

Unit Plan that Incorporates the Use of Thinking Tools

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School District	Lansing USD#469
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Classroom Information	
Subject Area	
Math	
Grade Level(s)	
Fifth	
Unit Overview	
Unit Title	
Measurement using standard unit of length	
Unit Summary	
Students will learn the importance of accurate measurement and the difference and interconnection of and inch, $\frac{1}{2}$ inch, $\frac{1}{4}$ inch and $\frac{1}{8}$ inch.	
Building the Foundation	
Habits of Learning Taxonomy	
<i>Knowledge: recalling and memorization. Declarative: Facts, concepts generalizations</i>	
<i>Comprehension: Compares, contrasts and demonstrates</i>	
<i>Application: solves problems and demonstrates knowledge</i>	
Standards	
3.2.K2a,b,c,d,e; 3.2.K4a,b; 3.2A1a,c,f,g,h	
Learning Objectives	
Students will learn the different fractional part of an inch. They will be able to convert inches, feet, yards, and miles.	
Curriculum-Framing Questions	Essential Question
	How do we measure?
	Unit Questions
	What do we need to measure things? Why do we need to measure things?
	Content Questions
	<i>Which is bigger $\frac{1}{2}$ inch or $\frac{3}{4}$ inch?</i> <i>What would we use to measure the distance between New York and Kansas?</i> <i>Add 5 ft 9 inches and 2 ft 5 inches.</i> <i>Subtract 1 yard 2 feet 2 inches from 2 yards.</i>

Student Assessment Plan		
Assessment Summary		
Students will create portfolio consisting of activities and rubrics included in this unit.		
Assessment Timeline		
Before Project Work Begins	While Students Work on Projects	After Project Work Ends
<ul style="list-style-type: none"> • <i>Math journals</i> • <i>Classroom discussions</i> 	<ul style="list-style-type: none"> • <i>Teacher/student conference</i> • <i>questioning</i> 	<ul style="list-style-type: none"> • <i>project rubric</i>
Visual Ranking Elements (Complete this section if this tool will be used in the unit)		
Visual Ranking Project Name (For the <i>Visual Ranking</i> workspace)		
Math and Measuring		
Project Description (For the <i>Visual Ranking</i> workspace)		
<i>Students will be working on measuring using standard units of length.</i>		
Prompt (For the <i>Visual Ranking</i> workspace)		
I want you to rank these in order largest to smallest and tell me which is the most precise measurement		
Sorting List (For the <i>Visual Ranking</i> workspace)		
1 foot 13 inches 1/2 inch 5,280 feet 200 inches 1/8 inch 6 yards		
Seeing Reason Elements (Complete this section if this tool will be used in the unit)		
Seeing Reason Project Name (For the <i>Seeing Reason</i> workspace)		
Mapping Measurement		
Project Description (For the <i>Seeing Reason</i> workspace)		
It's really important for you to know the different units of standard length measurement and how they are all interconnected. How can you show me how each unit is related to the others? You'll need to use inches, feet, yards, and miles.		
Research Question (For the <i>Seeing Reason</i> workspace)		
What are the different events that you would encounter to use the different standards of length in your daily lives, how do they affect each other and what is their connection to each other.		

Unit Details	
Approximate Time Needed	
2-3 weeks Suggested class time: 45 minutes a day; 5 days a week	
Prerequisite Skills	
Students need basic knowledge of simple fractions, addition and subtraction of whole numbers	
Procedures	
<p>BEFORE: Discuss the importance of being able to measure things in our everyday life. Generate a class discussion of the things we use that are measured (i.e.; recipes for dinner, in PE how far they jump, when their parents are driving, how far they have gone.)</p> <p>DRUING: Present rubric to the class and discuss the expectations of this unit. Use the visual ranking tool to assess their knowledge of greater than and less than measurements. Use the showing evidence tool to assess student's knowledge of the interconnection of measurement in our daily lives.</p> <p>Generate class discussion of what is important and is not important.</p> <p>COMPLETION: Self check, peer check, and teacher evaluation. Review of Visual and Showing Evidence tools.</p>	
Accommodations for Differentiated Instruction	
Resource Student:	Directions will be given on the overhead. Question and answer session will be done before activity begins. Teacher will be in close proximity to students with difficulties and will monitor their progress as they go.
English Language Learner:	Students will work in groups of 4 to assist each other. This will help students engage with a question/answer session with their peers.
Gifted Student:	Gifted students will be allowed to progress farther than just the basic information given on both the tools. They will have the opportunity to expand and add their own ideas to the rubrics and make suggestions for improvement of this unit.
Materials and Resources Required For Unit	
Printed Materials:	Math text book, practice sheets, various teacher supplements
Supplies:	Standard school supplies used everyday. If additional supplies are needed they will be provided.
Technology - Hardware	Computers in the computer lab
Technology - Software	Internet explorer
Internet Resources:	www.intel.com/education/thinkingtools
Other Resources:	Classroom resources, a math teacher from the high school (?)