

Grade: 7

Unit: Cultural Connections – Taiko Drums

Lesson Title: Sketching a model of your Taiko Drum

Subject Area(s)		Math
Time Needed		2 - 3 class periods
TN standard		7.3.4 Use visualization, spatial reasoning, and geometric modeling to solve problems. 7.4.2 Apply appropriate techniques, tools, and formulas to determine measurements.
Learning objectives:		The students will draw scale models of planned drums from two views with their measurements.
Prior Knowledge or Skills		Students have had progressive instruction on measurement and geometry throughout the elementary grades and lower middle school grades. Students may or may not have applied geometry and measurement skills to drawing models. Students may or may not have previously learned about Japanese culture and Taiko Drums.
Materials/Resources Needed:		Graph Paper Many pre-sharpened pencils rulers Example of Taiko drum
Preparation		Imbed YouTube videos into Powerpoint at home, because the website is not accessible at school. Imbed short background/history on Taiko from Duke University and HHistoryLink into Powerpoint Collect buckets, plastic bins, cans, plastic water jugs, gourds and various materials for drum bodies, "skins" and "drumsticks".
Procedures	Attention-getter/Assess prior knowledge	Play 2 short videos on Taiko drumming: http://www.youtube.com/watch?v=cM3cZfC0lk0 http://www.youtube.com/watch?v=JMy4S4kfqNM The first video is a Mitsubishi commercial from 2006 – students may recall the video and the taiko drumming in it. The second video shows a large Taiko group performing at a marathon – young students performing.

Direct Instruction	<p><u>Investigation/ Gathering of materials and ideas:</u> Let students investigate the materials available ahead of time. Give them 2 days to bring additional items from home and to brainstorm additional items that the class as a whole could look for and bring into class. Time: 5 minutes at the beginning of class.</p> <p>*** Possibly get wood barrels from Stave mill or plastic barrels from Coca – Cola for free.</p> <p>Go over concept of scale, using example of classroom objects – pencil, desk, book, etc. Review vocabulary: cylinder, circle, perimeter, diameter, height, radius, Π</p> <p>Using overhead transparency of 1/4 inch grid paper, model how to use scale to draw a model of a Taiko drum. First model drawing the view from looking down on the drum and second from the side. Focus instruction on the use of scale.</p>
Guided Practice	Divide the class into groups of three and have them all recreate the same model you just demonstrated for practice.
Independent Practice	Next day: have them choose materials for their actual drum and then draw the model from this. Start first with just the basic pieces – drum, skin, sticks.
Assessment:	Assess throughout on the use of Math vocabulary: scale, perspective, cylinder, circle, etc. Also assess their ability to work with group. Finally, both their group model and their individual models will be assessed as final projects.
Resources/Credits:	<p><i>Background information on Taiko and inspiration for the lesson plan/unit was found online at</i></p> <p>www.duke.edu/APSI/events/outreach/Taiko%20Lesson%20Plan%207th%20Grade.doc</p> <p>see attached handout for this background information.</p> <p>www.historylink.org/t-tac/taiko%20drumming.pdf</p> <p>see attached handout for this background information.</p>
Differentiation/ Accommodations/ Extensions	<p>Allow students who have time to add geometric artistry to drums – possible extension for entire class to instruct/or review on lines of symmetry/parallel/perpendicular and other geometric concepts.</p> <p>Students may use computer programs to create CAD (Computer Aided Design) versions of design.</p> <p>Students may substitute a narrative about the design of their Taiko</p>

	<p>drum in place of the extension of drawing if that narrative uses geometric terms and uses symbolism.</p> <p>Have computer cued up with additional Taiko drumming links for those who finish early -</p> <p>http://www.youtube.com/watch?v=9pTPBv2I5X0 10 minutes long. This video shows men – whereas the original two happen to have only females playing .</p> <p>http://www.youtube.com/watch?v=bqe46RE-M-Q 4 minutes long. Shows some ‘westerners’ performing with Asians in a Taiko group.</p> <p>http://www.youtube.com/watch?v=3x0et5D9DQU 4 minutes long. The piece they are playing is ‘Soh,’ roughly translated as ‘speed.’</p>
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