

8 Exploring Ratio, Proportion, and Percent



Chapter Pacing Guide

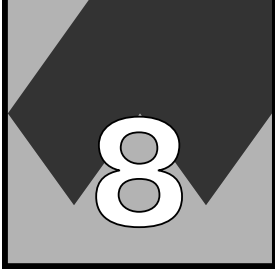
Please note that this pacing guide is based upon completing the entire text in 165 classes, approximately 50 minutes each. More time can be allotted for this chapter if you do not plan to teach the entire text.

<i>Day (Standard)</i>	<i>Day (Honors)</i>	<i>Lesson</i>	<i>Title</i>
1	1	*Chapter Project	Theme: Toys The Wonderful World of Toys
2, 3, & 4	2 & 3	*8-1A	<small>HANDS-ON LAB</small> Cooperative Learning Ratios
		8-1	Ratios and Rates
5	4 & 5	*8-1B	<small>HANDS-ON LAB</small> Cooperative Learning Ratios and Probability
		8-2	Solving Proportions
6	6	*8-2B	<small>TECHNOLOGY LAB</small> Spreadsheets Proportions
		8-3A	<small>THINKING LAB</small> Problem Solving Draw a Diagram
7	7	8-3	Integration: Geometry Scale Drawings
8 & 9	8	*8-4A	<small>HANDS-ON LAB</small> Cooperative Learning Modeling Percents
		8-4	Percents and Fractions
10	9	8-5	Percents and Decimals
11	10	8-6	Estimating with Percents
12	11	8-7	Percent of a Number
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, Park It!</i>, pp. 21-28 <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 2 and 12</p>	<p>Applications <i>Family Letters and Activities</i>, pp. 15-16 <i>Spanish Family Letters and Activities</i>, pp. 15-16</p>



Chapter Project (pp. 308-309)



Teacher's Name _____ Dates _____

Grade _____ Class _____ M Tu W Th F

Objectives

- _____ Use ratios and proportions to find and compare the size of toys and the actual size of the objects that they represent.
- _____ Make a poster to illustrate their findings.

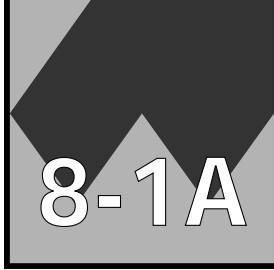
Theme: Toys

- _____ Chapter Project, *SE*, p. 309
- _____ Chapter 8 Notes, *TWE*, p. 308
- _____ Question of the Day, *TWE*, p. 308
- _____ ⇄ *Investigations and Projects Masters*, pp. 45-48

Homework Assignments

- _____ p. 315, Working on the Chapter Project, Exercise 35
- _____ p. 327, Working on the Chapter Project, Exercise 11
- _____ p. 333, Working on the Chapter Project, Exercise 37
- _____ p. 347, Completing the Chapter Project, Alternative Assessment

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



Lesson Planning Guide (pp. 310-311)



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

Objectives

_____ Students use tangram pieces to explore ratios and the relationship between ratio and area.

MANAGEMENT

_____ Getting Started, *TWE*, p. 310
_____ ⇨ *Hands-On Lab Masters*, p. 15: tangram

ASSESS

_____ *TWE*, p. 311
_____ ⇨ *Hands-On Lab Masters*, p. 54

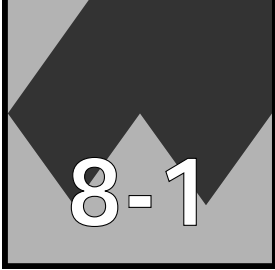
The California Mathematics Academic Content Standards
Grade 5: MR2.3, MR2.4
Basic Lesson
Grade 6: NS1.2 🔑 Key Lesson

Class Activity (pp. 310-311)

_____ All: 1-4
_____ Alternate Assignment: _____

_____ Math Journal, *TWE*, p. 311

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Lesson Planning Guide (pp. 312-315)



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

Objectives

_____ Express ratios and rates as fractions.

1 FOCUS

- _____ 5-Minute Check, *TWE*, p. 312
- _____ ⇨ Transparency 8-1A
- _____ Motivating the Lesson, Hands-On-Activity, *TWE*, p. 312

2 TEACH

- _____ ⇨ Transparency 8-1B
- _____ Thinking Algebraically, *TWE*, p. 313
- _____ In-Class Examples, *TWE*, p. 313
- _____ ⇨ *Study Guide Masters*, p. 57
- _____ Reteaching the Lesson, *TWE*, p. 313
- _____ Error Analysis, *TWE*, p. 313
- _____ ⇨ *CD-ROM Program*, Resource Lesson 8-1, Interactive Lesson 8-1
- _____ ⇨ *Interactive Mathematics Tools Software*

3 PRACTICE/APPLY

- _____ Check for Understanding, *SE*, p. 313

The California Mathematics Academic Content Standards	
Grade 5:	MR2.3, MR2.4, MR2.6, MR3.1
Basic Lesson	
Grade 6:	NS1.2, NS2.4, AF2.2, AF2.3, AF3.1, AF3.2, MG1.2, SDP2.3, MR2.3, MR3.3
🔑 Key Lesson	

Homework Assignments (pp. 314-315)

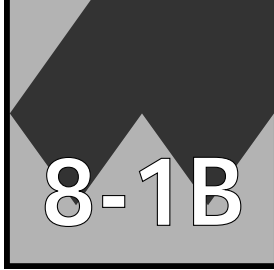
- _____ Core: 11-33 odd, 36-40 _____ Enriched: 12-30 even, 31-34, 36-40
- _____ Optional: 35 (Working on the Chapter Project)
- _____ Alternate Assignment: _____

- _____ Extra Practice, *SE*, p. 578
- _____ ⇨ *Practice Masters*, p. 57

4 ASSESS

- _____ Closing Activity, Writing, *TWE*, p. 315
- _____ Extending the Lesson, *TWE*, p. 315
- _____ ⇨ *Enrichment Masters*, p. 57

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Lesson Planning Guide (p. 316)



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

Objectives

_____ Explore ratios and probability.

MANAGEMENT

- _____ Getting Started, *TWE*, p. 316
- _____ ⇨ *Hands-On Lab Masters*, p. 20: spinners
- _____ ⇨ *Teacher's Guide for Overhead Manipulative Resources*, Lesson 8-1B
- _____ ⇨ *Overhead Manipulative Resources*: spinners

The California Mathematics Academic Content Standards
Grade 5: MR2.3, MR2.4
Basic Lesson
Grade 6: NS1.2, SDP3.3
Key Lesson

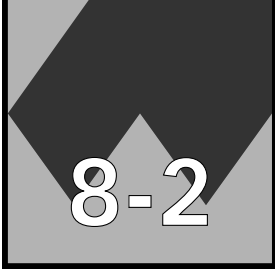
ASSESS

- _____ *TWE*, p. 316
- _____ ⇨ *Hands-On Lab Masters*, p. 55

Class Activity (p. 316)
_____ All: 1-5
_____ Alternate Assignment: _____

_____ Math Journal, *TWE*, p. 316

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Lesson Planning Guide (pp. 317-320)



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

Objectives

_____ Solve proportions by using cross products.

1 FOCUS


- _____ 5-Minute Check, *TWE*, p. 317
- _____ ⇨ Transparency 8-2A
- _____ Motivating the Lesson, Problem Solving, *TWE*, p. 317

2 TEACH

- _____ ⇨ Transparency 8-2B
- _____ Using the Mini-Lab, *TWE*, p. 318
- _____ ⇨ *Teacher's Guide for Overhead Manipulative Resources*, Mini-Lab for Lesson 8-2
- _____ Multiple Learning Styles, Kinesthetic, *TWE*, p. 318
- _____ In-Class Examples, *TWE*, pp. 318-319
- _____ ⇨ *Study Guide Masters*, p. 58
- _____ Reteaching the Lesson, *TWE*, p. 319
- _____ ⇨ *CD-ROM Program*, Resource Lesson 8-2, Interactive Lesson 8-2

3 PRACTICE/APPLY

- _____ Check for Understanding, *SE*, p. 319

The California Mathematics Academic Content Standards	
Grade 5:	MR2.3, MR2.4
Basic Lesson	
Grade 6:	NS1.3, NS2.1, AF1.1, AF2.3, MR1.1, MR2.2
	Key Lesson

Homework Assignments (p. 320)

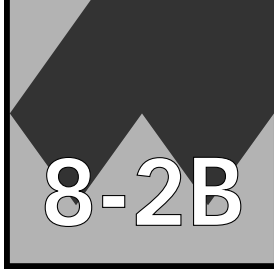
_____ Core: 11-27 odd, 29-33 _____ Enriched: 10-24 even, 26-33
 _____ Alternate Assignment: _____

- _____ Extra Practice, *SE*, p. 578
- _____ ⇨ *Practice Masters*, p. 58
- _____ ⇨ *School to Career Masters*, p. 8

4 ASSESS

- _____ Closing Activity, Modeling, *TWE*, p. 320
- _____ ⇨ *Assessment and Evaluation Masters*, Quiz A, p. 211
- _____ Extending the Lesson, *TWE*, p. 320
- _____ ⇨ *Enrichment Masters*, p. 58

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



Lesson Planning Guide (p. 321)



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

Objectives

_____ Use spreadsheets to solve problems involving proportions.

MANAGEMENT

_____ Getting Started, *TWE*, p. 321

ASSESS

_____ *TWE*, p. 321

The California Mathematics Academic Content Standards
Grade 5: MR2.3, MR2.4 Basic Lesson
Grade 6: NS1.3 Key Lesson

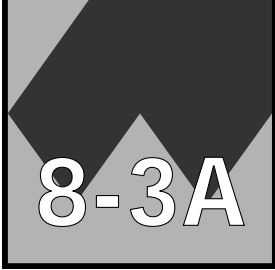
Class Activity (p. 321)

_____ All: 1-4

_____ Alternate Assignment: _____

_____ Math Journal, *TWE*, p. 321

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Lesson Planning Guide (pp. 322-323)



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

Objectives

_____ Solve problems by drawing diagrams.

1 FOCUS


_____ Getting Started, *TWE*, p. 322

2 TEACH

_____ In-Class Examples, *TWE*, p. 322
 _____ Reteaching the Lesson, *TWE*, p. 322

3 PRACTICE/APPLY

_____ Check for Understanding, *TWE*, p. 323

The California Mathematics Academic Content Standards	
Grade 5:	MR2.3, MR2.4, MR3.2
Basic Lesson	
Grade 6:	AF1.2, SDP2.3, MR2.3
	Key Lesson

Homework Assignments (p. 323)

_____ All: 5-14
 _____ Alternate Assignment: _____

_____ Extra Practice, *SE*, p. 578
 _____ Mixed Problem Solving, *SE*, pp. 593-594

4 ASSESS

_____ Closing Activity, Speaking, *TWE*, p. 323
 _____ Extending the Lesson, *TWE*, p. 323

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Lesson Planning Guide (p. 329)



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

Objectives

_____ Illustrate the meaning of percent using models.

MANAGEMENT

- _____ Getting Started, *TWE*, p. 329
- _____ ⇨ *Hands-On Lab Masters*, p. 11: grid paper
- _____ ⇨ *Teacher's Guide for Overhead Manipulative Resources*, Lesson 8-4A
- _____ ⇨ *Overhead Manipulative Resources*: decimal models

The California Mathematics Academic Content Standards
Grade 5: NS1.2, MR2.3, MR2.4 Key Lesson
Grade 6: Optional Lesson

ASSESS

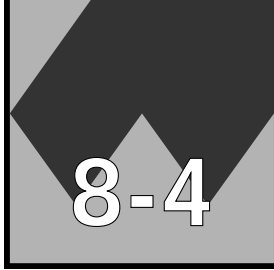
- _____ *TWE*, p. 329
- _____ ⇨ *Hands-On Lab Masters*, p. 56

Class Activity (p. 329)

_____ All: 1-4
 _____ Alternate Assignment: _____

_____ Math Journal, *TWE*, p. 329

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Lesson Planning Guide (pp. 330-333)



Teacher's Name _____ Dates _____

Grade _____ Class _____ M Tu W Th F

Objectives

_____ Express percents as fractions and vice versa.

1 FOCUS

_____ 5-Minute Check, *TWE*, p. 330

_____ ⇨ Transparency 8-4A

_____ Motivating the Lesson, Communication, *TWE*, p. 331

2 TEACH

_____ ⇨ Transparency 8-4B

_____ Using the Mini-Lab, *TWE*, p. 331

_____ ⇨ *Teacher's Guide for Overhead Manipulative Resources*,
Mini-Lab for Lesson 8-4

_____ In-Class Examples, *TWE*, p. 331

_____ ⇨ *Study Guide Masters*, p. 60

_____ Reteaching the Lesson, *TWE*, p. 332

_____ Error Analysis, *TWE*, p. 332

_____ ⇨ *CD-ROM Program*, Resource Lesson 8-4, Interactive Lesson 8-4

3 PRACTICE/APPLY

_____ Check for Understanding, *SE*, p. 332

Homework Assignments (pp. 332-333)

_____ Core: 11-35 odd, 38-43

_____ Enriched: 12-34 even, 35, 36, 38-43

_____ Optional: 37 (Working on the Chapter Project)

_____ Alternate Assignment: _____

_____ Extra Practice, *SE*, p. 579

_____ ⇨ *Practice Masters*, p. 60

4 ASSESS

_____ Closing Activity, Act It Out, *TWE*, p. 333

_____ ⇨ *Assessment and Evaluation Masters*, Mid-Chapter Test, p. 210

_____ ⇨ *Assessment and Evaluation Masters*, Quiz B, p. 211

_____ Extending the Lesson, *TWE*, p. 333

_____ ⇨ *Enrichment Masters*, p. 60

The California Mathematics Academic Content Standards

Grade 5: NS1.2, MR2.3,
MR2.4

🔑 Key Lesson

Grade 6: NS1.2, NS1.3,
NS1.4, NS2.1,
NS2.4, AF1.1,
AF1.3, AF2.1,
AF3.2, SDP2.3,
MR1.1

🔑 Key Lesson

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Lesson Planning Guide (pp. 334-336)



Teacher's Name _____ Dates _____

Grade _____ Class _____ M Tu W Th F

Objectives

_____ Express percents as decimals and vice versa.

1 FOCUS

- _____ 5-Minute Check, *TWE*, p. 334
- _____ ⇨ Transparency 8-5A
- _____ Motivating the Lesson, Hands-On-Activity, *TWE*, p. 334

2 TEACH

- _____ ⇨ Transparency 8-5B
- _____ In-Class Examples, *TWE*, p. 335
- _____ ⇨ *Study Guide Masters*, p. 61
- _____ Reteaching the Lesson, *TWE*, p. 335
- _____ Error Analysis, *TWE*, p. 335
- _____ ⇨ *CD-ROM Program*, Resource Lesson 8-5

3 PRACTICE/APPLY

- _____ Check for Understanding, *SE*, p. 335

The California Mathematics Academic Content Standards

Grade 5: NS1.2, NS1.5, MR2.3, MR2.4

🔑 **Key Lesson**

Grade 6: NS1.3, NS1.4, AF2.1, AF2.3, SDP2.3

🔑 **Key Lesson**

Homework Assignments (p. 336)

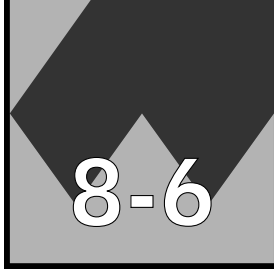
- _____ Core: 13-41 odd, 42-47
- _____ Enriched: 14-38 even, 40-47
- _____ Alternate Assignment: _____

- _____ Extra Practice, *SE*, p. 579
- _____ ⇨ *Practice Masters*, p. 61
- _____ ⇨ *Science and Mathematics Lab Manual*, pp. 81-84

4 ASSESS

- _____ Closing Activity, Modeling, *TWE*, p. 336
- _____ Extending the Lesson, *TWE*, p. 336
- _____ ⇨ *Enrichment Masters*, p. 61

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Lesson Planning Guide (pp. 337-339)



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

Objectives

_____ Estimate the percent of a number.

1 FOCUS

- _____ 5-Minute Check, *TWE*, p. 337
- _____ ⇨ Transparency 8-6A
- _____ Motivating the Lesson, Problem Solving, *TWE*, p. 337

2 TEACH

- _____ ⇨ Transparency 8-6B
- _____ Using Applications, *TWE*, p. 337
- _____ Multiple Learning Styles, Intrapersonal, *TWE*, p. 337
- _____ In-Class Examples, *TWE*, p. 338
- _____ ⇨ *Study Guide Masters*, p. 62
- _____ Reteaching the Lesson, *TWE*, p. 338
- _____ Error Analysis, *TWE*, p. 338
- _____ ⇨ *CD-ROM Program*, Resource Lesson 8-6, Interactive Lesson 8-6

3 PRACTICE/APPLY

- _____ Check for Understanding, *SE*, p. 338

The California Mathematics Academic Content Standards	
Grade 5:	NS1.2, MR2.3, MR2.4 Key Lesson
Grade 6:	NS1.4, AF3.1, AF3.2, SDP1.1, SDP2.3, MR2.1, MR2.3, MR2.7, MR3.1 Key Lesson

Homework Assignments (pp. 338-339)

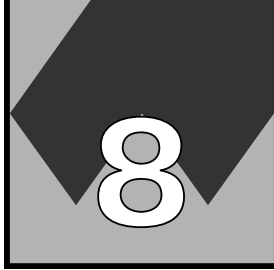
- _____ Core: 11-29 odd, 31-35
- _____ Enriched: 10-26 even, 28-35
- _____ Alternate Assignment: _____

- _____ Extra Practice, *SE*, p. 580
- _____ ⇨ *Practice Masters*, p. 62
- _____ ⇨ *Hands-On Lab Masters*, p. 76
- _____ ⇨ *Diversity Masters*, p. 8
- _____ ⇨ *Science and Mathematics Lab Manual*, pp. 85-88

4 ASSESS

- _____ Closing Activity, Writing, *TWE*, p. 339
- _____ ⇨ *Assessment and Evaluation Masters*, Quiz C, p. 212
- _____ Extending the Lesson, *TWE*, p. 339
- _____ ⇨ *Enrichment Masters*, p. 62

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Review and Assessment (pp. 344-349)



Teacher's Name _____ Dates _____

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

- _____ Study Guide and Assessment, *SE*, pp. 344-347
- _____ Standardized Test Practice, *SE*, pp. 348-349
- _____ Chapter Test, *SE*, p. 602





⇔ **Assessment and Evaluation Masters (pp. 197-215)**

Multiple-Choice Tests

- _____ Form 1A, 1B, or 1C, pp. 197-202
- _____ Standardized Test Practice, pp. 213-214

Free-Response Tests

- _____ Form 2A, 2B, or 2C, pp. 203-208
- _____ Performance Assessment, p. 209
- _____ Cumulative Review, p. 215

- _____ ⇔ *MindJogger Videoquizzes*, Chapter 8
- _____ ⇔ *Test and Review Software*
- _____ ⇔ *CD-ROM Assessment Game*
- _____ ⇔ *State Test Preparation CD-ROM*
- _____ ⇔  *California Framework Practice and Sample Test Workbook*, Grade 5
- _____ ⇔  *California Framework Practice Transparencies*, Grade 5
- _____ ⇔  *California Framework Practice and Sample Test Workbook*, Grade 6
- _____ ⇔  *California Framework Practice Transparencies*, Grade 6

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