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.

Day (Standard)	Day (Honors)	Lesson	Title
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		*10-5A	HANDS-ON LAB Cooperative Learning Finding the Area of a Triangle
	8 & 9	10-5	Area of Triangles and Trapezoids
10	10	10-6	Area of Circles
11 & 12		*10-7A	HANDS-ON LAB Cooperative Learning Probability and Area Models
	11	10-7	Integration: Probability Area Models
13	12	Review: Study Guide and Assessment	
14	13	Assessment: Chapter Test	

**Optional*

Chapter Resources

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

10

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

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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.

NCTM Standards:
1-5, 7

New Mexico Mathematics Performance Standards Grades 5-8:
1-A-1, 1-D-1, 3-A-1, 3-C-1, 3-D-1, 7-B-1

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

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10-1

Lesson Planning Guide (pp. 410-414)

Teacher's Name _____ Dates _____

Grade _____ Class _____ M Tu W Th F

NCTM Standards:
1-7, 12

New Mexico Mathematics Performance Standards Grades 5-8:
4-B-1, 5-A-1

Objectives

_____ Find squares of numbers and square roots of perfect squares.

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

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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10-2

Lesson Planning Guide (pp. 415-417)

Teacher's Name _____ Dates _____

Grade _____ Class _____ M Tu W Th F

NCTM Standards:
1-7, 12

New Mexico Mathematics Performance Standards Grades 5-8:
4-C-2

Objectives

_____ Estimate square roots.

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

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

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10-3A

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:
1-6, 12

New Mexico Mathematics Performance Standards Grades 5-8:
9-D-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

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10-3

Lesson Planning Guide (pp. 419-421)

Teacher's Name _____ Dates _____

Grade _____ Class _____ M Tu W Th F

NCTM Standards:
1-7, 12

New Mexico Mathematics Performance Standards Grades 5-8:
1-B-1, 7-E-3, 9-D-2

Objectives

_____ Find length using the Pythagorean Theorem.

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

4 ASSESS

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

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10-4

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:
1-5, 7, 12

New Mexico Mathematics Performance Standards Grades 5-8:
1-F-1, 7-F-2

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

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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10-5A

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:
1-5, 12

New Mexico Mathematics Performance Standards Grades 5-8:
8-C-3

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

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10-5

Lesson Planning Guide (pp. 428-431)

Teacher's Name _____ Dates _____

Grade _____ Class _____ M Tu W Th F

NCTM Standards:
1-5, 7, 12

New Mexico Mathematics Performance Standards Grades 5-8:
8-C-3

Objectives

_____ Find the areas of triangles and trapezoids.

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
_____ ➪ *Practice Masters,* p. 78
_____ ➪ *Classroom Games,* pp. 29-30

4 ASSESS

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

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10-6

Lesson Planning Guide (pp. 432-435)

Teacher's Name _____ Dates _____

Grade _____ Class _____ M Tu W Th F

NCTM Standards:
1-7, 12

New Mexico Mathematics Performance Standards Grades 5-8:
7-F-2, 8-C-3

Objectives

_____ Find the area of circles.

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

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

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10-7A

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:
1-5, 7, 11, 12

New Mexico Mathematics Performance Standards Grades 5-8:
8-D-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

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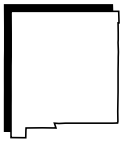
10-7

Lesson Planning Guide (pp. 438-441)



Teacher's Name _____ Dates _____

Grade _____ Class _____ M Tu W Th F

NCTM Standards:
1-5, 11, 12

New Mexico Mathematics Performance Standards Grades 5-8:
7-E-3

Objectives

_____ Find probability using area models.

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

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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10 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*

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