

Elements	US Algebra	US Measuring Angles	Japan Inequalities	Japan Area of Triangle
<p>1. <u>Know</u> Lesson Content Math Tasks How Related</p>	<p>Solving complex Algebraic equations. Need to know how to factor.</p>	<p>Calculating supplementary angles. Need to know definitions.</p>	<p>How to write a mathematical inequality.</p>	<p>Finding areas of polygons</p>
<p>2. <u>Work</u> Parts of Lesson Sequence Why sequenced How related</p>	<p>1) Warm up problems – went over verbally 2) presenting and discussing problems 3) assigns multiple tasks for seat work</p>	<p>1) Warm up – verbal – said you should have looked up definition of angles 2) checked homework by calling on students – nobody ever went to board including teacher – if you didn't get a chance, do it now! 3) assigning seatwork – hands out worksheet – no visual (vertical angles) 4) Extra help challenge problems 5) checking more HW – new concept 6) previewing upcoming schedule</p>	<p>1) good morning 2) Posing problem – prewritten problem on oak tag taped to board. Spends an enormous amount of time reading and explaining the concept and the problem. 3) Students present solutions methods – first girl did not understand how to do it so she explained how she came up with answer which was non-algebraic. Teacher wrote it all down as she recited. 4) Teacher & students present alternate solution. Student who came up with algebraic inequality recited her answer. Teacher wrote it all down. Asked how many came up with same answer.</p>	<p>1) student recall from yesterday – visual example 2) posing the problem 3) working on the problem 4) students presenting solutions 5) reviewing students' methods and posing another problem 6) summarizing the results</p>

			<p>Encouraged them to raise their hands.</p> <p>5) Teacher elaborates on students' methods.</p> <p>6) Posing and solving follow up</p> <p>7) Summarizes</p>	
<p>3. <u>Work</u> Teacher role Questions Teacher info</p>	<p>Doesn't have the answers</p> <p>Puts answers on overhead without going over steps after students guess</p> <p>Walks around most of time but never shows the steps</p>	<p>No visual directive. Geometry needs to have visual. When he introduces new formula (which he said he will go over AFTER spring break, so therefore everyone has already tuned him out) he never puts the formula on the board. He should have utilized even an overhead showing the changes in the shape.</p>	<p>Teacher spent good amount of time explaining the problem in various ways in an effort to help them critically think (not just calculate) about ways to come up with a solution. He encouraged them to try different methods. Used visuals as well as verbal explanation.</p>	<p>Using a variety of tools, role is to get the students to think critically about HOW to turn a quadrilateral into the triangle. Teacher presents real life problem using students in class to keep interest. Lesson plan designed for teacher to follow exactly.</p>
<p>4. <u>Work</u> Student role What doing</p>	<p>Working with calculator and pencil/paper on problems from overhead first doing warm ups and reviewing</p>	<p>Sitting in rows working on worksheet independently when he hands it out.</p>	<p>Tried to come up with solutions to the problem posted. Each working independently.</p>	<p>Students first work independently to arrive at answer</p> <p>Timed task (3 minutes)</p> <p>Students go to board with various solutions and explain HOW they arrived at their answer.</p>
<p>5. <u>Know</u> Teacher goal What to learn</p>	<p>How to solve complex fractional equations</p>	<p>Understand the concept of supplementary, complementary and vertical angles.</p>	<p>Understand HOW the formula is derived.</p>	<p>To understand that one concept overlaps with another instead of just giving them the formula for the quadrilateral.</p>
<p>6. <u>Know</u> What students learn from lesson</p>	<p>Can't be certain all students have learned.</p>	<p>I would have to safely assume – not much.</p>	<p>HOW to derive a formula.</p>	<p>Teachers ask who understands at various points and those who say yes go off and work with other teacher. Second teacher walking around observing work of students.</p>

