**Mathology Grade 2 Correlation – Alberta**

**Master 14a**

**Geometry Cluster 3: Geometric Relationships**

**Organizing Idea:**

Geometry: Shapes are defined and related by geometric attributes.

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| **Guiding Question:** How can shape influence perception of space?  **Learning Outcome:** Students analyze and explain geometric attributes of shape. | | | | |
| **Knowledge** | **Understanding** | **Skills & Procedures** | **Grade 2 Mathology** | **Mathology Little Books** |
| Common geometric attributes include   * sides * vertices * faces or surfaces   Two-dimensional shapes may have sides that are line segments.  Three-dimensional shapes may have faces that are two-dimensional shapes. | Shapes are defined according to geometric attributes.  A shape can be visualized as a composition of other shapes. | Relate the faces of three-dimensional shapes to two-dimensional shapes. | **Geometry Cluster 3: Geometric Relationships**  8: Describing Solids  **Geometry Math Every Day**  3B: Name the Solid | I Spy Awesome Buildings  Sharing Our Stories |
| Create a picture or design with shapes from verbal instructions, visualization, or memory. | **Geometry Cluster 3: Geometric Relationships**  7: Making Shapes  8: Describing Solids  9: Visualizing Shapes and Solids  10: Creating Pictures and Designs  11: Covering Outlines  12: Creating Symmetrical Designs  15. Consolidation  **Geometry Math Every Day**  3A: Fill Me In!  3A: Make me a Picture  3B: Draw the Shape  **Geometry Intervention**  5: Covering Outlines  6: Describing Solids | I Spy Awesome Buildings  Sharing Our Stories |

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| A shape can change orientation or position through slides (translations), turns (rotations), or flips (reflections).  Shapes can be turned or flipped in the creation of art. | Geometric attributes do not change when a shape is translated, rotated, or reflected. | Investigate translation, rotation, and reflection of two- and three-dimensional shapes. | **Geometry Cluster 3: Geometric Relationships**  12: Creating Symmetric Designs  13: Exploring Transformations  14: Slides, Flips, and Turns in Artwork |  |
| Recognize the translation, rotation, or reflection of shapes represented in artwork. | **Geometry Cluster 3: Geometric Relationships**  14: Slides, Flips, and Turns in Artwork | Sharing Our Stories |

**Master 14b**

**Organizing Idea:**

Patterns: Awareness of patterns supports problem solving in various situations.

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| **Guiding Question:** How can patterns characterize change?  **Learning Outcome:** Students explain and analyze patterns in a variety of contexts. | | | | |
| **Knowledge** | **Understanding** | **Skills & Procedures** | **Grade 2 Mathology** | **Mathology Little Books** |
| Change can be an increase or a decrease in the number and size of elements.  A hundreds chart is an arrangement of natural numbers that illustrates multiple patterns.  Patterns can be found and created in cultural designs. | A pattern can show increasing or decreasing change.  A pattern is more evident when the elements are represented, organized, aligned, or oriented in familiar ways. | Describe non-repeating patterns encountered in surroundings, including in art, architecture, cultural designs, and nature. | *Link to other strands:*  ***Geometry Cluster 3: Geometric Relationships***  *14: Slides, Flips, and Turns in Artwork* |  |