GRADE 6 — Geometry

Student Learning Objective: Students solve real-world and mathematical problems involving area, surface area, and volume.

ABOVE STANDARD

Students are working to solidify the following skills:	*Educator-recommended next steps and Digital Library resources*
• Calculate area of rectangles on a coordinate plane. • Calculate area of polygons with fractional dimensions. • Calculate volume of rectangular prisms with three fractional dimensions. • Calculate volume of figures composed of two rectangular prisms in multi-step word problems in a real world context. • Calculate the distance between multiple points on a coordinate plane in multi-step word problems. • Calculate surface area of shapes composed of triangles and rectangles using a net. • Solve multi-step real world word problems involving surface area.	Instructional next-steps include, helping students to: • Model a real-life problem using multiplication and division of fractions, decimals and whole number. Digital Library Example: The Doghouse Performance Task • Find the area of polygons by decomposing them into rectangles and triangles. Digital Library Example: Finding the Areas of Polygons by Decomposing and Composing • Multiply mixed numbers. Digital Library Example: Designing an Algorithm/Flow Chart for Multiplying Fractions • Use nets to calculate surface area. Digital Library Example: Knowing Nets

AT/NEAR STANDARD

Students are working to solidify the following skills:	*Educator-recommended next steps and Digital Library resources*
• Calculate the area of right triangles. • Calculate area of polygons using single-digit whole numbers. • Calculate volume of rectangular prisms with whole numbers and fractional parts. • Draw parallelograms in the four quadrants of a coordinate plane given ordered pairs. • Calculate distance between two points on a coordinate plane. • Calculate surface area of a rectangular prism from a net.	Instructional next-steps include, helping students to: • Determine the area of a right triangle by using half of the area of a rectangle. Digital Library Example: Area of Right Triangles • Recognize volume as 3-dimensional and different from area. Digital Library Example: Designing Candy Cartons: Capacity and Surface Area Problem Solving • Apply concepts of area on the coordinate plane. Digital Library Example: CCSS 6th Grade Explanations and Examples Flipbook • Investigate surface area of a triangular prism by analyzing its 3-dimensionsal attributes. Digital Library Example: Knowing Nets

BELOW STANDARD

Students are working to solidify the following skills:	*Educator-recommended next steps and Digital Library resources*
• Calculate area of parallelograms. • Calculate volume of a rectangular prism. • Draw rectangles on the coordinate plane using ordered pairs. • Use four quadrants of coordinate plane.	Instructional next-steps include, helping students to: • Use the formula for the volume of a rectangular prism. Digital Library Example: Introducing Volume as a Formula • Identify and graph points on a coordinate grid. Digital Library Example: BattleGraph: Using "Battleship" to Graph Points in the Coordinate Plane

Digital Library resources are meant to be used in conjunction with an educator's curriculum, and to serve as a jumping-off point for instruction. Educators are encouraged to consider their particular classroom context and culture when selecting resources, and to adapt the resources to best fit their students' needs.