

A Correlation of

SCOTT FORESMAN ■ ADDISON WESLEY

Mathematics

to the

**Louisiana
Department of Education
Mathematics—Grade Level Expectations
Grade 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., +, −, ×, ÷) 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 \neq 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., $2 \times n = 8$) (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)	<i>These pages provide opportunities for students to apply this expectation.</i> 532, 536, 538, 582, 584, 680, 684, 690, 694

GRADE LEVEL EXPECTATIONS	CORRELATION NOTATIONS
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)	<i>These pages provide opportunities for students to apply this expectation.</i> 532, 536, 538, 582, 584, 680, 684, 690, 694
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 <i>clockwise</i> and <i>counterclockwise</i>) (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

GRADE LEVEL EXPECTATIONS	CORRELATION NOTATIONS
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
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

GRADE LEVEL EXPECTATIONS	CORRELATION NOTATIONS
41. Explain the word <i>average</i> and use it appropriately in discussing what is “typical” of a data set (D-1-E)	621
42. Match a data set to a graph, table, or chart and vice versa (D-2-E)	<i>On these pages, students make and interpret representations of data sets.</i> 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 <i>certain/impossible</i> and <i>equally likely</i> (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
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