

Size Matters

Lesson Segment Focus: Convert like measurement units within a given measurement system

Lesson 1 of 1

Course & topic addressed: Math, Measurements and Data

Date: 4-15-19 Grade: 5th

Student Outcomes

<p>Specific learning objectives for this lesson.</p>	<p>Students will convert among different-sized standard measurement units within the metric system. Students will convert among different-sized standard measurement units within the customary system. Students will use these conversions in solving multi-step, real world problems.</p>
<p>Describe the connection to previous lessons. (Prior knowledge of students this builds upon)</p>	<p>Students have already completed lessons with fractions and measurements in cake baking. They've studied decimals and have learned about LCD. They know about converting one thing to another.</p>
<p>Knowledge of students background (personal, cultural, or community assets)</p>	<p>Students have seen measurements in the kitchen for years. They know most of the US measurement systems and have probably experienced the SI System before. This system may confuse them.</p>

State Academic Content Standards

<p>List the state academic content standards with which this lesson is aligned. Include state abbreviation and number & text of the standard.</p>	<p>AR.Math.Content.5.MD.A.1</p> <ul style="list-style-type: none"> • Convert among different-sized standard measurement units within the metric system For example: Convert 5 cm to 0.05 m. • Convert among different-sized standard measurement units within the customary system For example: Convert 1 1/2 ft to 18 in. • Use these conversions in solving multi-step, real world problems
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Academic Language Support

<p>What planned instructional supports might you use to assist students to understand key academic language to express and develop their content learning? What will you do to provide varying supports for students at different levels of academic language development?</p>	<p>Students will have youtube, conversions sheets, and group help to navigate the new content. The teacher will explain each term and will be nearby to help groups with any misunderstandings they have. Student may get word problems that are geared towards different academic levels of language acquisition.</p>
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Key Vocabulary

<p>What vocabulary terms/content specific terminology must be addressed for students to master the lesson?</p>	<p>SI System, customary system, English system, conversion</p>
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Materials

<p>Materials needed by teacher for this lesson.</p>	<p>Computer, smart board, internet, conversion sheets, blank conversion sheets, measurement tools for each table, pens, scratch paper, exit slips, PowerPoint quiz, handout, YouTube</p>
<p>Materials needed by students for this lesson.</p>	<p>Computer, internet, conversion sheets, blank conversion sheets, measurement tools, pens, scratch paper, exit slips, handout</p>

Lesson Timeline with Instructional Strategies & Learning Tasks (**This should be VERY DETAILED**)

Amount of Time	Teaching & Learning Activities	Describe what YOU (teacher) will be doing and/or what STUDENTS will be doing during this part of the lesson.
7 minutes	<p><u>Introduction:</u></p> <p>Students will enter and sit in their work groups (of 4).</p>	<p>Students will come in and watch two videos. (https://youtu.be/djTNU4XIRo & https://youtu.be/P9sYvDCnI0g)</p>
20 minutes	<p><u>Instruction:</u></p> <p>The students will experiment with English units of measurement.</p>	<p>Students will each get blank conversion sheets. Students will fill out this sheet by working with their group to determine what kinds of measurements are equal. There will be different tools of measurement on the tables to measure with (cups, gallons, pints, ounces, 1/2 cups, inches, feet, yards, ect.). Students will find conversions like that 8 ounces equals 1 cup.</p>
20 minutes	<p>Students will explore the SI Unit.</p>	<p>Students will receive filled in conversion charts and compare them.</p> <p>Students will study the way the SI system works and do conversions as a class. Groups will work together to solve real word conversion problems on a handout.</p>
10 minutes	<p>Interactive Quiz</p>	<p>Students will play an interactive PowerPoint Quiz to test their new skills.</p>
8 minutes	<p><u>Closure:</u></p> <p>Exit slip</p>	<p>Students will each complete a paper with a conversion between each of the measurement systems.</p>

Accommodations/Modifications

<p>How might I modify instruction for:</p> <p>Remediation?</p> <p>Intervention?</p> <p>IEP/504?</p> <p>LEP/ESL?</p>	<p>Small group intervention can be done in group time. More explanation and more detailed charts can be provided. All IEP and 504 plans will be followed. ESL students will be partnered with a peer with high levels of language acquisition.</p>
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Differentiation:

How might you provide a variety of instructional methods/tasks/instructional strategies to ensure all student needs are met?	Students do a hands on lab, watch videos, work with groups, do handouts, and participate in interactive quizzes. There are a variety of tasks and instructional methods used in this lesson.
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Assessments: Formative and/or Summative

Describe the tools/procedures that will be used in this lesson to monitor students' learning of the lesson objective/s (include type of assessment & what is assessed).	✓ Formative / <input type="checkbox"/> Summative	Teacher will assess the conversion sheet.
	✓ Formative / <input type="checkbox"/> Summative	The teacher will grade the handouts.
	✓ Formative / <input type="checkbox"/> Summative	The teacher will assess the exit slips.

Research/Theory

Identify theories or research that supports the approach you used.	N/A
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Lesson Reflection/Evaluation

What went well?	<i>TO BE FILLED IN AFTER TEACHING</i>
What changes should be made?	
How will I use assessment data for next steps?	N/A

Include supporting material such as slides, pictures, copy of textbook, and handouts for any activities students will be using as part of your lesson.

*adapted from: <http://webcache.googleusercontent.com/search?q=cache:EsQcNWuG1ZoJ:web.mnstate.edu/harms/StudentTeachers/edTPA-LessonPlan.doc+&cd=2&hl=en&ct=clnk&gl=us>; <http://www.moreheadstate.edu/getmedia/cd3fd026-939f-4a47-a938-29c06d74ca01/Lesson-Plan-and-Reflections.aspx>; <http://www.mcneese.edu/f/c/9cb690d2/Lesson%20Plan%20Rubric%20Aligned%20with%20InTASC.docx>; <https://www.uwsp.edu/education/Documents/edTPA/Resource12.pdf>; <https://www.uwsp.edu/education/Documents/edTPA/Resource11.pdf>; <https://www.uwsp.edu/education/Documents/edTPA/Resource11a.pdf>; <https://www.uwsp.edu/education/Documents/edTPA/LessonPlanTemplateSOE.docx>; <https://www.uwsp.edu/education/Documents/edTPA/SpecEdLessonPlanGuide.docx>; <https://www.uwsp.edu/education/Documents/edTPA/SpecEdLessonPlanTemplate.docx>