



### 6<sup>th</sup> Grade Unit 6: Exploring Area & Volume



#### Overview:

In this sixth unit of sixth-grade math, students will expand their experiences and understandings of the world around them by developing their knowledge of geometric principles, specifically finding the area of irregular polygons, the surface area of three-dimensional figures, and the volume of right rectangular prisms. From these experiences, students will then develop formulas for area, surface area, and volume.

#### Learning Targets:

In Unit 6, students will:

- Explore area as a measurable attribute of triangles, quadrilaterals, and other polygons.
- Conceptually compose or decompose triangles, quadrilaterals, and other polygons into other shapes.
- Find the area of geometric figures to solve problems.
- Determine the surface area of rectangular and triangular figures when given the three-dimensional net.
- Calculate the volume of right rectangular prisms with formula,  $V = (area\ of\ base) \times (height)$

**Key Vocabulary:** (linked to GA DOE Interactive Glossary)

2-Dimensional	3-Dimensional	Area	Bases of a Prism
Composing	Cubic Units	Decomposing	Edge
Equilateral Triangle	Face	Fractional Edge Length	Isosceles Triangle
Kite	Net	Parallelogram	Polygon
Polyhedron	Prism	Quadrilaterals	Rectangular Prism
Rhombus	Right Triangle	Right rectangular prism	Scalene Triangle
Square	Trapezoid	Triangles	Triangular prism
Vertices	Volume	Volume of a Prism	

#### Supporting Resources:

<http://ctlslearn.cobbk12.org/>

<https://gavirtual.instructure.com/courses/34329>

[Edges, Faces, & Vertices](#)

[Area of Irregular Figures](#)

[Surface Area](#)

[Area of a Parallelogram](#)

[Area of a Triangle](#)

[Volume](#)