MINISTRY OF EDUCATION, YOUTH & INFORMATION
Every Child Can Learn, Every Child Must Learn

MATH COUNTS

Subject: Mathematics	**Grade**: Four (4)	**Strand**: Number	**Duration:** 60 Minutes
Topic: Perimeter	**Focus Question**: What is the difference between length and area and how are they measured?		
Standard:	Use the correct units, tools and attributes to estimate, compare and carry out the processes of measurement to given degree of accuracy.		
Benchmarks:	Estimate and measure distance and area using standard metric units.		
Materials:	Strips of paper, Thumb tacks/paper clips, Ruler		

Specific Objectives

- *By the end of the lesson, students will be able to:*
  - find the perimeter of a polygon.

Prior Learning:

- *Students should already:*
  - be able to use ruler to measure length;
  - be familiar with the basic concept of perimeter and the units of length.

Content Summary

- Perimeter is the measurement of the entire length of the edge, boundary or rim of a regular or irregular figure.

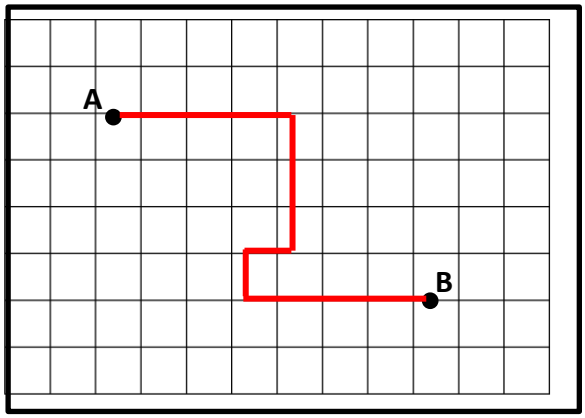
Engage

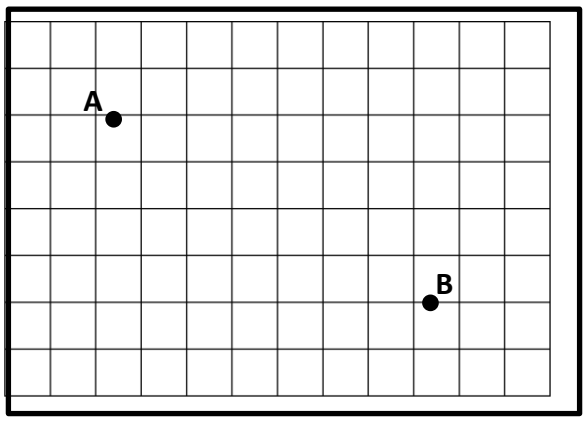
Show students the grid with the path connecting A and B. draw their attention to the following:

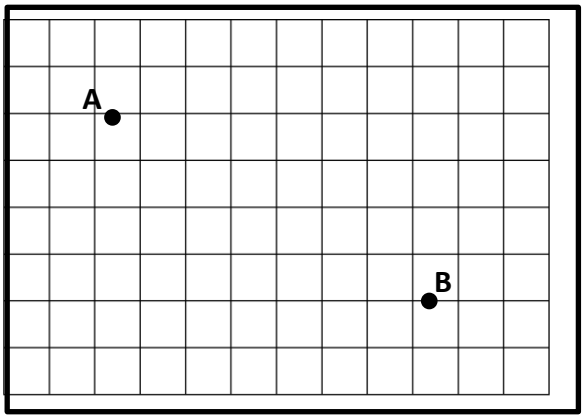
- The squares on this grid have sides with length of 1 m.
- The distance from A to B (shown by the red line) is 13 m long.
- Paths can run horizontally or vertically.

Give students blank grid (see below) and allow them to find a path from A to B that is

- 15 m long
- 18 m long

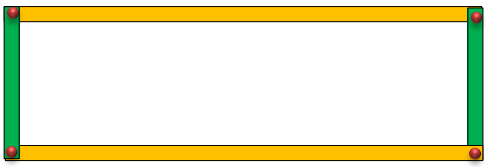






Explore

- Place students in groups of 4. Give each group 4 paper clips or thumb tacks as well as two pairs of strips of paper made with cartridge paper, strawboard or cardboard.
- Tell each group to use the strips of paper and the thumb tacks or paper clips to make a rec tangle as shown below:



- Instruct students to measure and write down the length of each side of the rectangle created in their group.
- Have each group remove one thumb tack/paper clip from the rectangle to create a continuous strip with the pieces of cardboard/cartridge paper (shown below).

- Discuss with students what is represented by the straight line that they now have. Tell students to determine the total length of the strip (either by measuring or by computing).
- Have students then re-form their rectangles and state their perimeter.

Explain

- Discuss with students how they were able to determine the perimeter of the various rectangles. Draw some of these rectangles on the board and discuss their perimeters.

Extension

- Give each group a different number of pieces of paper (from 5 to 9 pieces). Have each group form a polygon using the pieces of paper that they receive and determine its perimeter.

Evaluation

Students' Evaluation

- *Give* students 5 strips of paper of lengths 10 cm 15 cm 18 cm 20 cm 25 cm.
- *Ask students to*
  - Make a polygon with a perimeter of 50 cm
  - Make a quadrilateral with a perimeter of 78 cm
  - Make a polygon with 3 sides and the largest perimeter possible.

Teacher Evaluation

What percentage of students able to:	**0% - 50%**	**51% - 80%**	**81% - 100%**
Find the perimeter of a polygon			
Create polygon with a given perimeter			

Comments:

Areas of strengths

Areas of weaknesses

Actions to be taken