1. We will understand the difference between units: length and area. An area is a measure of the space inside a shape. We use square units to measure area. The area of a square is calculated by multiplying the length of one side by itself. For example, a square that is 5 units long has an area of 25 square units.

2. We will use multiplication to solve problems and find the area by counting squares.

3. The perimeter is the distance around a figure. The perimeter of a square is calculated by multiplying the length of one side by 4. For example, a square that is 3 units long has a perimeter of 12 units.

4. We will use a grid to help find the area and perimeter. Each square in the grid represents 1 square unit. We can count the number of squares inside a shape to find its area and the number of squares along the border to find its perimeter.

5. We will use a formula to find the area of rectangles and squares: Area = length \times width.
**Ccssm Domain: Measurement and Data**

**Grade 3**

**Unit Goals:**
- Understand concepts of area measurement
- Measure area by counting unit squares
- Use area models to represent additive property of area

**Key Concepts**
- Area measurement of a plane figure
- Difference between area and perimeter
- Using unit squares
- Applying concepts to real world problems

**Algorithms/Diagrams**

Area = length x width

<table>
<thead>
<tr>
<th>Units</th>
<th>Conversion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customary</td>
<td>Metric</td>
</tr>
<tr>
<td>inches (in)</td>
<td>millimeters (mm)</td>
</tr>
<tr>
<td>feet (ft)</td>
<td>centimeters (cm)</td>
</tr>
<tr>
<td>yards (yd)</td>
<td>meters (m)</td>
</tr>
<tr>
<td>miles (mi)</td>
<td>kilometers (km)</td>
</tr>
</tbody>
</table>

**Connections (Real World Applications)**

Finding area or perimeter of a piece of art, a peel’s yard, a room for carpet

**Tools to measure length**
- Ruler
- Meter or yard stick
- yardstick

**Language Functions/Structures**

The perimeter is ___ because ___.
The area is ___ because ___.
The difference between perimeter and area is ___.
The area is ___ square units.
I solved the problem by ___.

**Vocabulary**

- length
- width
- area
- perimeter
- square units
- length vs. length (units)
- difference
- raw
- sides
- rectangle
- square
- millimeter
- centimeter
- meter
- kilometer
- metric
- inches
- feet
- yards
- miles

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Focus and Motivation Ideas

Exploration:
- Find distance around (perimeter) a shape using string and and a ruler or tiles.
- Find the area of the same shape using inch tiles (clay would be a great way to show concept of area and "filling in").

Chant: Area, perimeter here, there.

www.brainpop.com What is area? → easy and hard quiz
- Centimeters, meters, kilometers
- Inches and feet

Explorations Lesson 3.6 EDM
- Constructing Rectangles with Given Perimeters
- Comparing Pattern Block sizes by Tiling Equal Areas