

Chapter 11 Planning Chart: Surface Area and Volume

Cross-Curricular Competency: Adopts effective work methods. Lesson 1, the Mental Math feature, and the Chapter Task all present students with ways to learn and demonstrate effective work methods. Recognizing that numbers that are easy to multiply, rather than simply multiplying in the order shown, is just one example.

Broad Area of Learning: Consumer Rights and Responsibilities. Lesson 1 and the Chapter Task provide the starting point for a discussion on packaging of consumer products. To be good consumers, students will need to learn not to be misled by the shape or size of the packaging for a product, but to consider the mass of the contents to make comparisons between products and then make decisions about purchases.

Content	QEP Concepts	QEP Processes	Addressing Concepts and Processes
Getting Started: Filling Space, pp. 382–383			Assessment Opportunity Volume is beyond Cycle One. Exclude portions that deal with the topic of volume and select from Questions 1–3.
Lesson 1: Surface Area of a Rectangular Prism, pp. 384–387	<i>Geometry: Geometric Figures and Spatial Sense</i> <ul style="list-style-type: none"> Plane figures <ul style="list-style-type: none"> Measurement <ul style="list-style-type: none"> Area, lateral area, total area Solids <ul style="list-style-type: none"> Right prisms, right pyramids and right cylinders Possible nets of a solid 	<i>Geometry</i> <ul style="list-style-type: none"> Finding unknown measurements <ul style="list-style-type: none"> Areas <ul style="list-style-type: none"> Lateral or total area of right prisms, right cylinders, and right pyramids 	
Lesson 2: Volume of a Rectangular Prism, pp. 388–391			Beyond Cycle One. Do not assess.
Mid-Chapter Review: pp. 392–393			Assessment Opportunity Exclude the second of the Frequently Asked Questions. Select from Questions 1–5, 10b).
Lesson 3: Solve Problems by Guessing and Testing, pp. 394–397			Beyond Cycle One. Do not assess.
Lesson 4: Relating the Dimensions of a Rectangular Prism and Its Volume, pp. 398–400			Beyond Cycle One. Do not assess.
Math Game: Turn Up the Volume!, p. 401			Beyond Cycle One. Do not assess.
Lesson 5: Exploring the Surface Area and Volume of Prisms, pp. 402–403			Beyond Cycle One. Do not assess.
Mental Math: Choosing Easily Multiplied Pairs, p. 403	<i>Arithmetic: Number Sense With Regard to Decimal and Fractional Notation and Operation Sense</i> <ul style="list-style-type: none"> Reading, writing, various representations, patterns, properties Fractional, decimal and exponential (integral exponent) notation; percentage, square root Properties of operations: <ul style="list-style-type: none"> Commutative and associative properties 	<i>Arithmetic: Operations Involving Numbers Written in Decimal and Fractional Notation</i> <ul style="list-style-type: none"> Mental computation: the four operations, especially with numbers written in decimal notation, using equivalent ways of writing numbers and the properties of operations 	
Curious Math: To the Max, p. 404			Beyond Cycle One. Do not assess.
Chapter Self-Test: p. 405			Self-Assessment Opportunity Choose from Questions 1, 7.

Content	QEP Concepts	QEP Processes	Addressing Concepts and Processes
Chapter Review: pp. 406–407			Assessment Opportunity Exclude both Frequently Asked Questions. Choose from Questions 1, 2, 4 (surface area only), 9a), b) (surface area only).
Chapter Task: Adventurepark Statue, p. 408		<i>Geometry</i> <ul style="list-style-type: none"> • Finding unknown measurements <ul style="list-style-type: none"> • Areas <ul style="list-style-type: none"> • Lateral or total area of solids that can be split into right prisms, right cylinders or right pyramids 	Assessment Opportunity Exclude the volume portion of prompt B. Exclude part c) of prompt C.