



<p>Lesson: Adding and Subtracting with “Bangle” and “Tiny” (Teaching in two lessons recommended)</p>	<p>Teacher:</p>
<p>CCSS/ Aligned STEM:</p> <p>MATHEMATICS: Measurement and Data- CCSS.MATH.CONTENT.K.MD.A.1 Describe measurable attributes of objects, such as length or weight. Describe several measurable attributes of a single object.</p> <p>CCSS.MATH.CONTENT.K.MD.A.2 Directly compare two objects with a measurable attribute in common, to see which object has “more of”/“less of” the attribute, and describe the difference. <i>For example, directly compare the heights of two children and describe one child as taller/shorter.</i></p> <p>MATHEMATICS: Operations and Algebraic Thinking CCSS.MATH.CONTENT.K.OA.A.1 Represent addition and subtraction with objects, fingers, mental images, drawings, sounds (e.g., claps), acting out situations, verbal explanations, expressions, or equations.</p> <p>CCSS.MATH.CONTENT.K.OA.A.2 Solve addition and subtraction word problems, and add and subtract within 10, e.g., by using objects or drawings to represent the problem.</p> <p>CCSS.MATH.CONTENT.K.OA.A.3 Decompose numbers less than or equal to 10 into pairs in more than one way, e.g., by using objects or drawings, and record each decomposition by a drawing or equation (e.g., $5 = 2 + 3$ and $5 = 4 + 1$).</p> <p>ISTE: <u>Critical Thinking, Problem Solving, and Decision-Making</u></p> <p>DOK: Depth of Knowledge Levels 1, 2 & 3 Recall, Skill/ Concept & Construction/Design</p>	<p>Lesson Objectives</p> <ol style="list-style-type: none"> 1. TLW solve addition and/or subtraction problems verbally and/or written 2. TLW use manipulatives to show how they arrived at an answer <p>Materials</p> <ol style="list-style-type: none"> 1. TinyTys™ long and short Tys (Tiny(s) and Bangle(s)) 2. TinyTys™ Character Illustration Sheet. 3. Scaffolded Addition Worksheet for addition lesson 4. Scaffolded Subtraction Worksheet for subtraction lesson 5. Exit Slip/Ticket to go... to recess, lunch, home or etc... 6. TinyTys™ animation http://tinytys.com/
<p>Content</p>	<p>Teacher/Anecdotal/Reflection Notes:</p>
<p>Anticipatory Set Show Animation http://tinytys.com/ up to the first pause. Then with excitement ask, “Guess who is here today?” Yes...“Bangle and Tiny”. They are here to help us with adding and/or subtracting. If</p>	



<p>animation is not available introduce pieces as characters using the illustrated version because “Tiny(s)” and “Bangle(s)” are making a special live appearance.</p>	
<p>Input Task Analysis</p> <ol style="list-style-type: none"> 1. During introduction to “Bangle and Tiny” point out that they are all Tys, but they are not the same size. Who is longer? ; Who is taller?; Who is shorter? Who is smaller? 2. On your projector manipulate the Tys demonstrating and discussing different combinations of Tys using appropriate math terms such as: in all; adding; how many less?; how many more? and etc... 3. Give each student an equal amount of Tiny(s) and Bangle(s) or you can refer to them as short and long Tys if they are having trouble with names. Have students manipulate their Tys the same as you are modeling on the projector. Write a problem(s) on the projector or whiteboard with a sum of 10 or less. Or subtracting within 10 depending on what you are working on. Show the students how to get the answer(s) using Tys. 4. Pass out the worksheet have students do #1 and #2 with you modeling using the Tys to help solve the problem. 	
<p>Check for Understanding (Throughout Lesson) Circulate repeating questions such as: How many in all?; How many more?; How many less? What’s the difference? and etc...</p>	
<p>Guided Practice Modeling #1 and #2 and circulating to give assistance on the rest of the worksheet as needed.</p>	
<p>Independent Practice “Exit Slip” “Ticket Out”</p>	
<p>Extension</p>	



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<p>Use other TinyTys™ pieces as representation to solve problems. Make up story problems using TinyTys™ characters as subjects.</p>	
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