Grade: 3 Subject: Mathematics	Unit 8: Area and Perimeter
Big Idea/Rationale	• Students will find perimeters and area of figures drawn on dot array, determine when a real-world problem involves perimeter or area, and develop algebraic formulas for perimeters and area of rectangles and squares.
Enduring Understanding (Mastery Objective)	Students will understand that: • The distance around a figure is its perimeter. • Shapes can be made with a given perimeter. • The amount of space inside a shape is its area, and area can be found using square units. • The formula for perimeter is (2 x length) + (2 x width) • The formula for area is (length x width)
Essential Questions (Instructional Objective)	• How do you find the perimeter of a shape? • What shapes can you make when you know the perimeter? • How do you find the area of a shape? • What is the formula for finding perimeter? • What is the formula for finding area?
Content (Subject Matter)	• Recognize the difference between a centimeter and a square centimeter. • Find perimeter and area by counting linear units (perimeter) or square unit (area). • Determine whether a real-world situation involves finding area or perimeter. • Discover that rectangles with the same perimeter can have different areas. • Discover that rectangles with the same area can have different perimeters. • Develop methods for finding the area and perimeter of a rectangle without counting individual squares or unit lengths. • Use symbols to write rules (formulas) for finding the area and perimeter of a rectangle.
Skills/ Benchmarks (CCSS Standards)	• **3.MD.C.5.A:.** A square with side length 1 unit, called "a unit square," is said to have "one square unit" of area, and can be used to measure area. • **3.MD.C.5.B:** A plane figure which can be covered without gaps or overlaps by n unit squares is said to have an area of n square units. • **3.MD.C.6:** Measure areas by counting unit square (square cm, square m, square in, square ft, and improvised units). • **3.MD.C.7.A:** Find the area of a rectangle with whole-number side lengths by tiling it, and show that the area is the same as would be found by multiplying the side lengths.

	- **3.MD.C.7.B:** Multiply side lengths to find areas of rectangles with whole number side lengths in the context of solving real world and mathematical problems, and represent whole-number products as rectangular areas in mathematical reasoning. - **3.MD.C.7.C:** Use tiling to show in a concrete case that the area of a rectangle with whole-numbers side lengths a and b + c is the sum of a°-b and a°-c. Use area models to represent the distributive property in mathematical reasoning. - **3.MD.C.7.D:** Recognize area as additive. Find areas of rectilinear figures by decomposing them into non-overlapping parts, applying this technique to solve real world problems. - **3.MD.D.8:** solve real world and mathematical problems involving perimeters of polygons, including finding the perimeter given the side lengths, finding an unknown side length, and exhibiting rectangles with the same perimeter and different areas or with the same area and different perimeters. - **Mathematical Practices**
Materials and Resources	- Math Expressions, Student Journals, Manipulatives, Math themed literature, BrainPop, IXL Mathematics