

# Write-On/Wipe-Off Lesson Planning Sheet for Common Core Math Lessons with Language Learners

Make sure the lesson makes sense to LLs!

**Common Core Critical Area** (What critical area from the Math Common Core will this lesson address?):

Grade 5, Critical Area 3: They decompose three-dimensional shapes and find volumes of right rectangular prisms by viewing them as decomposed into layers of arrays of cubes.

**Objectives** (What **math** and **math language** can I expect the students be able to use at the end of this lesson?):

Math Objective: I can ... Find the volume of a right rectangular prism with whole-number side lengths by packing it with unit cubes

(CCSS.Math.Content.5.MD.C.5a)

Math Language Objective: I can ... work with a partner to explain my thinking, strategies, and solution and the target words in my explanation.

**Vocabulary** (What key vocabulary will I need to teach so the students can understand the lesson?):

Key Vocabulary	How I will teach it?
volume	<input checked="" type="checkbox"/> use pictures/clipart/animation <input type="checkbox"/> topical/thematic word wall with visuals <input type="checkbox"/> act out the word <input type="checkbox"/> write a student-friendly definition <input type="checkbox"/> write/draw classroom-based examples <input type="checkbox"/> talk about parts of the word <input type="checkbox"/> 2 or 4 corners vocabulary <input type="checkbox"/> Jeopardy! <input type="checkbox"/> charades <input type="checkbox"/> write/sing a song <input type="checkbox"/> write/perform a rhyme/poem <input type="checkbox"/> word web <input type="checkbox"/> create a hand signal/body motion for vocab <input type="checkbox"/> provide a desk reference of math terms and symbols <input checked="" type="checkbox"/> other: <u>Model the key words using TPR (gestures/and body motions) when introducing the centers and interacting with groups.</u>
unit	
cube	
combined	
right rectangular prism, compare/ comparison, length, width, height, compliments, giving compliments, tally	

**Connecting to Prior Knowledge and/or Providing Background Information** (How will I remind the students what they already know about this math concept? Or how will I introduce them to new concepts in a fun or meaningful way?):  read aloud book/poem  tell a story from personal or school experience  whole class K/W/L  show a video clip  show pictures/clip art  role-play with student help  student 2 min. quick-write  share a story problem based on the class/room

other(s): volunteers share what they know about volume

**Hands-On Materials** (What materials can students touch and manipulate as they practice?):  blocks  counting beans & cups  unifix cubes  attribute blocks  paper & scissors  tangrams  organizers made out of yarn/string and slips of paper with words/numbers to fill in spaces  cut up the worksheet  word cards and examples to match  store-bought, teacher and student-made games  make a giant-sized version of the problem with masking tape, boxes, props, signs etc.  calculators  individual whiteboards and dry-erase markers  index cards with numbers, problems, answers etc.  small bags, containers, boxes with rice, Cheerios etc.

How Full is Your Bucket (Math & PEckmeyer)

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other(s): unit cubes

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**Meaningful Practice** (*How will students repeatedly practice with the math and math language in a meaningful way?*)  turn & talk  finish sentence frames (i.e. "I can \_\_\_ using \_\_\_." "One way to \_\_\_ is \_\_\_.")  partner work  place vocab. in graphic organizers  add words to word bank/personal dictionaries  make/build a model  create 5 problems and switch with a partner to solve  with a partner, say/write as many sentences with key vocab as possible  pairs solve problems and write answers on individual whiteboards  students write story problems  solve problems/answer questions in small groups  solve real-world/school based problems  math conversations  math dramatization  give students math discussion starter sentence frames (e.g. "If I try \_\_\_ I think \_\_\_ will happen." etc.)  model thinking aloud when problem-solving

provide a checklist of problem solving steps

other(s): Pairs will explain how they solved a volume problems using key vocabulary.

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**Open-Ended Questions** (*What interesting questions will I ask during the lesson that could be answered in many different ways (i.e. will elicit higher-order thinking)?*):

*(Ideas: Do you think...? What would happen if...? Is there a better solution...? How many ways can you...? What's the easiest/hardest part...? What is this similar to? Do you think...? Why did you...? How can you use this in life? What do you notice about...? etc.)*

1) What would happen to your bucket if you kept track of filling and emptying it all day?

2) What do you think the volume of our class bucket would be if we kept track all day?

3) What strategies did you use to solve the problems?

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**Constant Assessment** (*How will I and how will the students measure their math and math language learning throughout the lesson?*):

ask open-ended questions related to your objective (e.g. "How do you know..." "How will you know if you are right?" etc.  students give a thumbs up, down or sideways based on their achievement of the objective  conference with individual students and note successes and stuck places  ask individual students a question they would need to answer with a key vocabulary word  partners share what they are learning with one another  direct a student to think out-loud about a problem  exit tickets where students write 1-3 things they learned or questions on a post-it

other(s): Ask, "What was it like using the target words in your explanations and listening for them?"

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