**Geometry**

**Unit:**  Geometry

**Measurement Topic:** Area, Surface Area, Volume & Coordinate System

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**Ohio’s Learning Standards:**

**6.G** Solve real-world and mathematical problems involving area, surface area, and volume.

**6.G.1** Through composition into rectangles or decomposition into triangles, find the area of right triangles, other triangles, special quadrilaterals, and polygons; apply these techniques in the context of solving real-world and mathematical problems.

**6.G.2** Find the volume of a right rectangular prism with fractional edge lengths by packing it with unit cubes of the appropriate unit fraction

edge lengths, and show that the volume is the same as would be found by multiplying the edge lengths of the prism. Apply the formulas V=ℓ⋅w⋅h

and V=B⋅h to find volumes of right rectangular prisms with fractional edge lengths in the context of solving real-world and mathematical problems.

**6.G.3** Draw polygons in the coordinate plane given coordinates for the vertices; use coordinates to find the length of a side joining points with the same first coordinate or the same second coordinate. Apply these techniques in the context of solving real-world and mathematical problems.

**6.G.4** Represent three-dimensional figures using nets made up of rectangles and triangles, and use the nets to find the surface area of these figures. Apply these techniques in the context of solving real-world and mathematical problems.

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| **Unit Vocabulary**  area base edge equilateral triangle face formula height isosceles triangle length net parallelogram perimeter perpendicular lines polygon prism pyramid rectangular prism regular polygon right angle right prism scalene triangle surface area unit cube vertex volume width |

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| **MATH ON CALL** | **Geometry** |
| Section | Topic |
| 346  347  354  356  365, 366  367  370  395  401  396, 401  407  402 | Perimeter  Area  Perimeter of triangles  Area of triangles  Perimeter of quadrilaterals  Area of rectangles  Area of parallelograms  Nets of prisms  Surface area of cubes  Surface area of prisms  Surface area of pyramids  Volume of cubes |

**Geometry**

* I can find the perimeter and area of triangles and rectangles.
* I can find the perimeter and area of polygons by composing or decomposing into triangles and other shapes.
* I can solve real-world problems involving perimeter and area of triangles, quadrilaterals, and polygons.
* I can draw a polygon in the coordinate plane given coordinates for the vertices of the figure.
* I can use coordinates to find the side lengths of polygons with the same first or second coordinates.
* I can use nets to find the surface area of prisms and pyramids.
* I can solve real-world problems involving the surface area of prisms.
* I can find the volume of rectangular prisms with fractional side lengths.
* I can solve real-world problems involving the volume of right rectangular prisms.