**MATH MPIs**

**GRADE: 7th**

**ELD STANDARD: The language of Mathematics TOPIC: Geometry**

**CONNECTION: MA Curriculum Frameworks (7.G3) Common Core Standard 7.G.A.3: Describe the two-dimensional figures that result from slicing three-dimensional figures, as in plane sections of the right rectangular prisms and right rectangular prisms.**

**CONTEXT FOR LANGUAGE USE:** Students describe the two dimensional figures that make up a three-dimensional object.

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| **COGNITIVE FUNCTION: Students at all levels of English Proficiency IDENTIFY the two-dimensional figures that composed a three- dimensional figure in plane sections.** | | | | | | |
| **DOMAIN: Speaking** | **Level 1**  **Entering** | **Level 2**  **Emerging** | **Level 3**  **Developing** | **Level 4**  **Expanding** | **Level 5**  **Bridging** | **Level 6 - Reaching** |
| Answer yes or no questions using a model of a three-dimensional figure to identify the two- dimensional figures with a partner.  *Ex: Is this a square?*  *Yes or no* | Answer simple WH questions related to the two-dimensional figures that make up the three- dimensional figure using the model with a partner.  *Ex: Which figure is this?*  *It is a square.* | Identify one two- dimensional figures that makes up the three-dimensional figure using the model.  *Ex: This figure has a side that is a square.* | Describe all the two-dimensional figures that make up the three-dimensional figure using the model.  *Ex: A triangular prism is made of triangles and rectangles.* | Describe all the two-dimensional figures that make up the three-dimensional figure.  *Ex: A triangular prism is made of triangles in the bases and rectangles on the faces.* |
| **TOPIC-RELATED LANGUAGE:**  Students at all levels of English proficiency are exposed to grade level terms such as: two-dimensional, three-dimensional, square, triangle, rectangle, circle, faces, bases. | | | | | | |

**CONNECTION: MA Curriculum Frameworks (7.G3) Common Core Standard 7.G.A.3: Describe the two-dimensional figures that result from slicing three-dimensional figures, as in plane sections of the right rectangular prisms and right rectangular prisms.**

**CONTEXT FOR LANGUAGE USE:** Students participate in a teacher guided explanation of how two-dimensional figures make up the faces of a three-dimensional object.

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| **COGNITIVE FUNCTION: Students at all levels of English Proficiency UNDERSTAND that a three-dimensional figure is composed of two-dimensional figures in plane sections.** | | | | | | |
| **DOMAIN: Listening** | **Level 1**  **Entering** | **Level 2**  **Emerging** | **Level 3**  **Developing** | **Level 4**  **Expanding** | **Level 5**  **Bridging** | **Level 6 - Reaching** |
| Identify the two-dimensional figures that make up a three-dimensional figure using visual representations with a partner using one word answers.  *Ex: Which figure is this?*  *Square* | Identify the two-dimensional figures that make up a three-dimensional figure using visual representations with a partner using simple sentences  *Ex: Which figure is this?*  *It is a square.* | Using visual representations, identify one two- dimensional figure that make up the three-dimensional figure.  *Ex: This figure has a side that is a square.* | Using visual representations identify all two- dimensional figures that make up the three-dimensional figure.  *Ex: A pyramid has a square and triangles.* | Describe the two-dimensional figures that make up the three-dimensional figure.  *Ex: The base on the pyramid is a square and the faces are triangles.* |
| **TOPIC-RELATED LANGUAGE:** Students at all levels of English proficiency are exposed to grade level terms such as: two-dimensional, three-dimensional, square, triangle, rectangle, circle, faces, bases. | | | | | | |

**CONNECTION: MA Curriculum Frameworks (7.G5) Common Core Standard 7.G.A.5: Use facts about supplementary, complementary, vertical, and adjacent angles in a multi-step problem to write and use them to solve simple equations for an unknown angle of the figure.**

**CONTEXT FOR LANGUAGE USE:** Students classify the angles in supplementary, complementary, adjacent and vertical.

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| **COGNITIVE FUNCTION: Students at all levels of English Proficiency APPLY the knowledge about the types of angles to find the measure of the missing angle.** | | | | | | |
| **DOMAIN: WRITING** | **Level 1**  **Entering** | **Level 2**  **Emerging** | **Level 3**  **Developing** | **Level 4**  **Expanding** | **Level 5**  **Bridging** | **Level 6 - Reaching** |
| Explain how they found the measure of the missing angle using filling the blank sentences. | Explain how they found the measure of the missing angle using beginning sentence stems. | Explain in 2 or 3 sentences how they found the measure of the missing angle using a graphic organizer. | Explain in 3 or 4 sentences how they found the measure of the missing angle using a graphic organizer. | Explain in a paragraph how they found the measure of the missing angle using grade level terms. |
| **TOPIC-RELATED LANGUAGE:**  Students at all levels of English proficiency interact with grade level words and expressions such as: angles, supplementary angles, complimentary angles, vertical angles, adjacent angles | | | | | | |