

LESSON PLAN TEMPLATE

Lesson Title	Bridging Measures: Navigating English and Metric Systems in the Filipino Context
Learning Area/s	Mathematics
Name of Teacher/s	DepED Tambayan PH (Visit www.depedtambayanph.net for more downloads.)
Grade Level and Section	Grade 7
No. of Sessions	4 Sessions
References	None specified
Declaration of AI use	This lesson plan was co-created using Gemini AI to assist with unpacking competencies into a 4-session learning design, structuring activities, and assessment formulation.

Intentions.

Meaningful learning experiences are anchored in how we frame them. Start by deciding what you want learners to master by the end of the lesson – keep it clear and simple.

Learning Competency and Curriculum Standards:	Learning Competency: Week 2 Measurement and Geometry • Convert units of measure across different systems of measure. Content Standards: The learners should have knowledge and understanding of: • conversion of units of measure • volume of square and rectangular pyramids, and cylinders • sets and subsets, and the union and intersection of sets using Venn diagrams • subset of real numbers • data collection and sampling techniques, and the presentation of data in appropriate tables and graphs • interpretation of statistical graphs • the set of integers, and comparing and ordering integers Performance Standards: By the end of the term, the learners are able to: • convert units of measure from different systems of measure. • find the volume of square and rectangular pyramids, and the volume of cylinders. • describe sets and their subsets, and the union and intersection of sets. • illustrates sets and subsets, and union and intersection of sets, using Venn diagrams. • collect data, and organize data in a frequency distribution table. • represent and interpret data in different types of graphs. • compare and order
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	integers, including through the use of the number line.			
	Session 1	Session 2	Session 3	Session 4
Learning Objectives:	At the end of the session, the learners are able to: • Differentiate between the Metric and English systems of measurement used in the Philippines. • Convert units of length between the Metric and English systems (e.g., inches to centimeters, meters to feet).	At the end of the session, the learners are able to: • Convert units of mass and weight across Metric and English systems (e.g., kilograms to pounds, grams to ounces). • Apply mass conversion to real-world Filipino market scenarios.	At the end of the session, the learners are able to: • Convert units of capacity/volume across Metric and English systems (e.g., liters to gallons, milliliters to fluid ounces). • Relate capacity units to common household items in the Philippines.	At the end of the session, the learners are able to: • Solve multi-step real-world problems involving unit conversions across different systems. • Evaluate the importance of accurate conversion in various professional and daily life contexts.
Learner Context:	Learners demonstrate high engagement when using physical tools like rulers and tape measures. While most are familiar with centimeters for schoolwork, they frequently encounter inches and feet in local construction or height measurements. A significant number of learners struggle with multi-digit multiplication	Learners are very familiar with 'kilo' from the local 'palengke' (market) but are often confused by 'pounds' seen on imported food labels or gym weights. They show strength in mental math for whole numbers but express anxiety when dealing with decimal points in conversion factors like 2.2 lbs per kg.	Learners identify well with visual volume representations like 1.5L soda bottles or 5-gallon water containers. They struggle with the distinction between liquid volume (liters) and dry volume. Visual learners are the majority, while some learners with reading difficulties struggle with word-based conversion problems.	Learners are becoming more confident in single-step conversions but find word problems intimidating due to language processing needs. They perform better when problems are contextualized within their community experiences (e.g., travel distances, construction, or cooking for a 'fiesta').

	required for conversion factors, and a few learners with dyscalculia need more time to process numerical relationships.			
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Learning Experience.

A learning experience is like a thoughtfully designed journey. Each activity and interaction builds towards meaningful understanding and growth. Identify activities and interactions to help learners gain knowledge, skills, or understanding in a purposeful way.

Pre-Lesson:	Active Retrieval: A 'Measure Me' challenge where learners guess the length of their pens in both centimeters and inches, followed by actual measurement to see the difference.	Active Retrieval: 'Market Recall'—List five items bought by the kilo in the market and guess their weight in pounds.	Active Retrieval: 'Bottle Sort'—Identify if common containers (soda, soy sauce, water gallon) are labeled in Liters, mL, or Gallons.	Active Retrieval: 'Mixed Bag Trivia'—A 5-question speed round covering length, mass, and capacity conversions from previous sessions.
Flow:	Introduction: Discuss the dual-system usage in the Philippines (e.g., height in feet vs. cloth in meters). Scaffolding: Present a conversion 'Bridge' chart showing 1 inch = 2.54 cm. Checks for Understanding: Use 'Thumb-Up/Thumb-Down' to verify if they know which operation (multiply/divide) to use. Social Learning: Pair activity where students measure	Modeling: Demonstrate converting a sack of rice (50kg) into pounds using the 2.2 conversion factor. Scaffolding: Use the 'Multiply-Down, Divide-Up' visual aid for conversion directions. Checks for Understanding: 'Whiteboard Check'—students solve a quick conversion (2kg to lbs) on small boards or scratch paper. Social Learning: Group activity 'The Palengke	Visual Scaffolding: Show a 1-gallon container and fill it with 1-liter bottles to demonstrate the approximate 3.78 ratio. Direct Instruction: Explain the conversion factors for mL to fl oz. Social Learning: 'Water Station' activity where groups estimate the capacity of various local containers in both systems. Checks for Understanding: 'Stoplight Cards' (Red/Yellow/Green	Scaffolding: Introduce the 'UPS Check' method (Understand, Plan, Solve, Check) for word problems. Modeling: Solve a complex problem together (e.g., a balikbayan box weight limit in lbs vs kg). Social Learning: 'The Community Project'—Groups are assigned a scenario (e.g., building a small fence, cooking for a barangay event) and must solve conversion problems to complete their

	their height in centimeters and convert it to feet/inches to compare with their health records. Active Retrieval: Quick flashcards showing a unit and asking for its system (Metric or English).	Vendor'—groups are given 'orders' in pounds and must 'weigh' them using metric scales or vice versa. Active Retrieval: Recap the most common mass conversion factors used today.	) to indicate their comfort level with capacity conversion. Active Retrieval: Quick-fire oral drill on 'How many mL in 1 Liter?'.	'budget'. Checks for Understanding: 'Error Analysis'—Present a pre-solved problem with a common mistake and ask learners to find and fix it. Active Retrieval: Summary 'Round Robin' where each student shares one conversion factor they've memorized.
Learning Resources:	• Rulers (Metric/English) • Tape Measures • Conversion Chart Handouts • Slide Presentation	• Empty food packaging with dual-weight labels • Digital or analog kitchen scales • Calculators • Projector	• Empty 1.5L soda bottles • 5-gallon water jugs • Measuring cups • Worksheets	• Scenario Cards • Large Manila Paper/Markers • Calculators • Peer-Assessment Rubrics
Opportunities for integration:	Physical Education: Linking height and reach measurements used in sports like basketball or volleyball. TLE: Usage of inches in dressmaking and carpentry.	Science: Discussing the difference between mass and weight. TLE: Measuring ingredients for local recipes (e.g., grams to ounces for baking).	Health/Science: Discussing daily water intake recommendations (liters vs. glasses). Disaster Readiness: Calculating water storage needs for a family during a typhoon.	Social Studies: Discussing international trade and why the Philippines uses the Metric system (SI). English: Improving reading comprehension through mathematical word problems.
Assessment. Assessments reveal what learners have gained and what they still need help with. These are helpful in providing you with information to guide your future instruction throughout the entire session.				

Formative Assessment:	'Check-Point' Quiz: Three conversion problems ranging from simple (inches to cm) to complex (meters to feet). Peer-Feedback: Partners check each other's height conversions using a provided rubric.	Practical Task: Learners look at food labels brought from home and convert the metric weight to the English system. Exit Ticket: 'One thing I learned and one thing that still puzzles me' about mass conversion.	Worksheet: 'The Juice Stand'—Solve conversion problems based on mixing calamansi juice in different container sizes. Observation: Monitoring group interactions during the 'Water Station' activity.	Summative Performance Task: A 'Conversion Challenge' portfolio where students solve 3 real-life scenarios. Self-Assessment: A rubric where students rate their own ability to solve multi-step problems.
Ways Forward. Meaningful learning can also happen beyond the classroom – for both the learners and the teacher. Pause and reflect on what happened today.				
Extended learning opportunities:	For learners who mastered the task, provide a 'Construction Challenge' involving blueprint measurements. For those struggling, provide a simplified 'Step-by-Step' template for multiplication steps.	Provide a 'Grocery List' challenge where students must compare prices per pound vs. prices per kilo. Offer a remediation session focusing specifically on decimal multiplication for the bottom 20%.	Advanced learners can research 'Old Filipino Units' of capacity like 'ganta' and compare them to liters. Provide a visual 'Capacity Cheat Sheet' for learners who need persistent support.	For high-achievers, introduce temperature conversion (Celsius to Fahrenheit). For learners still struggling with word problems, provide 'Sentence Starters' and visual diagrams to help map out the problem steps.
Reflections:	Reflect on: How many learners achieved the 80% threshold? Were the physical measuring tools effective for the kinesthetic learners? Which specific conversion factor caused the most confusion?	Reflect on: Did the 'Palengke' simulation improve understanding of unit magnitude? How well did learners handle the 2.2 conversion factor?	Reflect on: Was the physical demonstration of liters into gallons helpful? Did the 'Stoplight' cards accurately reflect student performance on the worksheet?	Reflect on: Did the 'UPS Check' method reduce learner anxiety during word problems? Which scenarios were most relatable to the students? How can I further simplify multi-step problems for the next unit?