

10 Geometry: Exploring Area



Chapter Pacing Guide

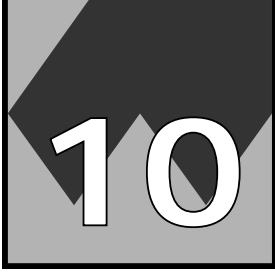
Please note that this pacing guide is based upon completing the entire text in 165 classes, approximately 50 minutes each. More time can be allotted for this chapter if you do not plan to teach the entire text.

<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	THINKING LAB 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	HANDS-ON LAB Cooperative Learning The Pythagorean Theorem
		10-3	The Pythagorean Theorem
7	7	10-4	Area of Irregular Figures
8 & 9	8 & 9	*10-5A	HANDS-ON LAB 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	HANDS-ON LAB 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, Yard Sale</i>, pp. 35-38 <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 7 and 9</p>	<p>Applications <i>Family Letters and Activities</i>, pp. 45-46 <i>Spanish Family Letters and Activities</i>, pp. 45-46</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.

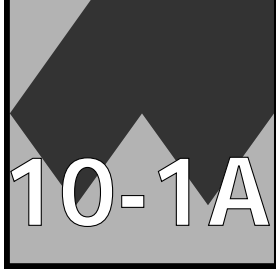
Theme: Geography

- _____ 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



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.

NCTM Standards: 1, 6-9
Georgia Quality Core Curriculum: Grade 7: 1, 2, 38

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

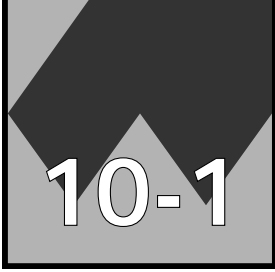
Homework Assignments (p. 409)
_____ All: 4-12
_____ Alternate Assignment: _____

_____ 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.

NCTM Standards: 1, 3, 6-10
Georgia Quality Core Curriculum: Grade 7: 1, 35, 41

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)

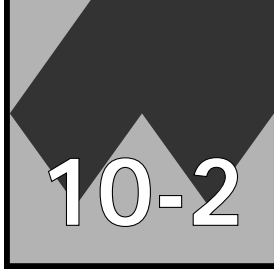
- _____ Core: 11-35 odd, 36-40 _____ Enriched: 12-32 even, 33-40
- _____ Alternate Assignment: _____

- _____ Extra Practice, *SE*, p. 595
- _____ ⇨ *Practice Masters*, p. 74
- _____ ⇨ *Technology Masters*, Calculator Activity, p. 45
- _____ ⇨ *Georgia 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

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



Lesson Planning Guide (pp. 415-417)



Teacher's Name _____ Dates _____

Grade _____ Class _____ M Tu W Th F

Objectives

_____ Estimate square roots.

NCTM Standards: 1, 3, 6-10
Georgia Quality Core Curriculum: Grade 7: 1, 35

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

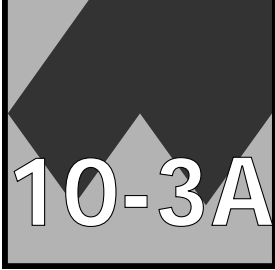
Homework Assignments (p. 417)	
_____ Core: 11-31 odd, 32-35	_____ Enriched: 12-28 even, 29-35
_____ Alternate Assignment: _____	

- _____ Extra Practice, *SE*, p. 596
- _____ ⇨ *Practice Masters*, p. 75
- _____ ⇨ *Georgia 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	<i>SE</i> = Student Edition	<i>TWE</i> = Teacher's Wraparound Edition	⇨ = Other Program Components
------------	-----------------------------	---	------------------------------



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.

NCTM Standards:

1, 3, 6-10

Georgia Quality Core Curriculum:

Grade 7: 1, 2

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

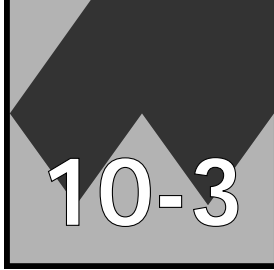
Class Activity (p. 418)

_____ All: 1-4

_____ Alternate Assignment: _____

_____ Math Journal, *TWE*, p. 418

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



Lesson Planning Guide (pp. 419-421)



Teacher's Name _____ Dates _____
Grade _____ Class _____ M Tu W Th F

Objectives

_____ Find length using the Pythagorean Theorem.

NCTM Standards: 1, 3, 6-10
Georgia Quality Core Curriculum: Grade 7: 1, 38

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

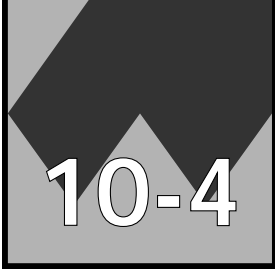
Homework Assignments (pp. 421-422)	
_____ Core: 11-31 odd, 32-35	_____ Enriched: 12-28 even, 29-35
_____ Alternate Assignment: _____	

- _____ Extra Practice, *SE*, p. 596
- _____ ⇨ *Practice Masters*, p. 76
- _____ ⇨ *Technology Masters*, Graphing Calculator Activity, p. 46
- _____ ⇨ *Diversity Masters*, p. 23
- _____ ⇨ *Georgia 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	<i>SE</i> = Student Edition	<i>TWE</i> = 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.

NCTM Standards: 1, 3, 6-10
Georgia Quality Core Curriculum: Grade 7: 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

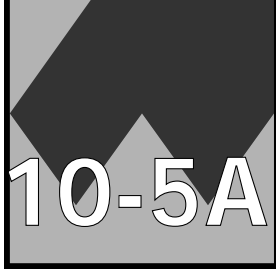
Homework Assignments (p. 425-426)	
_____ Core: 7-15 odd, 17-19	_____ Enriched: 8-14 even, 15, 17-19
_____ Optional: 16 (Working on the Chapter Project)	
_____ Alternate Assignment: _____	

- _____ Extra Practice, *SE*, p. 596
- _____ ⇨ *Practice Masters*, p. 77
- _____ Family Activity, *SE*, p. 425
- _____ ⇨ *Georgia 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

KEY	<i>SE</i> = Student Edition	<i>TWE</i> = Teacher's Wraparound Edition	⇨ = Other Program Components
-----	-----------------------------	---	------------------------------



Lesson Planning Guide (p. 427)



Teacher's Name _____ Dates _____
 Grade _____ Class _____ M Tu W Th F

Objectives

_____ Find the area of a triangle.

NCTM Standards: 1, 3, 6-10
Georgia Quality Core Curriculum: Grade 7: 1, 2, 24, 25

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

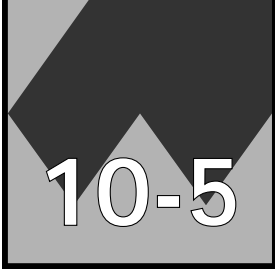
ASSESS

- _____ *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



Lesson Planning Guide (pp. 428-431)



Teacher's Name _____ Dates _____
Grade _____ Class _____ M Tu W Th F

Objectives

_____ Find the areas of triangles and trapezoids.

NCTM Standards: 1, 3, 6-10
Georgia Quality Core Curriculum: Grade 7: 1, 24, 25, 38

1 FOCUS

- _____ 5-Minute Check, *TWE*, p. 428
- _____ ⇨ Transparency 10-5A
- _____ Motivating the Lesson, Hands-On-Activity, *TWE*, p. 428
- _____ Multiple Learning Styles, Visual/Spatial, *TWE*, p. 428

2 TEACH

- _____ ⇨ Transparency 10-5B
- _____ In-Class Examples, *TWE*, pp. 429-430
- _____ Using the Mini-Lab, *TWE*, p. 429
- _____ ⇨ *Teacher's Guide for Overhead Manipulative Resources*, Mini-Lab for Lesson 10-5
- _____ ⇨ *Study Guide Masters*, p. 78
- _____ Reteaching the Lesson, *TWE*, p. 429
- _____ Error Analysis, *TWE*, p. 429
- _____ ⇨ *CD-ROM Program*, Resource Lesson 10-5, Interactive Lesson 10-5

3 PRACTICE/APPLY

- _____ Check for Understanding, *SE*, p. 430

Homework Assignments (pp. 430-431)

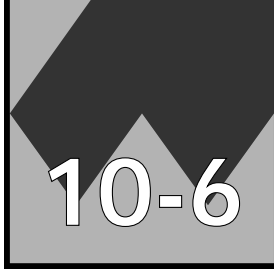
- _____ Core: 9-25 odd, 26-28 _____ Enriched: 10-22 even, 23, 25-28
- _____ Optional: 24 (Working on the Chapter Project)
- _____ Alternate Assignment: _____

- _____ Extra Practice, *SE*, p. 597
- _____ ⇨ *Classroom Games*, pp. 29-30
- _____ ⇨ *Georgia Parent and Student Study Guide Workbook*, p. 87

4 ASSESS

- _____ Closing Activity, Speaking, *TWE*, p. 431
- _____ Extending the Lesson, *TWE*, p. 431
- _____ ⇨ *Enrichment Masters*, p. 78

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



Lesson Planning Guide (pp. 432-435)



Teacher's Name _____ Dates _____
Grade _____ Class _____ M Tu W Th F

Objectives

_____ Find the area of circles.

NCTM Standards: 1, 3, 6-10
Georgia Quality Core Curriculum: Grade 7: 1, 24, 25, 38

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

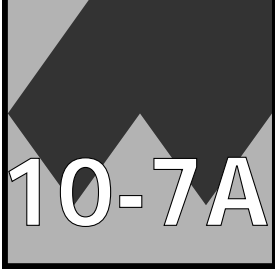
Homework Assignments (pp. 434-435)	
_____ Core: 13-31 odd, 32-36	_____ Enriched: 12-28 even, 30-36
_____ Alternate Assignment: _____	

- _____ Extra Practice, *SE*, p. 597
- _____ ⇨ *Practice Masters*, p. 79
- _____ ⇨ *Hands-On Lab Masters*, p. 81
- _____ ⇨ *School to Career Masters*, p. 23
- _____ ⇨ *Georgia 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
--



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.

NCTM Standards: 1, 3, 5-10
Georgia Quality Core Curriculum: Grade 7: 1, 2, 36, 41

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

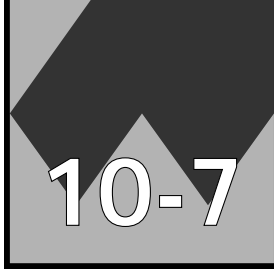
Class Activity (p. 437)

_____ All: 1-5

_____ Alternate Assignment: _____

_____ Math Journal, *TWE*, p. 437

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



Lesson Planning Guide (pp. 438-441)



Teacher's Name _____ Dates _____
Grade _____ Class _____ M Tu W Th F

Objectives

_____ Find probability using area models.

NCTM Standards: 1, 3, 5-9
Georgia Quality Core Curriculum: Grade 7: 1, 2, 3, 36

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

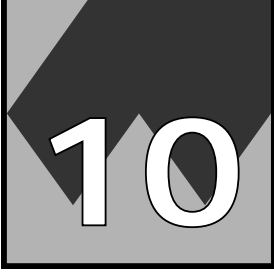
Homework Assignments (pp. 440-441)	
_____ Core: 7-19 odd, 20-22	_____ Enriched: 8-16 even, 17, 19-22
_____ Optional: 18 (Working on the Chapter Project)	
_____ Alternate Assignment: _____	

- _____ Extra Practice, *SE*, p. 597
- _____ ⇨ *Practice Masters*, p. 80
- _____ ⇨ *Georgia 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

KEY	<i>SE</i> = Student Edition	<i>TWE</i> = Teacher's Wraparound Edition	⇨ = Other Program Components
------------	-----------------------------	---	------------------------------



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

_____ Form 1A, 1B, or 1C, pp. 253-258

_____ Standardized Test Practice, pp. 269-270

Free-Response Tests

_____ Form 2A, 2B, or 2C, pp. 259-264

_____ 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*

_____ ⇔  *Georgia Parent and Student Study Guide Workbook*, p. 90

_____ ⇔  *Georgia Stanford 9 Practice and Sample Test Workbook*

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