

Student Handout (Grades 3 - 5)

Introduction:

In the book we are reading, Ojiiig's quilt is made of many shapes and patterns. The First Nations University in Saskatchewan also has a patterned floor. Today, we're going to explore these patterns and create some of our own using tangram tiles!

Part 1: Observing Patterns

- Look at Ojiiig's Quilt:



- What shapes do you see?

- What colors do you see?

- Describe the patterns you see:



- Look at the First Nations University Floor



- What shapes do you see?

- Describe the patterns you see:

- Are there similarities or differences between the quilt and the floor patterns?

- Estimate the number of tiles this pattern might require

- Using your estimate what do you think the perimeter/circumference of the shape might be?



Part 2: Creating Tessellations

- **What is a Tessellation?** Tessellations are patterns made of shapes that fit together without any gaps or overlaps.
- **Using Tangram Tiles:** Use the tangram tiles (physical or online) to create your own tessellation pattern.
 - Create a pattern that is meaningful to you and tell your classmates about it.

Part 3: Deeper Thinking

- Do you see any symmetry in the quilt, the floor, or your own design?

Are there any patterns or symbols that are important to you, your family, or your culture?

- Where else have you seen tessellations or patterns in the world?

- Look at the different triangles in all the patterns (Ojiig's quilt, the FNU floor, and your own patterns). Can you find equilateral, isosceles, scalene, and right triangles? Show them to your classmates.

