

6 Exploring Number Patterns



Chapter Pacing Guide

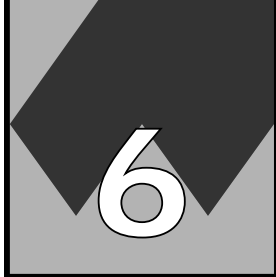
Please note that this pacing guide is based upon completing the entire text in 165 classes, approximately 50 minutes each. More time can be allotted for this chapter if you do not plan to teach the entire text.

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</i>, Author's Fair, pp. 13-14 <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 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.
- _____ State/local objectives: _____

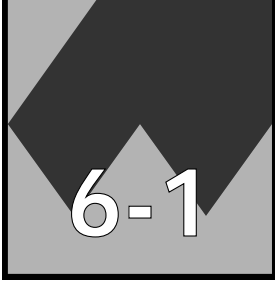
Theme: Sports

- _____ 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.
- _____ State/local objectives: _____

NCTM Standards:
1, 2, 6-9

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

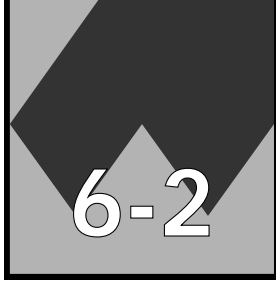
_____ Alternate Assignment: _____

- _____ Extra Practice, *SE*, p. 620
- _____ ⇨ *Practice Masters*, p. 41
- _____ ⇨ *Technology Masters*, Spreadsheet Activity, p. 64
- _____ ⇨ *South Carolina 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

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



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.
- _____ State/local objectives: _____

NCTM Standards: 1, 6-10
South Carolina Math Curriculum Standards
Grade 8: ALG II.A.1.

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

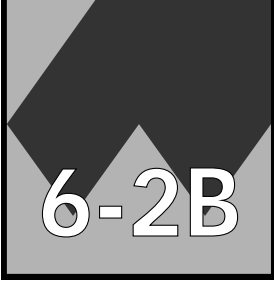
Homework Assignments (pp. 237-238)	
_____ Core: 11-31 odd, 33-37	_____ Enriched: 12-28 even, 30-37
_____ Alternate Assignment: _____	

- _____ Extra Practice, *SE*, p. 620
- _____ ⇨ *Practice Masters*, p. 42
- _____ ⇨ *Classroom Games*, pp. 17-18
- _____ ⇨ *South Carolina 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

KEY	<i>SE</i> = Student Edition	<i>TWE</i> = Teacher's Wraparound Edition	⇨ = Other Program Components
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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.
- _____ State/local objectives: _____

NCTM Standards:
1-3, 6-10

MANAGEMENT

- _____ Getting Started, *TWE*, p. 239

ASSESS

- _____ *TWE*, p. 239
- _____ ⇄ *Hands-On Lab Masters*, p. 51

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.
- _____ State/local objectives: _____

NCTM Standards: 1, 2, 6-9
South Carolina Math Curriculum Standards Grade 8: NO I.A.1., NO III.A.1.

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

Homework Assignments (p. 241)

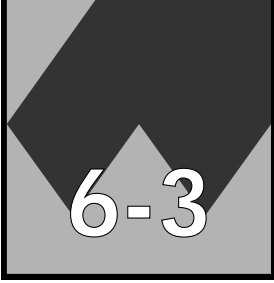
- _____ All: 4-13
- _____ Alternate Assignment: _____

- _____ 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.
- _____ State/local objectives: _____

NCTM Standards:
1, 2, 6-10

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

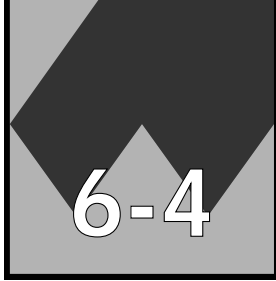
_____ Alternate Assignment: _____

- _____ Extra Practice, *SE*, p. 621
- _____ ⇨ *Practice Masters*, p. 43
- _____ ⇨ *South Carolina 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

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



Lesson Planning Guide (pp. 245-248)



Teacher's Name _____ Dates _____

Grade _____ Class _____ M Tu W Th F

Objectives

- _____ Identify and simplify rational numbers.
- _____ State/local objectives: _____

NCTM Standards:
1-3, 6-10

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)

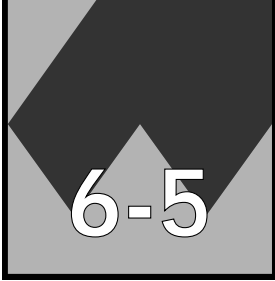
_____ Alternate Assignment: _____

- _____ Extra Practice, *SE*, p. 621
- _____ ⇨ *Practice Masters*, p. 44
- _____ ⇨ *South Carolina 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.
- _____ State/local objectives: _____

NCTM Standards:
1, 2, 4, 6-10

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)

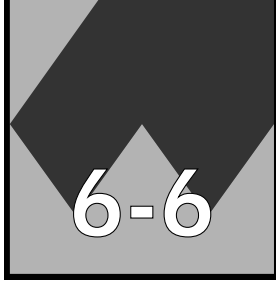
_____ Alternate Assignment: _____

- _____ Extra Practice, *SE*, p. 621
- _____ ⇨ *Practice Masters*, p. 45
- _____ ⇨ *School to Career Masters*, p. 32
- _____ ⇨ *South Carolina 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.
- _____ State/local objectives: _____

NCTM Standards: 1, 3, 5-10
South Carolina Math Curriculum Standards
Grade 8: DAP IV.B.1., DAP IV.C.2.

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

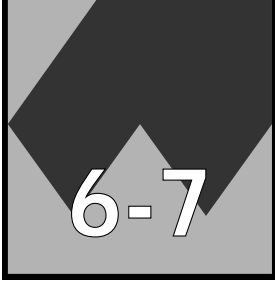
Homework Assignments (pp. 255-256)	
_____ Core: 11-33 odd, 35-39	_____ Enriched: 12-32 even, 33-39
_____ Alternate Assignment: _____	

- _____ Extra Practice, *SE*, p. 622
- _____ ⇨ *Practice Masters*, p. 46
- _____ ⇨ *South Carolina 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.
- _____ State/local objectives: _____

NCTM Standards:
1, 2, 6-9

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
- _____ ⇨ *South Carolina 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.
- _____ State/local objectives: _____

NCTM Standards: 1, 2, 5-9
South Carolina Math Curriculum Standards
Grade 8: NO III.A.1.

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

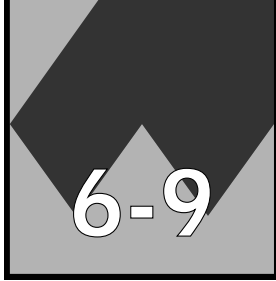
ASSESS

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

<i>Class Activity (p. 260)</i>
_____ 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.
- _____ State/local objectives: _____

NCTM Standards: 1, 4, 6-9
Mississippi Mathematics Frameworks Grade 8: NO I.E.1.

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
- _____ ⇨ *South Carolina 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
- _____ Standardized Test Practice, pp. 157-158

- _____ Form 2A, 2B, or 2C, pp. 147-152
- _____ 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*
- _____ ⇔  *South Carolina Parent and Student Study Guide Workbook*, p. 55
- _____ ⇔  *South Carolina PACT Workbook and Test Preparation, Grade 8*

Interdisciplinary Investigation, SE, pp. 274-275

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

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