

13 Exploring Discrete Math and Probability



Chapter Pacing Guide

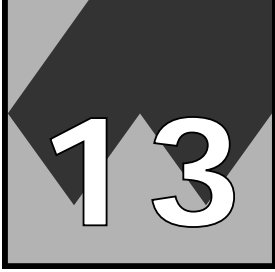
Please note that this pacing guide is based upon completing the entire text in 165 classes, approximately 50 minutes each. More time can be allotted for this chapter if you do not plan to teach the entire text.

| <i>Day (Honors)</i> | <i>Lesson</i> | <i>Title</i> |
|-------------------------|------------------------------------|---|
| 1 | *Chapter Project | Theme: Games Advance to GO and Collect \$200 |
| 2 | 13-1A | THINKING LAB Problem Solving Act It Out |
| 3 | 13-1 | Theoretical and Experimental Probability |
| 4 | 13-2 | Tree Diagrams |
| 5 | 13-3 | The Counting Principle |
| 6 | 13-4 | Independent and Dependent Events |
| | *13-5A | HANDS-ON LAB Cooperative Learning Exploring Permutations |
| 7 | 13-5 | Permutations |
| 8 | *13-6A | HANDS-ON LAB Cooperative Learning Exploring Combinations |
| | 13-6 | Combinations |
| 9 | Review: Study Guide and Assessment | |
| 10 | Assessment: Chapter Test | |

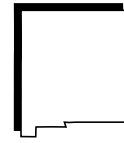
*Optional

Chapter Resources

| | |
|---|--|
| <p>Meeting Individual Needs <i>Investigations for the Special Education Student,</i> The Game Show, pp. 45-46 <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 1 and 14</p> | <p>Applications <i>Family Letters and Activities</i>, pp. 51-52 <i>Spanish Family Letters and Activities</i>, pp. 51-52</p> |



Chapter Project (pp. 526-527)



Teacher's Name _____ Dates _____

Grade _____ Class _____ M Tu W Th F

Objectives

- _____ Analyze the use of probability in board games.
- _____ Design their own game, combining skill and chance.

Theme: Games

- _____ Chapter Project, *SE*, p. 527
- _____ Chapter 13 Notes, *TWE*, p. 526
- _____ Question of the Day, *TWE*, p. 526
- _____ ⇔ *Investigations and Projects Masters*, pp. 65-68

Homework Assignments

- _____ p. 533, Working on the Chapter Project, Exercise 22
- _____ p. 545, Working on the Chapter Project, Exercise 18
- _____ p. 557, Completing the Chapter Project, Alternative Assessment

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



Lesson Planning Guide (pp. 528-529)



Teacher's Name _____ Dates _____

Grade _____ Class _____ M Tu W Th F

Objectives

_____ Solve problems by acting them out.

1 FOCUS

_____ Getting Started, *TWE*, p. 528

2 TEACH

_____ In-Class Examples, *TWE*, p. 528

_____ Reteaching the Lesson, *TWE*, p. 528

3 PRACTICE/APPLY

_____ Check for Understanding, *TWE*, p. 529

| |
|---|
| NCTM Standards: 1-5, 7, 11 |
| New Mexico Mathematics Performance Standards Grades 5-8: 11-B-1, 11-D-1 |

Homework Assignments (p. 529)

_____ All: 5-14

_____ Alternate Assignment: _____

_____ Extra Practice, *SE*, p. 602

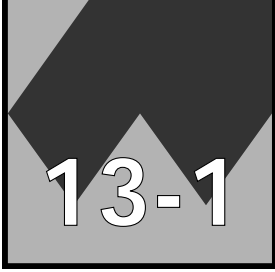
_____ Mixed Problem Solving, *SE*, pp. 605-606

4 ASSESS

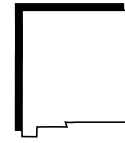
_____ Closing Activity, Writing, *TWE*, p. 529

_____ Extending the Lesson, *TWE*, p. 529

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



Lesson Planning Guide (pp. 530-533)



Teacher's Name _____ Dates _____

Grade _____ Class _____ M Tu W Th F

Objectives

_____ Find and compare experimental and theoretical probabilities.

NCTM Standards:

1-5, 7, 11

New Mexico Mathematics Performance Standards

Grades 5-8:

2-A-1, 11-D-1, 11-E-1

1 FOCUS

- _____ 5-Minute Check, *TWE*, p. 530
- _____ ⇨ Transparency 13-1A
- _____ Motivating the Lesson, Hands-On-Activity, *TWE*, p. 530
- _____ Let the Games Begin, *SE*, p. 530
- _____ Cross-Curriculum Cue, *TWE*, p. 530

2 TEACH

- _____ ⇨ Transparency 13-1B
- _____ In-Class Examples, *TWE*, p. 531
- _____ Using the Mini-Lab, *TWE*, p. 531
- _____ ⇨ *Teacher's Guide for Overhead Manipulative Resources*, Mini-Lab for Lesson 13-1
- _____ ⇨ *Study Guide Masters*, p. 93
- _____ Reteaching the Lesson, *TWE*, p. 532
- _____ Error Analysis, *TWE*, p. 532
- _____ ⇨ *CD-ROM Program*, Resource Lesson 13-1, Interactive Lesson 13-1

3 PRACTICE/APPLY

- _____ Check for Understanding, *SE*, p. 532

Homework Assignments (pp. 532-533)

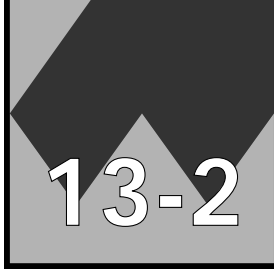
- _____ Core: 9-21 odd, 23-26 _____ Enriched: 10-18 even, 19-21, 23-26
- _____ Optional: 22 (Working on the Chapter Project)
- _____ Alternate Assignment: _____

- _____ Extra Practice, *SE*, p. 603
- _____ ⇨ *Practice Masters*, p. 93

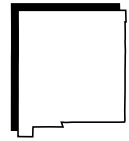
4 ASSESS

- _____ Closing Activity, Speaking, *TWE*, p. 533
- _____ Extending the Lesson, *TWE*, p. 533
- _____ ⇨ *Enrichment Masters*, p. 93

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



Lesson Planning Guide (pp. 534-537)



Teacher's Name _____ Dates _____

Grade _____ Class _____ M Tu W Th F

Objectives

_____ Use tree diagrams to count outcomes.

| |
|--|
| NCTM Standards: 1-4 |
| New Mexico Mathematics Performance Standards Grades 5-8: 4-E-1, 11-B-1, 11-D-2 |

1 FOCUS

- _____ 5-Minute Check, *TWE*, p. 534
- _____ ⇨ Transparency 13-2A
- _____ Motivating the Lesson, Communication, *TWE*, p. 534
- _____ Multiple Learning Styles, Logical, *TWE*, p. 534

2 TEACH

- _____ ⇨ Transparency 13-2B
- _____ In-Class Examples, *TWE*, p. 535
- _____ Using the Mini-Lab, *TWE*, p. 535
- _____ ⇨ *Teacher's Guide for Overhead Manipulative Resources*, Mini-Lab for Lesson 13-2
- _____ ⇨ *Study Guide Masters*, p. 94
- _____ Reteaching the Lesson, *TWE*, p. 535
- _____ ⇨ *CD-ROM Program*, Resource Lesson 13-2

3 PRACTICE/APPLY

- _____ Check for Understanding, *SE*, p. 535

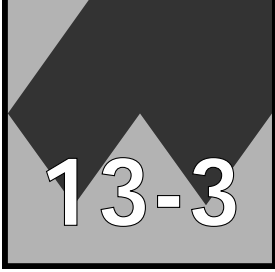
| | |
|--------------------------------------|----------------------------------|
| Homework Assignments (p. 536) | |
| _____ Core: 7-13 odd, 15-18 | _____ Enriched: 8-12 even, 13-18 |
| _____ Alternate Assignment: _____ | |

- _____ Extra Practice, *SE*, p. 603
- _____ ⇨ *Practice Masters*, p. 94
- _____ ⇨ *School to Career Masters*, p. 26
- _____ School to Career Activity, *SE*, p. 537

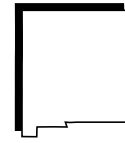
4 ASSESS

- _____ Closing Activity, Writing, *TWE*, p. 536
- _____ ⇨ *Assessment and Evaluation Masters*, Quiz A, p. 351
- _____ Extending the Lesson, *TWE*, p. 536
- _____ ⇨ *Enrichment Masters*, p. 94

| | | | |
|------------|-----------------------------|---|------------------------------|
| KEY | <i>SE</i> = Student Edition | <i>TWE</i> = Teacher's Wraparound Edition | ⇨ = Other Program Components |
|------------|-----------------------------|---|------------------------------|



Lesson Planning Guide (pp. 538-541)



Teacher's Name _____ Dates _____

Grade _____ Class _____ M Tu W Th F

Objectives

_____ Use multiplication to count outcomes.

NCTM Standards:

1-5, 7, 9

New Mexico Mathematics Performance Standards

Grades 5-8:

4-E-1, 11-D-2

1 FOCUS

- _____ 5-Minute Check, *TWE*, p. 538
- _____ ⇨ Transparency 13-3A
- _____ Motivating the Lesson, Problem Solving, *TWE*, p. 538
- _____ Multiple Learning Styles, Visual/Spatial, *TWE*, p. 538

2 TEACH

- _____ ⇨ Transparency 13-3B
- _____ Thinking Algebraically, *TWE*, p. 539
- _____ In-Class Examples, *TWE*, p. 539
- _____ ⇨ *Study Guide Masters*, p. 95
- _____ Reteaching the Lesson, *TWE*, p. 540
- _____ Error Analysis, *TWE*, p. 540
- _____ ⇨ *CD-ROM Program*, Resource Lesson 13-3

3 PRACTICE/APPLY

- _____ Check for Understanding, *SE*, p. 540

Homework Assignments (pp. 540-541)

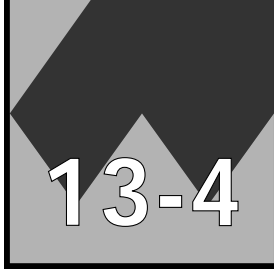
- _____ Core: 7-13 odd, 15-17
- _____ Enriched: 8-12 even, 13-17
- _____ Alternate Assignment: _____

- _____ Extra Practice, *SE*, p. 603
- _____ ⇨ *Practice Masters*, p. 95
- _____ ⇨ *Hands-On Lab Masters*, p. 84

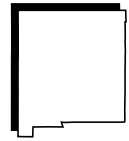
4 ASSESS

- _____ Let the Games Begin, *SE*, p. 541
- _____ Closing Activity, Modeling, *TWE*, p. 541
- _____ ⇨ *Assessment and Evaluation Masters*, Mid-Chapter Test, p. 350
- _____ ⇨ *Assessment and Evaluation Masters*, Quiz B, p. 351
- _____ Extending the Lesson, *TWE*, p. 541
- _____ ⇨ *Enrichment Masters*, p. 95

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



Lesson Planning Guide (pp. 542-545)



Teacher's Name _____ Dates _____

Grade _____ Class _____ M Tu W Th F

Objectives

_____ Find the probability of independent and dependent events.

| |
|--|
| NCTM Standards: 1-5, 7, 11 |
| New Mexico Mathematics Performance Standards Grades 5-8: 2-A-1 |

1 FOCUS

- _____ 5-Minute Check, *TWE*, p. 542
- _____ ⇨ Transparency 13-4A
- _____ Motivating the Lesson, Hands-On-Activity, *TWE*, p. 542
- _____ Multiple Learning Styles, Kinesthetic, *TWE*, p. 542

2 TEACH

- _____ ⇨ Transparency 13-4B
- _____ Using the Mini-Lab, *TWE*, p. 543
- _____ ⇨ *Teacher's Guide for Overhead Manipulative Resources*, Mini-Lab for Lesson 13-4
- _____ In-Class Examples, *TWE*, p. 543
- _____ ⇨ *Study Guide Masters*, p. 96
- _____ Reteaching the Lesson, *TWE*, p. 544
- _____ ⇨ *CD-ROM Program*, Resource Lesson 13-4

3 PRACTICE/APPLY

- _____ Check for Understanding, *SE*, p. 544

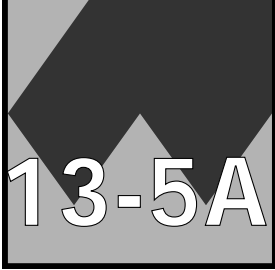
| | |
|---|--|
| Homework Assignments (pp. 544-545) | |
| _____ Core: 9-17 odd, 19, 20 | _____ Enriched: 8-14 even, 15-17, 19, 20 |
| _____ Optional: 18 (Working on the Chapter Project) | |
| _____ Alternate Assignment: _____ | |

- _____ Extra Practice, *SE*, p. 604
- _____ ⇨ *Practice Masters*, p. 96
- _____ ⇨ *Technology Masters*, Calculator Activity, p. 51
- _____ ⇨ *Diversity Masters*, p. 26
- _____ ⇨ *Science and Mathematics Lab Manual*, pp. 93-96

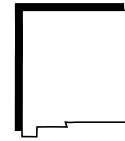
4 ASSESS

- _____ Closing Activity, Writing, *TWE*, p. 545
- _____ ⇨ *Enrichment Masters*, p. 96
- _____ Extending the Lesson, *TWE*, p. 545
- _____ Mid-Chapter Self Test, *SE*, p. 545

| | | | |
|------------|-----------------------------|---|------------------------------|
| KEY | <i>SE</i> = Student Edition | <i>TWE</i> = Teacher's Wraparound Edition | ⇨ = Other Program Components |
|------------|-----------------------------|---|------------------------------|



Lesson Planning Guide (p. 546)



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

Objectives

_____ Explore permutations.

NCTM Standards:

1-5

New Mexico Mathematics Performance Standards

Grades 5-8:

11-D-2

MANAGEMENT

_____ Getting Started, *TWE*, p. 546

_____ ⇨ *Teacher's Guide for Overhead Manipulative Resources*,
Lesson 13-5A

ASSESS

_____ *TWE*, p. 546

_____ ⇨ *Hands-On Lab Masters*, p. 70

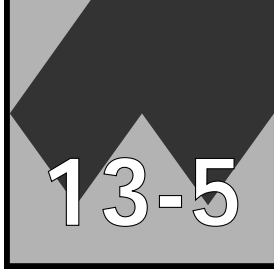
Class Activity (p. 546)

_____ All: 1-6

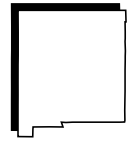
_____ Alternate Assignment: _____

_____ Math Journal, *TWE*, p. 546

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



Lesson Planning Guide (pp. 547-549)



Teacher's Name _____ Dates _____

Grade _____ Class _____ M Tu W Th F

Objectives

_____ Find the number of permutations of a set of objects.

| |
|--|
| NCTM Standards: 1-5, 7, 11 |
| New Mexico Mathematics Performance Standards Grades 5-8: 2-B-1, 11-D-2 |

1 FOCUS

- _____ 5-Minute Check, *TWE*, p. 547
- _____ ⇨ Transparency 13-5A
- _____ Motivating the Lesson, Problem Solving, *TWE*, p. 547

2 TEACH

- _____ ⇨ Transparency 13-5B
- _____ Reading Mathematics, *TWE*, p. 547
- _____ In-Class Examples, *TWE*, p. 548
- _____ ⇨ *Study Guide Masters*, p. 97
- _____ Reteaching the Lesson, *TWE*, p. 548
- _____ Multiple Learning Styles, Auditory/Musical, *TWE*, p. 548
- _____ ⇨ *CD-ROM Program*, Resource Lesson 13-5

3 PRACTICE/APPLY

- _____ Check for Understanding, *SE*, p. 548

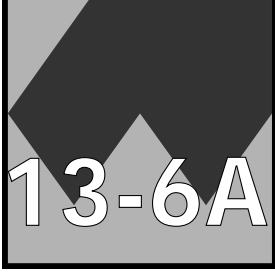
| | |
|--------------------------------------|-----------------------------------|
| Homework Assignments (p. 549) | |
| _____ Core: 9-19 odd, 21-24 | _____ Enriched: 10-18 even, 19-24 |
| _____ Alternate Assignment: _____ | |

- _____ Extra Practice, *SE*, p. 604
- _____ ⇨ *Practice Masters*, p. 97
- _____ ⇨ *Technology Masters*, Graphing Calculator Activity, p. 52

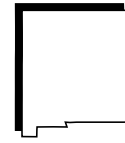
4 ASSESS

- _____ Closing Activity, Modeling, *TWE*, p. 549
- _____ ⇨ *Assessment and Evaluation Masters*, Quiz C, p. 352
- _____ Extending the Lesson, *TWE*, p. 549
- _____ ⇨ *Enrichment Masters*, p. 97

| | | | |
|------------|-----------------------------|---|------------------------------|
| KEY | <i>SE</i> = Student Edition | <i>TWE</i> = Teacher's Wraparound Edition | ⇨ = Other Program Components |
|------------|-----------------------------|---|------------------------------|



Lesson Planning Guide (p. 550)



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

Objectives

_____ Explore combinations.

NCTM Standards:

1-5

New Mexico Mathematics Performance Standards

Grades 5-8:

11-D-2

MANAGEMENT

_____ Getting Started, *TWE*, p. 550

_____ ⇨ *Teacher's Guide for Overhead Manipulative Resources*,
Lesson 13-6A

ASSESS

_____ *TWE*, p. 550

_____ ⇨ *Hands-On Lab Masters*, p. 71

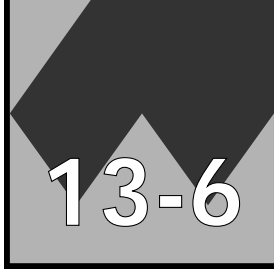
Class Activity (p. 550)

_____ All: 1-5

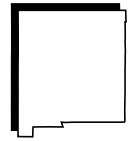
_____ Alternate Assignment: _____

_____ Math Journal, *TWE*, p. 550

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



Lesson Planning Guide (pp. 551-553)



Teacher's Name _____ Dates _____

Grade _____ Class _____ M Tu W Th F

Objectives

_____ Find the number of combinations of a set of objects.

| |
|---|
| NCTM Standards: 1-5, 7, 11 |
| New Mexico Mathematics Performance Standards Grades 5-8: 11-D-2 |

1 FOCUS

- _____ 5-Minute Check, *TWE*, p. 551
- _____ ⇨ Transparency 13-6A
- _____ Motivating the Lesson, Communication, *TWE*, p. 551
- _____ Multiple Learning Styles, Interpersonal, *TWE*, p. 551

2 TEACH

- _____ ⇨ Transparency 13-6B
- _____ Reading Mathematics, *TWE*, p. 551
- _____ In-Class Examples, *TWE*, p. 552
- _____ ⇨ *Study Guide Masters*, p. 98
- _____ Reteaching the Lesson, *TWE*, p. 552
- _____ Error Analysis, *TWE*, p. 552
- _____ ⇨ *CD-ROM Program*, Resource Lesson 13-6

3 PRACTICE/APPLY

- _____ Check for Understanding, *SE*, p. 552

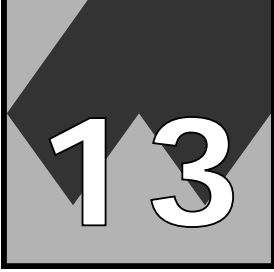
| | |
|--------------------------------------|----------------------------------|
| Homework Assignments (p. 553) | |
| _____ Core: 7-15 odd, 16-18 | _____ Enriched: 8-12 even, 13-18 |
| _____ Alternate Assignment: _____ | |

- _____ Extra Practice, *SE*, p. 604
- _____ ⇨ *Practice Masters*, p. 98
- _____ ⇨ *Classroom Games*, pp. 35-40
- _____ Family Activity, *SE*, p. 553

4 ASSESS

- _____ Closing Activity, Speaking, *TWE*, p. 553
- _____ ⇨ *Assessment and Evaluation Masters*, Quiz D, p. 352
- _____ Extending the Lesson, *TWE*, p. 553
- _____ ⇨ *Enrichment Masters*, p. 98

| | | | |
|------------|-----------------------------|---|------------------------------|
| KEY | <i>SE</i> = Student Edition | <i>TWE</i> = Teacher's Wraparound Edition | ⇨ = Other Program Components |
|------------|-----------------------------|---|------------------------------|



Review and Assessment (pp. 554-559)



Teacher's Name _____ Dates _____

Grade _____ Class _____ Review M Tu W Th F

Testing M Tu W Th F

_____ Study Guide and Assessment, *SE*, pp. 554-557

_____ Standardized Test Practice, *SE*, pp. 558-559

_____ Chapter Test, *SE*, p. 619

⇔ **Assessment and Evaluation Masters (pp. 337-355)**

Multiple-Choice Tests

_____ Form 1A, 1B, or 1C, pp. 337-342

_____ Standardized Test Practice, pp. 353-354

Free-Response Tests

_____ Form 2A, 2B, or 2C, pp. 343-348

_____ Performance Assessment, p. 349

_____ Cumulative Review, p. 355

_____ ⇔ *MindJogger Videoquizzes*, Chapter 13

_____ ⇔ *Test and Review Software*

_____ ⇔ *CD-ROM Assessment Game*

_____ ⇔ *State Test Preparation CD-ROM*

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