



Navigating Mātauranga Māori in Mokowā (Space)

Task Description for Navigating Mātauranga Maori in geometry

Create a Maori/ Pasifika design using your your own ideas

- understanding of working in art by integrating Māori and Pacifica artwork with geometric principles. Your ability to work on “ Artistic enterprise” using traditional motifs with precise geometric forms demonstrates both cultural appreciation and design skill.
- The design should use colours that are associated with Pacifica and Maori cultures. For example, Pacifica cultures often use bright, vibrant colours, while Maori cultures often use earth tones.
- The design should use shapes that are associated with Pacifica and Maori cultures. For example, Pacifica cultures often use geometric shapes, while Maori cultures often use organic shapes.
- The design should use symbols that are associated with Pacifica and Maori cultures. For example, Pacifica cultures often use the sun, moon, and stars, while Maori cultures often use the koru, a spiral shape.

- Technical Skill:

The linework should be smooth and confident.

The shading should be evenly applied and create a sense of depth.

- Creativity:

The design should be original and not a copy of an existing design.

The design should be visually appealing and engaging.

- Use the following skills
- Translation: The distance between any two points in a figure does not change under a translation.
- Rotation: The angle between any two lines in a figure does not change under a rotation.
- Reflection: The orientation of a figure does not change under a reflection.
- Parallel lines and angle properties
(EP Task) You will be tested on EP test
- You may choose to laser cut your design

Targeted learning intentions

Mokowā | Space

Phase 4 (Year 9-10)

I Know:

- For all polygons, there is a generalisation for the sum of interior angles and the sum of exterior angles.
- Angles between parallel lines and a transversal have known relationships (corresponding, alternate, or co-interior angles). In similar shapes, corresponding angles are equal and lengths of corresponding sides are proportional.
- A point has zero dimensions, a line has one dimension, a plane is two-dimensional, and a solid is three-dimensional. In mathematics, there can be more than three dimensions.

Geometric Reasoning	You have shown some understanding of reasoning about unknown angles in situations involving parallel lines and the interior and exterior angles of polygons on <i>Artistics Enterprise</i>	You have shown an understanding of reasoning about unknown angles in situations involving parallel lines and the interior and exterior angles of polygons on <i>Artistics Enterprise</i>	You have shown a strong understanding of reasoning about unknown angles in situations involving parallel lines and the interior and exterior angles of polygons on <i>Artistics Enterprise</i>	You have shown a comprehensive understanding of reasoning about unknown angles in situations involving parallel lines and the interior and exterior angles of polygons in <i>Artistics Enterprise</i>
Transformation of shapes	You have shown some understanding of using the invariant properties to transform a set of points in the XY plane by translation, reflection about an axis, and rotation about a given point by a multiple of 90 degrees on <i>Artistics Enterprise</i>	You have shown an understanding of using the invariant properties to transform a set of points in the XY plane by translation, reflection about an axis, and rotation about a given point by a multiple of 90 degrees on <i>Artistics Enterprise</i>	You have shown a strong understanding of using the invariant properties to transform a set of points in the XY plane by translation, reflection about an axis, and rotation about a given point by a multiple of 90 degrees on <i>Artistics Enterprise</i>	You have shown a comprehensive understanding of using the invariant properties to transform a set of points in the XY plane by translation, reflection about an axis, and rotation about a given point by a multiple of 90 degrees on <i>Artistics Enterprise</i>
Overall Grade	Working TOWARDS	Working AT	Working ABOVE	Working BEYOND

