

Chapter 10 Planning Chart: Angles and Triangles

Cross-Curricular Competency: Uses information. Throughout the chapter students are presented with information that they use to represent and solve problems. Locations include Getting Started, Lessons 1–3, Chapter Task, and Math in Action.

Broad Area of Learning: Environmental Awareness. The introduction to Lesson 3 deals with solar power. Use this opportunity to discuss energy conservation and alternate sources of energy.

Content	QEP Concepts	QEP Processes	Addressing Concepts and Processes
Getting Started: Determining Location, pp. 336–337			Assessment Opportunity
Lesson 1: Exploring Points on a Circle, pp. 338–339		<i>Geometry</i> • Geometric constructions	
Lesson 2: Intersecting Lines, Parallel Lines, and Transversals, pp. 340–343	<i>Geometry: Geometric Figures and Spatial Sense</i> • Plane figures • Measurement • Degree: angle and arc • Angles • Complementary, supplementary • Formed by two intersecting lines: vertically opposite, adjacent • Formed by a transversal intersecting two other lines: alternate interior, alternate exterior, corresponding	<i>Geometry</i> • Finding unknown measurements • Angles • Unknown measurements in different situations	The terms “alternate interior” and “alternate exterior” are not used in the lesson, but the questions give students the opportunity to explore the relationships between these types of angles. Supplement the student book lesson by providing the names of these types of angles to students. Also note that the lesson uses “opposite angles” to refer to what the QEP refers to as “vertically opposite angles”.
Lesson 3: Angles in a Triangle, pp. 344–347	<i>Geometry: Geometric Figures and Spatial Sense</i> • Plane figures • Measurement • Degree: angle and arc • Angles • Complementary, supplementary • Formed by two intersecting lines: vertically opposite, adjacent • Formed by a transversal intersecting two other lines: alternate interior, alternate exterior, corresponding	<i>Geometry</i> • Finding unknown measurements • Angles • Unknown measurements in different situations	
Lesson 4: Exploring Quadrilaterals, pp. 348–349		<i>Geometry</i> • Geometric constructions • Geometric transformations • Translation, rotation, reflection	
Lesson A: Special Segments in Triangles	<i>Geometry: Geometric Figures and Spatial Sense</i> • Plane figures • Triangles, quadrilaterals and regular convex polygons • Main segments and lines: bisector, perpendicular bisector, median, altitude		New Lesson Student Resource Teacher Resource
Mid-Chapter Review: pp. 350–351			Assessment Opportunity
Lesson 5: Exploring Right Triangles, pp. 352–353			Beyond Cycle One. Do not assess.

Content	QEP Concepts	QEP Processes	Addressing Concepts and Processes
Curious Math: Dissecting Squares, p. 353			Beyond Cycle One. Do not assess.
Lesson 6: Applying the Pythagorean Theorem, pp. 354–357			Beyond Cycle One. Do not assess.
Lesson 8: Geometric Constructions	<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"> Main segments and lines: bisector, perpendicular bisector, median, altitude Circle and sector <ul style="list-style-type: none"> Radius, diameter, chord, arc Measurement <ul style="list-style-type: none"> Degree: angle and arc Length 	<p><i>Geometry</i></p> <ul style="list-style-type: none"> Geometric constructions 	New Lesson Student Resource Teacher Resource
Lesson 7: Solve Problems Using Logical Reasoning, pp. 358–361			Beyond Cycle One. Do not assess.
Mental Math: Squaring Numbers That End in 5, p. 361	<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>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 	
Math Game: Needle in a Haystack, p. 362			Beyond Cycle One. Do not assess.
Chapter Self-Test: p. 363			Self-Assessment Opportunity: Select from Questions 1–7.
Chapter Review: pp. 364–365			Assessment Opportunity Omit both of the Frequently Asked Questions. Use Questions 1–6.
Chapter Task: Transmission Towers, p. 366			Beyond Cycle One. Do not assess.
Math in Action: Theatre Technician, pp. 367–368	<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"> Degree: angle and arc Angles <ul style="list-style-type: none"> Complementary, supplementary Formed by two intersecting lines: vertically opposite, adjacent Formed by a transversal intersecting two other lines: alternate interior, alternate exterior, corresponding 	<p><i>Geometry</i></p> <ul style="list-style-type: none"> Finding unknown measurements <ul style="list-style-type: none"> Angles <ul style="list-style-type: none"> Unknown measurements in different situations 	Optional: Select from Questions 2–4.