

Math in Tlingit Weaving Design Rubric

Blueprint Specifics

General	<ul style="list-style-type: none"> ❑ 1 blueprint with a traditional Tlingit weaving design ❑ 1 blueprint with an original weaving design ❑ Finished blueprint should be neatly colored in (please avoid markers) ❑ Finished blueprint should have designs clearly labeled with their names
Similarity	<ul style="list-style-type: none"> ❑ (I) Blueprint should have the scale between blueprint and the lantern clearly labeled ❑ Used a ruler to transfer blueprint onto lantern
Shapes	<ul style="list-style-type: none"> ❑ (II) Together, both blueprints need a total of 5 different labeled shapes ❑ Only 1 quadrilateral can count towards these 5 shapes
Protractor	<ul style="list-style-type: none"> ❑ (III) All angles must be measured and labeled with their degrees (note: repeated angles only need to be measured once.)
Coordinate Grids	<ul style="list-style-type: none"> ❑ Blueprints must have a clear x-axis and y-axis ❑ (IV) 5 coordinate pairs must be labeled on each blueprint
Symmetry	<ul style="list-style-type: none"> ❑ (V) Each blueprint design must have clearly labeled translational and reflectional symmetry ❑ (VI) Lines of symmetry must be clearly marked at some location in each blueprint. ❑ (VII) One blueprint design must have an example (design element) that has rotational symmetry ❑ (VIII) The blueprint design element with rotational symmetry must have the angle of rotation clearly marked on one of the elements.

Note: Use the Roman Numeral indicated above to help keep your labeling clear.

Blueprint Specifics
(8th Grade Only)

Transformations <i>(8th Grade ONLY)</i>	<ul style="list-style-type: none"> ❑ <i>(IV) One blueprint must have a rotation of a design element clearly labeled and explained (for example: 90 degree rotation counterclockwise around point Z...)</i> ❑ <i>(V) One blueprint must have a reflection of a design element clearly labeled and explained. (for example: triangle XYZ was reflected over line $x=3$, the new image triangle $X'Y'Z'$ is clearly labeled).</i> ❑ <i>(VII) One blueprint must have a translation of a design element clearly labeled and explained (for example: square ABCD was translated $\langle -3,2 \rangle$, the new coordinates of $A'B'C'D'$ are...)</i>
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Lantern Specifics

General	<ul style="list-style-type: none"> ❑ Only one of your blue print designs must be on the finished lantern. ❑ A small section is properly woven (at least 5 rows of weaving) on lantern ❑ Design is colorful and neat ❑ An attachment is included for hanging your cylinder lantern ❑ Blueprint is attached to lantern ❑ Finished project has a high quality appearance ❑ <i>(Extra Credit) Design matches where flat pattern meets to form cylinder</i>
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