



Introduction to Measuring Length

Curriculum connections

Australian:

Year 3

- Measure, order and compare objects using familiar metric units of length, mass and capacity. (ACMMG061)
 - recognising the importance of using common units of measurement.

USA Common Core:

Grade 1

- CCSS.MATH.CONTENT.1.MD.A.2. Express the length of an object as a whole number of length units, by laying multiple copies of a shorter object (the length unit) end to end; understand that the length measurement of an object is the number of same-size length units that span it with no gaps or overlaps.

Lesson Overview

Students explore the concept of standard units of measurement by solving a simple perimeter problem.

Lesson Objectives

1. Distribute worksheet to the students (as a Shape Lab background).
2. Present the problem:
 - Farmer Brown needs a fence around his paddock. To make sure he buys the right amount of materials to build the fence, he needs to measure the perimeter (revise perimeter definition if necessary).
3. Instruct students to draw a small square (hand-drawn - not from the shape tray) and use it to measure the perimeter of the “paddock” on the worksheet, writing down their answers using the mark-up tool.
 - They can do this by laying multiple copies of the shorter object end to end and counting the total number used around the perimeter.
 - Ask students for some of their answers.

- When they are different, ask the class which figure Farmer Brown should use to build his fence.
 - Is there a way everyone might be able to get the same answer for the perimeter of the paddock?
 - Introduce the concept of the standard measurement.
4. Ask the students to measure the perimeter again using the square from the Shape Tray as the length unit.
- Determine, as a class, the final number of units of fencing needed to make the fence.

Resources

- iPad with Shape Lap installed (enough for half the class)
- Farmer Brown paddock worksheet.

Extension

- Ask the students what they notice about the opposite sides of the paddock and use this as an opportunity to talk about how opposite sides of a rectangle are congruent.
- You can also use this information to determine the formula for the perimeter of a rectangle, making calculation easier.