

10 Geometry: Exploring Area



Chapter Pacing Guide

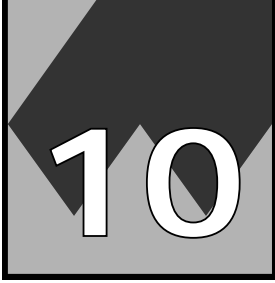
Please note that this pacing guide is based upon completing the entire text in 165 classes, approximately 50 minutes each. More time can be allotted for this chapter if you do not plan to teach the entire text.

<i>Day (Standard)</i>	<i>Day (Honors)</i>	<i>Lesson</i>	<i>Title</i>
1	1	*Chapter Project	Theme: Geography It's a Small World
2	2	10-1A	<small>THINKING LAB</small> Problem Solving Guess and Check
3	3	10-1	Squares and Square Roots
4	4	10-2	Estimating Square Roots
5 & 6	5 & 6	*10-3A	<small>HANDS-ON LAB</small> Cooperative Learning The Pythagorean Theorem
		10-3	The Pythagorean Theorem
7	7	10-4	Area of Irregular Figures
8 & 9	8 & 9	*10-5A	<small>HANDS-ON LAB</small> Cooperative Learning Finding the Area of a Triangle
		10-5	Area of Triangles and Trapezoids
10	10	10-6	Area of Circles
11 & 12	11	*10-7A	<small>HANDS-ON LAB</small> Cooperative Learning Probability and Area Models
		10-7	Integration: Probability Area Models
13	12	Review: Study Guide and Assessment	
14	13	Assessment: Chapter Test	

*Optional

Chapter Resources

<p>Meeting Individual Needs <i>Investigations for the Special Education Student,</i> Yard Sale, pp. 35-38 <i>Spanish Study Guide and Assessment</i> <i>Study Guide and Practice Workbook</i></p>	<p>Technology <i>Electronic Teacher's Classroom</i> <i>Resources (ETCR)</i> www.glencoe.com/sec/math/mac/mathnet</p>
<p>Interactive Mathematics: Activities and Investigations Units 7 and 9</p>	<p>Applications <i>Family Letters and Activities, pp. 45-46</i> <i>Spanish Family Letters and Activities, pp. 45-46</i></p>



Chapter Project (pp. 406-407)



Teacher's Name _____ Dates _____

Grade _____ Class _____ M Tu W Th F

Objectives

- _____ Use geometry to approximate the area of landmass and bodies of water on Earth.
- _____ Determine what part of Earth is covered in water.
- _____ State/local objectives: _____

NCTM Standards:

Theme: Geography

- _____ Chapter Project, *SE*, p. 407
- _____ Chapter 10 Notes, *TWE*, p. 406
- _____ Question of the Day, *TWE*, p. 406
- _____ ⇨ *Investigations and Projects Masters*, pp. 53-56

Homework Assignments

- _____ p. 426, Working on the Chapter Project, Exercise 16
- _____ p. 431, Working on the Chapter Project, Exercise 24
- _____ p. 441, Working on the Chapter Project, Exercise 18
- _____ p. 445, Completing the Chapter Project, Alternative Assessment

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

10-1A

Lesson Planning Guide (pp. 408-409)



Teacher's Name _____ Dates _____

Grade _____ Class _____ M Tu W Th F

Objectives

_____ Solve problems by using the guess-and-check strategy.

_____ State/local objectives: _____

NCTM Standards:

1, 6-9

1 FOCUS

_____ Getting Started, *TWE*, p. 408

2 TEACH

_____ In-Class Examples, *TWE*, p. 408

_____ Reteaching the Lesson, *TWE*, p. 408

3 PRACTICE/APPLY

_____ Check for Understanding, *TWE*, p. 409

Homework Assignments (p. 409)

_____ All: 4-12

_____ Alternate Assignment: _____

_____ Extra Practice, *SE*, p. 595

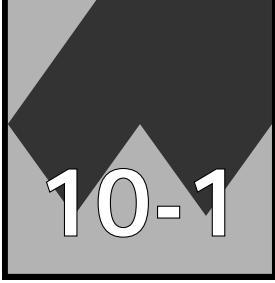
_____ Mixed Problem Solving, *SE*, p. 605-606

4 ASSESS

_____ Closing Activity, Writing, *TWE*, p. 409

_____ Extending the Lesson, *TWE*, p. 409

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



Lesson Planning Guide (pp. 410-414)



Teacher's Name _____ Dates _____

Grade _____ Class _____ M Tu W Th F

Objectives

- _____ Find squares of numbers and square roots of perfect squares.
- _____ State/local objectives: _____

NCTM Standards: 1, 3, 6-10
South Carolina Math Curriculum Standards Grade 7: NO I.A.1., NO II.C.1.

1 FOCUS

- _____ 5-Minute Check, *TWE*, p. 410
- _____ ⇨ Transparency 10-1A
- _____ Motivating the Lesson, Hands-On-Activity, *TWE*, p. 410

2 TEACH

- _____ ⇨ Transparency 10-1B
- _____ Using the Mini-Lab, *TWE*, p. 411
- _____ ⇨ *Teacher's Guide for Overhead Manipulative Resources*, Mini-Lab for Lesson 10-1
- _____ In-Class Examples, *TWE*, p. 411
- _____ Reteaching the Lesson, *TWE*, p. 411
- _____ Cross-Curriculum Cue, *TWE*, p. 412
- _____ ⇨ *Study Guide Masters*, p. 74
- _____ ⇨ *CD-ROM Program*, Resource Lesson 10-1
- _____ ⇨ *Interactive Mathematics Tools Software*

3 PRACTICE/APPLY

- _____ Check for Understanding, *SE*, pp. 411-412

Homework Assignments (pp. 412-413)

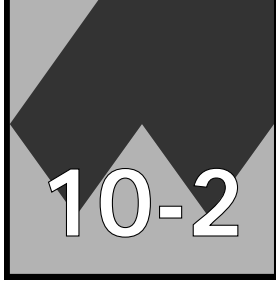
- _____ Core: 11-35 odd, 36-40
- _____ Enriched: 12-32 even, 33-40
- _____ Alternate Assignment: _____

- _____ Extra Practice, *SE*, p. 595
- _____ ⇨ *Practice Masters*, p. 74
- _____ ⇨ *Technology Masters*, Calculator Activity, p. 45
- _____ ⇨ *South Carolina Parent and Student Study Guide Workbook*, p. 83

4 ASSESS

- _____ Closing Activity, Writing, *TWE*, p. 413
- _____ Extending the Lesson, *TWE*, p. 413
- _____ ⇨ *Enrichment Masters*, p. 74
- _____ Let the Games Begin, *SE*, p. 414

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Lesson Planning Guide (pp. 415-417)



Teacher's Name _____ Dates _____

Grade _____ Class _____ M Tu W Th F

Objectives

- _____ Estimate square roots.
- _____ State/local objectives: _____

NCTM Standards: 1, 3, 6-10
South Carolina Math Curriculum Standards Grade 7: NO I.E.1.

1 FOCUS

- _____ 5-Minute Check, *TWE*, p. 415
- _____ ⇨ Transparency 10-2A
- _____ Motivating the Lesson, Problem Solving, *TWE*, p. 415
- _____ Multiple Learning Styles, Logical, *TWE*, p. 415

2 TEACH

- _____ ⇨ Transparency 10-2B
- _____ Using the Mini-Lab, *TWE*, p. 415
- _____ ⇨ *Teacher's Guide for Overhead Manipulative Resources*, Mini-Lab for Lesson 10-2
- _____ In-Class Examples, *TWE*, p. 416
- _____ ⇨ *Study Guide Masters*, p. 75
- _____ Reteaching the Lesson, *TWE*, p. 416
- _____ ⇨ *CD-ROM Program*, Resource Lesson 10-2, Interactive Lesson 10-2

3 PRACTICE/APPLY

- _____ Check for Understanding, *SE*, pp. 416-417

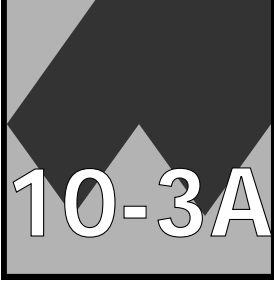
<i>Homework Assignments (p. 417)</i>	
_____ Core: 11-31 odd, 32-35	_____ Enriched: 12-28 even, 29-35
_____ Alternate Assignment: _____	

- _____ Extra Practice, *SE*, p. 596
- _____ ⇨ *Practice Masters*, p. 75
- _____ ⇨ *South Carolina Parent and Student Study Guide Workbook*, p. 84

4 ASSESS

- _____ Closing Activity, Modeling, *TWE*, p. 417
- _____ ⇨ *Assessment and Evaluation Masters*, Quiz A, p. 267
- _____ Extending the Lesson, *TWE*, p. 417
- _____ ⇨ *Enrichment Masters*, p. 75

KEY	SE = Student Edition	TWE = Teacher's Wraparound Edition	⇨ = Other Program Components
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Lesson Planning Guide (p. 418)



Teacher's Name _____ Dates _____

Grade _____ Class _____ M Tu W Th F

Objectives

- _____ Find the relationship among the sides of a right triangle.
- _____ State/local objectives: _____

NCTM Standards: 1, 3, 6-10
South Carolina Math Curriculum Standards Grade 7: MEA II.B.1.

MANAGEMENT

- _____ Getting Started, *TWE*, p. 418
- _____ ⇨ *Hands-On Lab Masters*, p. 11: centimeter grid paper
- _____ ⇨ *Teacher's Guide for Overhead Manipulative Resources*, Lesson 10-3A
- _____ ⇨ *Overhead Manipulative Resources*: centimeter grid transparency

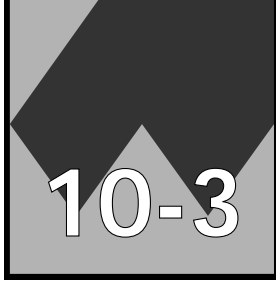
ASSESS

- _____ *TWE*, p. 418
- _____ ⇨ *Hands-On Lab Masters*, p. 62

Class Activity (p. 418)
_____ All: 1-4
_____ Alternate Assignment: _____

_____ Math Journal, *TWE*, p. 418

KEY	SE = Student Edition	TWE = Teacher's Wraparound Edition	⇨ = Other Program Components
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Lesson Planning Guide (pp. 419-421)



Teacher's Name _____ Dates _____

Grade _____ Class _____ M Tu W Th F

Objectives

- _____ Find length using the Pythagorean Theorem.
- _____ State/local objectives: _____

NCTM Standards:
1, 3, 6-10

1 FOCUS

- _____ 5-Minute Check, *TWE*, p. 419
- _____ ⇨ Transparency 10-3A
- _____ Motivating the Lesson, Communication, *TWE*, p. 419
- _____ Multiple Learning Styles, Kinesthetic, *TWE*, p. 419

2 TEACH

- _____ ⇨ Transparency 10-3B
- _____ Thinking Algebraically, *TWE*, p. 420
- _____ In-Class Examples, *TWE*, p. 420
- _____ ⇨ *Study Guide Masters*, p. 76
- _____ Reteaching the Lesson, *TWE*, p. 420
- _____ Error Analysis, *TWE*, p. 420
- _____ ⇨ *CD-ROM Program*, Resource Lesson 10-3, Interactive Lesson 10-3

3 PRACTICE/APPLY

- _____ Check for Understanding, *SE*, pp. 420-421

Homework Assignments (pp. 421-422)

_____ Core: 11-31 odd, 32-35 _____ Enriched: 12-28 even, 29-35

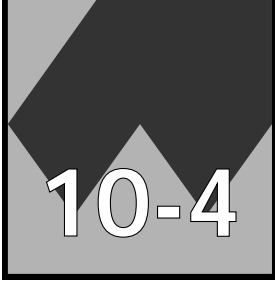
_____ Alternate Assignment: _____

- _____ Extra Practice, *SE*, p. 596
- _____ ⇨ *Practice Masters*, p. 76
- _____ ⇨ *Technology Masters*, Graphing Calculator Activity, p. 46
- _____ ⇨ *Diversity Masters*, p. 23
- _____ ⇨ *South Carolina Parent and Student Study Guide Workbook*, p. 85

4 ASSESS

- _____ Closing Activity, Writing, *TWE*, p. 422
- _____ Extending the Lesson, *TWE*, p. 422
- _____ ⇨ *Enrichment Masters*, p. 76

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



Lesson Planning Guide (pp. 423-426)



Teacher's Name _____ Dates _____

Grade _____ Class _____ M Tu W Th F

Objectives

- _____ Estimate the area of irregular figures.
- _____ State/local objectives: _____

NCTM Standards: 1, 3, 6-10
South Carolina Math Curriculum Standards Grade 7: MEA II.C.1.

1 FOCUS

- _____ 5-Minute Check, *TWE*, p. 423
- _____ ⇨ Transparency 10-4A
- _____ Motivating the Lesson, Problem Solving, *TWE*, p. 423

2 TEACH

- _____ ⇨ Transparency 10-4B
- _____ Using the Mini-Lab, *TWE*, p. 424
- _____ ⇨ *Teacher's Guide for Overhead Manipulative Resources*, Mini-Lab for Lesson 10-4
- _____ In-Class Examples, *TWE*, p. 424
- _____ ⇨ *Study Guide Masters*, p. 77
- _____ Reteaching the Lesson, *TWE*, p. 425
- _____ ⇨ *CD-ROM Program*, Resource Lesson 10-4
- _____ ⇨ *Interactive Mathematics Tools Software*

3 PRACTICE/APPLY

- _____ Check for Understanding, *SE*, p. 424

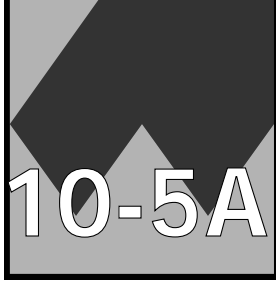
Homework Assignments (p. 425-426)	
_____ Core: 7-15 odd, 17-19	_____ Enriched: 8-14 even, 15, 17-19
_____ Optional: 16 (Working on the Chapter Project)	
_____ Alternate Assignment: _____	

- _____ Extra Practice, *SE*, p. 596
- _____ ⇨ *Practice Masters*, p. 77
- _____ Family Activity, *SE*, p. 425
- _____ ⇨ *South Carolina Parent and Student Study Guide Workbook*, p. 86

4 ASSESS

- _____ Closing Activity, Speaking, *TWE*, p. 426
- _____ ⇨ *Assessment and Evaluation Masters*, Mid-Chapter Test, p. 266
- _____ ⇨ *Assessment and Evaluation Masters*, Quiz B, p. 267
- _____ Extending the Lesson, *TWE*, p. 426
- _____ ⇨ *Enrichment Masters*, p. 77
- _____ Mid-Chapter Self Test, *SE*, p. 426

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Lesson Planning Guide (p. 427)



Teacher's Name _____ Dates _____

Grade _____ Class _____ M Tu W Th F

Objectives

- _____ Find the area of a triangle.
- _____ State/local objectives: _____

NCTM Standards: 1, 3, 6-10
South Carolina Math Curriculum Standards Grade 7: MEA II.C.1.

MANAGEMENT

- _____ Getting Started, *TWE*, p. 427
- _____ ⇨ *Hands-On Lab Masters*, p. 10: grid paper
- _____ ⇨ *Teacher's Guide for Overhead Manipulative Resources*, Lesson 10-5A
- _____ ⇨ *Overhead Manipulative Resources*: centimeter grid transparency

ASSESS

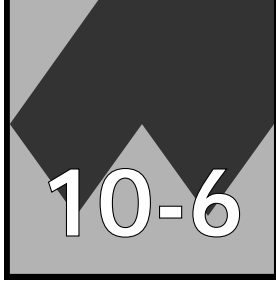
- _____ *TWE*, p. 427
- _____ ⇨ *Hands-On Lab Masters*, p. 63

Class Activity (p. 427)

- _____ All: 1-6
- _____ Alternate Assignment: _____

- _____ Math Journal, *TWE*, p. 427

KEY	SE = Student Edition	TWE = Teacher's Wraparound Edition	⇨ = Other Program Components
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Lesson Planning Guide (pp. 432-435)



Teacher's Name _____ Dates _____

Grade _____ Class _____ M Tu W Th F

Objectives

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

NCTM Standards: 1, 3, 6-10
South Carolina Math Curriculum Standards
Grade 7: MEA II.C.1., MEA II.C.3.

1 FOCUS

- _____ 5-Minute Check, *TWE*, p. 432
- _____ ⇨ Transparency 10-6A
- _____ Motivating the Lesson, Communication, *TWE*, p. 432

2 TEACH

- _____ ⇨ Transparency 10-6B
- _____ Using the Mini-Lab, *TWE*, p. 433
- _____ ⇨ *Teacher's Guide for Overhead Manipulative Resources*, Mini-Lab for Lesson 10-6
- _____ In-Class Examples, *TWE*, p. 433
- _____ ⇨ *Study Guide Masters*, p. 79
- _____ Reteaching the Lesson, *TWE*, p. 434
- _____ Error Analysis, *TWE*, p. 434
- _____ ⇨ *CD-ROM Program*, Resource Lesson 10-6
- _____ ⇨ *Interactive Mathematics Tools Software*

3 PRACTICE/APPLY

- _____ Check for Understanding, *SE*, p. 434

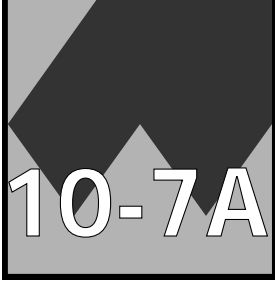
Homework Assignments (pp. 434-435)	
_____ Core: 13-31 odd, 32-36	_____ Enriched: 12-28 even, 30-36
_____ Alternate Assignment: _____	

- _____ Extra Practice, *SE*, p. 597
- _____ ⇨ *Practice Masters*, p. 79
- _____ ⇨ *Hands-On Lab Masters*, p. 81
- _____ ⇨ *School to Career Masters*, p. 23
- _____ ⇨ *South Carolina Parent and Student Study Guide Workbook*, p. 88

4 ASSESS

- _____ Closing Activity, Modeling, *TWE*, p. 435
- _____ ⇨ *Assessment and Evaluation Masters*, Quiz C, p. 268
- _____ Extending the Lesson, *TWE*, p. 435
- _____ ⇨ *Enrichment Masters*, p. 79

KEY	<i>SE</i> = Student Edition	<i>TWE</i> = Teacher's Wraparound Edition	⇨ = Other Program Components
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Lesson Planning Guide (pp. 436-437)



Teacher's Name _____ Dates _____

Grade _____ Class _____ M Tu W Th F

Objectives

- _____ Estimate the area of a figure using probability.
- _____ State/local objectives: _____

NCTM Standards: 1, 3, 5-10
South Carolina Math Curriculum Standards Grade 7: MEA II.B.1., MEA II.C.1.

MANAGEMENT

- _____ Getting Started, *TWE*, p. 436
- _____ ⇨ *Hands-On Lab Masters*, p. 10: grid paper
- _____ ⇨ *Teacher's Guide for Overhead Manipulative Resources*, Lesson 10-7A
- _____ ⇨ *Overhead Manipulative Resources*: counters

ASSESS

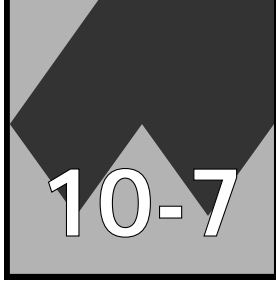
- _____ *TWE*, p. 437
- _____ ⇨ *Hands-On Lab Masters*, p. 64

Class Activity (p. 437)

- _____ All: 1-5
- _____ Alternate Assignment: _____

- _____ Math Journal, *TWE*, p. 437

KEY	SE = Student Edition	TWE = Teacher's Wraparound Edition	⇨ = Other Program Components
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Lesson Planning Guide (pp. 438-441)



Teacher's Name _____ Dates _____

Grade _____ Class _____ M Tu W Th F

Objectives

- _____ Find probability using area models.
- _____ State/local objectives: _____

NCTM Standards: 1, 3, 5-9
South Carolina Math Curriculum Standards Grade 7: NO I.E.1., MEA II.C.1.

1 FOCUS

- _____ 5-Minute Check, *TWE*, p. 438
- _____ ⇨ Transparency 10-7A
- _____ Motivating the Lesson, Hands-On-Activity, *TWE*, p. 438

2 TEACH

- _____ ⇨ Transparency 10-7B
- _____ Reading Mathematics, *TWE*, p. 439
- _____ In-Class Examples, *TWE*, p. 439
- _____ ⇨ *Study Guide Masters*, p. 80
- _____ Reteaching the Lesson, *TWE*, p. 439
- _____ ⇨ *CD-ROM Program*, Resource Lesson 10-7, Interactive Lesson 10-7

3 PRACTICE/APPLY

- _____ Check for Understanding, *SE*, pp. 439-440

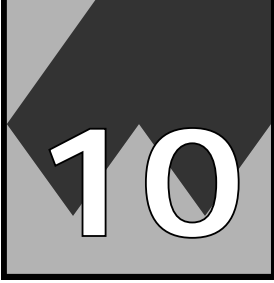
Homework Assignments (pp. 440-441)	
_____ Core: 7-19 odd, 20-22	_____ Enriched: 8-16 even, 17, 19-22
_____ Optional: 18 (Working on the Chapter Project)	
_____ Alternate Assignment: _____	

- _____ Extra Practice, *SE*, p. 597
- _____ ⇨ *Practice Masters*, p. 80
- _____ ⇨ *South Carolina Parent and Student Study Guide Workbook*, p. 89

4 ASSESS

- _____ Closing Activity, Modeling, *TWE*, p. 441
- _____ ⇨ *Assessment and Evaluation Masters*, Quiz D, p. 268
- _____ Extending the Lesson, *TWE*, p. 441
- _____ ⇨ *Enrichment Masters*, p. 80

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Review and Assessment (pp. 442-447)



Teacher's Name _____ Dates _____

Grade _____ Class _____

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

- _____ Study Guide and Assessment, *SE*, pp. 442-445
- _____ Standardized Test Practice, *SE*, pp. 446-447
- _____ Chapter Test, *SE*, p. 616

⇔ **Assessment and Evaluation Masters (pp. 253-271)**

Multiple-Choice Tests

Free-Response Tests

- | | |
|---|---------------------------------------|
| _____ Form 1A, 1B, or 1C, pp. 253-258 | _____ Form 2A, 2B, or 2C, pp. 259-264 |
| _____ Standardized Test Practice, pp. 269-270 | _____ Performance Assessment, p. 265 |
| | _____ Cumulative Review, p. 271 |

- _____ ⇔ *MindJogger Videoquizzes*, Chapter 10
- _____ ⇔ *Test and Review Software*
- _____ ⇔ *CD-ROM Assessment Game*
- _____ ⇔ *State Test Preparation CD-ROM*
- _____ ⇔ *South Carolina Parent and Student Study Guide Workbook*, p. 90
- _____ ⇔ *South Carolina PACT Workbook and Test Preparation, Grade 7*

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