A Correlation of

SCOTT FORESMAN ▪ ADDISON WESLEY

Mathematics

to the

Louisiana Department of Education

Mathematics—Grade Level Expectations

Grades K - 6

PEARSON Scott Foresman

C/M-91

Introduction

This document demonstrates the high degree of success students will achieve when using **Scott Foresman – Addison Wesley Mathematics** in meeting the objectives of the Louisiana Department of Education Mathematics Grade Level Expectations. Correlation page references are to the Teacher Edition, which contains facsimile Pupil Edition pages.

Scott Foresman – Addison Wesley Mathematics was carefully developed to reflect the specific needs of students and teachers at every grade level, while maintaining an overall primary goal: to have math make sense from every perspective. This program is based on scientific research that describes how children learn mathematics well and on classroom-based evidence that validates proven reliability.

- **Reaching All Learners**

Scott Foresman – Addison Wesley Mathematics addresses the needs of every student through structured instruction that makes concepts easier for students to grasp. Lessons provide step-by-step examples that show students how to think about and solve the problem. Built-in leveled practice in every lesson allows the teacher to customize instruction to match students' abilities. Reaching All Learners, featured in the Teacher Edition, helps teachers meet the diverse needs of the classroom with fun and stimulating activities that are easy to incorporate directly into the lesson plan.

- **Test Prep**

Scott Foresman - Addison Wesley Mathematics builds understanding through connections to prior knowledge, math strands, other subjects and the real world. It provides practice for maximum results and offers assessment in a variety of ways. Besides carefully placed reviews at the end of each Section, an important Test Prep strand runs throughout the program. Writing exercises prepare students for open-ended and short-or extended-response questions on state and national tests. Spiral review in a test format help students keep their test-taking skills sharp.

- **Priority on problem solving:**

Problem-solving instruction is systematic and explicit. Reading connections help children with problem-solving skills and strategies for math. Reading for Math Success encourages students to use the reading skills and strategies they already know to solve math problems.

- **Instructional Support**

In the Teacher Edition, the Lesson Planner provides an easy, at-a-glance planning tool. It identifies objectives, math understandings, focus questions, vocabulary, and resources for each lesson in the chapter. Professional Development at the beginning of each chapter in the Teacher Edition includes a Skills Trace as well as Math Background and Teaching Tips for each section in the chapter.

Ancillaries help to reach all learners with practice, problem solving, hands-on math, language support, assessment and teacher support. Technology resources for both the student and the teacher provide a whole new dimension to math instruction by helping to create motivating and engaging lessons.

Table of Contents

Book Title: Scott Foresman – Addison Wesley Mathematics **Grade Level:** Kindergarten

Publisher: Pearson Scott Foresman **Subject/Course:** Mathematics

Kindergarten

Number and Number Relations

In problem-solving investigations, students demonstrate an understanding of the real number system and communicate the relationships within that system using a variety of techniques and tools.

Students use estimation, mental arithmetic, number lines, graphs, appropriate models, manipulatives, calculators, and computers as they investigate problems involving whole numbers.

GRADE LEVEL EXPECTATIONS	CORRELATION NOTATIONS
1. Count by ones to 20 (N-1-E) (N-3-E)	53A–53B, 53–54, 57A–57B, 57–58, 75L, 77A–77B, 77–78, 79A–79B, 79–80, 83A–83B, 83–84, 103A–103B, 103–104, 115A–115B, 115–116, 289A–289B, 289–290, 291A–291B, 291–292
2. Count a set of 20 or fewer objects by establishing a 1-to-1 correspondence between number names and objects (N-1-E) (N-3-E) (A-1-E)	53A–53B, 53–54, 57A–57B, 57–58, 63A–63B, 63–64, 75I, 75L, 77A–77B, 77–78, 79A–79B, 79–80, 83A–83B, 83–84, 87A–87B, 87–88, 89A–89B, 89–90, 101I, 101K–101L, 103A–103B, 103–104, 115A–115B, 115–116, 121A–121B, 121–122
3. Use the ordinal numerals 1^{st} through 10^{th} to discuss positions in ordered lists (N-1-E)	69A–69B, 69–70, 93A–93B, 93–94
4. Identify the numerals for the numbers 0 through 20 (N-1-E) (N-3-E)	53A–53B, 53–54, 55A–55B, 55–56, 57A–57B, 57–58, 59A–59B, 59–60, 289–290
5. Using a number line or chart, identify the numbers coming before/after a given number and between 2 given numbers (N-1-E) (N-3-E) (A-1-E)	91A–91B, 91–92, 113A, 113–114
6. Identify pennies, nickels, and dimes and their values using the cent sign (¢) (N-1-E) (N-2-E) (N-6-E) (M-1-E)	179A–179B, 179–180, 181A–181B, 181–182, 183A–183B, 183–184
7. Count forward and backward from a given number between 1 and 10 (N-3-E)	53A–53B, 53–54, 57A–57B, 57–58, 91A–91B, 91–92, 113A–113B, 113–114

GRADE LEVEL EXPECTATIONS	CORRELATION NOTATIONS
8. Compare sets containing 20 or fewer objects using the words *same/different* and *more/less/greater/fewer* (N-3-E) (N-1-E)	11A–11B, 11–12, 27A–27B, 27–28
9. Use concrete objects to model simple real-life addition and subtraction problems (N-4-E)	223I, 223J, 223K, 223L, 225A–225B, 225–226, 227A–227B, 227–228, 229A–229B, 229–230, 231A–231B, 231–232, 233A–233B, 233–234, 235A–235B, 235–236, 237A–237B, 237–238, 239A–239B, 239–240, 243K, 243L, 245A–245B, 245–246, 247A–247B, 247–248, 249A–249B, 249–250, 251A–251B, 251–252, 253A–253B, 253–254, 255A–255B, 255–256, 257A–257B, 257–258, 259A–259B, 259–260, 263K, 263L, 265A–265B, 265–266, 267A–267B, 267–268, 271A–271B, 271–272, 273A–273B, 273–274, 275A–275B, 275–276, 277A–277B, 277–278, 279A–279B, 279–280, 281–281B, 281–282
10. Use operational vocabulary (*add, subtract, join, remove, take away, put together*) to explore sets of objects (N-5-E)	223I, 223J, 223K, 223L, 225A–225B, 225–226, 227A–227B, 227–228, 229A–229B, 229–230, 231A–231B, 231–232, 233A–233B, 233–234, 235A–235B, 235–236, 237A–237B, 237–238, 239A–239B, 239–240, 243K, 243L, 245A–245B, 245–246, 247A–247B, 247–248, 249A–249B, 249–250, 251A–251B, 251–252, 253A–253B, 253–254, 255A–255B, 255–256, 257A–257B, 257–258, 259A–259B, 259–260, 263K, 263L, 265A–265B, 265–266, 267A–267B, 267–268, 271A–271B, 271–272, 273A–273B, 273–274, 275A–275B, 275–276, 277A–277B, 277–278, 279A–279B, 279–280, 281–281B, 281–282

Algebra

In problem-solving investigations students demonstrate an understanding of concepts and processes that allow them to analyze, represent, and describe relationships among variable quantities and to apply algebraic methods to real-world situations.

Students use manipulatives, models, graphs, tables, technology, number sense, and estimation as they investigate problems involving the concepts and application of algebra.

GRADE LEVEL EXPECTATIONS	CORRELATION NOTATIONS
11. Use the words *same, different, equal, not equal, greater than,* and *less than* while using concrete objects for comparative models (A-1-E)	11A–11B, 11–12, 27A, 63A–63B, 63–64, 87A–87B, 87–88, 189A–189B, 189–190, 198A–198B
12. Model and act out story problems, physically or with objects, to solve whole number sentences with sums less than or equal to 6 (A-2-E)	225A–225B, 225–226, 227A–227B, 227–228, 229A–229B, 229–230, 231A–231B, 231–232, 233A–233B, 233–234, 235A–235B, 235–236, 237A–237B, 237–238, 239A–239B, 239–240, 245A–245B, 245–246, 247A–247B, 247–248, 249A–249B, 249–250, 251A–251B, 251–252, 253A–253B, 253–254, 255A–255B, 255–256, 257A–257B, 257–258, 259A–259B, 259–260, 263K, 263L, 265A–265B, 265–266, 267A–267B, 267–268, 271A–271B, 271–272, 273A–273B, 273–274, 275A–275B, 275–276, 277A–277B, 277–278, 279A–279B, 279–280, 281–281B, 281–282

Measurement

In problem-solving investigations, students demonstrate an understanding of the concepts, processes, and real-life applications of measurement.

Students use number sense, estimation, appropriate manipulatives, tools, and technology as they investigate problems involving measurement.

GRADE LEVEL EXPECTATIONS	CORRELATION NOTATIONS
13. Use vocabulary such as: *yesterday, today, tomorrow, hours, weeks*, names of days, names of months; sequence events; and identify calendars and clocks as objects that measure time (M-1-E) (M-2-E) (M-5-E)	123–124, 159K, 163A–163B, 163–164, 167A–167B, 167–168, 169A–169B, 169–170, 171A–171B, 171–172, 173–174, 175–176
14. Measure and estimate length and capacity using non-standard units (e.g., sticks, paper clips, blocks, beans) (M-2-E) (M-3-E)	139A–139B, 139–140, 141A–141B, 141–142, 147A–147B, 147–148
15. Use comparative and superlative vocabulary in measurement settings (e.g., *longest, shortest, most, hottest, heaviest, biggest*) (M-3-E) (M-1-E) (M-2-E)	133A–133B, 133–134, 135A–135B, 135–136, 145A–145B, 145–146, 149A–149B, 149–150

Geometry

In problem-solving investigations, students demonstrate an understanding of geometric concepts and applications involving one-, two-, and three-dimensional geometry, and justify their findings.

Students use number sense, estimation, models, drawings, manipulatives, and technology as they investigate problems involving geometric concepts.

GRADE LEVEL EXPECTATIONS	CORRELATION NOTATIONS
16. Name and identify basic shapes using concrete models (e.g., circles, squares, triangles, rectangles, rhombuses, balls, boxes, cans, cones) (G-2-E) (G-1-E) (G-4-E) (G-5-E)	195K, 197–198, 203A–203B, 203–204, 205A–205B, 205–206

GRADE LEVEL EXPECTATIONS	CORRELATION NOTATIONS
17. Compare, contrast, and sort objects or shapes according to two attributes (e.g., shape and size, shape and color, thickness and color) (G-2-E)	17A–17B, 17–18
18. Use words that indicate direction and position of objects and arrange an object in a specified position and orientation (e.g., between, behind, above) (G-3-E)	1K, 3A–3B, 5A–5B, 7A–7B
19. Investigate the results of combining shapes (using paper shapes, pattern blocks, tangrams, etc.) (G-3-E) (G-1-E)	209–210
20. Draw circles, squares, rectangles, and triangles (G-4-E)	*These pages provide opportunities for students to draw these shapes.* 203A–203B, 203–204, 205A–205B, 205–206

Data Analysis, Probability, and Discrete Math

In problem-solving investigations, students discover trends, formulate conjectures regarding cause-and-effect relationships, and demonstrate critical thinking skills in order to make informed decisions.

Students use collection and organizational techniques, number sense, estimation, manipulatives, and technology as they investigate problems involving data.

GRADE LEVEL EXPECTATIONS	CORRELATION NOTATIONS
21. Collect and organize concrete data using tally mark charts (D-1-E)	125A–125B, 125–126
22. Collect and organize data in a simple bar graph using pictures or objects (D-1-E) (D-2-E)	33A–33B, 33–34
23. Sort, represent, and use information in simple tables and bar/picture graphs (D-2-E) (D-3-E)	29A–29B, 29–30, 31A–31B, 31–32, 33A–33B, 33–34, 67A–67B, 67–68

Patterns, Relations, and Functions

In problem-solving investigations, students demonstrate an understanding of patterns, relations, and functions that represent and explain real-world situations. Students use number sense, estimation, manipulatives, drawings, tables, graphs, formulas, and technology as they investigate problems involving patterns, relations, and functions.

GRADE LEVEL EXPECTATIONS	CORRELATION NOTATIONS
24. Recognize, copy, name, create, and extend repeating patterns (e.g., ABAB, AABB, ABBA) using concrete objects, shapes, pictures, numbers, and sounds (P-1-E)	35A–35B, 35–36, 37A–37B, 37–38, 39A–39B, 39–40, 41A–41B, 41–42, 43A–43B, 43–44, 95A–95B, 95–96

Book Title: Scott Foresman – Addison Wesley Mathematics **Grade Level:** One

Publisher: Pearson Scott Foresman **Subject/Course:** Mathematics

Grade 1

Number and Number Relations

In problem-solving investigations, students demonstrate an understanding of the real number system and communicate the relationships within that system using a variety of techniques and tools.

Students use estimation, mental arithmetic, number lines, graphs, appropriate models, manipulatives, calculators, and computers as they investigate problems involving whole numbers.

GRADE LEVEL EXPECTATIONS	CORRELATION NOTATIONS
1. Count to 100 by 1s, 5s, 10s, and 25s (N-1-E) (N-3-E) (N-4-E)	40, 91A–91B, 91–92, 95A–95B, 95–96, 105A–105B, 105–106, 243A–243B, 243–244, 245A–245B, 245–246, 255A–255B, 255–256, 257A–257B, 257–258, 269, 273, 274, 295A–295B, 295–296, 419A–419B, 419–420
2. Read and write numerals to 100 (N-1-E)	R1, R2, R3, R4, R5, R6, R7, R8, 40, 109–110, 239I, 241A–241B, 241–242, 245A–245B, 245–246, 247A–247B, 247–248, 253, 279I, 281A–281B, 281–282, 283A–283B, 283–284, 285A–285B, 285–286, 287A–287B, 287–288
3. Write number words for 0 to 19 (N-1-E) (N-3-E)	40, 241–242, 243–244
4. Use ordinal numbers through 31st as they relate to the calendar (N-1-E)	*Related content:* 240, 267A–267B, 267–268
5. Model and read place value in word, standard, and expanded form for numbers through 99 (N-1-E)	R5, 241A–241B, 241–242, 281A–281B, 281–282, 283A–283B, 283–284, 285A–285B, 285–286, 293, 303A–303B, 303–304
6. Use region models and sets of objects to demonstrate understanding of the concept of halves (N-1-E)	181A–181B, 181–182, 183A–183B, 183–184, 187A–187B, 187–188
7. Identify quarters, half-dollars, and their values (N-1-E) (N-2-E) (M-1-E)	329, 347A–347B, 347–348, 343A–343B, 343–344, 345A–345B, 345–346, 347A–347B, 347–348, 355, 358, 359, 361A–361B, 361–362, 414B, 470, 484

GRADE LEVEL EXPECTATIONS	CORRELATION NOTATIONS
8. Find the value of a set of coins up to $1.00, using one denomination of coin (N-2-E) (N-6-E) (M-1-E) (M-5-E)	329I–329J, 331A–331B, 331–332, 333A–333B, 333–334, 335A–335B, 335–336, 337A–337B, 337–338, 339A–339B, 339–341, 343A–343B, 343–344, 345A–345B, 345–346, 347A–347B, 347–348, 353A–353B, 353, 355–360
9. Apply estimation strategies to estimate the size of groups up to 20 (N-2-E) (N-8-E)	249A–249B, 249–250
10. Using a number line or chart, locate, compare, and order whole numbers less than 100 and identify the numbers coming before/after a given number and between 2 given numbers (N-3-E) (A-1-E)	239J, 263A–253B, 263–264, 297A–297B, 297–298, 299A–299B, 299–300, 301A–301B, 301–302 *These pages require students to compare and order numbers, using manipulatives as a reference.* 21A–21B, 21–22, 23A–23B, 23–24
11. From a given number between 1 and 100, count forward and backward (N-3-E)	245A–245B, 245–246, 277
12. Know the basic facts for addition and subtraction [0s, 1s, counting on and back 2s, doubles, doubles $\pm$ 1, then 10s facts, and related turn-around (commutative) pairs] and use them to solve real-life problems (N-4-E) (N-6-E) (N-8-E)	3A–3B, 3–4, 5A–5B, 5–6, 7A–7B, 7–8, 9A–9B, 9–10, 17A–17B, 17–18, 19A–19B, 19–20, 91A–91B, 91–92, 93A–93B, 93–94, 95A–95B, 95–96, 97A–97B, 97–98, 101, 103A–103B, 103–104, 105A–105B, 105–106, 107A–107B, 107–108, 115, 125A–125B, 125–126, 127A–127B, 127–128, 129A–129B, 129–130, 135, 137A–137B, 137–138, 139A–139B, 139–140, 147, 417A–417B, 417–418, 419A–419B, 419–420, 421A–421B, 421–422, 423A–423B, 423–424, 425A–425B, 425–426, 433, 435A–435B, 435–436, 437A–437B, 437–438, 439A–439B, 439–440, 441A–441B, 441–442, 443A–443B, 443–444
13. Recognize and apply addition and subtraction as inverse operations (N-4-E)	83, 435A–435B, 435–436, 437A–437B, 437–438, 439A–439B, 439–440
14. Add and subtract 2-digit numbers using manipulatives (N-4-E) (N-7-E)	457, 461A–461B, 461–462, 463A–463B, 463–464

GRADE LEVEL EXPECTATIONS	CORRELATION NOTATIONS
15. Recognize real-life situations as addition or subtraction problems (N-5-E) (N-4-E)	43I, 43J, 49A–49B, 49–50, 51A–51B, 51–52, 57A–57B, 57–58, 59, 65A–65B, 65–66, 67A–67B, 67–68, 71A–71B, 71–72, 77A–77B, 77–78, 79–80, 94, 99A–99B, 99–100, 101, 103, 105, 120, 317A–317B, 317–318, 417A–417B, 417–418, 445A–445B, 445–446, 447A–447B, 447–448, 449, 467A–467B, 467–468, 483A–483B, 483–484
16. Given a number and number line/hundreds chart, identify the nearest ten (N-7-E)	299A–299B, 299–300

Algebra

In problem-solving investigations students demonstrate an understanding of concepts and processes that allow them to analyze, represent, and describe relationships among variable quantities and to apply algebraic methods to real-world situations.

Students use manipulatives, models, graphs, tables, technology, number sense, and estimation as they investigate problems involving the concepts and application of algebra.

GRADE LEVEL EXPECTATIONS	CORRELATION NOTATIONS
17. Use the equal sign (=) to express the relationship of equality (A-1-E)	49, 118
18. Use objects, pictures, and number sentences to represent real-life problem situations involving addition and subtraction (A-1-E) (A-3-E) (N-7-E)	43I, 43J, 49A–49B, 49–50, 51A–51B, 51–52, 57A–57B, 57–58, 59, 65A–65B, 65–66, 67A–67B, 67–68, 71A–71B, 71–72, 77A–77B, 77–78, 79–80, 86, 94, 99A–99B, 99–100, 101, 103, 105, 111A–111B, 111–112, 113B, 113–114, 120, 145B, 145–146, 317A–317B, 317–318, 417A–417B, 417–418, 445B, 445–446, 447B, 447–448, 483B, 483–484

GRADE LEVEL EXPECTATIONS	CORRELATION NOTATIONS
19. Use objects, pictures, and verbal information to solve for missing numbers (A-2-E) (N-7-E)	49A–49B, 49–50, 51A–51B, 51–52, 53A–53B, 53–54, 57A–57B, 57–58, 65A–65B, 65–66, 67A–67B, 67–68, 69A–69B, 69–70, 77A–77B, 77–78, 79A–79B, 79–80, 95A–95B, 95–96, 125A–125B, 125–126, 127A–127B, 127–128, 129A–129B, 129–130, 139A–139B, 139–140, 141A–141B, 141–142, 417A–417B, 417–418, 419A–419B, 419–420, 421A–421B, 421–422, 423A–423B, 423–424, 425A–425B, 425–426, 427A–427B, 427–428, 459A–459B, 459–460, 461A–461B, 461–462, 463A–463B, 463–464, 465A–465B, 465–466, 471A–471B, 471–472, 473A–473B, 473–474, 475A–475B, 475–476, 477A–477B, 477–478

Measurement

In problem-solving investigations, students demonstrate an understanding of the concepts, processes, and real-life applications of measurement.

Students use number sense, estimation, appropriate manipulatives, tools, and technology as they investigate problems involving measurement.

GRADE LEVEL EXPECTATIONS	CORRELATION NOTATIONS
20. Measure length to the nearest inch and centimeter using appropriate tools (M-1-E) (M-2-E)	371A–371B, 371–372, 375A–375B, 375–376
21. Tell time to the hour and half-hour, and identify date, day, week, month, and year on a calendar (M-1-E) (M-2-E) (M-5-E)	207A–207B, 207–208, 209A–209B, 209–210, 211A–211B, 211–212, 215A–215B, 215–216, 225A–225B, 225–226, 227A–227B, 227–228
22. Select appropriate non-standard units for linear measurement situations (e.g., sticks, blocks, paper clips) (M-2-E)	365A–365B, 365–366, 367–368, 369A–369B, 369–370

GRADE LEVEL EXPECTATIONS	CORRELATION NOTATIONS
23. Compare the measure of objects to benchmarks (e.g., the width of a child's thumb is about a centimeter, the weight of a loaf of bread is about a pound, and the mass of a textbook is about a kilogram) (M-2-E)	371A, 371, 373A, 373, 375A, 375, 384, 385, 387, 388, 391, 393
24. Measure capacity using cups (M-2-E) (M-3-E) (M-1-E)	383B, 383–384, 385A–385B, 385–386
25. Identify the thermometer as a tool for measuring temperature (M-2-E)	395A–395B, 395–396

Geometry

In problem-solving investigations, students demonstrate an understanding of geometric concepts and applications involving one-, two-, and three-dimensional geometry, and justify their findings.

Students use number sense, estimation, models, drawings, manipulatives, and technology as they investigate problems involving geometric concepts.

GRADE LEVEL EXPECTATIONS	CORRELATION NOTATIONS
26. Compare, contrast, name, and describe attributes (e.g., corner, side, straight, curved, number of sides) of shapes using concrete models [circle, rectangle (including square), rhombus, triangle] (G-1-E) (G-2-E) (G-4-E)	R9, 155I, 165A–165B, 165–166, 167A–167B, 167–168
27. Connect the informal language used for 3-dimensional shapes to their proper mathematical name (e.g., a ball is a sphere, a box is a rectangular prism, a can is a cylinder) (G-2-E)	157A–157B, 157–158, 159A–159B, 159–160, 161A–161B, 161–162
28. Determine if a shape has a line of symmetry by folding (G-2-E)	171A–171B, 171–172
29. Visualize, predict, and create new shapes by cutting apart and combining existing 2- and 3-dimensional shapes (G-3-E) (G-1-E)	Related content: 177A–177B, 177–178

GRADE LEVEL EXPECTATIONS	CORRELATION NOTATIONS
30. Identify congruent shapes (i.e., same size and shape) in a variety of positions and orientations (G-3-E) (G-2-E)	169A–169B, 169–170
31. Draw line segments (G-5-E)	Related content: 158, 169A–169B, 169–170

Data Analysis, Probability, and Discrete Math

In problem-solving investigations, students discover trends, formulate conjectures regarding cause-and-effect relationships, and demonstrate critical thinking skills in order to make informed decisions.

Students use collection and organizational techniques, number sense, estimation, manipulatives, and technology as they investigate problems involving data.

GRADE LEVEL EXPECTATIONS	CORRELATION NOTATIONS
32. Given a set of data, construct and read information from bar graphs and charts (D-1-E) (D-2-E)	R16, 311A–311B, 311–312, 320, 321, 324, 328, 431A–431B, 431–432, 456
33. Determine whether an object satisfies a simple logical classification rule (e.g., belongs and does not belong) (D-1-E)	167A–167B, 167–168, 307A–307B, 307–308
34. Appropriately use basic probability vocabulary (e.g., *more likely to happen/less likely to happen*, *always/never, same as*) (D-5-E)	364, 401A–401B, 401–402, 403A–403B, 403–404

Patterns, Relations, and Functions

In problem-solving investigations, students demonstrate an understanding of patterns, relations, and functions that represent and explain real-world situations.

Students use number sense, estimation, manipulatives, drawings, tables, graphs, formulas, and technology as they investigate problems involving patterns, relations, and functions.

GRADE LEVEL EXPECTATIONS	CORRELATION NOTATIONS
35. Identify, describe, and explain the patterns in repeating situations (adding the same number, e.g., 2, 5, 8, 11, or skip-counting) (P-1-E)	R12, 239F, 255A–255B, 255–256, 257A–257B, 257–260, 261A–261B, 261–262, 271, 273–275
36. Explain patterns created with concrete objects, numbers, shapes, and colors (P-2-E)	R11, R13, R14, 1I, 3A–3B, 3–4, 5A–5B, 5–6, 7A–7B, 7–9, 27A–27B, 27–28, 29A–29B, 29–30, 30–31, 31–32, 33A–33B, 33–34, 35, 36, 37, 166, 239F, 255A–255B, 255–256, 257A–257B, 257–260, 261A–261B, 261–262, 271, 273–275

Book Title: Scott Foresman – Addison Wesley Mathematics **Grade Level:** Two

Publisher: Pearson Scott Foresman **Subject/Course:** Mathematics

Grade 2

Number and Number Relations

In problem-solving investigations, students demonstrate an understanding of the real number system and communicate the relationships within that system using a variety of techniques and tools.

Students use estimation, mental arithmetic, number lines, graphs, appropriate models, manipulatives, calculators, and computers as they investigate problems involving whole numbers.

GRADE LEVEL EXPECTATIONS	CORRELATION NOTATIONS
1. Model, read, and write place values for numbers through 999 in word, standard, and expanded form (N-1-E)	83A–83B, 83–84, 85A–85B, 85–86, 91, 96, 389I, 391A–391B, 391–392, 393A–393B, 393–394, 395A–395B, 395–396, 397A–397B, 397–398
2. Model the concepts of thirds, fourths, fifths and sixths using regions, sets, and fraction words (e.g., one-third, three-fourths, five-sixths) (N-1-E)	245J, 269A–269B, 269–270, 271A–271B, 273A–273B, 273–274, 276, 277A–277B, 277–278
3. Make reasonable estimates of the number of objects in a collection with fewer than 100 objects (N-2-E)	This expectation is addressed in Grade 1.
4. Count and write the value of amounts of money up to $1.00 using ¢ and $ (N-2-E) (N-6-E) (M-1-E) (M-5-E)	109A–109B, 109–110, 111A–111B, 111–112, 113A–113B, 113–114, 115A–115B, 115–116, 117A–117B, 117–118, 119A–119B, 119–120, 121A–121B, 121–122
5. Read, write, compare, and order whole numbers through 999 using words, number lines, and models (N-3-E) (N-1-E)	15A–15B, 15–16, 91A–91B, –92, 115A–115B, 115–116, 399A–399B, 399–400, 407A–407B, 407–408, 409A–409B, 409–410, 419
6. From a given number, count forward and backward and count to 100 by 2s (N-3-E) (N-1-E) (N-4-E)	97A–97B, 97–98, 407A, 407–408, 467A–467B, 467–468
7. Know all basic facts for addition and subtraction and use them to solve real-life problems (N-5-E) (N-6-E) (N-7-E) (N-8-E) (N-9-E)	1I, 23A–23B, 23–24, 25A–25B, 25–26, 27A–27B, 27–28, 29A–29B, 29–30, 35, 36, 41I, 43A–43B, 43–44, 45A–45B, 45–46, 47A–47B, 47–48, 51A–51B, 51–52, 53A–53B, 53–54, 61A–61B, 61–62, 63A–63B, 63–64, 65A–65B, 65–66, 73, 74

GRADE LEVEL EXPECTATIONS	CORRELATION NOTATIONS
8. Recognize, select, connect, and use operations, operational words and symbols (+, –) for addition (join, part/part/whole) or subtraction (take away, comparison, missing addend, and set/subset) situations (N-6-E) (N-5-E)	3A–3B, 3–4, 5A–5B, 5–6, 13A–13B, 13–14, 29A–29B, 29–30, 49A–49B, 49–50, 51A–51B, 51–52, 53A–53B, 53–54, 59, 65A–65B, 65–66, 67A–67B, 67–68, 69A–69B, 69–70, 73, 83, 91A–91B, 91–92, 93A–93B, 93–94, 95A–95B, 95–96, 97A–97B, 97–98, 99A–99B, 99–100, 101, 103A–103B, 103–104, 105A–105B, 105–106, 107A–107B, 107–108, 115, 125A–125B, 125–126, 127A–127B, 127–128, 129A–129B, 129–130, 133A–133B, 133–134, 135, 137A–137B, 137–138, 139A–139B, 139–140, 141A–141B, 141–142, 143A–143B, 143–144, 145A–145B, 145–146, 147, 221A–221B, 221–222, 227A–227B, 227–228, 417A–417B, 417–418, 419A–419B, 419–420, 421A–421B, 421–422, 423A–423B, 423–424, 425A–425B, 425–426, 433, 435A–435B, 435–436, 437A–437B, 437–438, 439A–439B, 439–440, 441A–441B, 441–442, 443A–443B, 443–444, 445A–445B, 445–446, 447A–447B, 447–448, 459A–459B, 459–460, 461A–461B, 461–462, 463A–463B, 463–464, 465A–465B, 465–466, 469, 471A–471B, 471–472, 473A–473B, 473–474, 475A–475B, 475–476, 477A–477B, 477–478, 483A–483B, 483–484, 487
9. Add and subtract 1- and 2-digit numbers (N-6-E) (N-7-E)	49A–49B, 49–50, 51A–51B, 51–52, 53A–53B, 53–54, 59, 65A–65B, 65–66, 67A–67B, 67–68, 69A–69B, 69–70, 73, 83, 91A–91B, 91–92, 93A–93B, 93–94, 95A–95B, 95–96, 97A–97B, 97–98, 99A–99B, 99–100, 101, 103A–103B, 103–104, 105A–105B, 105–106, 107A–107B, 107–108, 115, 125A–125B, 125–126, 127A–127B, 127–128, 129A–129B, 129–130, 133A–133B, 133–134, 135, 137A–137B, 137–138, 139A–139B, 139–140, 141A–141B, 141–142, 143A–143B, 143–144, 145A–145B, 145–146, 147

GRADE LEVEL EXPECTATIONS	CORRELATION NOTATIONS
10. Round numbers to the nearest 10 or 100 and identify situations in which rounding is appropriate (N-7-E) (N-9-E)	95A–95B, 95–96, 191, 429A–429B, 429–430, 445A–445B, 445–446, 453A–453B, 453–454
11. Use the concept of one-to-several correspondence to trade single items for a greater quantity of items with unequal value (1 nickel for 5 pennies, 1 dime for 2 nickels) (N-9-E)	109A–109B, 109–110, 117A–117B, 117–118, 121A–121B, 121–122

Algebra

In problem-solving investigations students demonstrate an understanding of concepts and processes that allow them to analyze, represent, and describe relationships among variable quantities and to apply algebraic methods to real-world situations.

Students use manipulatives, models, graphs, tables, technology, number sense, and estimation as they investigate problems involving the concepts and application of algebra.

GRADE LEVEL EXPECTATIONS	CORRELATION NOTATIONS
12. Use number sentences to represent real-life problems involving addition and subtraction (A-1-E) (A-2-E)	5A–5B, 5–6, 7, 8, 9A–9B, 9–10, 17A–17B, 17–18, 19A–19B, 19–20, 25A–25B, 25–26, 31–32, 57A–57B, 57–58, 199–200, 221A–221B, 221–222, 320, 330, 489, 490
13. Find the missing number in an equation involving addition or subtraction (e.g., # + 4 = 7, 8 - # = 3) (A-2-E) (N-4-E)	4, 5A–5B, 5–6, 19A–19B, 19–20, 26, 29A–29B, 29–30, 35, 401B, 401, 443A–443B, 443–444

Measurement

In problem-solving investigations, students demonstrate an understanding of the concepts, processes, and real-life applications of measurement.

Students use number sense, estimation, appropriate manipulatives, tools, and technology as they investigate problems involving measurement.

GRADE LEVEL EXPECTATIONS	CORRELATION NOTATIONS
14. Measure and appropriately label measures of length and perimeter (i.e., inch, centimeter, foot), capacity (i.e., cup, quart, liter), and weight/mass (i.e., pound, kilogram) (M-1-E)	343A–343B, 343–344, 345A–345B, 345–346, 347A–347B, 347–348, 351A–351B, 351–352, 355A–355B, 355–356, 357A–357B, 357–358, 361, 367A, 384
15. Read a thermometer in degrees Fahrenheit and Celsius and interpret the temperature (M-1-E)	336, 369A–369B, 369–370
16. Tell time to the nearest 5 minutes, and identify the time one hour before or after a given time (M-1-E) (M-3-E)	291A–291B, 291–292, 293A–293B, 293–294, 295A–295B, 295–296
17. Select and use appropriate tools and units to measure length, time, capacity, and weight (e.g., scales for pounds and kilograms; rulers for inches and centimeters; measuring containers for cup, quarts, and liters) (M-2-E)	383 *These additional pages provide opportunities for students to apply this expectation.* 343A–343B, 343–344, 345A–345B, 345–346, 347A–347B, 347–348, 351A–351B, 351–352, 355A–355B, 355–356, 357A–357B, 357–358, 361, 367A, 384
18. Use non-standard units to cover a given region (M-2-E)	Tiling area is introduced in Grade 3.
19. Estimate length in standard units (inch, foot, and centimeter) (M-3-E)	343A–343B, 343–344
20. Compare units within the **same** system (inch is shorter than a foot, minute is shorter than an hour, day is shorter than a month, cup holds less than a quart) (M-3-E)	117A–117B, 117–118, 305, 355A–355B, 355–356

Geometry

In problem-solving investigations, students demonstrate an understanding of geometric concepts and applications involving one-, two-, and three-dimensional geometry, and justify their findings.

Students use number sense, estimation, models, drawings, manipulatives, and technology as they investigate problems involving geometric concepts.

GRADE LEVEL EXPECTATIONS	CORRELATION NOTATIONS
21. Compare and contrast 3-dimensional shapes (i.e., sphere, cube, cylinder, cone, prism, pyramid) according to their attributes (e.g., number of faces, shape of faces) (G-2-E)	247A–247B, 247–248, 251A–251B, 251–252
22. Identify a reduction or enlargement of a given shape (G-2-E)	*This expectation can be introduced on these pages.* 257A–257B, 257–258
23. Identify congruent 3-dimensional solids in a variety of positions and orientations (G-3-E) (G-4-E) (G-2-E)	247A–247B, 247–248, 249A–249B, 249–250, 251A–251B, 251–252
24. Identify and draw horizontal and vertical line segments (G-5-E)	*This expectation can be introduced on the following page. See also, Grade 3.* 258

Data Analysis, Probability, and Discrete Math

In problem-solving investigations, students discover trends, formulate conjectures regarding cause-and-effect relationships, and demonstrate critical thinking skills in order to make informed decisions.

Students use collection and organizational techniques, number sense, estimation, manipulatives, and technology as they investigate problems involving data.

GRADE LEVEL EXPECTATIONS	CORRELATION NOTATIONS
25. Collect and organize data using observations, surveys, and experiments (D-1-E)	310, 313A–313B, 313–314, 315A–315B, 316, 319A, 319, 321A, 322, 323A–323B, 336

GRADE LEVEL EXPECTATIONS	CORRELATION NOTATIONS
26. Construct and read line plots and tables (D-2-E)	*There are many examples of tables embedded in the content of the lessons. These are few of the many examples.* 117A–117B, 117–118, 309–310, 311A–311B, 311–312, 319A–319B, 319–320, 321, 323A–323B, 323–324, 334
27. Interpret pictographs in which each picture represents more than one object (D-2-E)	319B, 320
28. Generate questions that can be answered by collecting and analyzing data (D-3-E)	313A–313B, 313–314, 315A–315B, 315–316
29. Solve logic problems involving two sets by using elementary set logic (i.e., *and*, *or*, and *is/is not* statements) (D-3-E)	315A–315B, 315–316, 319B

Patterns, Relations, and Functions

In problem-solving investigations, students demonstrate an understanding of patterns, relations, and functions that represent and explain real-world situations.

Students use number sense, estimation, manipulatives, drawings, tables, graphs, formulas, and technology as they investigate problems involving patterns, relations, and functions.

GRADE LEVEL EXPECTATIONS	CORRELATION NOTATIONS
30. Recognize, extend, create, and explain patterns of addition and subtraction as represented in charts and tables and in varied forms of skip-counting (P-1-E) (P-2-E)	99–100, 102, 157A–157B, 157–158, 402, 407A–407B, 407–408, 413A–413B, 413–414, 420
31. Recognize, extend, create, and explain patterns that involve simple rotations or size changes with geometric objects (P-1-E) (P-2-E)	260, 412
32. Recognize and apply patterns in problem-solving in other content areas and real-life situations (P-3-E) (N-9-E)	157B, 306, 413B

Book Title: Scott Foresman – Addison Wesley Mathematics **Grade Level**: Three

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Grade 3

Number and Number Relations

In problem-solving investigations, students demonstrate an understanding of the real number system and communicate the relationships within that system using a variety of techniques and tools.

Students use estimation, mental arithmetic, number lines, graphs, appropriate models, manipulatives, calculators, and computers as they investigate problems involving whole numbers.

GRADE LEVEL EXPECTATIONS	CORRELATION NOTATIONS
1. Model, read, and write place value in word, standard, and expanded form for numbers through 9999 (N-1-E)	2I, 6A–6B, 6–7, 8A–8B, 8–9, 10A–10B, 10–11, 12A–12B, 12–13
2. Read, write, compare, and order whole numbers through 9999 using symbols (i.e., <, =, >) and models (N-1-E) (N-3-E)	18A–18B, 18–21, 22A–22B, 22–23
3. Use region and set models and symbols to represent, estimate, read, write, and show understanding of fractions through tenths (N-1-E) (N-2-E)	516A–516B, 516–517, 518A–518B, 518–519
4. Use the concepts of associative and commutative properties of multiplication to simplify computations (N-4-E) (N-7-E)	263A–263B, 263–265
5. Recognize and model multiplication as a rectangular array or as repeated addition (N-4-E) (N-7-E)	258J, 260A–260B, 260–261, 262A–262B, 262–265, 266A–266B, 266–267, 316, 610I, 626A–626B, 626–628
6. Recognize and model division as separating quantities into equal subsets (fair shares) or as repeated subtraction (N-4-E) (N-7-E)	370A–370B, 370–371, 375A–375B, 375–373, 522A–522B, 522–523
7. Recognize and apply multiplication and division as inverse operations (N-4-E)	384A–384B, 384–385

GRADE LEVEL EXPECTATIONS	CORRELATION NOTATIONS
8. Recognize, select, connect, and use operations, operational words, and symbols (i.e., +, –, x, ÷) to solve real-life situations (N-5-E) (N-6-E) (N-9-E)	76A–76B, 76–77, 104A–104B, 104–105, 284A–284B, 284–285, 294A–294B, 294–295, 346A–346B, 346–347, 348A–348B, 348–349, 380A–380B, 380–381, 406A–406b, 406–407, 658A–658B, 658–659, 688A–688B, 688–689
9. Know basic multiplication and division facts [0s, 1s, 2s, 5s, 9s, and turn-arounds (commutative facts), including multiplying by 10s] (N-6-E) (N-4-E)	260B, 262B, 266A–266B, 265, 267, 276B, 278, 283–285, 287, 293, 316B, 318B, 324A–324B, 317, 319–322, 324, 326, 329, 384–385, 386A–386B, 392A–392B, 386–393, 395, 397
10. Calculate the value of a combination of bills and coins and make change up to $5.00 (N-6-E) (M-1-E) (M-5-E)	36A–36B, 36–39, 40–41, 135
11. Add and subtract numbers of 3 digits or less (N-6-E) (N-7-E)	66A–66B, 66–67, 70A–70B, 70–71, 76A–76B, 76–77, 80A–80B, 80–81, 82A–82B, 82–83, 94A–94B, 94–95, 126A–126B, 126–127, 128A–128B, 128–131, 132A–132B, 132–135, 136A–136B, 136–137, 146A–146B, 146–147
12. Round to the nearest 1000 and identify situations in which such rounding is appropriate (N-7-E) (N-9-E)	98
13. Determine when and how to estimate, and when and how to use mental math, calculators, or paper/pencil strategies to solve addition and subtraction problems (N-8-E) (N-9-E)	76A–76B, 76–77, 104A–104B, 104–105, 284A–284B, 284–285, 294A–294B, 294–295, 346A–346B, 346–347, 348A–348B, 348–349, 380A–380B, 380–381, 406A–406b, 406–407, 658A–658B, 658–659, 688A–688B, 688–689

Algebra

In problem-solving investigations students demonstrate an understanding of concepts and processes that allow them to analyze, represent, and describe relationships among variable quantities and to apply algebraic methods to real-world situations.

Students use manipulatives, models, graphs, tables, technology, number sense, and estimation as they investigate problems involving the concepts and application of algebra.

GRADE LEVEL EXPECTATIONS	CORRELATION NOTATIONS
14. Use the symbols <, >, and ≠ to express inequalities (A-1-E)	168A–168B, 168–169
15. Use objects, pictures, numbers, symbols, and words to represent multiplication and division problem situations (A-1-E)	346A–346B, 346–347, 404A–404B, 404–405, 540A–540B, 540–541, 612A–612B, 612–615, 616A–616B, 616–617, 618A–618B, 618–621, 622A–622B, 622–623, 626A–626B, 626–629, 630A–630B, 630–631, 632A–632B, 632–635, 636A–636B, 636–637, 638A–638B, 638–639, 640A–640B, 640–641, 648A–648B, 648–649, 650A–650B, 650–651, 652A–652B, 652–655, 656A–656B, 656–657
16. Use number sentences to represent real-life problems involving multiplication and division (A-1-E) (N-4-E)	260A–260B, 260–261, 264A–264B, 264–265, 286A–286B, 286–287, 316, 338A–338B, 338–339, 385, 397, 612, 614, 618, 651
17. Analyze and describe situations where proportional trades or correspondences are required (e.g., trade 2 pieces of candy for 3 pieces of gum, make equivalent actions on pans to keep balance scale in equilibrium, plan for the number of pieces of bread needed for *x* sandwiches) (A-1-E)	72A–72B, 72–73, 168A–168B, 168–169, 344A–344B, 344–345
18. Use letters as variables in mathematical statements that represent real-life problems (e.g., 2 x *n* = 8) (A-2-E)	76A–76B, 76–77, 168A–168B, 168–169

Measurement

In problem-solving investigations, students demonstrate an understanding of the concepts, processes, and real-life applications of measurement.

Students use number sense, estimation, appropriate manipulatives, tools, and technology as they investigate problems involving measurement.

GRADE LEVEL EXPECTATIONS	CORRELATION NOTATIONS
19. Measure length to the nearest yard, meter, and half-inch (M-1-E)	532A–532B, 532–533, 534A–534B, 534–535, 562J, 582A–582B, 582–583
20. Measure capacity using pints and gallons (M-1-E)	680A–680B, 680–683
21. Measure weight using grams and ounces (M-1-E)	690A–690B, 690–693, 694A–694B, 694–695
22. Find the perimeter of a geometric shape given the length of its sides (M-1-E)	464A–464B, 464–466
23. Find the area in square units of a given rectangle (including squares) drawn on a grid or by covering the region with square tiles (M-1-E)	468A–468B, 468–471
24. Find elapsed time involving hours and minutes, without regrouping, and tell time to the nearest minute (M-1-E) (M-5-E)	190I, 192, 194–195, 196A–196B, 196–197, 198A–198B, 198–199
25. Select and use the appropriate standard units of measure, abbreviations, and tools to measure length and perimeter (i.e., in., cm, ft., yd., m), area (square inch, square centimeter), capacity (i.e., cup, pint, quart, gallon, liter), and weight/mass (i.e., oz., lb., g, kg, ton) (M-2-E)	464A–464B, 464–467, 468A–468B, 468–471, 532A–532B, 532–533, 534A–534B, 534–535, 536A–536B, 536–537, 582A–582B, 582–583, 584A–584B, 584–585, 586A–586B, 586–587, 680, 690, 693
26. Order a set of measures within the **same** system (M-3-E)	*These pages provide opportunities for students to apply this expectation.* 532, 536, 538, 582, 584, 680, 684, 690, 694
27. Compare U.S. and metric measurements using approximate reference points without using conversions (e.g., a meter is longer than a yard) (M-3-E) (M-4-E)	*These pages provide opportunities for students to apply this expectation.* 532, 536, 538, 582, 584, 680, 684, 690, 694

GRADE LEVEL EXPECTATIONS	CORRELATION NOTATIONS
28. Estimate length, weight/mass, and capacity (M-3-E)	533, 535, 582, 628, 681, 682, 685, 691

Geometry

In problem-solving investigations, students demonstrate an understanding of geometric concepts and applications involving one-, two-, and three-dimensional geometry, and justify their findings.

Students use number sense, estimation, models, drawings, manipulatives, and technology as they investigate problems involving geometric concepts.

GRADE LEVEL EXPECTATIONS	CORRELATION NOTATIONS
29. Classify and describe 2- and 3-dimensional objects according to given attributes (triangle vs. quadrilateral, parallelogram vs. prism) (G-2-E) (G-1-E) (G-4-E)	426I, 428A–428B, 428–431, 432A–432B, 432–433, 450A–450B, 450–452, 454A–454B, 454–455
30. Apply concepts of congruence, similarity, and symmetry in real-life situations (G-2-E)	456A–456B, 456–459, 460A–460B, 460–461
31. Draw or reconstruct figures from visual memory or verbal descriptions (G-3-E)	428A–428B, 429–430, 431
32. Recognize and execute specified flips, turns, and slides of geometric figures using manipulatives and correct terminology (including *clockwise* and *counterclockwise*) (G-3-E)	449, 456A–456B, 456–459
33. Construct and draw rectangles (including squares) with given dimensions (e.g., grid paper, square tiles) (G-4-E)	464A–464B, 464–467, 468A–468B, 468–471
34. Fold a 2-dimensional net into a 3-dimensional object (G-4-E) (G-1-E)	431
35. Identify, give properties of, and distinguish among points, lines, line segments, planes, rays, and angles (G-5-E)	442A–442B, 442–443, 444A–444B, 444–445, 446A–446B, 446–448, 450

GRADE LEVEL EXPECTATIONS	CORRELATION NOTATIONS
36. Identify and draw segments, rays, and lines that are perpendicular, parallel, and intersecting (G-5-E)	442A–442B, 442–443, 444A–444B, 444–445
37. Identify, describe, and draw intersecting, horizontal, vertical, parallel, diagonal, and perpendicular lines, rays, and right angles in the real world (G-5-E) (G-6-E)	442A–442B, 442–443, 444A–444B, 444–445, 446A–446B, 446–448, 450B, 450
38. Find the length of a path (that does not include diagonals) between two points on a grid (G-6-E)	218A–218B, 218–221

Data Analysis, Probability, and Discrete Math

In problem-solving investigations, students discover trends, formulate conjectures regarding cause-and-effect relationships, and demonstrate critical thinking skills in order to make informed decisions.

Students use collection and organizational techniques, number sense, estimation, manipulatives, and technology as they investigate problems involving data.

GRADE LEVEL EXPECTATIONS	CORRELATION NOTATIONS
39. Identify categories and sort objects based on qualitative (categorical) and quantitative (numerical) characteristics (D-1-E)	204A–204B, 204–207, 208A–208B, 216A, 222A, 226A–226B, 226A–226B, 226, 228A–228B, 236A–236B, 428A–428B, 428–431, 444A–444B, 444–445, 446A–446B, 446–449, 450A–450B, 450–453, 454A–454B, 454–455
40. Read, describe, and organize a two-circle Venn diagram (D-1-E) (D-2-E)	69
41. Explain the word *average* and use it appropriately in discussing what is “typical” of a data set (D-1-E)	621

GRADE LEVEL EXPECTATIONS	CORRELATION NOTATIONS
42. Match a data set to a graph, table, or chart and vice versa (D-2-E)	*On these pages, students make and interpret representations of data sets.* 204A–204B, 204–207, 208A–208B, 208–210, 211, 212A–212B, 212–215, 216A–216B, 216–217, 222A–222B, 222–223, 226A–226B, 226–227, 228A–228B, 228–230, 231, 232A–232B, 232–233, 234–235, 236A–236B, 236–237, 270A–270B, 270–273
43. Represent and solve problems using data from a variety of sources (e.g., tables, graphs, maps, advertisements) (D-3-E)	190J, 204A–204B, 204–207, 208A–208B, 208–210, 211, 212A–212B, 212–215, 216A–216B, 216–217, 222A–222B, 222–223, 226A–226B, 226–227, 228A–228B, 228–230, 231, 232A–232B, 232–233, 234–235, 236A–236B, 236–237, 270A–270B, 270–273
44. Discuss chance situations in terms of *certain/impossible* and *equally likely* (D-5-E)	700A–700B, 700–701, 707
45. Use manipulatives to discuss the probability of an event (e.g., number cubes, spinners to determine what is most likely or least likely) (D-5-E)	700A–700B, 700–701, 707

Patterns, Relations, and Functions

In problem-solving investigations, students demonstrate an understanding of patterns, relations, and functions that represent and explain real-world situations.

Students use number sense, estimation, manipulatives, drawings, tables, graphs, formulas, and technology as they investigate problems involving patterns, relations, and functions.

GRADE LEVEL EXPECTATIONS	CORRELATION NOTATIONS
46. Identify and model even and odd numbers with objects, pictures, and words (P-1-E)	24A–25B, 24–25

GRADE LEVEL EXPECTATIONS	CORRELATION NOTATIONS
47. Find patterns to complete tables, state the rule governing the shift between successive terms, and continue the pattern (including growing patterns) (P-1-E) (P-2-E)	72A–72B, 72–73, 259, 270A–271B, 270–273, 282, 332A–332B, 332–335, 340A–340B, 340–341, 344A–344B, 344–345, 539, 695

Book Title: Scott Foresman – Addison Wesley Mathematics **Grade Level:** Four

Publisher: Pearson Scott Foresman **Subject/Course:** Mathematics

Grade 4

Number and Number Relations

In problem-solving investigations, students demonstrate an understanding of the real number system and communicate the relationships within that system using a variety of techniques and tools.

Students use estimation, mental arithmetic, number lines, graphs, appropriate models, manipulatives, calculators, and computers as they investigate problems involving whole numbers.

GRADE LEVEL EXPECTATIONS	CORRELATION NOTATIONS
1. Read and write place value in word, standard, and expanded form through 1,000,000 (N-1-E)	4A–4B, 4–7, 8A–8B, 8–9, 10A–10B, 10–11
2. Read, write, compare, and order whole numbers using place value concepts, standard notation, and models through 1,000,000 (N-1-E) (N-3-E) (A-1-E)	16A–16B, 16–19, 26
3. Illustrate with manipulatives when a number is divisible by 2, 3, 5, or 10 (N-1-E)	402A–402B, 402–403
4. Know all basic facts for multiplication and division through 12 x 12 and 144 ÷ 12, and recognize factors of composite numbers less than 50 (N-1-E) (N-6-E) (N-7-E)	122J, 132A–132B, 132–135, 136A–136B, 136–137, 148A–148B, 148–149, 150A–150B, 150–151, 152A–152B, 152–153
5. Read, write, and relate decimals through hundredths and connect them with corresponding decimal fractions (N-1-E)	34A–34B, 34–35, 624A–624B, 624–627, 628A–628B, 628–629
6. Model, read, write, compare, order, and represent fractions with denominators through twelfths using region and set models (N-1-E) (A-1-E)	500A–500B, 500–501, 502A–502B, 502–503, 504A–504B, 504–507, 522A–522B, 522–523, 524A–524B, 524–527
7. Give decimal equivalents of halves, fourths, and tenths (N-2-E) (N-1-E)	624A–624B, 624–627

GRADE LEVEL EXPECTATIONS	CORRELATION NOTATIONS
8. Use common equivalent reference points for percents (i.e., ¼, ½, ¾, and 1 whole) (N-2-E)	*The Enrichment feature on this page provides the opportunity to introduce this expectation.* 533
9. Estimate fractional amounts through twelfths, using pictures, models, and diagrams (N-2-E)	508A–508B, 508–509
10. Solve multiplication and division number sentences including interpreting remainders (N-4-E) (A-3-E)	166A–166B, 166–167, 396A–396B, 396–401, 690A–690B, 690–691
11. Multiply 3-digit by 1-digit numbers, 2-digit by 2-digit numbers, and divide 3-digit numbers by 1-digit numbers, with and without remainders (N-6-E) (N-7-E)	274A–274B, 274–275, 332A–332B, 332–335, 386A–386B, 386–389, 390A–390B, 390–391, 392A–392B, 392–393
12. Count money, determine change, and solve simple word problems involving money amounts using decimal notation (N-6-E) (N-9-E) (M-1-E) (M-5-E)	28A–28B, 28–29, 30A–30B, 30–31, 32A–33B, 32–33, 286A–286B, 286–287, 340A–340B, 340–341, 392A–392B, 392–393
13. Determine when and how to estimate, and when and how to use mental math, calculators, or paper/pencil strategies to solve multiplication and division problems (N-8-E)	254I, 258A–258B, 258–261, 262A–262B, 262–263, 282A–282B, 282–283, 314A–314B, 314–315, 316A–316B, 316–319, 338A–338B, 338–339, 364J, 366A–366B, 366–367, 368A–368B, 368–371, 389, 406A–406B, 406–407, 411, 467, 519, 637, 641
14. Solve real-life problems, including those in which some information is not given (N-9-E)	*These are some of the many examples of real–life problems in Scott Foresman–Addison Wesley Mathematics. Most lessons offer real life application problems as part Reasoning and Problem Solving.* 40–41, 102–103, 168–169, 234–235, 292–293, 344–345, 412–413, 478–479, 540–541, 602–603, 666–667, 716–717

Algebra

In problem-solving investigations students demonstrate an understanding of concepts and processes that allow them to analyze, represent, and describe relationships among variable quantities and to apply algebraic methods to real-world situations.

Students use manipulatives, models, graphs, tables, technology, number sense, and estimation as they investigate problems involving the concepts and application of algebra.

GRADE LEVEL EXPECTATIONS	CORRELATION NOTATIONS
15. Write number sentences or formulas containing a variable to represent real-life problems (A-1-E)	100A–100B, 100–101, 166A–166B, 166–167, 396A–396B, 396–401, 464A–464B, 464–467, 468A–468B, 468–469, 476A–476B, 476–477, 690A–690B, 690–691
16. Write a related story problem for a given algebraic sentence (A-1-E)	*This expectation can be introduced during the following lesson.* 94A–94B, 94–95
17. Use manipulatives to represent the distributive property of multiplication over addition to explain multiplying numbers (A-1-E) (A-2-E)	132A–132B, 132–133
18. Identify and create true/false and open/closed number sentences (A-2-E)	This expectation is addressed in Grades 3 and 6.
19. Solve one-step equations with whole number solutions (A-2-E) (N-4-E)	100A–100B, 100–101, 690A–690B, 690–691

Measurement

In problem-solving investigations, students demonstrate an understanding of the concepts, processes, and real-life applications of measurement.

Students use number sense, estimation, appropriate manipulatives, tools, and technology as they investigate problems involving measurement.

GRADE LEVEL EXPECTATIONS	CORRELATION NOTATIONS
20. Measure length to the nearest quarter-inch and mm (M-2-E) (M-1-E)	560J, 622J, 590A–590B, 590–591, 652A–652B, 652–653

GRADE LEVEL EXPECTATIONS	CORRELATION NOTATIONS
21. Describe the concept of volume, and measure volume using cubic in. and cubic cm and capacity using fl. oz. and ml (M-2-E) (M-3-E)	476A–476B, 476–477, 592A–592B, 592–593, 596A–596B, 596–599, 654A–654B, 654–655, 661
22. Select and use the appropriate standard units of measure, abbreviations, and tools to measure length and perimeter (i.e., in., cm, ft., yd., mile, m, km), area (i.e., square inch, square foot, square centimeter), capacity (i.e., fl. oz., cup, pt., qt., gal., l, ml), weight/mass (i.e., oz., lb., g, kg, ton), and volume (i.e., cubic cm, cubic in.) (M-2-E) (M-1-E)	468A–468B, 468–471, 588A–588B, 588–589, 590A–590B, 590–591, 592A–592B, 592–593, 594A–594B, 594–595, 596A–596B, 596–598, 652A–652B, 652–653, 654A–654B, 654–655, 656A–656B, 656–657, 658A–658B, 658–661, 664A–664B, 664–665
23. Set up, solve, and interpret elapsed time problems (M-2-E) (M-5-E)	196A–196B, 196–197
24. Recognize the attributes to be measured in a real-life situation (M-2-E) (M-5-E)	466, 470, 472–473, 474–475
25. Use estimates and measurements to calculate perimeter and area of rectangular objects (including squares) in U.S. (including square feet) and metric units (M-3-E)	464A–464B, 464–467, 468A–468B, 468–471
26. Estimate the area of an irregular shape drawn on a unit grid (M-3-E)	468A–468B, 468–471
27. Use unit conversions within the same system to solve real-life problems (e.g., 60 sec. = 1 min., 12 objects = 1 dozen, 12 in. = 1 ft., 100 cm = 1 m, 1 pt. = 2 cups) (M-4-E) (N-2-E) (M-5-E)	560J, 596A–596B, 596–598, 658A–658B, 658–661

Geometry

In problem-solving investigations, students demonstrate an understanding of geometric concepts and applications involving one-, two-, and three-dimensional geometry, and justify their findings.

Students use number sense, estimation, models, drawings, manipulatives, and technology as they investigate problems involving geometric concepts.

GRADE LEVEL EXPECTATIONS	CORRELATION NOTATIONS
28. Identify the top, bottom, or side view of a given 3-dimensional object (G-1-E) (G-3-E)	*These pages provide opportunities to apply this expectation.* 434A–434B, 434–437
29. Identify, describe the properties of, and draw circles and polygons (triangle, quadrilateral, parallelogram, trapezoid, rectangle, square, rhombus, pentagon, hexagon, octagon, and decagon) (G-2-E)	438A–438B 438–439, 444A–444B, 444–447, 448A–448B, 448–449
30. Make and test predictions regarding transformations (i.e., slides, flips, and turns) of plane geometric shapes (G-3-E)	452A–452B, 452–455
31. Identify, manipulate, and predict the results of rotations of 90, 180, 270, and 360 degrees on a given figure (G-3-E)	Rotational symmetry is introduced in Grade 6.
32. Draw, identify, and classify angles that are acute, right, and obtuse (G-5-E) (G-1-E)	332A–332B, 332–334
33. Specify locations of points in the first quadrant of coordinate systems and describe paths on maps (G-6-E)	212A–212B, 212–215

Data Analysis, Probability, and Discrete Math

In problem-solving investigations, students discover trends, formulate conjectures regarding cause-and-effect relationships, and demonstrate critical thinking skills in order to make informed decisions.

Students use collection and organizational techniques, number sense, estimation, manipulatives, and technology as they investigate problems involving data.

GRADE LEVEL EXPECTATIONS	CORRELATION NOTATIONS
34. Summarize information and relationships revealed by patterns or trends in a graph, and use the information to make predictions (D-1-E)	216A–216B, 216–219, 692A–692B, 692–694
35. Find and interpret the meaning of mean, mode, and median of a small set of numbers (using concrete objects) when the answer is a whole number (D-1-E)	226A–226B, 226–229
36. Analyze, describe, interpret, and construct various types of charts and graphs using appropriate titles, axis labels, scales, and legends (D-2-E) (D-1-E)	204A–204B, 204–205, 206A–206B, 206–207, 208A–208B, 208–211, 212A–212B, 212–215, 216A–216B, 216–219, 222A–222B, 222–223, 208A–208B, 208–211, 216A–216B, 216–219, 536A–536B, 536–537
37. Determine which type of graph best represents a given set of discrete data (D-2-E) (D-1-E)	222A–222B, 222–223
38. Solve problems involving simple deductive reasoning (D-3-E)	218, 227, 228, 229, 230, 213, 405, 693, 705, 706, 707, 711
39. Use lists, tables, and tree diagrams to generate and record all possible combinations for 2 sets of 3 or fewer objects (e.g., combinations of pants and shirts, days and games) and for given experiments (D-3-E) (D-4-E)	704A–704B, 704–705
40. Determine the total number of possible outcomes for a given experiment using lists, tables, and tree diagrams (e.g., spinning a spinner, tossing 2 coins) (D-4-E) (D-5-E)	704A–704B, 704–705

GRADE LEVEL EXPECTATIONS	CORRELATION NOTATIONS
41. Apply appropriate probabilistic reasoning in real-life contexts using games and other activities (e.g., examining fair and unfair situations) (D-5-E) (D-6-E)	700B, 701, 706B, 709

Patterns, Relations, and Functions

In problem-solving investigations, students demonstrate an understanding of patterns, relations, and functions that represent and explain real-world situations.

Students use number sense, estimation, manipulatives, drawings, tables, graphs, formulas, and technology as they investigate problems involving patterns, relations, and functions.

GRADE LEVEL EXPECTATIONS	CORRELATION NOTATIONS
42. Find and describe patterns resulting from operations involving even and odd numbers (such as even + even = even) (P-1-E)	402A–402B, 402–403
43. Identify missing elements in a number pattern (P-1-E)	90A–90B, 90–91, 99, 128, 140A–140B, 140–142, 164A–164B, 164–165, 366A–366B, 366–367
44. Represent the relationship in an input-output situation using a simple equation, graph, table, or word description (P-2-E)	164A–164B, 164–165

Book Title: Scott Foresman – Addison Wesley Mathematics **Grade Level:** Five

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Grade 5

Number and Number Relations

In problem-solving investigations, students demonstrate an understanding of the real number system and communicate the relationships within that system using a variety of techniques and tools.

Students use estimation, mental arithmetic, number lines, graphs, appropriate models, manipulatives, calculators, and computers as they extend their investigations of problems involving rational numbers.

GRADE LEVEL EXPECTATIONS	CORRELATION NOTATIONS
1. Differentiate between the terms *factor* and *multiple*, and *prime* and *composite* (N-1-M)	164A–164B, 164–167, 464A–464B, 464–465
2. Recognize, explain, and compute equivalent fractions for common fractions (N-1-M) (N-3-M)	410A–410B, 410–413, 462A–462B, 462–464
3. Add and subtract fractions with common denominators and use mental math to determine whether the answer is reasonable (N-2-M)	460A–460B, 460–461, 462A–462B, 462–463, 466A–466B, 466–468, 470–471, 472A–472B, 472–475, 476A–476B, 476–477, 488–489
4. Compare positive fractions using number sense, symbols (i.e., <, =, >), and number lines (N-2-M)	418A–418B, 418–419, 420A–420B, 420–423
5. Read, explain, and write a numerical representation for positive improper fractions, mixed numbers, and decimals from a pictorial representation and vice versa (N-3-M)	400A–400B, 400–401
6. Select and discuss the correct operation for a given problem involving positive fractions using appropriate language such as *sum*, *difference*, *numerator*, and *denominator* (N-4-M) (N-5-M)	462A–462B, 462–463, 466A–466B, 466–468, 476A–476B, 476–477, 478A–478B, 478–480, 504A–504B, 504–505

GRADE LEVEL EXPECTATIONS	CORRELATION NOTATIONS
7. Select, sequence, and use appropriate operations to solve multi-step word problems with whole numbers (N-5-M) (N-4-M)	*On these pages, students solve multi-step problems with money expressed as decimal numbers.* 226A–226B, 226–227
8. Use the whole number system (e.g., computational fluency, place value, etc.) to solve problems in real-life and other content areas (N-5-M)	10, 96, 110–111, 180–181, 254, 268, 306–307, 370, 376, 506–507, 513, 572–573, 626–627, 730–731
9. Use mental math and estimation strategies to predict the results of computations (i.e., whole numbers, addition and subtraction of fractions) and to test the reasonableness of solutions (N-6-M) (N-2-M)	22–25, 28–31, 68A–68B, 68–69, 86A–86B, 86–87, 88, 94, 169, 138A–138B, 138–141, 154, 204A–204B, 204–207, 236, 402A–402B, 402–403, 494A–494B, 494–495, 497, 615, 617, 698
10. Determine when an estimate is sufficient and when an exact answer is needed in real-life problems using whole numbers (N-6-M) (N-5-M)	68A–68B, 68–69, 138A–138B, 138–141, 218A–218B, 218–221, 624A–624B, 624–625
11. Explain concepts of ratios and equivalent ratios using models and pictures in real-life problems (e.g., understand that 2/3 means 2 divided by 3) (N-8-M) (N-5-M)	646A–646B, 646–647, 648A–648B, 648–651, 652A–652B, 652–653, 662A–662B, 662–665

Algebra

In problem-solving investigations students demonstrate an understanding of concepts and processes that allow them to analyze, represent, and describe relationships among variable quantities and to apply algebraic methods to real-world situations.

Students use manipulatives, models, graphs, tables, technology, number sense, and estimation as they extend their investigations of problems involving the concepts and application of algebra.

GRADE LEVEL EXPECTATIONS	CORRELATION NOTATIONS
12. Find unknown quantities in number sentences by using mental math, backward reasoning, inverse operations (i.e., unwrapping), and manipulatives (e.g., tiles, balance scales) (A-2-M) (A-3-M)	85, 90, 97, 108A–108B, 108–109, 133, 137, 163, 231, 337, 396, 419, 611, 612, 700–701, 702A–702B, 702–703, 704–705, 706A–706B, 706–709, 720–721
13. Write a number sentence from a given physical model of an equation (e.g., balance scale) (A-2-M) (A-1-M)	104A–104B, 104–105, 704–705, 706A–706B, 706–709, 720–721
14. Find solutions to one-step inequalities and identify positive solutions on a number line (A-2-M) (A-3-M)	Solving inequalities is addressed in Grade 6.

Measurement

In problem-solving investigations, students demonstrate an understanding of the concepts, processes, and real-life applications of measurement.

Students use number sense, estimation, appropriate manipulatives, tools, and technology as they extend their investigations of problems involving measurement.

GRADE LEVEL EXPECTATIONS	CORRELATION NOTATIONS
15. Model, measure, and use the names of all common units in the U.S. and metric systems (M-1-M)	528B, 528–531, 536A–536B, 536–538, 614–615, 616B, 616–617, 620–621, 622A–622B, 622–623

GRADE LEVEL EXPECTATIONS	CORRELATION NOTATIONS
16. Apply the concepts of elapsed time in real-life situations and calculate equivalent times across time zones in real-life problems (M-1-M) (M-6-M)	564A–564B, 564–567
17. Distinguish among the processes of counting, calculating, and measuring and determine which is the most appropriate strategy for a given situation (M-2-M)	*These pages provide opportunities for students to apply this expectation.* 528A–528B, 528–531, 532A–532B, 532–533, 534A–534B, 534–535, 536A–536B, 536–539, 614A–614B, 614–615, 616A–616B, 616–617, 620A–620B, 620–621, 622A–622B, 622–623
18. Estimate time, temperature, weight/mass, and length in familiar situations and explain the reasonableness of answers (M-2-M)	529, 530, 537, 538, 541, 544, 551, 603, 613, 615, 617, 621
19. Compare the relative sizes of common units for time, temperature, weight, mass, and length in real-life situations (M-2-M) (M-4-M)	528B, 528–531, 536A–536B, 536–538, 562–563, 568A–568B, 568–569, 616B, 620A–620B, 620–621, 622A–622B, 622–623
20. Identify appropriate tools and units with which to measure time, mass, weight, temperature, and length (M-3-M)	530, 531, 535, 614, 616, 620, 622
21. Measure angles to the nearest degree (M-3-M)	332A–332B, 332–335
22. Compare and estimate measurements between the U.S. and metric systems in terms of common reference points (e.g., l vs. qt., m vs. yd.) (M-4-M)	568, 569
23. Convert between units of measurement for length, weight, and time, in U.S. and metric, within the same system (M-5-M)	528A–528B, 528–531, 536A–536B, 536–539, 562A–562B, 562–563, 614A–614B, 614–615, 616A–616B, 616–617, 620A–620B, 620–621, 622A–622B, 622–623

Geometry

In problem-solving investigations, students demonstrate an understanding of geometric concepts and applications involving one-, two-, and three-dimensional geometry, and justify their findings.

Students use number sense, estimation, models, drawings, manipulatives, and technology as they extend their investigations of problems involving geometric concepts.

GRADE LEVEL EXPECTATIONS	CORRELATION NOTATIONS
24. Use mathematical terms to classify and describe the properties of 2-dimensional shapes, including circles, triangles, and polygons (G-2-M)	326J, 340A–340B, 340–341, 342A–342B, 342–345, 346A–346B, 346–349
25. Identify and use appropriate terminology for transformations (e.g., *translation* as *slide*, *reflection* as *flip*, and *rotation* as *turn*) (G-3-M)	364A–364B, 364–367
26. Identify shapes that have rotational symmetry (G-3-M)	370
27. Identify and plot points on a coordinate grid in the first quadrant (G-6-M)	174A–174B, 174–175

Data Analysis, Probability, and Discrete Math

In problem-solving investigations, students discover trends, formulate conjectures regarding cause-and-effect relationships, and demonstrate critical thinking skills in order to make informed decisions.

Students use collection and organizational techniques, number sense, estimation, manipulatives, and technology as they extend their investigations of problems involving data.

GRADE LEVEL EXPECTATIONS	CORRELATION NOTATIONS
28. Use various types of charts and graphs, including double bar graphs, to organize, display, and interpret data and discuss patterns verbally and in writing (D-1-M) (D-2-M) (P-3-M) (A-4-M)	260A–260B, 260–261, 262A–262B, 262–265, 266A–266B, 266–269, 270A–270B, 270–273, 274A–274B, 274–275, 276A–276B, 276–279, 286A–286B, 286–287, 288A–288B, 288–291
29. Compare and contrast different scales and labels for bar and line graphs (D-1-M)	262A–262B, 262–265, 266A–266B, 266–269, 288A–288B, 288–291
30. Organize and display data using spreadsheets, with technology (D-1-M)	Visit www.scottforesman.com and click on *Math e Tools*.
31. Compare and contrast survey data from two groups relative to the same question (D-2-M)	260A–260B, 260–261
32. Represent probabilities as common fractions and recognize that probabilities fall between 0 and 1, inclusive (D-5-M)	302A–302B, 302–305

Patterns, Relations, and Functions

In problem-solving investigations, students demonstrate an understanding of patterns, relations, and functions that represent and explain real-world situations.

Students use number sense, estimation, manipulatives, drawings, tables, graphs, formulas, and technology as they extend their investigations of problems involving patterns, relations, and functions.

GRADE LEVEL EXPECTATIONS	CORRELATION NOTATIONS
33. Fill in missing elements in sequences of designs, number patterns, positioned figures, and quantities of objects (P-1-M)	106A–106B, 106–107, 136A–136B, 136–137, 142–143, 144A–144B, 144–145, 202A–202B, 202–203

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Grade 6

Number and Number Relations

In problem-solving investigations, students demonstrate an understanding of the real number system and communicate the relationships within that system using a variety of techniques and tools.

Students use estimation, mental arithmetic, number lines, graphs, appropriate models, manipulatives, calculators, and computers as they extend their investigations of problems involving rational numbers.

GRADE LEVEL EXPECTATIONS	CORRELATION NOTATIONS
1. Factor whole numbers into primes (N-1-M)	147A–147B, 147–149
2. Determine common factors and common multiples for pairs of whole numbers (N-1-M)	140I, 150A–150B, 150–151, 152A–152B, 152–153
3. Find the greatest common factor (GCF) and least common multiple (LCM) for whole numbers in the context of problem-solving (N-1-M)	140I, 150A–150B, 150–151, 152A–152B, 152–153
4. Recognize and compute equivalent representations of fractions and decimals (i.e., halves, thirds, fourths, fifths, eighths, tenths, hundredths) (N-1-M) (N-3-M)	140J, 164A–164B, 164–167, 172A–172B, 172–175, 251, 358A–358B, 358–361
5. Decide which representation (i.e., fraction or decimal) of a positive number is appropriate in a real-life situation (N-1-M) (N-5-M)	172–175, 251, 358–361
6. Compare positive fractions, decimals, and positive and negative integers using symbols (i.e., <, =, >) and number lines (N-2-M)	78A–78B, 78–79, 164A–164B, 164–167, 168A–168B, 168–169, 176A–176B, 176–178, 406I, 410A–410B, 410–411
7. Read and write numerals and words for decimals through ten-thousandths (N-3-M)	76–77, 78–79

GRADE LEVEL EXPECTATIONS	CORRELATION NOTATIONS
8. Demonstrate the meaning of positive and negative numbers and their opposites in real-life situations (N-3-M) (N-5-M)	408–409, 410–411, 418–425
9. Add and subtract fractions and decimals in real-life situations (N-5-M)	82, 86A–86B, 86–89, 202J, 204A–204B, 204–205, 206A–206B, 206–209, 215, 218A–218B, 218–219, 220A–220B, 222, 223, 224A–224B, 224–225, 230–231
10. Use and explain estimation strategies to predict computational results with positive fractions and decimals (N-6-M)	82A–82B, 82–83, 170A–170B, 170–171, 256A–256B, 256–257
11. Mentally multiply and divide by powers of 10 (e.g., 25/10 = 2.5; 12.56 x 100 = 1,256) (N-6-M)	106–109, 122
12. Divide 4-digit numbers by 2-digit numbers with the quotient written as a mixed number or a decimal (N-7-M)	94A–94B, 94–95, 96A–96B, 96–97, 101, 141
13. Use models and pictures to explain concepts or solve problems involving ratio, proportion, and percent with whole numbers (N-8-M)	298I–298J, 316A–316B, 316–317, 320, 323, 330A–330B, 330-331, 332A-332B, 332–333, 352I, 354A–354B, 354–356, 358A, 358–360

Algebra

In problem-solving investigations students demonstrate an understanding of concepts and processes that allow them to analyze, represent, and describe relationships among variable quantities and to apply algebraic methods to real-world situations.

Students use manipulatives, models, graphs, tables, technology, number sense, and estimation as they extend their investigations of problems involving the concepts and application of algebra.

GRADE LEVEL EXPECTATIONS	CORRELATION NOTATIONS
14. Model and identify perfect squares up to 144 (A-1-M)	*This expectation can be introduced on these pages.* 8–11

GRADE LEVEL EXPECTATIONS	CORRELATION NOTATIONS
15. Match algebraic equations and expressions with verbal statements and vice versa (A-1-M) (A-3-M) (A-5-M) (P-2-M)	40A-40B, 40–43, 710A–710B, 710–711
16. Evaluate simple algebraic expressions using substitution (A-2-M)	41, 56
17. Find solutions to 2-step equations with positive integer solutions (e.g., $3x - 5 = 13$, $2x + 3x = 20$) (A-2-M)	48A-48B, 48–51, 112–113, 33, 276–277, 430–431, 712A–712B, 712–715

Measurement

In problem-solving investigations, students demonstrate an understanding of the concepts, processes, and real-life applications of measurement.

Students use number sense, estimation, appropriate manipulatives, tools, and technology as they extend their investigations of problems involving measurement.

GRADE LEVEL EXPECTATIONS	CORRELATION NOTATIONS
18. Measure length and read linear measurements to the nearest sixteenth-inch and mm (M-1-M)	542A–542B, 542–545, 546A–546B, 546–549, 550A–550B, 550–551
19. Calculate perimeter and area of triangles, parallelograms, and trapezoids (M-1-M)	540I, 564A–564B, 564–567, 570A–570B, 570–571
20. Calculate, interpret, and compare rates such as $/lb., mpg, and mph (M-1-M) (A-5-M)	306–309
21. Demonstrate an intuitive sense of relative sizes of common units for length and area of familiar objects in real-life problems (e.g., estimate the area of a desktop in square feet, the average adult is between 1.5 and 2 meters tall) (M-2-M) (G-1-M)	*These pages provide opportunities for students to apply this expectation.* 542A–542B, 542–545, 546A–546B, 546–549, 550A–550B, 550–551, 553, 550–551

GRADE LEVEL EXPECTATIONS	CORRELATION NOTATIONS
22. Estimate perimeter and area of any 2-dimensional figure (regular and irregular) using standard units (M-2-M)	*These pages provide opportunities for students to apply this expectation.* 540I, 564A–564B, 564–567, 570A–570B, 570–571, 572A–572B, 572–575, 580–581
23. Identify and select appropriate units to measure area (M-3-M)	568–569, 572A-572B, 572–575

Geometry

In problem-solving investigations, students demonstrate an understanding of geometric concepts and applications involving one-, two-, and three-dimensional geometry, and justify their findings.

Students use number sense, estimation, models, drawings, manipulatives, and technology as they extend their investigations of problems involving geometric concepts.

GRADE LEVEL EXPECTATIONS	CORRELATION NOTATIONS
24. Use mathematical terms to describe the basic properties of 3-dimensional objects (edges, vertices, faces, base, etc.) (G-2-M)	586–589
25. Relate polyhedra to their 2-dimensional shapes by drawing or sketching their faces (G-2-M) (G-4-M)	586A–586B, 586–589
26. Apply concepts, properties, and relationships of points, lines, line segments, rays, diagonals, circles, and right, acute, and obtuse angles and triangles in real-life situations, including estimating sizes of angles (G-2-M) (G-5-M) (G-1-M)	470I, 470, 472–475, 476A–476B, 476–479, 480A–480B, 480–483, 488–489, 494A–494B, 494–495, 496A–496B, 496–499, 500A–500B, 500–501, 502A–502B, 502–503
27. Make and test predictions regarding tessellations with geometric shapes (G-3-M)	470J, 516A–516B, 516–519
28. Use a rectangular grid and ordered pairs to plot simple shapes and find horizontal and vertical lengths and area (G-6-M)	510A, 510–511, 512

Data Analysis, Probability, and Discrete Math

In problem-solving investigations, students discover trends, formulate conjectures regarding cause-and-effect relationships, and demonstrate critical thinking skills in order to make informed decisions.

Students use collection and organizational techniques, number sense, estimation, manipulatives, and technology as they extend their investigations of problems involving data.

GRADE LEVEL EXPECTATIONS	CORRELATION NOTATIONS
29. Collect, organize, label, display, and interpret data in frequency tables, stem-and-leaf plots, and scatter plots and discuss patterns in the data verbally and in writing (D-1-M) (D-2-M) (A-3-M)	628A–628B, 628–631, 632A–632B, 632–633, 640
30. Describe and analyze trends and patterns observed in graphic displays (D-2-M)	618I, 620A–620B, 620–623, 628A–628B, 628–631, 632–633, 636A–636B, 636–637, 638A–638B, 638–641, 642A–642B, 642–645, 646–647, 648A–648B, 648–649, 650A–650B, 650–651
31. Demonstrate an understanding of precision, accuracy, and error in measurement (D-2-M) (M-2-M)	650A–650B, 650–651
32. Calculate and discuss mean, median, mode, and range of a set of discrete data to solve real-life problems (D-2-M)	624A–624B, 624–627, 633
33. Create and use Venn diagrams with two overlapping categories to solve counting logic problems (D-3-M)	89, 151, 413
34. Use lists, tree diagrams, and tables to determine the possible combinations from two disjoint sets when choosing one item from each set (D-4-M)	618J, 654A–654B, 654–657
35. Illustrate and apply the concept of complementary events (D-5-M)	662A–662B, 662–663
36. Apply the meaning of *equally likely* and *equally probable* to real-life situations (D-5-M) (D-6-M)	*These pages provide opportunities for students to apply this expectation.* 662A–662B, 662–663

Patterns, Relations, and Functions

In problem-solving investigations, students demonstrate an understanding of patterns, relations, and functions that represent and explain real-world situations.

Students use number sense, estimation, manipulatives, drawings, tables, graphs, formulas, and technology as they extend their investigations of problems involving patterns, relations, and functions.

GRADE LEVEL EXPECTATIONS	CORRELATION NOTATIONS
37. Describe, complete, and apply a pattern of differences found in an input-output table (P-1-M) (P-2-M) (P-3-M)	444A–444B, 444–447
38. Describe patterns in sequences of arithmetic and geometric growth and now-next relationships (i.e., growth patterns where the next term is dependent on the present term) with numbers and figures (P-3-M) (A-4-M)	444A–444B, 444–447, 716A–716B, 716–717