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Cultural Math Geometric Designs 6 lessons | OSEA 3: Culture and Language and OSEA 7: Ways of Life and Development

Compelling Question	What are Geometric Shapes?	
Standards and Practices	<p>OSEU 3 Culture and Language: Symbols For The Oceti Sakowin Nation Embody Colors, Directions, and Stars. OSEU 7: Ways of Life and Development: 7.3 Identify ways that the Oceti Sakowin provide resiliency in keeping their way of life. SD Common Core: 4.OA.C Generate and Analyze Patterns 4.G.A Draw and identify line, angles, and classify shapes by properties. G-MG Applying Geometric Concepts in Modeling.</p> <p>These practices will be utilized in the lessons below that involve geometric shapes in quilt making, cake decorating, and dance regalia creation.</p>	
Staging the Question	Where Do You See Geometric Shapes?	
Supporting Question 1	Supporting Question 2	Supporting Question 3
What materials are needed to make a Star Quilt?	What and how many ingredients are needed to decorate a cake?	Where did the dancing regalia maker get their inspiration from to make dancing outfits?
Formative Performance Task	Formative Performance Task	Formative Performance Task
1) Bring a picture of a Star Quilt or the Quilt. Discuss what shapes and colors are used in making the quilts. Make a list	A guest speaker will	1) Students can bring pictures or the actual dancing regalia that they

<p>of the shapes and color schemes.</p> <ol style="list-style-type: none"> 2) Invite quest quilter in to give a presentation on Star Quilt making. Students take notes and ask questions. 3) Visit Source site and find about the Lakota history of Star Quilt making. Take notes on the reasons why they started making them and the meaning behind the Morning Star. 	<p>be brought in to present the class with a demonstration of decorating a cake with a Native American design that includes various shapes. Students will help assist in the preparation for the cake to be decorated. Students will take notes and ask questions why it is designed this way.</p>	<p>might have to school. Discuss and note the various colors and shapes that are included in the dancing regalia.</p> <ol style="list-style-type: none"> 2) Guest Speakers will be brought in to present their dancing regalia that they have designed and made. Students can ask questions and make notes of presentations. 3) Students will design and create patterns to be used in making dancing regalia and will use a color scheme to complete a Star pattern
<p>Featured Sources</p>	<p>Featured Sources</p>	<p>Featured Sources</p>
<p>http://aktalakota.stjo.org/site/News2?page=NewsArticle&id=8594 http://www.powwows.com/star-quilt-maker-shares-journey/ Badlands Quilting (Martin, SDak) Harvest Wind (Parmelee, SDak.) Mary Guerue (Mission, SDak) Janell Stoeger (TCMS in Mission SDak) 856-3504</p>	<p>Eileen Shot (Parmelee SDak) Linda Douville (Parmelee SDak)</p>	<p>http://www.prairieedge.com/tribe-scribe/what-indians-use-before-beads/ http://www.mnopedia.org/evolution-dakota-beadwork https://www.huffingtonpost.com/emil-her-many-horses/remembering-lakota-ways_b_2145131.html Dodie Arcoren (St. Francis, SDak.) Freda Heinert (Mission, SDak.)</p>
<p>Summative Performance Task</p>	<p>Argument</p>	<p>Students will discuss the various shapes and patterns that are used to create a Star Quilt, Cake, or Dancing Regalia. Discuss the history of the Star Quilt made by Lakota.</p>
	<p>Extension</p>	<p>Create a pattern on a grid paper that could be used for making a quilt, cake, or dancing regalia.</p>
<p>Taking Informed Action</p>	<p>Students will use knowledge from these lessons to help explain in the future, what, why, and how geometric patterns are used in the designs of Quilts, Cakes, and Dancing Regalia.</p>	