IDENTIFICATION OF LITRE AS A UNIT OF MEASURING CAPACITY AND LIQUID MEASUREMENT

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Subject

Mathematics

Prepared By

[Instructor Name]

Grade Level

2

Overview

This lesson plan covers teaching content for;

1. Identification of liter as a unit of measuring capacity
2. Liquid measurement

Objectives

Students should be able to;

1. Identify liter as a unit of measuring capacity
2. Measure liquid

Activity Starter/Instruction

1. Pose the following questions to the class and discuss: Why do we measure things?
2. Give students three minutes in small groups to brainstorm as many units and objects to measure that they can think of (2 liters of soda, yards on a football field, feet and inches to measure height, pounds to measure weight, etc.).

Teacher Practice

Day 1, Lesson 1-25 Mins

1. Ask students to recall what they have been learning about volume and remind them that volume refers to the amount of space an object takes up.

Activity Starter/Instruction

1. Ask students, who will read the conversion they learnt yesterday
2. Wait until there is more hands up (if not, help students recall by reciting the first two lines)
3. Tell students that capacity is amount of liquid a container can hold
4. The unit or measurement of capacity is the liter (l)

Guided Practice

Day 2, Lesson 1-25 Mins

Measuring Liquid

1. Illustrate this example to the students, you're in the kitchen helping your mom bake your favorite cake. She asks you for two cups of

Materials Required

-Bottles

-Empty containers

-Water

-Order cup, pint, quart, graduated cylinder or g

-Eyedropper

Additional Resources

-https://www.scribd.com/document/2154308

-https://educators.brainpop.com/lesson-plan/
lesson-plan-cups-pints-quarts-and-gallons

http://www.beaconlearningcenter.com/Lesson

-https://education.nsw.gov.au/teaching-and-le
assessment/smart-teaching-strategies/numera
geometry/volume-and-capacity/stage-2-volum

Additional Notes

Assessment Activity

1. Give students a set of containers. Have them estimate the capacity of each container and record their estimates in a table. After estimating the capacity of each container, students use the measuring jug or cylinder to find the actual capacity of each container and record it.

2. Provide students with word problems involving capacity like: - Sam drinks 7 liters of water a day. How much water does he drink in a week?

How many liters of kerosene would a food vendor require to cook for the month of July, if she requires 2 liters per day?

2. Demonstrate this using a transparent bottle.

3. Explain to students that when we are talking about how much an object can hold we are talking about capacity. So the space this whole bottle takes up is its volume while how much it can hold inside is its capacity.

4. Tell students that capacity is usually measured in liters and milliliters.

5. Explain that the milliliter is used to measure tiny or small amounts of liquid or fluid. Give example, like when you get a prescription for some medicine that you need to drink, you will see the amount you need to take in milliliters.

6. Liters are used to measure larger amounts of liquid. For example, you'll find liter bottles of soda and milk at the grocery store.

7. Tell the students that both of these measurements for volume also have their own abbreviations. Milliliter is abbreviated with mL, and liter is abbreviated with L. For your prescriptions, you might see a written note that tells you to take 15 mL, 15 milliliters, twice a day. At the grocery store, you might see a jug of milk that contains 2 L, 2 liters.

8. Let students notice that liter is abbreviated with a capital L instead of a lowercase l. This is to make sure that the L is L and not a number 1.

Conversion

9. Ask students whether they would like to have one liter or one milliliter of milk (most will probably pick one milliliter because they will assume it is more) to drink. Allow students to vote by a show of hands.

milk. Does that mean you can get any two cups out of the cabinet and pour you and your mom each a glass to drink? Of course not!

2. Tell the students that what she needs is an exact volume of milk.

3. Explain that Liquid volume is the amount of space a liquid - in this case milk - takes up.

4. The tool and unit you use to measure a liquid is determined by what you are doing. In the kitchen, and in most day-to-day tasks, you will use measuring cups or measuring spoons while for an experiment in science class, you will use beakers and graduated cylinders to find liquid volumes.

5. Show students a graduated cylinder and tell that this tools are marked with the metric liquid volume units -liters and milliliters.

6. Demonstrates how to measure capacity with the measuring jug by saying, If I pour liquid from this container into the graduated cylinder, I will know how much it will hold – its capacity! I think (estimate) it holds about (approximately, nearly, almost) 2 liters.

7. Now, provide students with real life situations. Example: If the water supply to a house is made through a 150 liter reservoir tank and the house consumes water at the rate of 10 liters per half day. How many liters of water remain in the tank after 1 week?

8. Divide the question so that students can solve easily.

First, the daily water consumption 10 x 2 = 20 liters (make students understand that the x2 indicate the full day)

	10. Next, hold up an eyedropper and tell students that it holds one milliliter. For a customary unit of comparison, hold up a tablespoon and tell students that one tablespoon holds approximately five milliliters while there are 1,000 milliliters in one liter 11. Guide the students to learn the following conversion as you illustrate on the board. 10 milliliters (ml) = 1 centiliters (cl) 10 centiliters (cl) = 1 deciliters (dl) 10 deciliters (dl) = 1 liter (l) 1000 liter (l) = 1 kiloliter	1 week consumption 20 x 7 days = 140 liters Quantity of water remaining 150 - 140 = 10 liters.
Summary 1. Have students interview a partner asking them to explain what they have learnt in today's lesson	2. Ask them if they can think of any time in their everyday lives when they would need to know about capacity.	