Lesson 6: Multi-step Conversion Problems: Metric Liquid Volume

Standards Alignments

Building On   5.MD.A.1, 5.NBT.A.2
Addressing   5.MD.A.1, 5.NBT.A.1, 5.NBT.A.2

Teacher-facing Learning Goals

- Solve multi-step problems involving metric liquid measurement conversions.

Student-facing Learning Goals

- Let's solve multi-step problems about metric liquid volume.

Lesson Purpose

The purpose of this lesson is for students to solve conversion problems using metric volume units.

In this lesson, students solve conversion problems involving metric liquid volume measurements. The first activity in this lesson focuses on base-ten structure and conversions and also gives students a chance to work with decimals, fractions, and powers of 10 in exponential form. The second activity is contextual and also involves work with fractions and decimals. It gives students a chance to practice multiplication (by numbers that are not powers of ten) either with whole numbers or a whole number and a decimal depending how they solve the problem.

Access for:

🧑 Students with Disabilities

- Engagement (Activity 1)

🌐 English Learners

- MLR1 (Activity 2)

Instructional Routines

Number Talk (Warm-up)

Lesson Timeline

Warm-up	10 min
Activity 1	20 min
Activity 2	15 min

Teacher Reflection Question

What strategy did most students use for the second activity? How can you encourage students to be more flexible with their use of multiplication or division when converting metric units?

| Lesson Synthesis | 10 min |
| Cool-down | 5 min |

Cool-down (to be completed at the end of the lesson)　🕐　5 min

Dance Team

Standards Alignments

Addressing　　5.MD.A.1

Student-facing Task Statement

A dance team used 60 bottles of water during their practices last week. Each bottle holds 750 mL. How many liters of water did the dance team drink during their practices?

Student Responses

45 liters. Sample response: First I found how many mL there are in 60 bottles. That's 60×750 or 45,000 mL. That's the same as 45 liters.