# 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)
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| **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)
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| **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)
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