

11 Geometry: Using Area and Volume



Chapter Pacing Guide

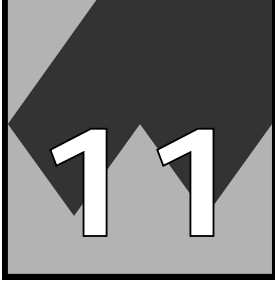
Please note that this pacing guide is based upon completing the entire text in 165 classes, approximately 50 minutes each. More time can be allotted for this chapter if you do not plan to teach the entire text.

<i>Day (Standard)</i>	<i>Day (Honors)</i>	<i>Lesson</i>	<i>Title</i>
1	1	*Chapter Project	Theme: Kites Up, Up, and Away
2		11-1	Area of Circles
3	2	11-2A	THINKING LAB Problem Solving Make a Model
4	3	11-2	Three-Dimensional Figures
5	4	11-3	Volume of Prisms and Cylinders
6	5	11-4	Volume of Pyramids and Cones
7 & 8		*11-5A	HANDS-ON LAB Cooperative Learning Nets
	6	11-5	Surface Area of Prisms
9 & 10	7 & 8	11-6	Surface Area of Cylinders
		*11-6B	HANDS-ON LAB Cooperative Learning Surface Area and Volume
11	9	11-7	Integration: Measurement Precision and Significant Digits
12	10	Review: Study Guide and Assessment	
13	11	Assessment: Chapter Test	

* *Optional*

Chapter Resources

<p>Meeting Individual Needs <i>Investigations for the Special Education Student</i>, Exploring the Depths of the Sea, pp. 43-44 <i>Spanish Study Guide and Assessment Study Guide and Practice Workbook</i></p>	<p>Technology <i>Electronic Teacher's Classroom Resources (ETCR)</i> www.glencoe.com/sec/math/mac/mathnet</p>
<p>Interactive Mathematics: Activities and Investigations Units 4 and 14</p>	<p>Applications <i>Family Letters and Activities</i>, pp. 73-74 <i>Spanish Family Letters and Activities</i>, pp. 73-74</p>



Chapter Project (pp. 474-475)



Teacher's Name _____ Dates _____

Grade _____ Class _____ M Tu W Th F

Objectives

- _____ Be able to draw three-dimensional figures on grid or dot paper.
- _____ Calculate surface area.
- _____ Determine appropriate measuring instruments.
- _____ State/local objectives: _____

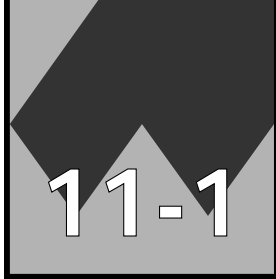
Theme: Kites

- _____ Chapter Project, *SE*, p. 475
- _____ Chapter 11 Notes, *TWE*, p. 474
- _____ Question of the Day, *TWE*, p. 474
- _____ ⇔ *Investigations and Projects Masters*, pp. 57-60

Homework Assignments

- _____ p. 485, Working on the Chapter Project, Exercise 16
- _____ p. 502, Working on the Chapter Project, Exercise 16
- _____ p. 507, Working on the Chapter Project, Exercise 18
- _____ p. 511, Completing the Chapter Project, Alternative Assessment

KEY SE = Student Edition TWE = Teacher's Wraparound Edition ⇔ = Other Program Components



Lesson Planning Guide (pp. 476-479)



Teacher's Name _____ Dates _____

Grade _____ Class _____ M Tu W Th F

Objectives

- _____ Find the areas of circles.
- _____ State/local objectives: _____

NCTM Standards: 1-3, 5-10
South Carolina Math Curriculum Standards
Grade 8: NO I.A.1., NO III.A.1., GEO IV.D.1., MEA II.C.1., MEA II.F.1.

1 FOCUS

- _____ 5-Minute Check, *TWE*, p. 476
- _____ ⇨ Transparency 11-1A
- _____ Motivating the Lesson, Problem Solving, *TWE*, p. 477

2 TEACH

- _____ ⇨ Transparency 11-1B
- _____ Reading Mathematics, *TWE*, p. 477
- _____ In-Class Examples, *TWE*, pp. 477, 478
- _____ ⇨ *Study Guide Masters*, p. 86
- _____ Reteaching the Lesson, *TWE*, p. 478
- _____ ⇨ *CD-ROM Program*, Resource Lesson 11-1
- _____ ⇨ *Interactive Mathematics Tools Software*

3 PRACTICE/APPLY

- _____ Check for Understanding, *SE*, p. 478

Homework Assignments (p. 479)

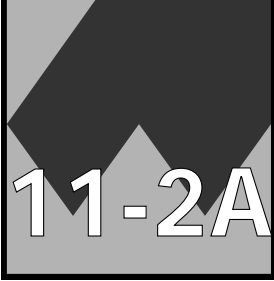
- | | |
|-----------------------------------|----------------------------------|
| _____ Core: 9-21 odd, 22-24 | _____ Enriched: 8-18 even, 19-24 |
| _____ Alternate Assignment: _____ | |

- _____ Extra Practice, *SE*, p. 636
- _____ ⇨ *Practice Masters*, p. 86
- _____ ⇨ *Diversity Masters*, p. 37
- _____ ⇨ *South Carolina Parent and Student Study Guide Workbook*, p. 96

4 ASSESS

- _____ Closing Activity, Modeling, *TWE*, p. 479
- _____ Extending the Lesson, *TWE*, p. 479
- _____ ⇨ *Enrichment Masters*, p. 86

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Lesson Planning Guide (pp. 480-481)



Teacher's Name _____ Dates _____

Grade _____ Class _____ M Tu W Th F

Objectives

- _____ Solve problems by making a model.
- _____ State/local objectives: _____

NCTM Standards: 1, 3, 6-10
South Carolina Math Curriculum Standards Grade 8: NO I.A.1., NO III.A.1.

1 FOCUS

- _____ Getting Started, *TWE*, p. 480

2 TEACH

- _____ In-Class Example, *TWE*, p. 480
- _____ Reteaching the Lesson, *TWE*, p. 480

3 PRACTICE/APPLY

- _____ Check for Understanding, *TWE*, p. 481

Homework Assignments (p. 481)

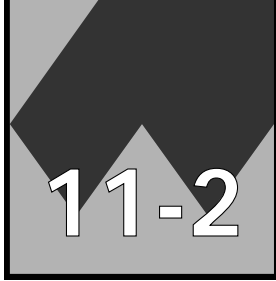
- _____ All: 5-13
- _____ Alternate Assignment: _____

- _____ Extra Practice, *SE*, p. 637
- _____ Mixed Problem Solving, *SE*, pp. 645-646

4 ASSESS

- _____ Closing Activity, Modeling, *TWE*, p. 481
- _____ Extending the Lesson, *TWE*, p. 481

KEY SE = Student Edition TWE = Teacher's Wraparound Edition ⇔ = Other Program Components



Lesson Planning Guide (pp. 482-485)



Teacher's Name _____ Dates _____

Grade _____ Class _____ M Tu W Th F

Objectives

- _____ Identify and sketch three-dimensional figures.
- _____ State/local objectives: _____

NCTM Standards: 3, 4, 6-10
South Carolina Math Curriculum Standards
Grade 8: GEO IV.B.1.

1 FOCUS

- _____ 5-Minute Check, *TWE*, p. 482
- _____ ⇨ Transparency 11-2A
- _____ Motivating the Lesson, Hands-On-Activity, *TWE*, p. 482

2 TEACH

- _____ ⇨ Transparency 11-2B
- _____ Reading Mathematics, *TWE*, p. 483
- _____ In-Class Examples, *TWE*, p. 483
- _____ ⇨ *Study Guide Masters*, p. 87
- _____ Reteaching the Lesson, *TWE*, p. 484
- _____ Error Analysis, *TWE*, p. 484
- _____ ⇨ *CD-ROM Program*, Resource Lesson 11-2, Interactive Lesson 11-2

3 PRACTICE/APPLY

- _____ Check for Understanding, *SE*, p. 484

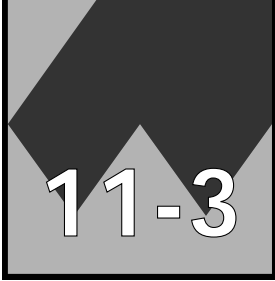
Homework Assignments (pp. 484-485)	
_____ Core: 7-15 odd, 17-19	_____ Enriched: 8-14 even, 15, 17-19
_____ Optional: 16 (Working on the Chapter Project)	
_____ Alternate Assignment: _____	

- _____ Extra Practice, *SE*, p. 637
- _____ ⇨ *Practice Masters*, p. 87
- _____ ⇨ *Classroom Games*, pp. 37-39
- _____ ⇨ *South Carolina Parent and Student Study Guide Workbook*, p. 97

4 ASSESS

- _____ Closing Activity, Writing, *TWE*, p. 485
- _____ ⇨ *Assessment and Evaluation Masters*, Quiz A, p. 295
- _____ Extending the Lesson, *TWE*, p. 485
- _____ ⇨ *Enrichment Masters*, p. 87

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Lesson Planning Guide (pp. 486-489)



Teacher's Name _____ Dates _____

Grade _____ Class _____ M Tu W Th F

Objectives

- _____ Find the volumes of prisms and cylinders.
- _____ State/local objectives: _____

NCTM Standards: 1, 3, 6-10
South Carolina Math Curriculum Standards Grade 8: NO I.A.1., NO III.A.1., GEO IV.B.1., GEO IV.B.2., MEA II.F.1.

1 FOCUS

- _____ 5-Minute Check, *TWE*, p. 486
- _____ ⇨ Transparency 11-3A
- _____ Motivating the Lesson, Hands-On-Activity, *TWE*, p. 487

2 TEACH

- _____ ⇨ Transparency 11-3B
- _____ Using the Mini-Lab, *TWE*, p. 487
- _____ ⇨ *Teacher's Guide for Overhead Manipulative Resources*, Mini-Lab for Lesson 11-3
- _____ Multiple Learning Styles, Auditory/Musical, *TWE*, p. 487
- _____ In-Class Examples, *TWE*, pp. 487, 488
- _____ ⇨ *Study Guide Masters*, p. 88
- _____ Reteaching the Lesson, *TWE*, p. 488
- _____ ⇨ *CD-ROM Program*, Resource Lesson 11-3, Interactive Lesson 11-3

3 PRACTICE/APPLY

- _____ Check for Understanding, *SE*, p. 488

Homework Assignments (pp. 488-489)

- _____ Core: 7-19 odd, 20-22
- _____ Enriched: 8-16 even, 17-22
- _____ Alternate Assignment: _____

- _____ Extra Practice, *SE*, p. 637
- _____ ⇨ *Practice Masters*, p. 88
- _____ ⇨ *Technology Masters*, Calculator Activity, p. 73
- _____ ⇨ *Science and Mathematics Lab Manual*, pp. 69-72
- _____ ⇨ *South Carolina Parent and Student Study Guide Workbook*, p. 98

4 ASSESS

- _____ Closing Activity, Speaking, *TWE*, p. 489
- _____ Extending the Lesson, *TWE*, p. 489
- _____ ⇨ *Enrichment Masters*, p. 88

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Lesson Planning Guide (pp. 490-493)



Teacher's Name _____ Dates _____

Grade _____ Class _____ M Tu W Th F

Objectives

- _____ Find the volumes of pyramids and cones.
- _____ State/local objectives: _____

NCTM Standards: 1-3, 6-10
South Carolina Math Curriculum Standards Grade 8: NO I.A.1., NO III.A.1., MEA II.F.1.

1 FOCUS

- _____ 5-Minute Check, *TWE*, p. 490
- _____ ⇨ Transparency 11-4A
- _____ Motivating the Lesson, Problem Solving, *TWE*, p. 490

2 TEACH

- _____ ⇨ Transparency 11-4B
- _____ Using the Mini-Lab, *TWE*, p. 491
- _____ ⇨ *Teacher's Guide for Overhead Manipulative Resources*, Mini-Lab for Lesson 11-4
- _____ In-Class Examples, *TWE*, p. 491
- _____ ⇨ *Study Guide Masters*, p. 89
- _____ Reteaching the Lesson, *TWE*, p. 492
- _____ Error Analysis, *TWE*, p. 492
- _____ ⇨ *CD-ROM Program*, Resource Lesson 11-4

3 PRACTICE/APPLY

- _____ Check for Understanding, *SE*, p. 492

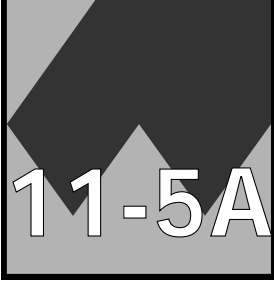
Homework Assignments (pp. 492-493)	
_____ Core: 7-19 odd, 20-22	_____ Enriched: 8-16 even, 17-22
_____ Alternate Assignment: _____	

- _____ Extra Practice, *SE*, p. 638
- _____ ⇨ *Practice Masters*, p. 89
- _____ ⇨ *Hands-On Lab Masters*, p. 78
- _____ ⇨ *South Carolina Parent and Student Study Guide Workbook*, p. 99

4 ASSESS

- _____ Closing Activity, Writing, *TWE*, p. 493
- _____ ⇨ *Assessment and Evaluation Masters*, Mid-Chapter Test, p. 294
- _____ ⇨ *Assessment and Evaluation Masters*, Quiz B, p. 295
- _____ Extending the Lesson, *TWE*, p. 493
- _____ ⇨ *Enrichment Masters*, p. 89
- _____ Mid-Chapter Self Test, *SE*, p. 493

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Lesson Planning Guide (p. 494)



Teacher's Name _____ Dates _____

Grade _____ Class _____ M Tu W Th F

Objectives

_____ Recognize a solid from its net and sketch it, and vice versa.

_____ State/local objectives: _____

NCTM Standards:

3, 6-10

South Carolina Math Curriculum Standards

Grade 8: MEA II.D.1.

MANAGEMENT

_____ Getting Started, *TWE*, p. 494

ASSESS

_____ *TWE*, p. 494

_____ ⇔ *Hands-On Lab Masters*, p. 61

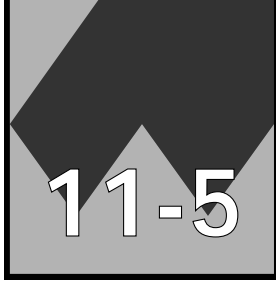
Class Activity (p. 494)

_____ All: 1-5

_____ Alternate Assignment: _____

_____ Math Journal, *TWE*, p. 494

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Lesson Planning Guide (pp. 495-498)



Teacher's Name _____ Dates _____

Grade _____ Class _____ M Tu W Th F

Objectives

- _____ Find the surface areas of rectangular and triangular prisms.
- _____ State/local objectives: _____

NCTM Standards: 1, 3, 6-10
South Carolina Math Curriculum Standards Grade 8: NO I.A.1., NO III.A.1., MEA II.D.1., MEA II.F.1.

1 FOCUS

- _____ 5-Minute Check, *TWE*, p. 495
- _____ ⇨ Transparency 11-5A
- _____ Motivating the Lesson, Communication, *TWE*, p. 495

2 TEACH

- _____ ⇨ Transparency 11-5B
- _____ Using the Mini-Lab, *TWE*, p. 496
- _____ ⇨ *Teacher's Guide for Overhead Manipulative Resources*, Mini-Lab for Lesson 11-5
- _____ In-Class Examples, *TWE*, p. 496
- _____ ⇨ *Study Guide Masters*, p. 90
- _____ Reteaching the Lesson, *TWE*, p. 496
- _____ Error Analysis, *TWE*, p. 496
- _____ ⇨ *CD-ROM Program*, Resource Lesson 11-5, Interactive Lesson 11-5
- _____ ⇨ *Interactive Mathematics Tools Software*

3 PRACTICE/APPLY

- _____ Check for Understanding, *SE*, pp. 496-497

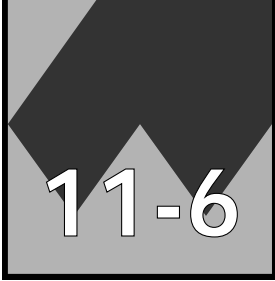
Homework Assignments (pp. 497-498)	
_____ Core: 9-19 odd, 20-23	_____ Enriched: 8-16 even, 18-23
_____ Alternate Assignment: _____	

- _____ Extra Practice, *SE*, p. 638
- _____ ⇨ *Practice Masters*, p. 90
- _____ ⇨ *Technology Masters*, Graphing Calculator Activity, p. 74
- _____ Family Activity, *SE*, p. 497
- _____ ⇨ *South Carolina Parent and Student Study Guide Workbook*, p. 100

4 ASSESS

- _____ Closing Activity, Speaking, *TWE*, p. 498
- _____ Extending the Lesson, *TWE*, p. 498
- _____ ⇨ *Enrichment Masters*, p. 90

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Lesson Planning Guide (pp. 499-502)



Teacher's Name _____ Dates _____

Grade _____ Class _____ M Tu W Th F

Objectives

- _____ Find the surface areas of cylinders.
- _____ State/local objectives: _____

NCTM Standards: 1, 3, 4, 6-10
South Carolina Math Curriculum Standards Grade 8: NO I.A.1., NO III.A.1., MEA II.D.1., MEA II.F.1.

1 FOCUS

- _____ 5-Minute Check, *TWE*, p. 499
- _____ ⇨ Transparency 11-6A
- _____ Motivating the Lesson, Hands-On-Activity, *TWE*, p. 499

2 TEACH

- _____ ⇨ Transparency 11-6B
- _____ Using the Mini-Lab, *TWE*, p. 500
- _____ ⇨ *Teacher's Guide for Overhead Manipulative Resources*, Mini-Lab for Lesson 11-6
- _____ Multiple Learning Styles, Visual/Spatial, *TWE*, p. 500
- _____ In-Class Examples, *TWE*, p. 500
- _____ ⇨ *Study Guide Masters*, p. 91
- _____ Reteaching the Lesson, *TWE*, p. 501
- _____ Error Analysis, *TWE*, p. 501
- _____ ⇨ *CD-ROM Program*, Resource Lesson 11-6, Interactive Lesson 11-6

3 PRACTICE/APPLY

- _____ Check for Understanding, *SE*, p. 501

Homework Assignments (p. 502)	
_____ Core: 9-15 odd, 17-19	_____ Enriched: 8-14 even, 15, 17-19
_____ Optional: 16 (Working on the Chapter Project)	
_____ Alternate Assignment: _____	

- _____ Extra Practice, *SE*, p. 638
- _____ ⇨ *Practice Masters*, p. 91
- _____ ⇨ *School to Career Masters*, p. 37
- _____ ⇨ *South Carolina Parent and Student Study Guide Workbook*, p. 101

4 ASSESS

- _____ Closing Activity, Modeling, *TWE*, p. 502
- _____ ⇨ *Assessment and Evaluation Masters*, Quiz C, p. 296
- _____ Extending the Lesson, *TWE*, p. 502
- _____ ⇨ *Enrichment Masters*, p. 91

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Lesson Planning Guide (p. 503)



Teacher's Name _____ Dates _____

Grade _____ Class _____ M Tu W Th F

Objectives

_____ Investigate how surface area and volume are related.

_____ State/local objectives: _____

MANAGEMENT

_____ Getting Started, *TWE*, p. 503

_____ ⇨ *Hands-On Lab Masters*, p. 24: cylinder pattern

ASSESS

_____ *TWE*, p. 503

_____ ⇨ *Hands-On Lab Masters*, p. 62

NCTM Standards: 1, 3, 4, 6-10
South Carolina Math Curriculum Standards Grade 8: NO I.A.1., NO III.A.1., MEA II.D.1., MEA II.F.1.

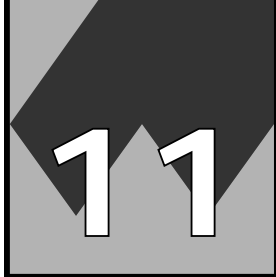
Class Activity (p. 503)

_____ All: 1-4

_____ Alternate Assignment: _____

_____ Math Journal, *TWE*, p. 503

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Review and Assessment (pp. 508-513)



Teacher's Name _____ Dates _____

Grade _____ Class _____

Review M Tu W Th F
Testing M Tu W Th F

- _____ Study Guide and Assessment, *SE*, pp. 508-511
- _____ Standardized Test Practice, *SE*, pp. 512-513
- _____ Chapter Test, *SE*, p. 657



⇨ **Assessment and Evaluation Masters (pp. 281-299)**

Multiple-Choice Tests

- _____ Form 1A, 1B, or 1C, pp. 281-286
- _____ Standardized Test Practice, pp. 297-298

Free-Response Tests

- _____ Form 2A, 2B, or 2C, pp. 287-292
- _____ Performance Assessment, p. 293
- _____ Cumulative Review, p. 299

- _____ ⇨ *MindJogger Videoquizzes*, Chapter 11
- _____ ⇨ *Test and Review Software*
- _____ ⇨ *CD-ROM Assessment Game*
- _____ ⇨ *State Test Preparation CD-ROM*
- _____ ⇨  *South Carolina Parent and Student Study Guide Workbook*, p. 103
- _____ ⇨  *South Carolina PACT Workbook and Test Preparation, Grade 8*

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