

# Pacific Island Tapa Cloth Designs

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## Annotation

Narelle can identify and can describe in her own words examples of reflection and rotation. She uses this understanding to draw her designs. Her designs are not exactly correct in relation to reflections and rotations but clearly show that Narelle understands these ideas.

## Problem: Pacific Island Tapa Cloth Designs

The students have been looking at tapa cloth designs from pacific island nations. They identified that symmetry is involved in the way the designs are made, and noticed examples of reflection, rotation, translation or enlargement.

The teacher poses this problem:

*Can you make your own tapa cloth design?*

## Student response

"This is my design, I did two squares. One is mainly reflection and the other one is mainly rotation."



Teacher: Tell me about your design.

The first design is three double lines of brown circles, like lines of coconuts on the ground. I first drew one line of circles then reflecting it so the coconuts are side by side. I tried to get them the same. Then I did two more double lines the same. You can use a mirror to check the reflection. It also works if you put the mirror straight across because

Narelle: the top part is the same as the bottom part.

The second design is a frangipani flower. I drew one petal, rotated the page and drew another petal exactly the same. I did this two more times. I then put a smaller blue petal in between the bigger pink ones. You can turn the page four ways and you get the same picture.