

11 Geometry: Using Area and Volume



Chapter Pacing Guide

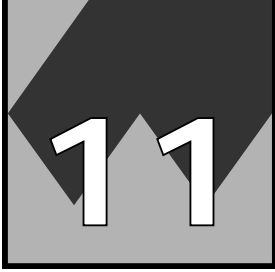
Please note that this pacing guide is based upon completing the entire text in 165 classes, approximately 50 minutes each. More time can be allotted for this chapter if you do not plan to teach the entire text.

<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	<small>THINKING LAB</small> 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	<small>HANDS-ON LAB</small> Cooperative Learning Nets
	6	11-5	Surface Area of Prisms
9 & 10	7 & 8	11-6	Surface Area of Cylinders
		*11-6B	<small>HANDS-ON LAB</small> 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	

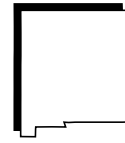
* *Optional*

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</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 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.

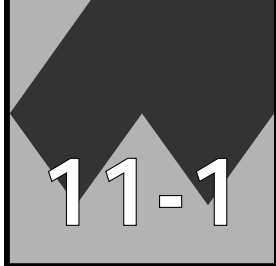
Theme: Kites

- _____ 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.

NCTM Standards:

1-5, 7, 9, 11, 12

New Mexico Mathematics Performance Standards

Grades 5-8:

2-C-1, 7-C-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

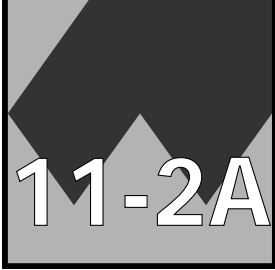
4 ASSESS

_____ Closing Activity, Modeling, *TWE*, p. 479

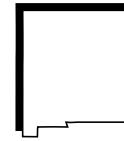
_____ Extending the Lesson, *TWE*, p. 479

_____ ⇨ *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.

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

NCTM Standards:

1-4, 7, 12

New Mexico Mathematics Performance Standards

Grades 5-8:

1-A-1, 1-D-1, 1-F-1, 8-C-2,
9-C-1

Homework Assignments (p. 481)

_____ All: 5-13

_____ Alternate Assignment: _____

_____ Extra Practice, *SE*, p. 637

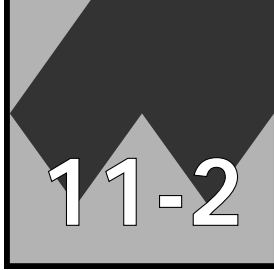
_____ Mixed Problem Solving, *SE*, pp. 645-646

4 ASSESS

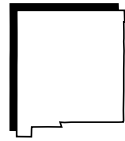
_____ Closing Activity, Modeling, *TWE*, p. 481

_____ Extending the Lesson, *TWE*, p. 481

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Lesson Planning Guide (pp. 482-485)



Teacher's Name _____ Dates _____

Grade _____ Class _____ M Tu W Th F

Objectives

_____ Identify and sketch three-dimensional figures.

NCTM Standards: 1-4, 12, 13
New Mexico Mathematics Performance Standards Grades 5-8: 2-E-1, 8-C-2

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

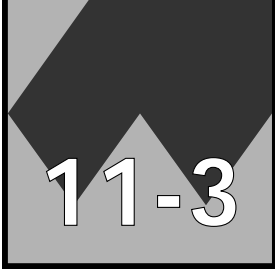
Homework Assignments (pp. 484-485)	
_____ Core: 7-15 odd, 17-19	_____ Enriched: 8-14 even, 15, 17-19
_____ Optional: 16 (Working on the Chapter Project)	
_____ Alternate Assignment: _____	

- _____ Extra Practice, *SE*, p. 637
- _____ ⇨ *Practice Masters*, p. 87
- _____ ⇨ *Classroom Games*, pp. 37-39

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.

NCTM Standards:

1-4, 7, 12

New Mexico Mathematics Performance Standards

Grades 5-8:

8-D-1, 9-A-1, 9-C-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

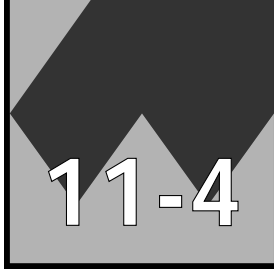
4 ASSESS

_____ Closing Activity, Speaking, *TWE*, p. 489

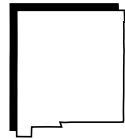
_____ Extending the Lesson, *TWE*, p. 489

_____ ⇨ *Enrichment Masters*, p. 88

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



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.

NCTM Standards: 1-4, 7, 9, 12
New Mexico Mathematics Performance Standards Grades 5-8: 8-D-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

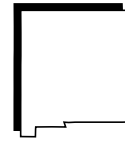
4 ASSESS

- _____ 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.

NCTM Standards:

1-4, 12

New Mexico Mathematics Performance Standards

Grades 5-8:

2-A-2, 8-C-2

MANAGEMENT

_____ Getting Started, *TWE*, p. 494

ASSESS

_____ *TWE*, p. 494

_____ ⇔ *Hands-On Lab Masters*, p. 61

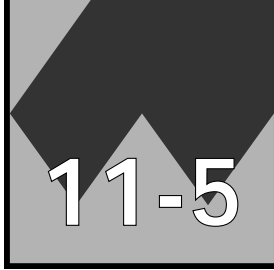
Class Activity (p. 494)

_____ All: 1-5

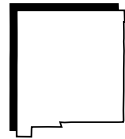
_____ Alternate Assignment: _____

_____ Math Journal, *TWE*, p. 494

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



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.

NCTM Standards: 1-4, 7, 12
New Mexico Mathematics Performance Standards Grades 5-8: 4-C-1, 8-D-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

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.

NCTM Standards: 1-4, 7, 12, 13
New Mexico Mathematics Performance Standards Grades 5-8: 8-D-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)

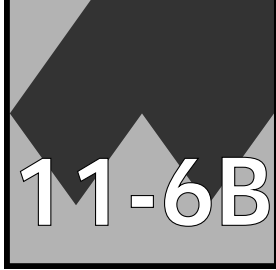
- _____ Core: 9-15 odd, 17-19 _____ Enriched: 8-14 even, 15, 17-19
- _____ Optional: 16 (Working on the Chapter Project)
- _____ Alternate Assignment: _____

- _____ Extra Practice, *SE*, p. 638
- _____ ⇨ *Practice Masters*, p. 91
- _____ ⇨ *School to Career Masters*, p. 37

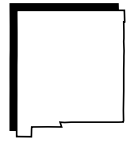
4 ASSESS

- _____ 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.

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: 1-4, 7, 12, 13
New Mexico Mathematics Performance Standards Grades 5-8: 2-C-1, 8-D-1

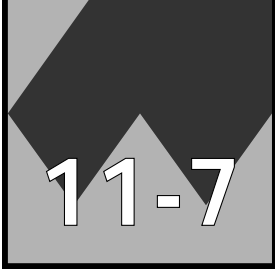
Class Activity (p. 503)

_____ All: 1-4

_____ Alternate Assignment: _____

_____ Math Journal, *TWE*, p. 503

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Lesson Planning Guide (pp. 504-507)



Teacher's Name _____ Dates _____

Grade _____ Class _____ M Tu W Th F

Objectives

_____ Analyze measurements.

NCTM Standards:

1-5, 7, 13

New Mexico Mathematics Performance Standards

Grades 5-8:

2-A-2, 3-A-1, 9-B-1, 9-E-1

1 FOCUS

- _____ 5-Minute Check, *TWE*, p. 504
- _____ ⇨ Transparency 11-7A
- _____ Motivating the Lesson, Communication, *TWE*, p. 504
- _____ Cross-Curriculum Cue, *TWE*, p. 504

2 TEACH

- _____ ⇨ Transparency 11-7B
- _____ Thinking Algebraically, *TWE*, p. 505
- _____ In-Class Examples, *TWE*, p. 505
- _____ ⇨ *Study Guide Masters*, p. 92
- _____ Reteaching the Lesson, *TWE*, p. 505
- _____ ⇨ *Transition Booklet*, pp. 29-36
- _____ ⇨ *CD-ROM Program*, Resource Lesson 11-7

3 PRACTICE/APPLY

- _____ Check for Understanding, *SE*, pp. 505-506

Homework Assignments (pp. 506-507)

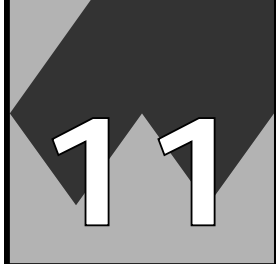
- _____ Core: 7-17 odd, 19-22 _____ Enriched: 8-14 even, 16, 17, 19-22
- _____ Optional: 18 (Working on the Chapter Project)
- _____ Alternate Assignment: _____

- _____ Extra Practice, *SE*, p. 639
- _____ ⇨ *Practice Masters*, p. 92
- _____ Math in the Media, *SE*, p. 507

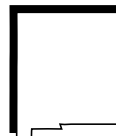
4 ASSESS

- _____ Closing Activity, Speaking, *TWE*, p. 507
- _____ ⇨ *Assessment and Evaluation Masters*, Quiz D, p. 296
- _____ Extending the Lesson, *TWE*, p. 507
- _____ ⇨ *Enrichment Masters*, p. 92

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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*

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