

6 Algebra: Exploring Equations and Functions



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: Roller Coasters America's Scream Machines
2 & 3		*6-1A	<small>HANDS-ON LAB</small> Cooperative Learning Solving Equations Using Models
	2	6-1	Solving Addition and Subtraction Equations
4	3	6-1B	<small>THINKING LAB</small> Problem Solving Work Backward
5	4	6-2	Solving Multiplication Equations
6 & 7		*6-3A	<small>HANDS-ON LAB</small> Cooperative Learning Solving Two-Step Equations
	5 & 6	6-3	Solving Two-Step Equations
8	7	6-4	Writing Expressions and Equations
9	8	6-5	Inequalities
10	9 & 10	6-6	Functions and Graphs
11 & 12		*6-7A	<small>HANDS-ON LAB</small> Cooperative Learning A Function of Time
	11	6-7	Functions and Equations
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</i>, <i>How Does Your Garden Grow?</i>, pp. 39-42 <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 13 and 16</p>	<p>Applications <i>Family Letters and Activities</i>, pp. 37-38 <i>Spanish Family Letters and Activities</i>, pp. 37-38</p>



Chapter Project (pp. 224-225)



Teacher's Name _____ Dates _____

Grade _____ Class _____ M Tu W Th F

Objectives

- _____ Use equations to determine average speed from distance and time measurements.
- _____ Use graphs and charts to compare quantities.
- _____ State/local objectives: _____

NCTM Standards:

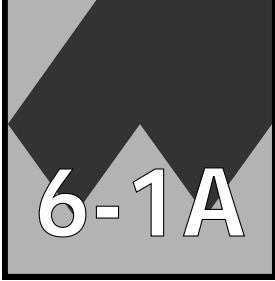
Theme: Roller Coasters

- _____ Chapter Project, *SE*, p. 225
- _____ Chapter 6 Notes, *TWE*, p. 224
- _____ Question of the Day, *TWE*, p. 224
- _____ ⇨ *Investigations and Projects Masters*, pp. 37-40

Homework Assignments

- _____ p. 236, Working on the Chapter Project, Exercise 32
- _____ p. 252, Working on the Chapter Project, Exercise 8
- _____ p. 257, Working on the Chapter Project, Exercise 30
- _____ p. 261, Completing the Chapter Project, Alternative Assessment

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



Lesson Planning Guide (pp. 226-227)



Teacher's Name _____ Dates _____

Grade _____ Class _____ M Tu W Th F

Objectives

- _____ Use models to solve equations.
- _____ State/local objectives: _____

NCTM Standards: 1, 2, 6-10
South Carolina Math Curriculum Standards Grade 7: ALG II.D.2.

MANAGEMENT

- _____ Getting Started, *TWE*, p. 226
- _____ ⇨ *Hands-On Lab Masters*, p. 6: integer counters;
p. 7: pattern for cup; p. 9: equation mat
- _____ ⇨ *Teacher's Guide for Overhead Manipulative Resources*, Lesson 6-1A
- _____ ⇨ *Overhead Manipulative Resources*: cups, counters, equation mat

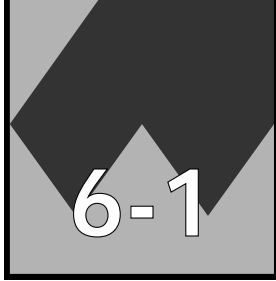
ASSESS

- _____ *TWE*, p. 227
- _____ ⇨ *Hands-On Lab Masters*, p. 49

Class Activity (pp. 226-227)
_____ All: 1-15
_____ Alternate Assignment: _____

_____ Math Journal, *TWE*, p. 227

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



Lesson Planning Guide (pp. 228-231)



Teacher's Name _____ Dates _____

Grade _____ Class _____ M Tu W Th F

Objectives

- _____ Solve addition and subtraction equations.
- _____ State/local objectives: _____

NCTM Standards: 1, 2, 6-10
South Carolina Math Curriculum Standards
Grade 7: ALG I.B.1., ALG II.C.1., ALG II.D.1., ALG II.D.2.

1 FOCUS

- _____ 5-Minute Check, *TWE*, p. 228
- _____ ⇨ Transparency 6-1A
- _____ Motivating the Lesson, Hands-On-Activity, *TWE*, p. 228

2 TEACH

- _____ ⇨ Transparency 6-1B
- _____ Thinking Algebraically, *TWE*, p. 229
- _____ Multiple Learning Styles, Kinesthetic, *TWE*, p. 229
- _____ In-Class Examples, *TWE*, p. 229
- _____ ⇨ *Study Guide Masters*, p. 42
- _____ Reteaching the Lesson, *TWE*, p. 230
- _____ Error Analysis, *TWE*, p. 230
- _____ ⇨ *CD-ROM Program*, Resource Lesson 6-1, Interactive Lesson 6-1
- _____ ⇨ *Interactive Mathematics Tools Software*

3 PRACTICE/APPLY

- _____ Check for Understanding, *SE*, p. 230

Homework Assignments (p. 231)

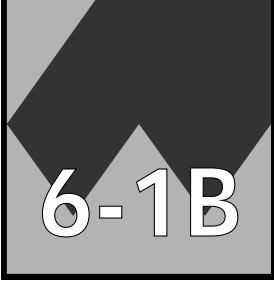
- | | |
|-----------------------------------|-----------------------------------|
| _____ Core: 13-33 odd, 35-39 | _____ Enriched: 12-30 even, 32-39 |
| _____ Alternate Assignment: _____ | |

- _____ Extra Practice, *SE*, p. 583
- _____ ⇨ *Practice Masters*, p. 42
- _____ ⇨ *Technology Masters*, Calculator Activity, p. 37
- _____ ⇨ *South Carolina Parent and Student Study Guide Workbook*, p. 47

4 ASSESS

- _____ Closing Activity, Writing, *TWE*, p. 231
- _____ Extending the Lesson, *TWE*, p. 231
- _____ ⇨ *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 (pp. 232-233)



Teacher's Name _____ Dates _____

Grade _____ Class _____ M Tu W Th F

Objectives

- _____ Solve problems by working backward.
- _____ State/local objectives: _____

NCTM Standards: 1, 6-9
South Carolina Math Curriculum Standards Grade 7: ALG II.D.2.

1 FOCUS

- _____ Getting Started, *TWE*, p. 232

2 TEACH

- _____ In-Class Examples, *TWE*, p. 232
- _____ Reteaching the Lesson, *TWE*, p. 232

3 PRACTICE/APPLY

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

Homework Assignments (p. 233)

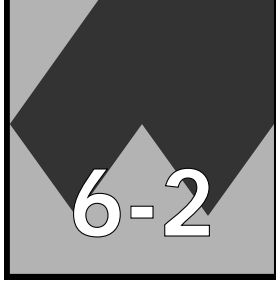
- _____ All: 5-15
- _____ Alternate Assignment: _____

- _____ Extra Practice, *SE*, p. 583
- _____ Mixed Problem Solving, *SE*, pp. 605-606

4 ASSESS

- _____ Closing Activity, Writing, *TWE*, p. 233
- _____ Extending the Lesson, *TWE*, p. 233

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Lesson Planning Guide (pp. 234-237)



Teacher's Name _____ Dates _____

Grade _____ Class _____ M Tu W Th F

Objectives

- _____ Solve multiplication equations.
- _____ State/local objectives: _____

NCTM Standards: 1, 2, 6-10
South Carolina Math Curriculum Standards
Grade 7: ALG I.B.1., ALG II.C.1., ALG II.D.1., ALG II.D.2.

1 FOCUS

- _____ 5-Minute Check, *TWE*, p. 234
- _____ ⇨ Transparency 6-2A
- _____ Motivating the Lesson, Problem Solving, *TWE*, p. 234
- _____ Multiple Learning Styles, Interpersonal, *TWE*, p. 234

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
- _____ In-Class Examples, *TWE*, p. 235
- _____ ⇨ *Study Guide Masters*, p. 43
- _____ Reteaching the Lesson, *TWE*, p. 236
- _____ Error Analysis, *TWE*, p. 236
- _____ ⇨ *CD-ROM Program*, Resource Lesson 6-2, Interactive Lesson 6-2

3 PRACTICE/APPLY

- _____ Check for Understanding, *SE*, p. 236

Homework Assignments (pp. 236-237)	
_____ Core: 11-33 odd, 34-38	_____ Enriched: 12-30 even, 31, 33-38
_____ Optional: 32 (Working on the Chapter Project)	
_____ Alternate Assignment: _____	

- _____ Extra Practice, *SE*, p. 584
- _____ ⇨ *Hands-On Lab Masters*, p. 77
- _____ ⇨ *Practice Masters*, p. 43
- _____ ⇨ *Diversity Masters*, p. 19
- _____ ⇨ *South Carolina Parent and Student Study Guide Workbook*, p. 48

4 ASSESS

- _____ Let the Games Begin, *SE*, p. 237
- _____ Closing Activity, Speaking, *TWE*, p. 237
- _____ ⇨ *Assessment and Evaluation Masters*, Quiz A, p. 155
- _____ Extending the Lesson, *TWE*, p. 237
- _____ ⇨ *Enrichment Masters*, p. 43

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Lesson Planning Guide (p. 238)



Teacher's Name _____ Dates _____

Grade _____ Class _____ M Tu W Th F

Objectives

- _____ Use models to solve two-step equations.
- _____ State/local objectives: _____

NCTM Standards:
1, 2, 6-10

MANAGEMENT

- _____ Getting Started, *TWE*, p. 238
- _____ ⇨ *Hands-On Lab Masters*, p. 6: integer counters;
p. 7: pattern for cup; p. 9: equation mat
- _____ ⇨ *Teacher's Guide for Overhead Manipulative Resources*, Lesson 6-3A
- _____ ⇨ *Overhead Manipulative Resources*: cups, counters, equation mat

ASSESS

- _____ *TWE*, p. 238
- _____ ⇨ *Hands-On Lab Masters*, p. 50

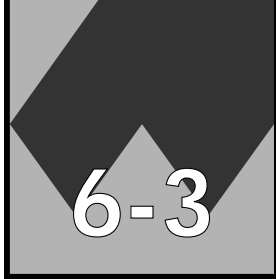
Class Activity (p. 238)

_____ All: 1-8

_____ Alternate Assignment: _____

_____ Math Journal, *TWE*, p. 238

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Lesson Planning Guide (pp. 239-241)



Teacher's Name _____ Dates _____

Grade _____ Class _____ M Tu W Th F

Objectives

- _____ Solve two-step equations.
- _____ State/local objectives: _____

NCTM Standards: 1, 2, 6-10
South Carolina Math Curriculum Standards Grade 7: ALG I.B.1., ALG II.C.1., ALG II.D.1.

1 FOCUS

- _____ 5-Minute Check, *TWE*, p. 239
- _____ ⇨ Transparency 6-3A
- _____ Motivating the Lesson, Communication, *TWE*, p. 239

2 TEACH

- _____ ⇨ Transparency 6-3B
- _____ Reading Mathematics, *TWE*, p. 239
- _____ In-Class Examples, *TWE*, p. 240
- _____ ⇨ *Study Guide Masters*, p. 44
- _____ Reteaching the Lesson, *TWE*, p. 240
- _____ Error Analysis, *TWE*, p. 240
- _____ ⇨ *CD-ROM Program*, Resource Lesson 6-3, Interactive Lesson 6-3
- _____ ⇨ *Interactive Mathematics Tools Software*

3 PRACTICE/APPLY

- _____ Check for Understanding, *SE*, p. 240

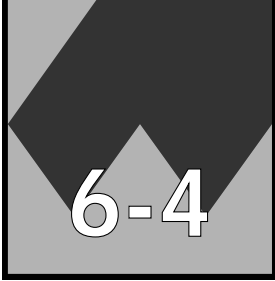
Homework Assignments (p. 241)	
_____ Core: 11-33 odd, 34-38	_____ Enriched: 12-30 even, 31-38
_____ Alternate Assignment: _____	

- _____ Extra Practice, *SE*, p. 584
- _____ ⇨ *Practice Masters*, p. 44
- _____ ⇨ *School to Career Masters*, p. 19
- _____ ⇨ *South Carolina Parent and Student Study Guide Workbook*, p. 49

4 ASSESS

- _____ Closing Activity, Writing, *TWE*, p. 241
- _____ Extending the Lesson, *TWE*, p. 241
- _____ ⇨ *Enrichment Masters*, p. 44

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Lesson Planning Guide (pp. 242-245)



Teacher's Name _____ Dates _____

Grade _____ Class _____ M Tu W Th F

Objectives

- _____ Write simple algebraic expressions and equations from verbal phrases and sentences.
- _____ State/local objectives: _____

NCTM Standards: 1, 2, 6-10
South Carolina Math Curriculum Standards
Grade 7: ALG I.B.1., ALG II.A.1., ALG II.C.1.

1 FOCUS

- _____ 5-Minute Check, *TWE*, p. 242
- _____ ⇨ Transparency 6-4A
- _____ Motivating the Lesson, Problem Solving, *TWE*, p. 242
- _____ Multiple Learning Styles, Auditory/Musical, *TWE*, p. 242

2 TEACH

- _____ ⇨ Transparency 6-4B
- _____ Reading Mathematics, *TWE*, p. 243
- _____ Cross-Curriculum Cue, *TWE*, p. 243
- _____ In-Class Examples, *TWE*, p. 243
- _____ ⇨ *Study Guide Masters*, p. 45
- _____ Reteaching the Lesson, *TWE*, p. 244
- _____ ⇨ *CD-ROM Program*, Resource Lesson 6-4

3 PRACTICE/APPLY

- _____ Check for Understanding, *SE*, p. 244

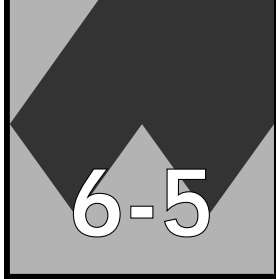
Homework Assignments (pp. 244-245)	
_____ Core: 13-35 odd, 36-41	_____ Enriched: 12-32 even, 33-41
_____ Alternate Assignment: _____	

- _____ Extra Practice, *SE*, p. 584
- _____ ⇨ *Practice Masters*, p. 45
- _____ ⇨ *Classroom Games*, pp. 17-20
- _____ ⇨ *South Carolina Parent and Student Study Guide Workbook*, p. 50

4 ASSESS

- _____ Family Activity, *SE*, p. 245
- _____ Closing Activity, Writing, *TWE*, p. 244
- _____ ⇨ *Assessment and Evaluation Masters*, Mid-Chapter Test, p. 154
- _____ ⇨ *Assessment and Evaluation Masters*, Quiz B, p. 155
- _____ Extending the Lesson, *TWE*, p. 245
- _____ ⇨ *Enrichment Masters*, p. 45
- _____ Mid-Chapter Self Test, *SE*, p. 245

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Lesson Planning Guide (pp. 246-248)



Teacher's Name _____ Dates _____

Grade _____ Class _____ M Tu W Th F

Objectives

- _____ Solve inequalities.
- _____ State/local objectives: _____

NCTM Standards: 1, 6-10
South Carolina Math Curriculum Standards
Grade 7: ALG I.B.1., ALG II.C.1., ALG II.D.1., ALG II.D.2.

1 FOCUS

- _____ 5-Minute Check, *TWE*, p. 246
- _____ ⇨ Transparency 6-5A
- _____ Motivating the Lesson, Communication, *TWE*, p. 246

2 TEACH

- _____ ⇨ Transparency 6-5B
- _____ Using the Mini-Lab, *TWE*, p. 246
- _____ ⇨ *Teacher's Guide for Overhead Manipulative Resources*, Mini-Lab for Lesson 6-5
- _____ In-Class Examples, *TWE*, p. 247
- _____ ⇨ *Study Guide Masters*, p. 46
- _____ Reteaching the Lesson, *TWE*, p. 247
- _____ ⇨ *CD-ROM Program*, Resource Lesson 6-5

3 PRACTICE/APPLY

- _____ Check for Understanding, *SE*, p. 248

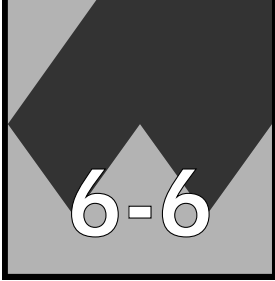
Homework Assignments (p. 248)	
_____ Core: 9-23 odd, 25-28	_____ Enriched: 10-22 even, 23-28
_____ Alternate Assignment: _____	

- _____ Extra Practice, *SE*, p. 584
- _____ ⇨ *Practice Masters*, p. 46
- _____ ⇨ *South Carolina Parent and Student Study Guide Workbook*, p. 51

4 ASSESS

- _____ Closing Activity, Writing, *TWE*, p. 248
- _____ Extending the Lesson, *TWE*, p. 248
- _____ ⇨ *Enrichment Masters*, p. 46

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Lesson Planning Guide (pp. 249-252)



Teacher's Name _____ Dates _____

Grade _____ Class _____ M Tu W Th F

Objectives

- _____ Represent functions as ordered pairs.
- _____ State/local objectives: _____

NCTM Standards: 1, 2, 6-10
South Carolina Math Curriculum Standards
Grade 7: ALG I.B.1., ALG II.B.1., ALG IV.A.1., GEO II.A.1.

1 FOCUS

- _____ 5-Minute Check, *TWE*, p. 249
- _____ ⇨ Transparency 6-6A
- _____ Motivating the Lesson, Communication, *TWE*, p. 249

2 TEACH

- _____ ⇨ Transparency 6-6B
- _____ In-Class Examples, *TWE*, p. 250
- _____ Using the Mini-Lab, *TWE*, p. 250
- _____ ⇨ *Teacher's Guide for Overhead Manipulative Resources*, Mini-Lab for Lesson 6-6
- _____ ⇨ *Study Guide Masters*, p. 47
- _____ Reteaching the Lesson, *TWE*, p. 251
- _____ ⇨ *CD-ROM Program*, Resource Lesson 6-6, Extended Activity 6-6

3 PRACTICE/APPLY

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

Homework Assignments (pp. 251-252)

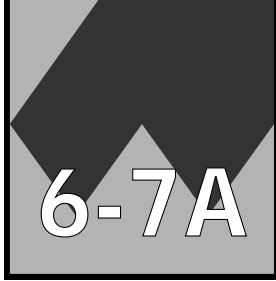
- _____ Core: 6, 7, 9, 11-13 _____ Enriched: 6, 7, 9-13
- _____ Optional: 8 (Working on the Chapter Project)
- _____ Alternate Assignment: _____

- _____ Extra Practice, *SE*, p. 585
- _____ ⇨ *Practice Masters*, p. 47
- _____ ⇨ *Technology Masters*, Graphing Calculator Activity, p. 38
- _____ ⇨ *Science and Mathematics Lab Manual*, pp. 33-36
- _____ ⇨ *South Carolina Parent and Student Study Guide Workbook*, p. 52

4 ASSESS

- _____ Closing Activity, Modeling, *TWE*, p. 252
- _____ ⇨ *Assessment and Evaluation Masters*, Quiz C, p. 156
- _____ Extending the Lesson, *TWE*, p. 252
- _____ ⇨ *Enrichment Masters*, p. 47

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Lesson Planning Guide (p. 253)



Teacher's Name _____ Dates _____

Grade _____ Class _____ M Tu W Th F

Objectives

- _____ Use a function rule to find the output of a function.
- _____ State/local objectives: _____

NCTM Standards: 1, 2, 5-9
South Carolina Math Curriculum Standards
Grade 7: ALG I.A.1., ALG I.B.1., ALG I.C.1., ALG II.A.1., ALG II.B.1., ALG IV.A.1., GEO II.A.1.

MANAGEMENT

- _____ Getting Started, *TWE*, p. 253
- _____ ⇨ *Hands-On Lab Masters*, p. 11: grid paper
- _____ ⇨ *Teacher's Guide for Overhead Manipulative Resources*, Lesson 6-7A
- _____ ⇨ *Overhead Manipulative Resources*: coordinate grid

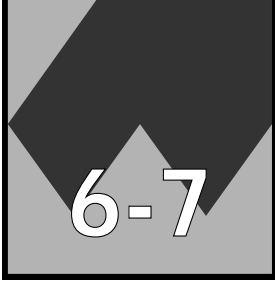
ASSESS

- _____ *TWE*, p. 253
- _____ ⇨ *Hands-On Lab Masters*, p. 51

Class Activity (p. 253)
_____ All: 1-5
_____ Alternate Assignment: _____

- _____ Math Journal, *TWE*, p. 253

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Lesson Planning Guide (pp. 254-257)



Teacher's Name _____ Dates _____

Grade _____ Class _____ M Tu W Th F

Objectives

_____ Solve equations with two variables and graph the solution.

_____ State/local objectives: _____

NCTM Standards:

1-3, 6-10

South Carolina Math Curriculum Standards

Grade 7: ALG I.A.1.,
ALG I.B.1., ALG I.C.1.,
ALG II.A.1., ALG II.B.1.,
ALG II.B.2., ALG II.C.1.,
ALG IV.A.1., GEO.II.A.1.

1 FOCUS

_____ 5-Minute Check, *TWE*, p. 254

_____ ⇨ Transparency 6-7A

2 TEACH

_____ ⇨ Transparency 6-7B

_____ Thinking Algebraically, *TWE*, p. 255

_____ In-Class Examples, *TWE*, p. 255

_____ ⇨ *Study Guide Masters*, p. 48

_____ Reteaching the Lesson, *TWE*, p. 256

_____ Error Analysis, *TWE*, p. 256

_____ ⇨ *CD-ROM Program*, Resource Lesson 6-7, Interactive Lesson 6-7

_____ ⇨ *Interactive Mathematics Tools Software*

3 PRACTICE/APPLY

_____ Check for Understanding, *SE*, p. 256

Homework Assignments (pp. 256-257)

_____ Core: 13-31 odd, 33-37


_____ Enriched: 12-28 even, 29, 31-37

_____ Optional: 30 (Working on the Chapter Project)

_____ Alternate Assignment: _____

_____ Extra Practice, *SE*, p. 585

_____ ⇨ *Practice Masters*, p. 48

_____ ⇨  *South Carolina Parent and Student Study Guide Workbook*, p. 53

4 ASSESS

_____ Closing Activity, Speaking, *TWE*, p. 257

_____ ⇨ *Assessment and Evaluation Masters*, Quiz D, p. 156

_____ Extending the Lesson, *TWE*, p. 48

_____ ⇨ *Enrichment Masters*, p. 48

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Review and Assessment (pp. 258-263)



Teacher's Name _____ Dates _____

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



- _____ Study Guide and Assessment, *SE*, pp. 258-261
- _____ Standardized Test Practice, *SE*, pp. 262-263
- _____ Chapter Test, *SE*, p. 612

⇨ **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*
- _____ ⇨  *South Carolina Parent and Student Study Guide Workbook*, p. 54
- _____ ⇨  *South Carolina PACT Workbook and Test Preparation, Grade 7*

Interdisciplinary Investigation, SE, pp. 264-265

- _____ *Interdisciplinary Investigation*, TWE, pp. 264-265
- _____ ⇨ *Investigations and Projects Masters*, pp. 5-8

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