliters and liters? How can use change units of measure between milliliters and liters?