

8 Using Proportional Reasoning

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: Recycling Waste Not, Want Not
2 & 3		*8-1A	Cooperative Learning Equal Ratios
	2	8-1	Ratios
4	3	8-2	Rates
5	4 & 5	8-3	Solving Proportions
		*8-3B	Cooperative Learning Wildlife Sampling
6	6	8-4A	Problem Solving Draw a Diagram
7	7	8-4	Scale Drawings
8	8	8-5	Percents and Fractions
9	9	8-6	Percents and Decimals
10	10	8-7	Percents Greater Than 100% and Percents Less Than 1%
11	11	8-8	Percent of a Number
12	12	8-9	The Percent Proportion
13	13	Review: Study Guide and Assessment	
14	14	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 3 and 12</p>	<p>Applications <i>Family Letters and Activities</i>, pp. 41-42 <i>Spanish Family Letters and Activities</i>, pp. 41-42</p>

8

Chapter Project (pp. 314-315)

Teacher's Name _____ Dates _____

Grade _____ Class _____ M Tu W Th F

Objectives

- _____ Investigate the various kinds of materials that can be recycled by households.
- _____ Compare the amounts of different materials using ratios and percents.

Theme: Recycling

- _____ Chapter Project, *SE*, p. 315
- _____ Chapter 8 Notes, *TWE*, p. 314
- _____ Question of the Day, *TWE*, p. 314
- _____ ⇄ *Investigations and Projects Masters*, pp. 45-48

Homework Assignments

- _____ p. 320, Working on the Chapter Project, Exercise 42
- _____ p. 345, Working on the Chapter Project, Exercise 50
- _____ p. 355, Completing the Chapter Project, Alternative Assessment

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

Lesson Planning Guide (p. 316)

8-1A

Teacher's Name _____ Dates _____

Grade _____ Class _____ M Tu W Th F

Objectives

_____ Explore the meaning of ratio and proportion

NCTM Standards:

1, 6-10

MANAGEMENT

_____ Getting Started, *TWE*, p. 316

_____ ⇨ *Hands-On Lab Masters*, p. 6: counters

_____ ⇨ *Teacher's Guide for Overhead Manipulative Resources*, Lesson 8-1A

_____ ⇨ *Overhead Manipulative Resources*: counters

Georgia Quality Core Curriculum:

Grade 7: 1, 2

ASSESS

_____ *TWE*, p. 316

_____ ⇨ *Hands-On Lab Masters*, p. 54

Class Activity (p. 316)

_____ All: 1-3

_____ Alternate Assignment: _____

_____ Math Journal, *TWE*, p. 316

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Lesson Planning Guide (pp. 317-320)

8-1

Teacher's Name _____ Dates _____

Grade _____ Class _____ M Tu W Th F

Objectives

_____ Express ratios as fractions and determine whether two ratios are equivalent.

NCTM Standards:
1-3, 5-10
Georgia Quality Core Curriculum:
Grade 7: 1, 35

1 FOCUS

_____ 5-Minute Check, *TWE*, p. 317

_____ ⇨ Transparency 8-1A

_____ Motivating the Lesson, Communication, *TWE*, p. 317

_____ Cross-Curriculum Cue, *TWE*, p. 317

2 TEACH

_____ ⇨ Transparency 8-1B

_____ Reading Mathematics, *TWE*, p. 318

_____ In-Class Examples, *TWE*, p. 318

_____ ⇨ *Study Guide Masters*, p. 58

_____ Reteaching the Lesson, *TWE*, p. 318

_____ Error Analysis, *TWE*, p. 318

_____ ⇨ *CD-ROM Program*, Resource Lesson 8-1, Interactive Lesson 8-1

3 PRACTICE/APPLY

_____ Check for Understanding, *SE*, pp. 318-319

Homework Assignments (pp. 319-320)
_____ Core: 13-41 odd, 43-48 _____ Enriched: 14-38 even, 39-41, 43-48
_____ Optional: 42 (Working on the Chapter Project)
_____ Alternate Assignment: _____

_____ Extra Practice, *SE*, p. 589

_____ ⇨ *Practice Masters*, p. 58

_____ ⇨ *Georgia Parent and Student Study Guide Workbook*, p. 65

4 ASSESS

_____ Closing Activity, Modeling, *TWE*, p. 320

_____ Extending the Lesson, *TWE*, p. 320

_____ ⇨ *Enrichment Masters*, p. 58

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Lesson Planning Guide (pp. 321-324)

8-2

Teacher's Name _____ Dates _____

Grade _____ Class _____ M Tu W Th F

Objectives

_____ Determine unit rates.

NCTM Standards:

1, 6-9

Georgia Quality Core Curriculum:

Grade 7: 1, 38, 43

1 FOCUS

_____ 5-Minute Check, *TWE*, p. 321

_____ ⇨ Transparency 8-2A

_____ Motivating the Lesson, Problem Solving, *TWE*, p. 321

_____ Multiple Learning Styles, Kinesthetic, *TWE*, p. 321

2 TEACH

_____ ⇨ Transparency 8-2B

_____ Thinking Algebraically, *TWE*, p. 322

_____ In-Class Examples, *TWE*, p. 322

_____ ⇨ *Study Guide Masters*, p. 59

_____ Reteaching the Lesson, *TWE*, p. 322

_____ Error Analysis, *TWE*, p. 322

_____ ⇨ *CD-ROM Program*, Resource Lesson 8-2

3 PRACTICE/APPLY

_____ Check for Understanding, *SE*, pp. 322-323

Homework Assignments (pp. 323-324)

_____ Core: 11-35 odd, 36-39

_____ Enriched: 12-30 even, 31-39

_____ Alternate Assignment: _____

_____ Extra Practice, *SE*, p. 589

_____ ⇨ *Practice Masters*, p. 59

_____ Family Activity, *SE*, p. 324

_____ ⇨ *Georgia Parent and Student Study Guide Workbook*, p. 66

4 ASSESS

_____ Math in the Media, *SE*, p. 324

_____ Closing Activity, Writing, *TWE*, p. 324

_____ Extending the Lesson, *TWE*, p. 324

_____ ⇨ *Enrichment Masters*, p. 59

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Lesson Planning Guide (pp. 325-328)

8-3

Teacher's Name _____ Dates _____

Grade _____ Class _____ M Tu W Th F

Objectives

_____ Solve proportions.

NCTM Standards:

1, 2, 4, 6-10

Georgia Quality Core Curriculum:**Grade 7:** 1, 5, 10, 38, 39

1 FOCUS

_____ 5-Minute Check, *TWE*, p. 325

_____ ⇨ Transparency 8-3A

_____ Motivating the Lesson, Hands-On-Activity, *TWE*, p. 325_____ Multiple Learning Styles, Naturalist, *TWE*, p. 325

2 TEACH

_____ ⇨ Transparency 8-3B

_____ Using Problem Solving, *TWE*, p. 326_____ In-Class Examples, *TWE*, p. 326_____ ⇨ *Study Guide Masters*, p. 60_____ Reteaching the Lesson, *TWE*, p. 327_____ Error Analysis, *TWE*, p. 327_____ ⇨ *CD-ROM Program*, Resource Lesson 8-3, Interactive Lesson 8-3_____ ⇨ *Interactive Mathematics Tools Software*

3 PRACTICE/APPLY

_____ Check for Understanding, *SE*, p. 327**Homework Assignments (pp. 327-328)**

_____ Core: 9-23 odd, 25-28

_____ Enriched: 8-20 even, 22-28

_____ Alternate Assignment: _____

_____ Extra Practice, *SE*, p. 590_____ ⇨ *Practice Masters*, p. 60_____ ⇨ *Science and Mathematics Lab Manual*, pp. 37-40_____ ⇨ *Georgia Parent and Student Study Guide Workbook*, p. 67

4 ASSESS

_____ Let the Games Begin, *SE*, p. 328_____ Closing Activity, Writing, *TWE*, p. 328_____ ⇨ *Assessment and Evaluation Masters*, Quiz A, p. 211_____ Extending the Lesson, *TWE*, p. 328_____ ⇨ *Enrichment Masters*, p. 60**KEY** SE = Student Edition TWE = Teacher's Wraparound Edition ⇨ = Other Program Components

Lesson Planning Guide (pp. 329)

8-3B

Teacher's Name _____ Dates _____

Grade _____ Class _____ M Tu W Th F

Objectives

_____ Use the capture-recapture technique to estimate.

NCTM Standards:

1, 6-9

MANAGEMENT

_____ Getting Started, *TWE*, p. 329

_____ ⇔ *Teacher's Guide for Overhead Manipulative Resources*, Lesson 8-3B

Georgia Quality Core Curriculum:

Grade 7: 1, 2, 39, 43

ASSESS

_____ *TWE*, p. 329

_____ ⇔ *Hands-On Lab Masters*, p. 55

Class Activity (p. 329)

_____ All: 1-4

_____ Alternate Assignment: _____

_____ Math Journal, *TWE*, p. 329

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Lesson Planning Guide (pp. 330-331)

8-4A

Teacher's Name _____ Dates _____

Grade _____ Class _____ M Tu W Th F

Objectives

_____ Solve problems by drawing a diagram.

1 FOCUS

_____ Getting Started, *TWE*, p. 330

2 TEACH

_____ In-Class Examples, *TWE*, p. 330

_____ Reteaching the Lesson, *TWE*, p. 330

3 PRACTICE/APPLY

_____ Check for Understanding, *TWE*, p. 331

NCTM Standards:
1, 6-9
Georgia Quality Core Curriculum:
Grade 7: 1, 38, 43

<i>Homework Assignments (p. 331)</i>
_____ All: 4-12
_____ Alternate Assignment: _____

_____ Extra Practice, *SE*, p. 590

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

4 ASSESS

_____ Closing Activity, Writing, *TWE*, p. 331

_____ Extending the Lesson, *TWE*, p. 331

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Lesson Planning Guide (pp. 332-335)

8-4

Teacher's Name _____ Dates _____

Grade _____ Class _____ M Tu W Th F

Objectives

_____ Solve problems involving scale drawings.

NCTM Standards:

1, 2, 6-10

Georgia Quality Core Curriculum:

Grade 7: 1, 10, 25, 38, 39

1 FOCUS

_____ 5-Minute Check, *TWE*, p. 332

_____ ⇨ Transparency 8-4A

_____ Motivating the Lesson, Hands-On-Activity, *TWE*, p. 332

2 TEACH

_____ ⇨ Transparency 8-4B

_____ In-Class Examples, *TWE*, p. 333

_____ Using the Mini-Lab, *TWE*, p. 333

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

_____ ⇨ *Study Guide Masters*, p. 61

_____ Reteaching the Lesson, *TWE*, p. 334

_____ Error Analysis, *TWE*, p. 334

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

3 PRACTICE/APPLY

_____ Check for Understanding, *SE*, p. 334

Homework Assignments (pp. 334-335)

_____ Core: 9-21 odd, 23-26

_____ Enriched: 10-20 even, 21-26

_____ Alternate Assignment: _____

_____ Extra Practice, *SE*, p. 590

_____ ⇨ *Practice Masters*, p. 61

_____ ⇨ *Hands-On Lab Masters*, p. 79

_____ ⇨ *School to Career Masters*, p. 21

_____ ⇨ *Georgia Parent and Student Study Guide Workbook*, p. 68

4 ASSESS

_____ Closing Activity, Writing, *TWE*, p. 335

_____ Extending the Lesson, *TWE*, p. 335

_____ ⇨ *Enrichment Masters*, p. 61

_____ Mid-Chapter Self Test, *SE*, p. 335

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Lesson Planning Guide (pp. 336-338)

8-5

Teacher's Name _____ Dates _____

Grade _____ Class _____ M Tu W Th F

Objectives

_____ Express fractions as percents and vice versa.

NCTM Standards:

1, 6-10

Georgia Quality Core Curriculum:

Grade 7: 1, 10, 35

1 FOCUS

_____ 5-Minute Check, *TWE*, p. 336

_____ ⇨ Transparency 8-5A

_____ Motivating the Lesson, Problem Solving, *TWE*, p. 336_____ Multiple Learning Styles, Visual/Spatial, *TWE*, p. 336

2 TEACH

_____ ⇨ Transparency 8-5B

_____ Reading Mathematics, *TWE*, p. 336_____ In-Class Examples, *TWE*, p. 337_____ ⇨ *Study Guide Masters*, p. 62_____ Reteaching the Lesson, *TWE*, p. 337_____ Error Analysis, *TWE*, p. 337_____ ⇨ *CD-ROM Program*, Resource Lesson 8-5

3 PRACTICE/APPLY

_____ Check for Understanding, *SE*, pp. 337-338

Homework Assignments (p. 338)

_____ Core: 11-33 odd, 34-38

_____ Enriched: 10-30 even, 32-38

_____ Alternate Assignment: _____

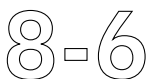
_____ Extra Practice, *SE*, p. 591_____ ⇨ *Practice Masters*, p. 62_____ ⇨ *Technology Masters*, Calculator Activity, p. 41_____ ⇨ *Georgia Parent and Student Study Guide Workbook*, p. 69

4 ASSESS

_____ Closing Activity, Modeling, *TWE*, p. 338_____ ⇨ *Assessment and Evaluation Masters*, Mid-Chapter Test, p. 210_____ ⇨ *Assessment and Evaluation Masters*, Quiz B, p. 211_____ Extending the Lesson, *TWE*, p. 338_____ ⇨ *Enrichment Masters*, p. 62

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Lesson Planning Guide (pp. 339-341)



Teacher's Name _____ Dates _____

Grade _____ Class _____ M Tu W Th F

Objectives

_____ Express decimals as percents and vice versa.

NCTM Standards:

1, 6-10

1 FOCUS

_____ 5-Minute Check, *TWE*, p. 339

_____ ⇨ Transparency 8-6A

_____ Motivating the Lesson, Problem Solving, *TWE*, p. 339

_____ Multiple Learning Styles, Logical, *TWE*, p. 339

Georgia Quality Core Curriculum:

Grade 7: 1, 29, 35

2 TEACH

_____ ⇨ Transparency 8-6B

_____ Using Calculators, *TWE*, p. 339

_____ In-Class Examples, *TWE*, p. 340

_____ ⇨ *Study Guide Masters*, p. 63

_____ Reteaching the Lesson, *TWE*, p. 340

_____ ⇨ *CD-ROM Program*, Resource Lesson 8-6

3 PRACTICE/APPLY

_____ Check for Understanding, *SE*, p. 340

Homework Assignments (pp. 340-341)

_____ Core: 11-33 odd, 35-39

_____ Enriched: 12-32 even, 33-39

_____ Alternate Assignment: _____

_____ Extra Practice, *SE*, p. 591

_____ ⇨ *Practice Masters*, p. 63

_____ ⇨ *Science and Mathematics Lab Manual*, pp. 81-84

_____ ⇨ *Georgia Parent and Student Study Guide Workbook*, p. 70

4 ASSESS

_____ Closing Activity, Speaking, *TWE*, p. 341

_____ Extending the Lesson, *TWE*, p. 341

_____ ⇨ *Enrichment Masters*, p. 63

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Lesson Planning Guide (pp. 342-345)

8-7

Teacher's Name _____ Dates _____

Grade _____ Class _____ M Tu W Th F

Objectives

_____ Express percents greater than 100% and percents less than 1% as fractions and as decimals, and vice versa.

NCTM Standards:

1, 5-10

Georgia Quality Core Curriculum:

Grade 7: 1, 28, 29, 35

1 FOCUS

_____ 5-Minute Check, *TWE*, p. 342

_____ ⇨ Transparency 8-7A

_____ Motivating the Lesson, Communication, *TWE*, p. 342

2 TEACH

_____ ⇨ Transparency 8-7B

_____ Using the Mini-Lab, *TWE*, p. 343

_____ ⇨ *Teacher's Guide for Overhead Manipulative Resources*, Mini-Lab for Lesson 8-7

_____ In-Class Examples, *TWE*, p. 343

_____ ⇨ *Study Guide Masters*, p. 64

_____ Reteaching the Lesson, *TWE*, p. 344

_____ Error Analysis, *TWE*, p. 344

_____ ⇨ *CD-ROM Program*, Resource Lesson 8-7

3 PRACTICE/APPLY

_____ Check for Understanding, *SE*, p. 344

Homework Assignments (pp. 344-345)

_____ Core: 15-51 odd, 52-57	_____ Enriched: 16-46 even, 47-49, 51-57
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_____ Optional: 345 (Working on the Chapter Project)
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_____ Alternate Assignment: _____

_____ Extra Practice, *SE*, p. 591

_____ ⇨ *Practice Masters*, p. 64

_____ ⇨ *Classroom Games*, pp. 23-25

_____ ⇨ *Georgia Parent and Student Study Guide Workbook*, p. 71

4 ASSESS

_____ Closing Activity, Speaking, *TWE*, p. 345

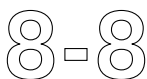
_____ ⇨ *Assessment and Evaluation Masters*, Quiz C, p. 212

_____ Extending the Lesson, *TWE*, p. 345

_____ ⇨ *Enrichment Masters*, p. 64

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Lesson Planning Guide (pp. 346-348)



Teacher's Name _____ Dates _____

Grade _____ Class _____ M Tu W Th F

Objectives

_____ Find the percent of a number.

NCTM Standards:

1, 2, 6-10

1 FOCUS

_____ 5-Minute Check, *TWE*, p. 346

_____ ⇨ Transparency 8-8A

_____ Motivating the Lesson, Communication, *TWE*, p. 346

Georgia Quality Core Curriculum:

Grade 7: 1, 3, 10, 16, 38, 39

2 TEACH

_____ ⇨ Transparency 8-8B

_____ Modeling Mathematics, *TWE*, p. 347

_____ In-Class Examples, *TWE*, p. 347

_____ ⇨ *Study Guide Masters*, p. 65

_____ Reteaching the Lesson, *TWE*, p. 347

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

3 PRACTICE/APPLY

_____ Check for Understanding, *SE*, p. 347

Homework Assignments (p. 348)

_____ Core: 9-23 odd, 24-27

_____ Enriched: 8-18 even, 20-27

_____ Alternate Assignment: _____

_____ Extra Practice, *SE*, p. 592

_____ ⇨ *Practice Masters*, p. 65

_____ ⇨ *Georgia Parent and Student Study Guide Workbook*, p. 72

4 ASSESS

_____ Closing Activity, Writing, *TWE*, p. 348

_____ Extending the Lesson, *TWE*, p. 348

_____ ⇨ *Enrichment Masters*, p. 65

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Lesson Planning Guide (pp. 349-351)

8-9

Teacher's Name _____ Dates _____

Grade _____ Class _____ M Tu W Th F

Objectives

_____ Solve problems using the percent proportion.

NCTM Standards:

1, 6-10

Georgia Quality Core Curriculum:

Grade 7: 1, 5, 10, 38, 39, 43

1 FOCUS

_____ 5-Minute Check, *TWE*, p. 349

_____ ⇨ Transparency 8-9A

_____ Motivating the Lesson, Problem Solving, *TWE*, p. 349

2 TEACH

_____ ⇨ Transparency 8-9B

_____ Thinking Algebraically, *TWE*, p. 349

_____ In-Class Examples, *TWE*, p. 350

_____ ⇨ *Study Guide Masters*, p. 66

_____ Reteaching the Lesson, *TWE*, p. 350

_____ ⇨ *CD-ROM Program*, Resource Lesson 8-9

3 PRACTICE/APPLY

_____ Check for Understanding, *SE*, p. 350

Homework Assignments (p. 351)

_____ Core: 11-31 odd, 32-36

_____ Enriched: 12-28 even, 29-36

_____ Alternate Assignment: _____

_____ Extra Practice, *SE*, p. 592

_____ ⇨ *Practice Masters*, p. 66

_____ ⇨ *Technology Masters*, Spreadsheet Activity, p. 42

_____ ⇨ *Diversity Masters*, p. 21

_____ ⇨ *Georgia Parent and Student Study Guide Workbook*, p. 73

4 ASSESS

_____ Closing Activity, Speaking, *TWE*, p. 351

_____ ⇨ *Assessment and Evaluation Masters*, Quiz D, p. 212

_____ Extending the Lesson, *TWE*, p. 351

_____ ⇨ *Enrichment Masters*, p. 66

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Review and Assessment (pp. 352-357)

Teacher's Name _____ Dates _____

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

- _____ Study Guide and Assessment, *SE*, pp. 352-355
- _____ Standardized Test Practice, *SE*, pp. 356-357
- _____ Chapter Test, *SE*, p. 614

⇔ *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*
- _____ ⇔ *Georgia Parent and Student Study Guide Workbook*, p. 74
- _____ ⇔ *Georgia Stanford 9 Practice and Sample Test Workbook*

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