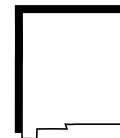


9 Geometry: Investigating Patterns



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: Art Geometric Art
2, 3, & 4	2 & 3	*9-1A	HANDS-ON LAB Cooperative Learning Measuring Angles
		9-1	Angles
5 & 6	4 & 5	*9-1B	HANDS-ON LAB Cooperative Learning Perpendicular and Parallel Lines
		*9-2A	HANDS-ON LAB Cooperative Learning Angles of a Polygon
7	6 & 7	9-2	Polygons
		*9-2B	HANDS-ON LAB Cooperative Learning Inscribed Polygons
8 & 9	8	9-3	Integration: Algebra Similar Polygons
		*9-3B	HANDS-ON LAB Cooperative Learning Dilations
10	9	*9-4A	HANDS-ON LAB Cooperative Learning Investigating Triangles and Quadrilaterals
		9-4	Triangles and Quadrilaterals
11	10	9-4B	THINKING LAB Problem Solving Use Logical Reasoning
12	11	9-5	Tessellations
13	12	9-6	Translations
14	13	9-7	Reflections
15	14	Review: Study Guide and Assessment	
		Assessment: Chapter Test	

*Optional

Chapter Resources

<p>Meeting Individual Needs <i>Investigations for the Special Education Student</i>, Hide and Seek, p. 29 <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 Unit 4</p>	<p>Applications Family Letters and Activities, pp. 43-44 Spanish Family Letters and Activities, pp. 43-44</p>



Chapter Project (pp. 358-359)



Teacher's Name _____ Dates _____

Grade _____ Class _____ M Tu W Th F

Objectives

- _____ Recognize and name various kinds of polygons based on the number of sides and the relationship of the sides and angles.
- _____ Measure the sides and angles of polygons and use logical reasoning to make predictions about how polygons can be combined in geometric patterns.

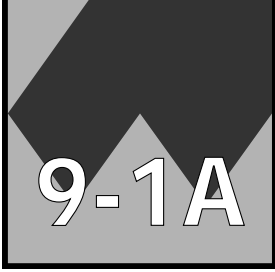
Theme: Art

- _____ Chapter Project, *SE*, p. 359
- _____ Chapter 9 Notes, *TWE*, p. 358
- _____ Question of the Day, *TWE*, p. 358
- _____ ⇔ *Investigations and Projects Masters*, pp. 49-52

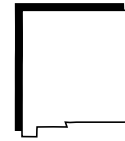
Homework Assignments

- _____ p. 391, Working on the Chapter Project, Exercise 14
- _____ p. 394, Working on the Chapter Project, Exercise 12
- _____ p. 397, Working on the Chapter Project, Exercise 11
- _____ p. 401, Completing the Chapter Project, Alternative Assessment

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



Lesson Planning Guide (pp. 360-361)



Teacher's Name _____ Dates _____

Grade _____ Class _____ M Tu W Th F

Objectives

_____ Measure angles by using a protractor.

NCTM Standards:

1, 2, 4, 8, 13

MANAGEMENT

_____ Getting Started, *TWE*, p. 360

_____ ⇨ *Hands-On Lab Masters*, p. 12: square dot paper

_____ ⇨ *Teacher's Guide for Overhead Manipulative Resources*,
Lesson 9-1A

New Mexico Mathematics Performance Standards

Grades 5-8:

8-C-3

ASSESS

_____ *TWE*, p. 361

_____ ⇨ *Hands-On Lab Masters*, p. 56

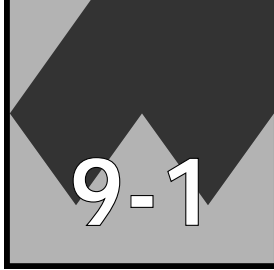
Class Activity (pp. 360-361)

_____ All: 1-9

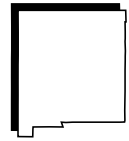
_____ Alternate Assignment: _____

_____ Math Journal, *TWE*, p. 361

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



Lesson Planning Guide (pp. 362-365)



Teacher's Name _____ Dates _____

Grade _____ Class _____ M Tu W Th F

Objectives

_____ Classify angles.

NCTM Standards: 1, 2, 7, 9, 12, 13
New Mexico Mathematics Performance Standards Grades 5-8: 8-C-3

1 FOCUS

- _____ 5-Minute Check, *TWE*, p. 362
- _____ ⇨ Transparency 9-1A
- _____ Motivating the Lesson, Hands-On-Activity, *TWE*, p. 362
- _____ Cross-Curriculum Cue, *TWE*, p. 362

2 TEACH

- _____ ⇨ Transparency 9-1B
- _____ In-Class Examples, *TWE*, pp. 363-364
- _____ Using the Mini-Lab, *TWE*, p. 363
- _____ ⇨ *Teacher's Guide for Overhead Manipulative Resources*, Mini-Lab for Lesson 9-1
- _____ Multiple Learning Styles, Logical, *TWE*, p. 363
- _____ ⇨ *Study Guide Masters*, p. 67
- _____ Reteaching the Lesson, *TWE*, p. 364
- _____ Error Analysis, *TWE*, p. 364
- _____ ⇨ *CD-ROM Program*, Resource Lesson 9-1, Interactive Lesson 9-1

3 PRACTICE/APPLY

- _____ Check for Understanding, *SE*, p. 364

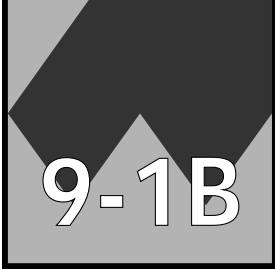
Homework Assignments (pp. 364-365)	
_____ Core: 11-25 odd, 26-29	_____ Enriched: 10-24 even, 25-29
_____ Alternate Assignment: _____	

- _____ Extra Practice, *SE*, p. 592
- _____ ⇨ *Practice Masters*, p. 67
- _____ ⇨ *Science and Mathematics Lab Manual*, pp. 41-44

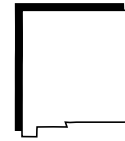
4 ASSESS

- _____ Closing Activity, Speaking, *TWE*, p. 365
- _____ Extending the Lesson, *TWE*, p. 365
- _____ ⇨ *Enrichment Masters*, p. 67

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



Lesson Planning Guide (pp. 366-367)



Teacher's Name _____ Dates _____

Grade _____ Class _____ M Tu W Th F

Objectives

_____ Construct perpendicular and parallel lines.

NCTM Standards:

1, 2, 5, 13

MANAGEMENT

_____ Getting Started, *TWE*, p. 366

_____ ⇨ *Teacher's Guide for Overhead Manipulative Resources*,
Lesson 9-1B

New Mexico Mathematics Performance Standards

Grades 5-8:

8-B-1, 8-C-1

ASSESS

_____ *TWE*, p. 367

_____ ⇨ *Hands-On Lab Masters*, p. 57

Class Activity (pp. 366-367)

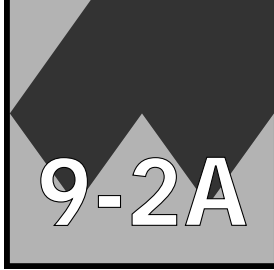
_____ All: 1-3

_____ Alternate Assignment: _____

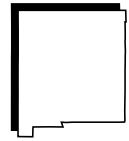
_____ Math Journal, *TWE*, p. 367

_____ School to Career, *SE*, p. 368

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



Lesson Planning Guide (p. 369)



Teacher's Name _____ Dates _____

Grade _____ Class _____ M Tu W Th F

Objectives

_____ Find the sum of the angle measures of polygons.

NCTM Standards: 1, 2, 7, 9, 12, 13
New Mexico Mathematics Performance Standards Grades 5-8: 8-C-3

MANAGEMENT

_____ Getting Started, *TWE*, p. 369

_____ ⇨ *Teacher's Guide for Overhead Manipulative Resources*,
Lesson 9-2A

_____ ⇨ *Overhead Manipulative Resources*: protractor

ASSESS

_____ *TWE*, p. 369

_____ ⇨ *Hands-On Lab Masters*, p. 58

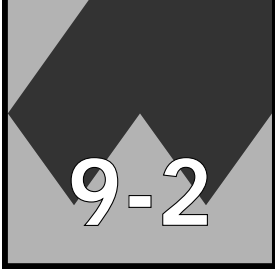
Class Activity (p. 369)

_____ All: 1-8

_____ Alternate Assignment: _____

_____ Math Journal, *TWE*, p. 369

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



Lesson Planning Guide (pp. 370-373)



Teacher's Name _____ Dates _____

Grade _____ Class _____ M Tu W Th F

Objectives

_____ Identify polygons and regular polygons.

NCTM Standards: 1, 2, 4, 5, 7, 9, 12, 13
New Mexico Mathematics Performance Standards Grades 5-8: 3-A-2, 8-A-1, 8-C-1

1 FOCUS

- _____ 5-Minute Check, *TWE*, p. 370
- _____ ⇨ Transparency 9-2A
- _____ Motivating the Lesson, Communication, *TWE*, p. 370

2 TEACH

- _____ ⇨ Transparency 9-2B
- _____ Reading Mathematics, *TWE*, p. 371
- _____ In-Class Examples, *TWE*, p. 371
- _____ ⇨ *Study Guide Masters*, p. 68
- _____ Reteaching the Lesson, *TWE*, p. 371
- _____ ⇨ *CD-ROM Program*, Resource Lesson 9-2
- _____ ⇨ *Interactive Mathematics Tools Software*

3 PRACTICE/APPLY

- _____ Check for Understanding, *SE*, p. 372

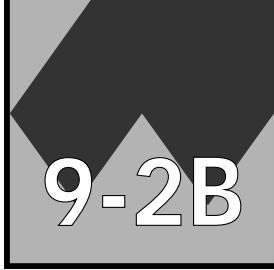
Homework Assignments (pp. 372-373)	
_____ Core: 7-15 odd, 17-20	_____ Enriched: 8-12 even, 14-20
_____ Alternate Assignment: _____	

- _____ Extra Practice, *SE*, p. 593
- _____ ⇨ *Practice Masters*, p. 68
- _____ ⇨ *Technology Masters*, Calculator Activity, p. 43
- _____ Family Activity, *SE*, p. 372

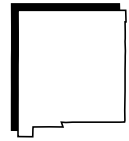
4 ASSESS

- _____ Closing Activity, Writing, *TWE*, p. 373
- _____ ⇨ *Assessment and Evaluation Masters*, Quiz A, p. 239
- _____ Extending the Lesson, *TWE*, p. 373
- _____ ⇨ *Enrichment Masters*, p. 68

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



Lesson Planning Guide (pp. 374-375)



Teacher's Name _____ Dates _____

Grade _____ Class _____ M Tu W Th F

Objectives

_____ Inscribe triangles, squares, and hexagons in circles.

MANAGEMENT

_____ Getting Started, *TWE*, p. 374

_____ ⇨ *Teacher's Guide for Overhead Manipulative Resources*,
Lesson 9-2B

_____ ⇨ *Overhead Manipulative Resources*: compass, ruler

NCTM Standards:

1, 2, 12, 13

New Mexico Mathematics Performance Standards

Grades 5-8:

8-A-1

ASSESS

_____ *TWE*, p. 375

_____ ⇨ *Hands-On Lab Masters*, p. 59

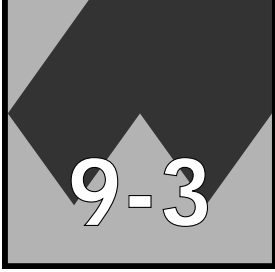
Class Activity (p. 374-375)

_____ All: 1-5

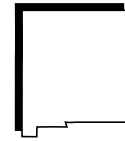
_____ Alternate Assignment: _____

_____ Math Journal, *TWE*, p. 375

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



Lesson Planning Guide (pp. 376-379)



Teacher's Name _____ Dates _____

Grade _____ Class _____ M Tu W Th F

Objectives

_____ Determine whether polygons are similar and find a missing length in a pair of similar polygons.

NCTM Standards: 1, 2, 3, 6, 7, 9, 12, 13
New Mexico Mathematics Performance Standards Grades 5-8: 1-F-1, 3-A-2, 3-B-1, 3-C-2, 8-B-1

1 FOCUS

- _____ 5-Minute Check, *TWE*, p. 376
- _____ ⇨ Transparency 9-3A
- _____ Motivating the Lesson, Problem Solving, *TWE*, p. 377

2 TEACH

- _____ ⇨ Transparency 9-3B
- _____ Using the Mini-Lab, *TWE*, p. 377
- _____ ⇨ *Teacher's Guide for Overhead Manipulative Resources*, Mini-Lab for Lesson 9-3
- _____ In-Class Examples, *TWE*, p. 377
- _____ ⇨ *Study Guide Masters*, p. 69
- _____ Reteaching the Lesson, *TWE*, p. 378
- _____ Error Analysis, *TWE*, p. 378
- _____ ⇨ *CD-ROM Program*, Resource Lesson 9-3

3 PRACTICE/APPLY

- _____ Check for Understanding, *SE*, p. 378

Homework Assignments (pp. 378-379)

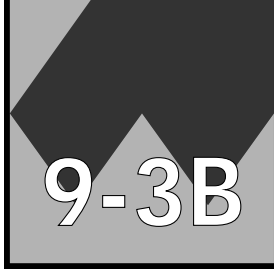
- _____ Core: 9-17 odd, 18-20 _____ Enriched: 10-14 even, 16-20
- _____ Alternate Assignment: _____

- _____ Extra Practice, *SE*, p. 593
- _____ ⇨ *Practice Masters*, p. 69
- _____ ⇨ *Technology Masters*, Graphing Calculator Activity, p. 44

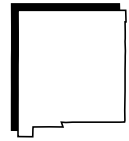
4 ASSESS

- _____ Closing Activity, Modeling, *TWE*, p. 379
- _____ Extending the Lesson, *TWE*, p. 379
- _____ ⇨ *Enrichment Masters*, p. 69
- _____ Mid-Chapter Self Test, *SE*, p. 379

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



Lesson Planning Guide (p. 380)



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

Objectives

_____ Enlarge a figure on a coordinate plane.

NCTM Standards: 1, 2, 12, 13
New Mexico Mathematics Performance Standards Grades 5-8: 2-A-1, 3-A-2, 4-A-2, 8-B-1

MANAGEMENT

- _____ Getting Started, *TWE*, p. 380
- _____ ⇨ *Hands-On Lab Masters*, p. 10: grid paper
- _____ ⇨ *Teacher's Guide for Overhead Manipulative Resources*, Lesson 9-3B
- _____ ⇨ *Overhead Manipulative Resources*: grid paper, straightedge

ASSESS

- _____ *TWE*, p. 380
- _____ ⇨ *Hands-On Lab Masters*, p. 60

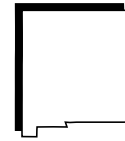
Class Activity (p. 380)
_____ All: 1-3
_____ Alternate Assignment: _____

_____ Math Journal, *TWE*, p. 380

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



Lesson Planning Guide (p. 381)



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

Objectives

_____ Discover characteristics of various kinds of triangles and quadrilaterals.

NCTM Standards:

1, 2, 12, 13

New Mexico Mathematics Performance Standards

Grades 5-8:

8-A-1, 8-C-1

MANAGEMENT

- _____ Getting Started, *TWE*, p. 381
- _____ ⇨ *Teacher's Guide for Overhead Manipulative Resources*, Lesson 9-4A
- _____ ⇨ *Overhead Manipulative Resources*: protractor

ASSESS

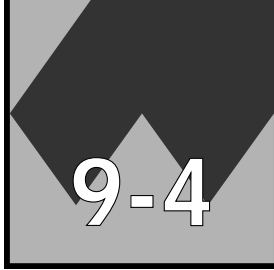
- _____ *TWE*, p. 381
- _____ ⇨ *Hands-On Lab Masters*, p. 61

Class Activity (p. 381)

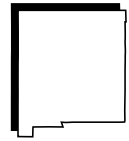
- _____ All: 1-3
- _____ Alternate Assignment: _____

_____ Math Journal, *TWE*, p. 381

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



Lesson Planning Guide (pp. 382-385)



Teacher's Name _____ Dates _____

Grade _____ Class _____ M Tu W Th F

Objectives

_____ Classify triangles and quadrilaterals.

NCTM Standards:

1-5, 7, 9, 12, 13

New Mexico Mathematics Performance Standards

Grades 5-8:

8-C-3

1 FOCUS

_____ 5-Minute Check, *TWE*, p. 382

_____ ⇨ Transparency 9-4A

_____ Motivating the Lesson, Communication, *TWE*, p. 382

2 TEACH

_____ ⇨ Transparency 9-4B

_____ Modeling Mathematics, *TWE*, p. 383

_____ In-Class Examples, *TWE*, p. 383

_____ ⇨ *Study Guide Masters*, p. 70

_____ Reteaching the Lesson, *TWE*, p. 384

_____ Error Analysis, *TWE*, p. 384

_____ ⇨ *CD-ROM Program*, Resource Lesson 9-4

3 PRACTICE/APPLY

_____ Check for Understanding, *SE*, p. 384

Homework Assignments (pp. 384-385)

_____ Core: 9-19 odd, 21-24

_____ Enriched: 10-18 even, 19-24

_____ Alternate Assignment: _____

_____ Extra Practice, *SE*, p. 593

_____ ⇨ *Practice Masters*, p. 70

4 ASSESS

_____ Closing Activity, Speaking, *TWE*, p. 385

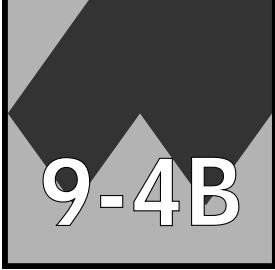
_____ ⇨ *Assessment and Evaluation Masters*, Mid-Chapter Test, p. 238

_____ ⇨ *Assessment and Evaluation Masters*, Quiz B, p. 239

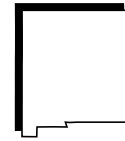
_____ Extending the Lesson, *TWE*, p. 385

_____ ⇨ *Enrichment Masters*, p. 70

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



Lesson Planning Guide (pp. 386-387)



Teacher's Name _____ Dates _____

Grade _____ Class _____ M Tu W Th F

Objectives

_____ Solve problems by using logical reasoning.

1 FOCUS

_____ Getting Started, *TWE*, p. 386

2 TEACH

_____ In-Class Examples, *TWE*, p. 386

_____ Reteaching the Lesson, *TWE*, p. 386

3 PRACTICE/APPLY

_____ Check for Understanding, *TWE*, p. 387

NCTM Standards: 1, 2, 3
New Mexico Mathematics Performance Standards Grades 5-8: 1-A-1, 1-D-1, 1-F-2, 3-A-1, 3-A-2, 3-C-1, 3-D-1

Homework Assignments (p. 387)

_____ All: 5-13

_____ Alternate Assignment: _____

_____ Extra Practice, *SE*, p. 594

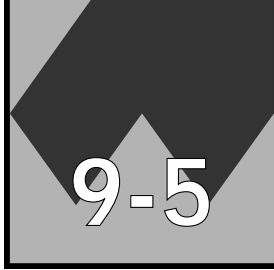
_____ Mixed Problem Solving, *SE*, p. 605-606

4 ASSESS

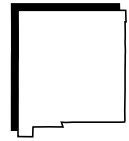
_____ Closing Activity, Writing, *TWE*, p. 387

_____ Extending the Lesson, *TWE*, p. 387

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



Lesson Planning Guide (pp. 388-391)



Teacher's Name _____ Dates _____

Grade _____ Class _____ M Tu W Th F

Objectives

_____ Determine which regular figures can be used to form a tessellation.

NCTM Standards: 2, 4, 8, 12, 13
New Mexico Mathematics Performance Standards Grades 5-8: 1-B-1, 1-B-2, 2-B-1, 2-E-2, 3-A-1, 3-B-1, 4-A-2, 8-E-1, 8-F-1

1 FOCUS

- _____ 5-Minute Check, *TWE*, p. 388
- _____ ⇨ Transparency 9-5A
- _____ Multiple Learning Styles, Kinesthetic, *TWE*, p. 388
- _____ Motivating the Lesson, Hands-On-Activity, *TWE*, p. 389

2 TEACH

- _____ ⇨ Transparency 9-5B
- _____ Using the Mini-Lab, *TWE*, p. 389
- _____ ⇨ *Teacher's Guide for Overhead Manipulative Resources*, Mini-Lab for Lesson 9-5
- _____ In-Class Examples, *TWE*, p. 389
- _____ ⇨ *Study Guide Masters*, p. 71
- _____ Reteaching the Lesson, *TWE*, p. 390
- _____ Error Analysis, *TWE*, p. 390
- _____ ⇨ *CD-ROM Program*, Resource Lesson 9-5, Extended Activity 9-5

3 PRACTICE/APPLY

- _____ Check for Understanding, *SE*, p. 390

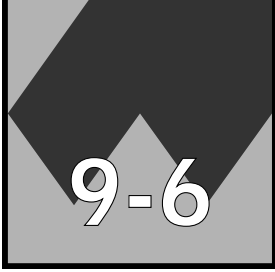
Homework Assignments (pp. 390-391)	
_____ Core: 7-13 odd, 15-17	_____ Enriched: 6-12 even, 13, 15-17
_____ Optional: 14 (Working on the Chapter Project)	
_____ Alternate Assignment: _____	

- _____ Extra Practice, *SE*, p. 594
- _____ ⇨ *Practice Masters*, p. 71
- _____ ⇨ *Hands-On Lab Masters*, p. 80
- _____ ⇨ *Classroom Games*, pp. 26-28

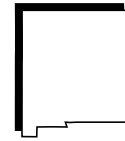
4 ASSESS

- _____ Let the Games Begin, *SE*, p. 391
- _____ Closing Activity, Speaking, *TWE*, p. 391
- _____ Extending the Lesson, *TWE*, p. 391
- _____ ⇨ *Enrichment Masters*, p. 71

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



Lesson Planning Guide (pp. 392-394)



Teacher's Name _____ Dates _____

Grade _____ Class _____ M Tu W Th F

Objectives

_____ Create Escher-like drawings by using translations.

NCTM Standards:

2, 4, 8, 12

New Mexico Mathematics Performance Standards

Grades 5-8:

1-B-2, 2-B-1, 2-E-2, 8-B-1,
8-F-1, 9-C-2

1 FOCUS

_____ 5-Minute Check, *TWE*, p. 392

_____ ⇨ Transparency 9-6A

_____ Motivating the Lesson, Hands-On-Activity, *TWE*, p. 392

2 TEACH

_____ ⇨ Transparency 9-6B

_____ Reading Mathematics, *TWE*, p. 392

_____ In-Class Examples, *TWE*, p. 393

_____ ⇨ *Study Guide Masters*, p. 72

_____ Reteaching the Lesson, *TWE*, p. 393

_____ ⇨ *CD-ROM Program*, Resource Lesson 9-6

3 PRACTICE/APPLY

_____ Check for Understanding, *SE*, p. 394

Homework Assignments (p. 394)

_____ Core: 7-11 odd, 13-15

_____ Enriched: 6-10 even, 11, 13-15

_____ Optional: 12 (Working on the Chapter Project)

_____ Alternate Assignment: _____

_____ Extra Practice, *SE*, p. 594

_____ ⇨ *Practice Masters*, p. 72

4 ASSESS

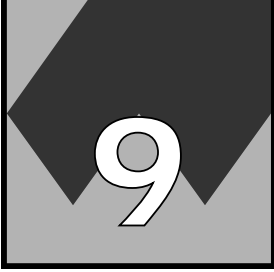
_____ Closing Activity, Writing, *TWE*, p. 394

_____ ⇨ *Assessment and Evaluation Masters*, Quiz C, p. 240

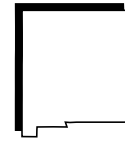
_____ Extending the Lesson, *TWE*, p. 394

_____ ⇨ *Enrichment Masters*, p. 72

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



Review and Assessment (pp. 398-403)



Teacher's Name _____ Dates _____

Grade _____ Class _____
Review M Tu W Th F
Testing M Tu W Th F

- _____ Study Guide and Assessment, *SE*, pp. 398-401
- _____ Standardized Test Practice, *SE*, pp. 402-403
- _____ Chapter Test, *SE*, p. 615

⇔ **Assessment and Evaluation Masters (pp. 225-243)**

Multiple-Choice Tests

- _____ Form 1A, 1B, or 1C, pp. 225-230
- _____ Standardized Test Practice, pp. 241-242

Free-Response Tests

- _____ Form 2A, 2B, or 2C, pp. 231-236
- _____ Performance Assessment, p. 237
- _____ Cumulative Review, p. 243

- _____ ⇔ *MindJogger Videoquizzes*, Chapter 9
- _____ ⇔ *Test and Review Software*
- _____ ⇔ *CD-ROM Assessment Game*
- _____ ⇔ *State Test Preparation CD-ROM*

Interdisciplinary Investigation, SE, pp. 404-405

- _____ *Interdisciplinary Investigation*, TWE, pp. 404-405
- _____ ⇔ *Investigations and Projects Masters*, pp. 9-12

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