# Smarter Balanced Assessment Consortium GRADE 6 Geometry

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

| **ABOVE STANDARD** | |
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| *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](https://www.smarterbalancedlibrary.org/content/doghouse-performance-task-multiplying-and-dividing-rational-numbers) * Find the area of polygons by decomposing them into rectangles and triangles. Digital Library Example: [Finding the Areas of Polygons by Decomposing and Composing](https://www.smarterbalancedlibrary.org/content/finding-areas-polygons-decomposing-and-composing) * Multiply mixed numbers. Digital Library Example: [Designing an Algorithm/Flow Chart for Multiplying Fractions](https://www.smarterbalancedlibrary.org/content/designing-algorithmflow-chart-multiplying-fractions) * Use nets to calculate surface area. Digital Library Example: [Knowing Nets](https://www.smarterbalancedlibrary.org/content/knowing-nets) |

| **AT/NEAR STANDARD** | |
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| *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](https://www.smarterbalancedlibrary.org/content/area-right-triangles) * Recognize volume as 3-dimensional and different from area. Digital Library Example: [Designing Candy Cartons: Capacity and Surface Area Problem Solving](https://www.smarterbalancedlibrary.org/content/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](https://www.smarterbalancedlibrary.org/content/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](https://www.smarterbalancedlibrary.org/content/knowing-nets) |

| **BELOW STANDARD** | |
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| *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](https://www.smarterbalancedlibrary.org/content/introducing-volume-formula) * Identify and graph points on a coordinate grid. Digital Library Example: [BattleGraph: Using “Battleship” to Graph Points in the Coordinate Plane](https://www.smarterbalancedlibrary.org/content/battlegraph-using-battleship-graph-points-coordinate-plane) |