

# KŌWHAIWHAI PATTERNS

Year 8 Geometry

# KŌWHAIWHAI PATTERNS

# WHAT ARE KŌWHAIWHAI PATTERNS?

Read: <https://www.twinkl.co.nz/teaching-wiki/maori-patterns>

Summarise what they are in 2-3 sentences

# SELECTING YOUR KŌWHAIWHAI SHAPE

Browse: <https://www.twinkl.co.nz/teaching-wiki/maori-patterns>

And the options on the next slide.....

# SELECTING YOUR KŌWHAIWHAI SHAPE

koru

Aramoana



rauru

Puhoro



kape

Ngutu kākā



NAME OF YOUR CHOSEN SHAPE HERE

\*Photos of your chosen shape here\*

# NAME OF YOUR CHOSEN SHAPE HERE

Write a paragraph that includes the following information:

- a) History / origins of this shape
- b) Is it connected to a specific iwi/tribe?
- c) What does the black, white and red symbolise?
- d) What does your chosen shape symbolise/represent?
- e) If there is a certain place or object where your shape/pattern is most commonly used?

**\*\*Write paragraph on next slide\*\***

NAME OF YOUR CHOSEN SHAPE HERE

Paragraph here



# TRANSFORMATIONS

# BASIC TRANSFORMATIONS (GRAPH PAPER)

# CREATE A STENCIL

1. Draw your shape (or shapes) that make up your pattern and cut them out

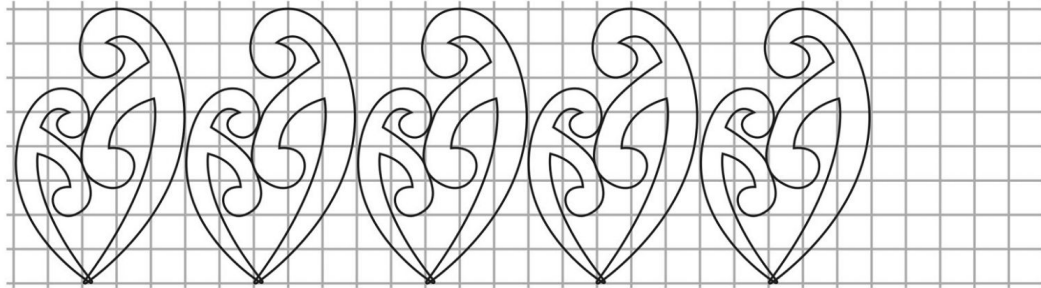
# TRANSLATION

1. Translate your shape 3 times, and draw

Example:

*Translating* - Start with your pattern and slide it along and copy it.

*Then repeat and repeat...*



# ROTATION

2. a) rotate 90 degrees and then draw your image
- b) rotate 180 degrees and then draw your image
- c) rotate 270 degrees and then draw your image

# REFLECTIONS

3. a) reflect along y-axis and then draw
- b) reflect along x- axis and then draw

# SYMMETRY

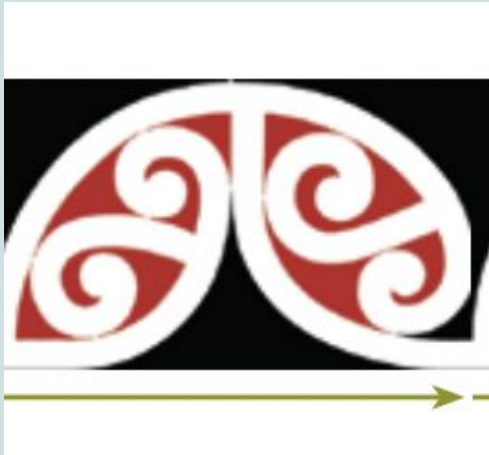
Describe the type of symmetry of your shape (line, rotational symmetry) in a sentence or two.

# CREATING YOUR PATTERN (PRINTER PAPER)

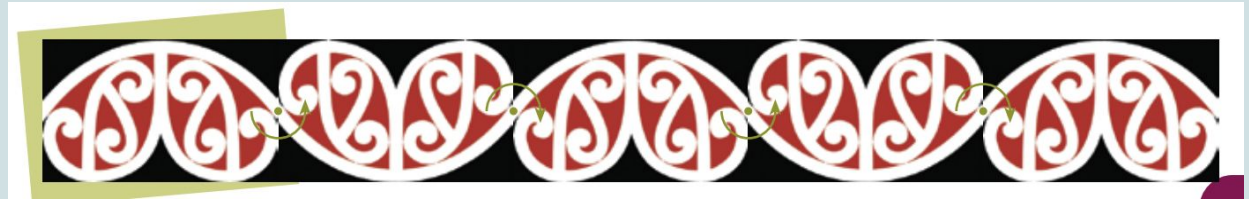


# CREATE YOUR OWN PATTERN

Now that you can see what your shape looks like after all transformations you can pick 1 or more transformations and create a repeating pattern on white paper that is also coloured in.



(example of a shape using reflections to create a pattern)



# EXPLAINING YOUR PATTERN

# READY TO SUBMIT YOUR ASSESSMENT?

- Is every slide complete?
- Have I uploaded my google slides to **Mission Heights Online** (not google class)
- Have I handed in my graph paper with basic transformations and my own created pattern on printer paper to your teacher?