

Basic Geometry		Scope and Sequence
Unit	Lesson	Objectives
Introduction to Area and Perimeter		
	Perimeter, Area, and Volume: Concepts and Units	Express perimeter, area, and volume using measurements such as units, square units, and cubic units.
		Measure length, perimeter, area, and volume using visual models of rectangles and rectangular solids by counting units.
		Real-World Application: Determine which kind of measurement is appropriate for a given real-world situation.
	Perimeter, Area, and Volume: Calculations	Calculate perimeter, area, and volume of rectangles and rectangular solids using formulas.
		Determine the perimeter, area, or missing dimension of an irregular figure.
		Real-World Application: Determine the perimeter, area, and volume of real-world objects, including combining the perimeters and areas of objects comprised of multiple rectangles.
	Area of Special Quadrilaterals	
		Find the area of special quadrilaterals.
		Solve real-world problems involving the area of special quadrilaterals.
	Area of Irregular Figures	
		Calculate the area of irregular figures.
		Solve real-world problems involving the area of irregular figures.
	Shapes with Fractional Side Lengths	
		Find the area of triangles and rectangles that have fractional or decimal side lengths.
		Find the area of irregular figures that have fractional or decimal side lengths.
	Unit Test	

Unit Lesson

Objectives

Area and Perimeter on the Coordinate PlanePlotting Points in the Four
Quadrants

Graph and name points in all four quadrants.

Identify the quadrant in which a point lies.

Describe the relationship between ordered pairs that differ only in sign.

Finding Area on a Coordinate Plane

Find lengths of sides for rectangles drawn in the coordinate plane.

Calculate the area of a rectangle drawn in the coordinate plane.

Area of Parallelograms

Use the formula $A = bh$ to find the area of a parallelogram.

Solve real-world problems involving the area of parallelograms.

Perimeter and Area of Irregular
Figures

Use a grid to estimate the perimeter and area of irregular figures without decomposing them.

Area of Triangles

Calculate the area of triangles using the formula $A = \frac{1}{2}bh$.

Solve real-world problems involving the area of triangles.

Unit Test

VolumeExploring Volume of a Rectangular
Prism

Calculate the volume of a right rectangular prism with whole number edge lengths.

Calculate the volume of a right rectangular prism with fractional edge lengths.

Basic Geometry**Scope and Sequence****Unit Lesson****Objectives**

Finding a Formula for the Volume of a Rectangular Prism

Use the formulas $V = lwh$ and $V = Bh$ to find the volumes of right rectangular prisms.

Solving Volume Problems with Formulas

Calculate the volume of a rectangular prism with one or more fraction or decimal side lengths using a formula.

Find the value of an unknown dimension of a rectangular prism, given the remaining dimensions and the volume.

Volume of Prisms

Calculate volumes of rectangular and triangular prisms.

Volume of Pyramids

Calculate volumes of rectangular and square pyramids.

Unit Test

Surface Area

Surface Area of Prisms

Represent rectangular and triangular prisms using nets.

Use nets of rectangular and triangular prisms to find surface area.

Surface Area of Rectangular Pyramids

Represent square and rectangular pyramids using nets.

Calculate the surface area of square and rectangular pyramids using nets.

Surface Area of Pyramids

Calculate surface area of rectangular and square pyramids.

Surface Area of Composite Figures

Calculate surface areas of composite figures.

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Surface Area of Spheres

Solve problems involving surface area of spheres.

Unit Test

Application of Volume and Surface Area

Application of Surface Area in Context

Solve real-world surface area problems using nets.

Solving Surface Area and Volume Problems

Identify whether a problem requires the calculation of surface area or volume.

Solve real-world problems about surface area and volume.

Applications of Volume and Surface Area

Solve real-world problems by determining if they require finding surface area or volume.

Surface Area and Volume of Cylinders

Solve mathematical and real-world problems involving the volume and surface area of cylinders.

Surface Area and Volume of Triangular Pyramids

Solve problems involving the volume of triangular pyramids.

Use a net to calculate the lateral and total surface area of a triangular pyramid.

Unit Test

Cumulative Exam

Cumulative Exam Review

Cumulative Exam