**Strands of MPIs** **developed by ACS MVES 5th grade teachers
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**GRADE 5**

**ELD STANDARD: The Language of Mathematics EXAMPLE TOPIC: Volume**

**CONNECTION: *Common Core Standards for Mathematics Standard 5.MD.3-5:*** Understand concepts of volume and relate volume to multiplication and addition.

**EXAMPLE CONTEXT FOR LANGUAGE USE:** Students will determine how many cubes it takes to fill their box and the formula for volume.

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| **COGNITIVE FUNCTION:** Students at all levels of English language proficiency **CONNECT** volume to its mathematical formula. |
| **DOMAIN: Writing** | **Level 1****Entering** | **Level 2****Emerging** | **Level 3****Developing** | **Level 4****Expanding** | **Level 5****Bridging** | **Level 6 - Reaching**  |
| Build a 3-dimensional shape, fill with unifix cubes, count the number of cubes, draw the shape, label the length, width, and height, write the formula and solve for volume with a partner in L1 or L2 using nets, manipulatives, and teacher modeling.  | Build 2 3-dimensional shapes, fill with unifix cubes, count the number of cubes, draw the shapes, label the length, width, and height, write the formula and solve for volume with a partner using nets, manipulatives, and teacher modeling. | Build 3 3-dimensional shapes, fill just one shape with unifix cubes, count the number of cubes, draw all three shapes, label the length, width, and height for all three, write the formula and solve for volume with a partner using nets, manipulatives, and teacher modeling. | Build three 3-dimensional shapes, draw the shape, label the length, width, and height, write the formula and solve for volume with a partner using nets and teacher modeling. | Build three 3-dimensional shapes, draw the shapes, label the length, width, and height, write the formula, solve for volume, and determine the connection between volume and area with a partner using nets and teacher modeling. |
| **TOPIC-RELATED LANGUAGE:** Students at all levels of English language proficiency interact with grade-level words and expressions, such as: **volume, dimensions, length, width, height, inches, cubic inches, multiply, formula, area, rectangle, unifix cubes, nets** |