

6 Exploring Number Patterns



Chapter Pacing Guide

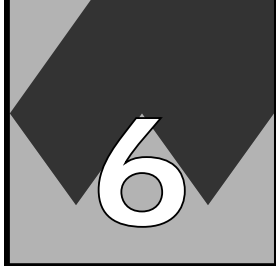
Please note that this pacing guide is based upon completing the entire text in 165 classes, approximately 50 minutes each. More time can be allotted for this chapter if you do not plan to teach the entire text.

Day (Standard)	Day (Honors)	Lesson	Title
1	1	*Chapter Project	Theme: Sports Take Me Out to the Ball Game
2		6-1	Divisibility Patterns
3 & 4	2 & 3	6-2	Prime Factorization
		*6-2B	<small>HANDS-ON LAB</small> Cooperative Learning Basketball Factors
5	4	6-3A	<small>THINKING LAB</small> Problem Solving Make a List
6	5	6-3	Greatest Common Factor
7	6	6-4	Rational Numbers
8	7	6-5	Rational Numbers and Decimals
9	8	6-6	Integration: Probability Simple Events
10	9	6-7	Least Common Multiple
11 & 12	10	*6-8A	<small>HANDS-ON LAB</small> Cooperative Learning Density Property
		6-8	Comparing and Ordering Rational Numbers
13	11	6-9	Scientific Notation
14	12	Review: Study Guide and Assessment	
15	13	Assessment: Chapter Test	

* Optional

Chapter Resources

<p>Meeting Individual Needs <i>Investigations for the Special Education Student, Author's Fair</i>, pp. 13-14 <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 10 and 11</p>	<p>Applications <i>Family Letters and Activities</i>, pp. 63-64 <i>Spanish Family Letters and Activities</i>, pp. 63-64</p>



Chapter Project (pp. 230-231)



Teacher's Name _____ Dates _____

Grade _____ Class _____ M Tu W Th F

Objectives

- _____ Learn how to organize data.
- _____ Learn to compare data by using their knowledge of rational numbers and probability.
- _____ Students should be able to express data they collect and make comparisons of the data in verbal form.

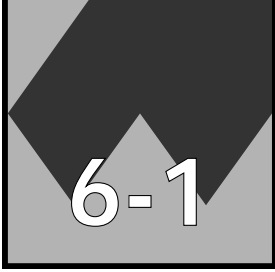
Theme: Sports

- _____ Chapter Project, *SE*, p. 231
- _____ Chapter 6 Notes, *TWE*, p. 230
- _____ Question of the Day, *TWE*, p. 230
- _____ ⇔ *Investigations and Projects Masters*, pp. 37-40

Homework Assignments

- _____ p. 248, Working on the Chapter Project, Exercise 33
- _____ p. 252, Working on the Chapter Project, Exercise 41
- _____ p. 264, Working on the Chapter Project, Exercise 32
- _____ p. 271, Completing the Chapter Project, Alternative Assessment

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



Lesson Planning Guide (pp. 232-234)



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

Objectives

_____ Use divisibility rules for 2, 3, 4, 5, 6, 8, 9, and 10.

NCTM Standards: 1, 2, 6-9
Georgia Quality Core Curriculum: Grade 8: 1, 40

1 FOCUS

- _____ 5-Minute Check, *TWE*, p. 232
- _____ ⇨ Transparency 6-1A
- _____ Motivating the Lesson, Hands-On-Activity, *TWE*, p. 232

2 TEACH

- _____ ⇨ Transparency 6-1B
- _____ Using Mental Math, *TWE*, p. 233
- _____ In-Class Examples, *TWE*, p. 233
- _____ ⇨ *Study Guide Masters*, p. 41
- _____ Reteaching the Lesson, *TWE*, p. 233
- _____ Error Analysis, *TWE*, p. 233
- _____ ⇨ *CD-ROM Program*, Resource Lesson 6-1
- _____ ⇨ *Interactive Mathematics Tools Software*

3 PRACTICE/APPLY

- _____ Check for Understanding, *SE*, p. 233

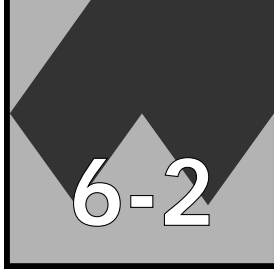
Homework Assignments (p. 234)	
_____ Core: 13-33 odd, 34-38	_____ Enriched: 12-30 even, 32-38
_____ Alternate Assignment: _____	

- _____ Extra Practice, *SE*, p. 620
- _____ ⇨ *Practice Masters*, p. 41
- _____ ⇨ *Technology Masters*, Spreadsheet Activity, p. 64
- _____ ⇨ *Georgia Parent and Student Study Guide Workbook*, p. 46

4 ASSESS

- _____ Closing Activity, Modeling, *TWE*, p. 234
- _____ Extending the Lesson, *TWE*, p. 234
- _____ ⇨ *Enrichment Masters*, p. 41

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Lesson Planning Guide (pp. 235-238)



Teacher's Name _____ Dates _____

Grade _____ Class _____ M Tu W Th F

Objectives

_____ Find the prime factorization of a composite number.

NCTM Standards: 1, 6-10
Georgia Quality Core Curriculum: Grade 8: 1, 3, 35, 36, 40

1 FOCUS

_____ 5-Minute Check, *TWE*, p. 235

_____ ⇨ Transparency 6-2A

_____ Motivating the Lesson, Problem Solving, *TWE*, p. 235

2 TEACH

_____ ⇨ Transparency 6-2B

_____ Using the Mini-Lab, *TWE*, p. 235

_____ ⇨ *Teacher's Guide for Overhead Manipulative Resources*, Mini-Lab for Lesson 6-2

_____ Multiple Learning Styles, Logical, *TWE*, p. 235

_____ In-Class Examples, *TWE*, p. 236

_____ ⇨ *Study Guide Masters*, p. 42

_____ Reteaching the Lesson, *TWE*, p. 236

_____ ⇨ *CD-ROM Program*, Resource Lesson 6-2

3 PRACTICE/APPLY

_____ Check for Understanding, *SE*, p. 237

Homework Assignments (pp. 237-238)

_____ Core: 11-31 odd, 33-37

_____ Enriched: 12-28 even, 30-37

_____ Alternate Assignment: _____

_____ Extra Practice, *SE*, p. 620

_____ ⇨ *Practice Masters*, p. 42

_____ ⇨ *Classroom Games*, pp. 17-18

_____ ⇨  *Georgia Parent and Student Study Guide Workbook*, p. 47

4 ASSESS

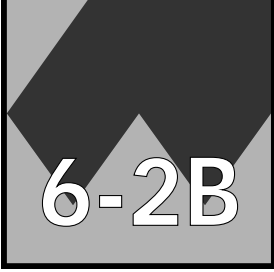
_____ Let the Games Begin, *SE*, p. 238

_____ Closing Activity, Writing, *TWE*, p. 238

_____ Extending the Lesson, *TWE*, p. 238

_____ ⇨ *Enrichment Masters*, p. 42

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Lesson Planning Guide (p. 239)



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

Objectives

_____ Discover the relationship of relatively prime numbers.

MANAGEMENT

_____ Getting Started, *TWE*, p. 239

ASSESS

_____ *TWE*, p. 239

_____ ⇄ *Hands-On Lab Masters*, p. 51

NCTM Standards: 1-3, 6-10
Georgia Quality Core Curriculum: Grade 8: 1, 2, 35, 37, 45

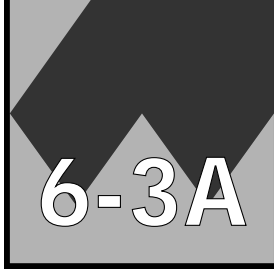
Class Activity (p. 239)

_____ All: 1-4

_____ Alternate Assignment: _____

_____ Math Journal, *TWE*, p. 239

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



Lesson Planning Guide (pp. 240-241)



Teacher's Name _____ Dates _____

Grade _____ Class _____ M Tu W Th F

Objectives

_____ Solve problems by making an organized list.

1 FOCUS

_____ Getting Started, *TWE*, p. 240

2 TEACH

_____ In-Class Example, *TWE*, p. 240

_____ Reteaching the Lesson, *TWE*, p. 240

3 PRACTICE/APPLY

_____ Check for Understanding, *TWE*, p. 241

NCTM Standards: 1, 2, 6-9
Georgia Quality Core Curriculum: Grade 8: 1, 2, 37, 40

Homework Assignments (p. 241)

_____ All: 4-13

_____ Alternate Assignment: _____

_____ Extra Practice, *SE*, p. 620

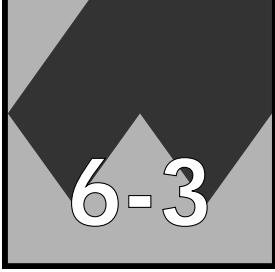
_____ Problem Solving, *SE*, pp. 645-646

4 ASSESS

_____ Closing Activity, Writing, *TWE*, p. 241

_____ Extending the Lesson, *TWE*, p. 241

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Lesson Planning Guide (pp. 242-244)



Teacher's Name _____ Dates _____

Grade _____ Class _____ M Tu W Th F

Objectives

_____ Find the greatest common factor of two or more numbers.

NCTM Standards: 1, 2, 6-10
Georgia Quality Core Curriculum: Grade 8: 1, 35, 37

1 FOCUS

- _____ 5-Minute Check, *TWE*, p. 242
- _____ ⇨ Transparency 6-3A
- _____ Motivating the Lesson, Communication, *TWE*, p. 242

2 TEACH

- _____ ⇨ Transparency 6-3B
- _____ Reading Mathematics, *TWE*, p. 242
- _____ In-Class Examples, *TWE*, p. 243
- _____ ⇨ *Study Guide Masters*, p. 43
- _____ Reteaching the Lesson, *TWE*, p. 243
- _____ Error Analysis, *TWE*, p. 243
- _____ ⇨ *CD-ROM Program*, Resource Lesson 6-3, Interactive Lesson 6-3
- _____ ⇨ *Interactive Mathematics Tools Software*

3 PRACTICE/APPLY

- _____ Check for Understanding, *SE*, pp. 243-244

Homework Assignments (p. 244)

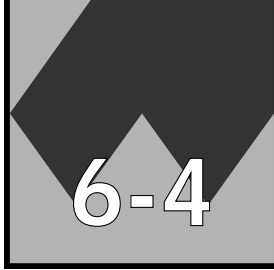
_____ Core: 9-25 odd, 26-29 _____ Enriched: 10-22 even, 24-29
 _____ Alternate Assignment: _____

- _____ Extra Practice, *SE*, p. 621
- _____ ⇨ *Practice Masters*, p. 43
- _____ ⇨ *Georgia Parent and Student Study Guide Workbook*, p. 48

4 ASSESS

- _____ Closing Activity, Speaking, *TWE*, p. 244
- _____ ⇨ *Assessment and Evaluation Masters*, Quiz A, p. 155
- _____ Extending the Lesson, *TWE*, p. 244
- _____ ⇨ *Enrichment Masters*, p. 43

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Lesson Planning Guide (pp. 245-248)



Teacher's Name _____ Dates _____

Grade _____ Class _____ M Tu W Th F

Objectives

_____ Identify and simplify rational numbers.

NCTM Standards: 1-3, 6-10
Georgia Quality Core Curriculum: Grade 8: 1, 37, 38

1 FOCUS

_____ 5-Minute Check, *TWE*, p. 245

_____ ⇨ Transparency 6-4A

_____ Motivating the Lesson, Communication, *TWE*, p. 245

2 TEACH

_____ ⇨ Transparency 6-4B

_____ Using Cooperative Groups, *TWE*, p. 245

_____ In-Class Examples, *TWE*, p. 246

_____ ⇨ *Study Guide Masters*, p. 44

_____ Reteaching the Lesson, *TWE*, p. 247

_____ Error Analysis, *TWE*, p. 247

_____ ⇨ *Transition Booklet*, pp. 15-18

_____ ⇨ *CD-ROM Program*, Resource Lesson 6-4

3 PRACTICE/APPLY

_____ Check for Understanding, *SE*, p. 247

Homework Assignments (pp. 247-248)

_____ Core: 11-31 odd, 34-38

_____ Enriched: 10-30 even, 31, 32, 34-38

_____ Optional: 33 (Working on the Chapter Project)

_____ Alternate Assignment: _____

_____ Extra Practice, *SE*, p. 621

_____ ⇨ *Practice Masters*, p. 44

_____ ⇨ *Georgia Parent and Student Study Guide Workbook*, p. 49

4 ASSESS

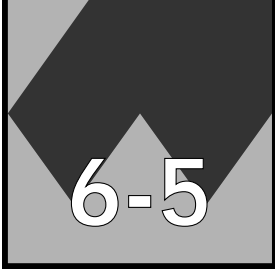
_____ Closing Activity, Modeling, *TWE*, p. 248

_____ Extending the Lesson, *TWE*, p. 248

_____ ⇨ *Enrichment Masters*, p. 44

_____ Mid-Chapter Self Test, *SE*, p. 248

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Lesson Planning Guide (pp. 249-252)



Teacher's Name _____ Dates _____

Grade _____ Class _____ M Tu W Th F

Objectives

_____ Express rational numbers as decimals and decimals as fractions.

NCTM Standards: 1, 2, 4, 6-10
Georgia Quality Core Curriculum: Grade 8: 1, 3, 18, 30, 38

1 FOCUS

- _____ 5-Minute Check, *TWE*, p. 249
- _____ ⇨ Transparency 6-5A
- _____ Motivating the Lesson, Hands-On-Activity, *TWE*, p. 249
- _____ Cross-Curriculum Cue, *TWE*, p. 249

2 TEACH

- _____ ⇨ Transparency 6-5B
- _____ Using Mental Math, *TWE*, p. 250
- _____ In-Class Examples, *TWE*, pp. 250, 251
- _____ ⇨ *Study Guide Masters*, p. 45
- _____ Reteaching the Lesson, *TWE*, p. 251
- _____ ⇨ *CD-ROM Program*, Resource Lesson 6-5

3 PRACTICE/APPLY

- _____ Check for Understanding, *SE*, p. 251

Homework Assignments (pp. 251-252)

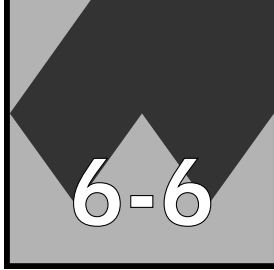
- _____ Core: 13-39 odd, 42-47 _____ Enriched: 14-36 even, 38-40, 42-47
- _____ Optional: 41 (Working on the Chapter Project)
- _____ Alternate Assignment: _____

- _____ Extra Practice, *SE*, p. 621
- _____ ⇨ *Practice Masters*, p. 45
- _____ ⇨ *School to Career Masters*, p. 32
- _____ ⇨ *Georgia Parent and Student Study Guide Workbook*, p. 50

4 ASSESS

- _____ Closing Activity, Speaking, *TWE*, p. 252
- _____ ⇨ *Assessment and Evaluation Masters*, Mid-Chapter Test, p. 154
- _____ ⇨ *Assessment and Evaluation Masters*, Quiz B, p. 155
- _____ ⇨ Extending the Lesson, *TWE*, p. 252
- _____ ⇨ *Enrichment Masters*, p. 45

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Lesson Planning Guide (pp. 253-256)



Teacher's Name _____ Dates _____

Grade _____ Class _____ M Tu W Th F

Objectives

_____ Find the probability of a simple event.

NCTM Standards: 1, 3, 5-10
Georgia Quality Core Curriculum: Grade 8: 1, 39

1 FOCUS

- _____ 5-Minute Check, *TWE*, p. 253
- _____ ⇨ Transparency 6-6A
- _____ Motivating the Lesson, Problem Solving, *TWE*, p. 253

2 TEACH

- _____ ⇨ Transparency 6-6B
- _____ Reading Mathematics, *TWE*, p. 254
- _____ In-Class Examples, *TWE*, p. 254
- _____ ⇨ *Study Guide Masters*, p. 46
- _____ Reteaching the Lesson, *TWE*, p. 254
- _____ ⇨ *CD-ROM Program*, Resource Lesson 6-6, Interactive Lesson 6-6

3 PRACTICE/APPLY

- _____ Check for Understanding, *SE*, p. 254

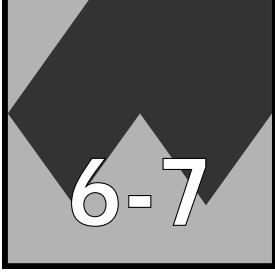
Homework Assignments (pp. 255-256)	
_____ Core: 11-33 odd, 35-39	_____ Enriched: 12-32 even, 33-39
_____ Alternate Assignment: _____	

- _____ Extra Practice, *SE*, p. 622
- _____ ⇨ *Practice Masters*, p. 46
- _____ ⇨ *Georgia Parent and Student Study Guide Workbook*, p. 51

4 ASSESS

- _____ Closing Activity, Modeling, *TWE*, p. 256
- _____ Extending the Lesson, *TWE*, p. 256
- _____ ⇨ *Enrichment Masters*, p. 46

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Lesson Planning Guide (pp. 257-259)



Teacher's Name _____ Dates _____

Grade _____ Class _____ M Tu W Th F

Objectives

_____ Find the least common multiple of two or more numbers.

NCTM Standards: 1, 2, 6-9
Georgia Quality Core Curriculum: Grade 8: 1, 35, 37

1 FOCUS

- _____ 5-Minute Check, *TWE*, p. 257
- _____ ⇨ Transparency 6-7A
- _____ Motivating the Lesson, Hands-On-Activity, *TWE*, p. 257

2 TEACH

- _____ ⇨ Transparency 6-7B
- _____ Using the Mini-Lab, *TWE*, p. 257
- _____ ⇨ *Teacher's Guide for Overhead Manipulative Resources*, Mini-Lab for Lesson 6-7
- _____ Multiple Learning Styles, Auditory/Musical, *TWE*, p. 257
- _____ In-Class Examples, *TWE*, p. 258
- _____ ⇨ *Study Guide Masters*, p. 47
- _____ Reteaching the Lesson, *TWE*, p. 258
- _____ Error Analysis, *TWE*, p. 258
- _____ ⇨ *CD-ROM Program*, Resource Lesson 6-7, Interactive Lesson 6-7

3 PRACTICE/APPLY

- _____ Check for Understanding, *SE*, pp. 258-259

Homework Assignments (p. 259)	
_____ Core: 11-33 odd, 34-38	_____ Enriched: 12-30 even, 32-38
_____ Alternate Assignment: _____	

- _____ Extra Practice, *SE*, p. 622
- _____ ⇨ *Practice Masters*, p. 47
- _____ ⇨ *Georgia Parent and Student Study Guide Workbook*, p. 52

4 ASSESS

- _____ Closing Activity, Writing, *TWE*, p. 259
- _____ ⇨ *Assessment and Evaluation Masters*, Quiz C, p. 156
- _____ Extending the Lesson, *TWE*, p. 259
- _____ ⇨ *Enrichment Masters*, p. 47

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Lesson Planning Guide (p. 260)



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

Objectives

_____ Use customary units of measurement to understand the density property.

NCTM Standards: 1, 2, 5-9
Georgia Quality Core Curriculum: Grade 8: 1, 2, 3, 33

MANAGEMENT

- _____ Getting Started, *TWE*, p. 260
- _____ ⇨ *Hands-On Lab Masters*, p. 15: number line
- _____ ⇨ *Teacher's Guide for Overhead Manipulative Resources*, Lesson 6-8A
- _____ ⇨ *Overhead Manipulative Resources*: number line transparency

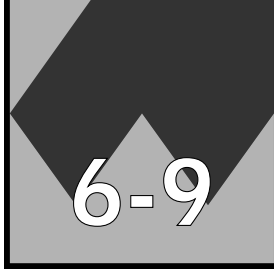
ASSESS

- _____ *TWE*, p. 260
- _____ ⇨ *Hands-On Lab Masters*, p. 52

Class Activity (p. 260)
_____ All: 1-4
_____ Alternate Assignment: _____

_____ Math Journal, *TWE*, p. 260

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Lesson Planning Guide (pp. 265-267)



Teacher's Name _____ Dates _____

Grade _____ Class _____ M Tu W Th F

Objectives

_____ Express numbers in scientific notation.

NCTM Standards: 1, 4, 6-9
Georgia Quality Core Curriculum: Grade 8: 1, 3, 18, 33, 38

1 FOCUS

- _____ 5-Minute Check, *TWE*, p. 265
- _____ ⇨ Transparency 6-9A
- _____ Motivating the Lesson, Problem Solving, *TWE*, p. 265
- _____ Multiple Learning Styles, Verbal/Linguistic, *TWE*, p. 265

2 TEACH

- _____ ⇨ Transparency 6-9B
- _____ Thinking Algebraically, *TWE*, p. 265
- _____ In-Class Examples, *TWE*, p. 266
- _____ ⇨ *Study Guide Masters*, p. 49
- _____ Reteaching the Lesson, *TWE*, p. 266
- _____ ⇨ *Transition Booklet*, pp. 9-10
- _____ ⇨ *CD-ROM Program*, Resource Lesson 6-9

3 PRACTICE/APPLY

- _____ Check for Understanding, *SE*, p. 266

Homework Assignments (pp. 266-267)	
_____ Core: 11-31 odd, 32-36	_____ Enriched: 10-28 even, 30-36
_____ Alternate Assignment: _____	

- _____ Extra Practice, *SE*, p. 623
- _____ ⇨ Practice Masters, p. 49
- _____ ⇨ Diversity Masters, p. 32
- _____ Family Activity, *SE*, p. 267
- _____ ⇨ *Technology Masters*, Calculator Activity, p. 63
- _____ Math in the Media, *SE*, p. 267
- _____ ⇨ *Georgia Parent and Student Study Guide Workbook*, p. 54

4 ASSESS

- _____ Closing Activity, Writing, *TWE*, p. 267
- _____ ⇨ *Assessment and Evaluation Masters*, Quiz D, p. 156
- _____ Extending the Lesson, *TWE*, p. 267
- _____ ⇨ *Enrichment Masters*, p. 49

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Review and Assessment (pp. 268-275)



Teacher's Name _____ Dates _____

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



- _____ Study Guide and Assessment, *SE*, pp. 268-271
- _____ Standardized Test Practice, *SE*, pp. 272-273
- _____ Chapter Test, *SE*, p. 652

⇔ **Assessment and Evaluation Masters (pp. 141-159)**

Multiple-Choice Tests

Free-Response Tests

- | | |
|--|---------------------------------------|
| _____ Form 1A, 1B, or 1C, pp. 141-146 | _____ Form 2A, 2B, or 2C, pp. 147-152 |
| _____ Standardized Test Practice,
pp. 157-158 | _____ Performance Assessment, p. 153 |
| | _____ Cumulative Review, p. 159 |

- _____ ⇔ *MindJogger Videoquizzes*, Chapter 6
- _____ ⇔ *Test and Review Software*
- _____ ⇔ *CD-ROM Assessment Game*
- _____ ⇔ *State Test Preparation CD-ROM*
- _____ ⇔  *Georgia Parent and Student Study Guide Workbook*, p. 55
- _____ ⇔  *Georgia Stanford 9 Practice and Sample Test Workbook*

Interdisciplinary Investigation, SE, pp. 274-275

- _____ ⇔ *Interdisciplinary Investigation, TWE*, pp. 274-275
- _____ ⇔ *Investigations and Projects Masters*, pp. 5-8

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