

Chapter 5 Planning Chart: 2-D Measurement

Cross-Curricular Competency: Communicates appropriately. Lesson 7 and the Chapter Task provide students with opportunities to use written communication to demonstrate their ideas and their understanding of the topics in this chapter.

Broad Area of Learning: Health and Well-Being. Use Lessons 4 and 6 and the Chapter Task as opportunities to discuss exercise and recreation as part of a healthy lifestyle.

Content	QEP Concepts	QEP Processes	Addressing Concepts and Processes
Getting Started: Designing a Flag, pp. 150–151			Assessment Opportunity
Lesson 1: Area of a Parallelogram, pp. 152–155	<i>Geometry: Geometric Figures and Spatial Sense</i> <ul style="list-style-type: none"> Plane figures <ul style="list-style-type: none"> Triangles, quadrilaterals and regular convex polygons <ul style="list-style-type: none"> Base, height Measurement <ul style="list-style-type: none"> Perimeter, circumference Area, lateral area, total area 	<i>Arithmetic: Operations Involving Numbers Written in Decimal and Fractional Notation</i> <ul style="list-style-type: none"> Estimating and rounding numbers in different situations <i>Geometry: Finding unknown measurements</i> <ul style="list-style-type: none"> Lengths <ul style="list-style-type: none"> Perimeter of a plane figure Areas <ul style="list-style-type: none"> Area of polygons that can be split into triangles and quadrilaterals 	Teaching and Learning: Supplement the lesson by discussing the term “rhombus” and showing examples.
Lesson A: Measurement of Length	<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"> Length Choice of unit of measure for lengths or areas Relationship between SI units of length 		New Lesson Student Resource Teacher Resource
Lesson 2: Area of a Triangle, pp. 156–159	<i>Geometry: Geometric Figures and Spatial Sense</i> <ul style="list-style-type: none"> Plane figures <ul style="list-style-type: none"> Triangles, quadrilaterals and regular convex polygons <ul style="list-style-type: none"> Base, height Measurement <ul style="list-style-type: none"> Perimeter, circumference Area, lateral area, total area 	<i>Geometry: Finding unknown measurements</i> <ul style="list-style-type: none"> Lengths <ul style="list-style-type: none"> Perimeter of a plane figure Unknown measure of a segment in a plane figure 	
Lesson 3: Calculating the Area of a Triangle, p. 160	<i>Geometry: Geometric Figures and Spatial Sense</i> <ul style="list-style-type: none"> Plane figures <ul style="list-style-type: none"> Triangles, quadrilaterals and regular convex polygons <ul style="list-style-type: none"> Base, height Measurement <ul style="list-style-type: none"> Area, lateral area, total area 		

Content	QEP Concepts	QEP Processes	Addressing Concepts and Processes
Curious Math: Pick's Theorem, p. 161	<i>Geometry: Geometric Figures and Spatial Sense</i> <ul style="list-style-type: none"> Plane figures <ul style="list-style-type: none"> Triangles, quadrilaterals and regular convex polygons Base, height Measurement <ul style="list-style-type: none"> Perimeter, circumference Area, lateral area, total area 		Optional
Lesson 4: Area of a Trapezoid, pp. 162–165	<i>Geometry: Geometric Figures and Spatial Sense</i> <ul style="list-style-type: none"> Plane figures <ul style="list-style-type: none"> Triangles, quadrilaterals and regular convex polygons Base, height Measurement <ul style="list-style-type: none"> Perimeter, circumference Area, lateral area, total area 	<i>Arithmetic: Operations Involving Numbers Written in Decimal and Fractional Notation</i> <ul style="list-style-type: none"> Estimating and rounding numbers in different situations <i>Geometry: Finding unknown measurements</i> <ul style="list-style-type: none"> Lengths <ul style="list-style-type: none"> Perimeter of a plane figure Unknown measure of a segment in a plane figure Areas <ul style="list-style-type: none"> Area of polygons that can be split into triangles and quadrilaterals 	
Mid-Chapter Review: pp. 166–168			Assessment Opportunity
Math Game: About 7, p. 169	<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"> Perimeter, circumference 	<i>Geometry: Finding unknown measurements</i> <ul style="list-style-type: none"> Lengths <ul style="list-style-type: none"> Perimeter of a plane figure 	Optional
Lesson 5: Exploring the Area and Perimeter of a Trapezoid, pp. 170–171	<i>Geometry: Geometric Figures and Spatial Sense</i> <ul style="list-style-type: none"> Plane figures <ul style="list-style-type: none"> Triangles, quadrilaterals and regular convex polygons Base, height Measurement <ul style="list-style-type: none"> Perimeter, circumference Area, lateral area, total area 	<i>Geometry: Finding unknown measurements</i> <ul style="list-style-type: none"> Areas <ul style="list-style-type: none"> Area of polygons that can be split into triangles and quadrilaterals 	
Lesson B: Units of Area	<i>Arithmetic: Understanding Proportionality</i> <ul style="list-style-type: none"> Proportion <ul style="list-style-type: none"> Ratio and proportionality coefficient Length <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"> Degree: angle and arc Length Choice of unit of measure for lengths or areas Relationship between SI units of length Relationship between SI units of area Congruent and similar figures 	<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 <i>Arithmetic: Working With a Proportional Situation</i> <ul style="list-style-type: none"> Comparison of ratios and rates 	New Lesson Student Resource Teacher Resource

Content	QEP Concepts	QEP Processes	Addressing Concepts and Processes
Mental Math: Using a Staircase to Convert Lengths, p. 171	<p><i>Arithmetic: Number Sense With Regard to Decimal and Fractional Notation and Operation Sense</i></p> <ul style="list-style-type: none"> • Reading, writing, various representations, patterns, properties • Fractional, decimal and exponential (integral exponent) notation; percentage, square root <p><i>Geometry: Geometric Figures and Spatial Sense</i></p> <ul style="list-style-type: none"> • Plane figures <ul style="list-style-type: none"> • Measurement <ul style="list-style-type: none"> • Relationship between SI units of length 	<p><i>Arithmetic: Operations Involving Numbers Written in Decimal and Fractional Notation</i></p> <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 	Optional
Lesson 6: Calculating the Area of a Complex Shape, pp. 172–175	<p><i>Geometry: Geometric Figures and Spatial Sense</i></p> <ul style="list-style-type: none"> • Plane figures <ul style="list-style-type: none"> • Triangles, quadrilaterals and regular convex polygons <ul style="list-style-type: none"> • Base, height • Measurement <ul style="list-style-type: none"> • Perimeter, circumference • Area, lateral area, total area 	<p><i>Geometry: Finding unknown measurements</i></p> <ul style="list-style-type: none"> • Lengths <ul style="list-style-type: none"> • Perimeter of a plane figure • Areas <ul style="list-style-type: none"> • Area of polygons that can be split into triangles and quadrilaterals 	
Lesson 7: Communicating about Measurement, pp. 176–178	<p><i>Geometry: Geometric Figures and Spatial Sense</i></p> <ul style="list-style-type: none"> • Plane figures <ul style="list-style-type: none"> • Triangles, quadrilaterals and regular convex polygons <ul style="list-style-type: none"> • Base, height • Measurement <ul style="list-style-type: none"> • Perimeter, circumference • Area, lateral area, total area 	<p><i>Geometry: Finding unknown measurements</i></p> <ul style="list-style-type: none"> • Lengths <ul style="list-style-type: none"> • Perimeter of a plane figure • Areas <ul style="list-style-type: none"> • Area of polygons that can be split into triangles and quadrilaterals 	
Chapter Self-Test: p. 179			Self-Assessment Opportunity
Chapter Review: pp. 180–181			Assessment Opportunity
Chapter Task: Adventurepark Design, p. 182	<p><i>Geometry: Geometric Figures and Spatial Sense</i></p> <ul style="list-style-type: none"> • Plane figures • Triangles, quadrilaterals and regular convex polygons <ul style="list-style-type: none"> • Base, height • Measurement <ul style="list-style-type: none"> • Perimeter, circumference • Area, lateral area, total area 	<p><i>Geometry: Finding unknown measurements</i></p> <ul style="list-style-type: none"> • Lengths <ul style="list-style-type: none"> • Perimeter of a plane figure • Areas <ul style="list-style-type: none"> • Area of polygons that can be split into triangles and quadrilaterals 	Assessment Opportunity