**Strands of MPIs** **developed by ACS MVES 4th grade teachers
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**GRADE 4**

**ELD STANDARD: The Language of Mathematics EXAMPLE TOPIC: Area and perimeter**

**CONNECTION: *Common Core Standards for Mathematics Standard 4.MD.3:*** Apply the area and perimeter formulas for rectangles in real world and mathematical problems.

**EXAMPLE CONTEXT FOR LANGUAGE USE:** Each student will design a fenced-in area given an amount of fencing and explain which dimensions would provide the best conditions for a pet.

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| **COGNITIVE FUNCTION:** Students at all levels of English language proficiency **APPLY** their understanding of area and perimeter to real-life situations. |
| **DOMAIN: Writing** | **Level 1****Entering** | **Level 2****Emerging** | **Level 3****Developing** | **Level 4****Expanding** | **Level 5****Bridging** | **Level 6 - Reaching**  |
| On grid paper, draw and label two fenced-in areas with different dimensions given a designated amount of fencing using manipulatives (e.g., Geoboards, string, rulers, unifix cubes, etc.) and visuals.  | On grid paper, draw and label two fenced-in areas with different dimensions given a designated amount of fencing and write a simple, two to three-sentence explanation of which fenced-in area is better for a pet. | On grid paper, draw and label two fenced-in areas with different dimensions given a designated amount of fencing and write an explanation describing which fenced-in area is better for a pet. | Draw and label multiple fenced- in areas with different dimensions given a designated amount of fencing and write a detailed explanation of which fenced-in area is better for a pet by comparing and contrasting. | Draw and label all possible fenced-in areas with different dimensions given a designated amount of fencing and write a detailed, persuasive explanation of which fenced-in area is better for a pet by comparing, contrasting, and giving a rationale. |
| **TOPIC-RELATED LANGUAGE:** Students at all levels of English language proficiency interact with grade-level words and expressions, such as: **area, perimeter, dimensions, length, width, feet, square feet, sides, square, rectangle, fence, pen, pet, compare, contrast, rationale** |