

A Correlation of

**Scott Foresman
Mathematics Diagnosis
and Intervention System**

to the

**Mississippi
Mathematics Framework
Grades K-6**



T/M-127

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**Scott Foresman Mathematics
Diagnosis and Intervention System—Part 1
to the
Mississippi Mathematics Framework
Kindergarten**

CONTENT STRANDS:

Patterns/Algebraic Thinking (P)
Data Analysis/Prediction (D)
Measurement (M)

Geometric Concepts (G)
Number Sense (N)

COMPETENCIES and Suggested Teaching Objectives:

1. Model patterns using concrete objects. (P, G)

- a. Recognize and identify patterns.**

A14, A23, A44, B40, D1

- b. Reproduce and describe visual patterns.**

A23, A44, D1, D9, D41

- c. Model, extend, and describe patterns using a wide variety of materials and activities.**

A14, A23, A44, B40, D1

2. Identify and classify two and three-dimensional shapes. (P, G, N)

- a. Trace, cut, and manipulate shapes.**

D2, D10, D35, D37, D39, D41, D57

- b. Classify, compare, and contrast by name and characteristics various shapes.**

BA, D2, D8, D10, D35, D36, D37, D52, D56

- c. Demonstrate the understanding of position words (e.g., in, above, below, over, under, beside).**

D11, D12

- d. Explore symmetry concepts through real-world models and art work.**

D42

- e. Explore two and three-dimensional shapes utilizing technology.**

Related Content: D2, D8, D10, D35, D36, D37, D39, D41

3. Explore and use nonstandard units of length, weight, and capacity. (P, M, G, N)

- a. Model and discuss terms of comparison such as more/less, taller/shorter, heavier/lighter, hotter/colder, and before/after.**

A1, A6, A26, D4, D51

- b. Measure the length, weight, and capacity of objects using nonstandard units.**

D3, D22, D31, D32, D33, D34

- c. Investigate volumes (holds more, less, or about the same) using different shaped containers and materials.**

D3, D61

4. Collect, organize, and interpret data and explore probability. (P, D, G, N)

- a. Collect data, model, and construct graphs using real objects.**

D21, D38

- b. Interpret and analyze data in graphical form (e.g., bar graphs, pictographs).**

A1, D23, D38, D43

- c. Explore and discuss “always,” “maybe,” and “never” events.**

D20, D44, D62, D63, D64

**5. Identify and apply vocabulary terms relating to time, the calendar, and coins.
(P, M, N)**

- a. Recognize the clock (analog and digital) as a measurement of time.**

D16, D17, D18, D24, D25, D26, D28

- b. Recognize the calendar as a measurement of time (days, weeks, months).**

D19

- c. Sort and name coins by physical characteristics (penny, nickel, dime).**

A27, A28, A29, A30, A33, A36

6. Demonstrate different representations of numbers 0 to 10 using manipulatives. (P, N)

- a. Count and model a set of objects 0 to 10 (or greater).**

A1, A2, A3, A4, A5, A6, A7, A8, A9, A15, A16, A17, A18, A20

- b. Count forward and backward 1 to 10 (or greater).**

A1, A2, A3, A4, A6, A9, A10, A12, A15, A25, B26, B27

- c. Recognize and write numbers 0 to 10 (or greater).**

A1, A2, A3, A6, A9, A10, A15, A17, A18, A22

- d. Determine “first” through “tenth,” “next” and “last” positions.**

A1, A2, A13, A53

e. Explore addition and subtraction of numbers through 10.

A26, B2, B3, B4, B5, B6, B7, B8, B9, B10, B11, B12, B13, B14, B15, B16, B17, B18, B19, B20, B21, B22, B23, B24, B25, B26, B27, B28, B29, B30, B31, B32, B33, B34, B35, B36, B37

f. Apply mathematical language by telling when a certain number is “too many,” “not enough,” “just right,” “more than,” or “equal to” for a given situation.

A7, A8, A11, A21, A26

g. Introduce fraction terms and concepts including fraction, whole, all, part, some, none.

A54, A55, A56, A57, A58, A59, A60, A61, A62, A68

h. Use a variety of multimedia and technology to explore number concepts.

Related Content: A15, A16, A45, A46, A48, A49, A63, A64, A65, A67, A70, A71

**Scott Foresman Mathematics
Diagnosis and Intervention System—Part 1
to the
Mississippi Mathematics Framework**

First Grade

CONTENT STRANDS:

Patterns/Algebraic Thinking (P)
Data Analysis/Prediction (D)
Measurement (M)

Geometric Concepts (G)
Number Sense (N)

COMPETENCIES and Suggested Teaching Objectives:

1. Model, recognize, and create visual number patterns. (P, G, N)

a. Represent and explain patterns using various methods.

A14, A23, A44, B40, D1

b. Identify, describe and extend patterns.

A14, A23, A44, B40, D1

c. Create, extend, and record patterns using a wide variety of materials and procedures including the number patterns 2;s, 5;s, and 10's.

A14, A23, A24, A44, B24, B25, B28, B35, B38, B40, B47, C2, C11, D1

d. Explore and explain patterns of addition and subtraction, with and without the use of a calculator.

B35, B38, B39, B40

e. Explore patterns using a 100's chart.

A44, A45

2. Identify and classify two and three-dimensional shapes. (P, M, G, N)

a. Recognize open and closed figures.

Related Content: D5, D6, D7, D8, D35, D36, D37, D38

b. Recognize and identify two-dimensional figures including triangle, square, rectangle, and circle.

D5, D6, D7, D8, D52, D54, D55, D56,

c. Classify two and three-dimensional figures according to characteristics (e.g., square, rectangle, circle, cube, prism, sphere, cone, and cylinder).

D5, D6, D7, D8, D52, D54, D55, D56, D60

d. Identify congruent shapes and similarity of two geometric figures.

D10, D40

e. Identify symmetrical objects and their lines of symmetry.

D42

f. Model, name, and follow directions using positional words (over, under, beside, in front of, in back of, inside, outside).

D11, D12

g. Use multimedia resources to explore patterns, symmetry, and shapes.

Related Content: D1, D2, D5, D6, D7, D8, D9, D10, D12, D35, D37, D42, D56

3. Explore the concepts of length, weight, and capacity using nonstandard and standard (English and metric) units of measurement. (P, D, M, G, N).

a. Use nonstandard (e.g., paper clips, unifix cubes) and standard (e.g., inches, centimeters) units to explore length.

D3, D22, D31, D32, D33, D34

- b. Compare weight of objects (heavy/light).**

D3

- c. Explore and estimate capacity of various containers in nonstandard units.**

D3, D61

- 4. Collect, organize, and interpret data in graphical form and explore probability. (P, D, M, G, N)**

- a. Collect data, model, and construct graphs using real objects.**

D21, D38

- b. Gather data, construct, and interpret bar and pictorial graphs.**

A1, D23, D38, D43

- c. Make a prediction, collect data, and compare results.**

D20, D21, D62, D63, D64

- d. Explore and discuss “always,” “maybe,” “sometimes,” and “never” events including other terms for these concepts.**

D20, D44, D62, D63, D64

- 5. Identify and apply vocabulary terms for telling time, temperature, and the calendar. (P, M, N)**

- a. Create a clock with correct placement of numbers.**

D18

- b. Recognize the hour hand and minute hand, and simulate clockwise motion.**

D14, D15, D16

- c. Tell time to hour and half-hour intervals, and explore time to five-minute intervals.**

D17, D18, D25, D26

- d. Explore concepts of hot and cold using a thermometer.**

D51

- e. Read a calendar by naming months of the year and finding a particular date.**

D19

6. Recognize and determine the value of coins and the dollar bill. (P, M, N)

- a. Identify the value of coins (e.g., penny, nickel, dime, quarter).**

A27, A28, A29, A30, A31, A33, A36, A37

- b. Determine the value of like coins up to \$1.00.**

A28

- c. Determine the value of mixed coins up to \$1.00.**

A28, A29, A30, A31, A32, A33, A34, A36, A37, A38, A39, A40, A41

- d. Find equal money amounts with different coin combinations up to \$.25.**

A28, A29, A30, A31, A34

7. Demonstrate place value concepts (0-100) by writing and counting numbers. (P, M, N)

- a. Count forward and backward 0 to 100.**

A1, A2, A3, A4, A6, A9, A10, A12, A15, A25, B26, B27, C21

- b. Identify, model using manipulatives, and write numbers 0 to 100.**

A1, A2, A3, A6, A9, A10, A15, A17, A18, A22

- c. Associate names and numerals that accompany two-digit numbers.**

A10, A17, A18, A19, A20, A22, A25, B36, C2, C3, C4, C17

- d. Compare two-digit numbers using the terms: “more,” “less,” “greater than,” “less than,” “equal to,” and “almost.”**

A11, A21, A50

- e. Skip count to 100 by 2’s, 5’s, and 10’s.**

A24, B67, B68, B77

- f. Identify place value of a given digit in a three-digit number.**

A45, A46, A49, A67

- 8. Explore, model, and recognize relationships involving addition and subtraction for numbers zero to ten. (P, N)**

- a. Use manipulatives to explore different combinations of whole numbers, and write the equations that accompany them.**

Related Content: B4, B13, B15, B16

- b. Explore different concepts of addition and subtraction, and write equations that accompany them.**

B5, B14, B90, B91

- c. Demonstrate that addition and subtraction are inverse operations.**

B30, B31, B35, B45, C28

- d. Compute basic facts 0 to 10 for addition and subtraction with and without manipulatives.**

A26, B2, B3, B4, B5, B6, B7, B8, B9, B10, B11, B12, B13, B14, B15, B16, B17, B18, B19, B20, B21, B22, B23, B24, B25, B26, B27, B28, B29, B30, B31, B32, B33, B34, B35, B36, B37

- e. Explore situations which involve a missing addend, subtrahend, and minuend.**

B12, B20, B50, B95, B97

- f. Model and discuss story problems using addition and subtraction.**

Related Content: A26, B2, B3, B4, B5, B6, B7, B8, B9, B10, B11, B12, B13, B14, B15, B16, B17, B18, B19, B20, B21, B22, B23, B24, B25, B26, B27, B28, B29, B30, B31, B32, B33, B34, B35, B36, B37

- g. Model, draw and discuss representations of story problems, and write number sentences to accompany them involving addition and subtraction.**

Related Content: A26, B2, B3, B4, B5, B6, B7, B8, B9, B10, B11, B12, B13, B14, B15, B16, B17, B18, B19, B20, B21, B22, B23, B24, B25, B26, B27, B28, B29, B30, B31, B32, B33, B34, B35, B36, B37

- h. Represent fractions by using models and drawings.**

A54, A55, A56, A57, A58, A59, A60, A61, A62, A68

- i. Compare a whole to fractional parts (e.g., $\frac{1}{2}$, $\frac{1}{4}$).**

A54, A55, A56, A57, A60, A61, A69, A62

- j. Recognize and divide a whole number to fractional parts (e.g., $\frac{1}{2}$, $\frac{1}{4}$).**

A54, A57, A60

**Scott Foresman Mathematics
Diagnosis and Intervention System—Part 1
to the
Mississippi Mathematics Framework**

Second Grade

CONTENT STRANDS:

Patterns/Algebraic Thinking (P)
Data Analysis/Prediction (D)
Measurement (M)

Geometric Concepts (G)
Number Sense (N)

COMPETENCIES and Suggested Teaching Objectives:

1. Describe, classify, and sort geometric figures. (P, M, G, N)

- a. Recognize, identify, and create a circle, quadrilateral, rhombus, square, triangle, trapezoid, rectangle, hexagon, and parallelogram.**

D5, D6, D7, D8, D35, D37, D52, D54, D55, D56

- b. Identify, model, and extend figure patterns (flips, slides, turns).**

D9, D39, D57

- c. Compare and contrast the characteristics of shapes using various resources (e.g., manipulatives and multimedia).**

Related Content: D5, D6, D7, D8, D35, D37, D52, D53, D54, D55, D56

- d. Model and find the perimeter of simple shapes.**

D58

- e. Recognize, describe, and present models of three-dimensional figures (e.g., sphere, cube, rectangle prism, cylinder, and cone).**

D5, D6, D7, D35, D36, D37

2. Determine length, weight, and capacity using the appropriate standard (English and metric) units of measurement. (P, D, M, G, N)

a. Use appropriate tools and terms to explore measurement.

D14, D15, D16, D17, D18, D19, D22, D24, D25, D26, D27, D28, D30, D31, D32, D33, D34, D 45, D46, D47, D48, D49, D50, D51, D58, D59, D61

b. Estimate and measure length, weight, and capacity using standard units of measurement (e.g., inch, foot, yard, centimeter, meter, ounces, pounds, grams, kilograms, cups, pints, quarts, and liters).

D3, D22, D31, D32, D33, D34, D45, D46, D47, D48, D49, D50

c. Categorize measurement terms according to length, weight, and capacity.

D3, D22, D31, D32, D33, D34, D45, D46, D47, D48, D49, D50

d. Use convincing arguments to justify the selection of a specific unit of measure for a given item.

Related Content: D3, D22, D31, D32, D33, D34, D45, D46, D47, D48, D49, D50

e. Collect and compare seasonal temperatures using a Fahrenheit thermometer.

Related Content: D51

3. Explore probability and collect, organize, and interpret data in graphical form. (P, D, G, N)

a. Tally, interpret, predict, and record outcomes based on given information.

D20, D21, D62, D63, D64

b. Using collected data from students and other resources, create line, bar, and pictorial graphs.

A1, D23, D38, D43

c. Interpret graphical data in terms of “more,” “less,” “same,” “most,” and “least.”

A1, D23, D38, D43

- d. Investigate and apply concepts of probability through explorative activities (e.g., always, maybe, sometimes, and never events).**

D20, D62, D63, D64

- 4. Recognize and utilize the procedures for telling time and using the calendar. (P, M, G, N)**

- a. Identify the parts of a clock.**

D14, D15, D16, D17, D18, D24, D25, D26, D27

- b. Identify vocabulary terms for time (e.g., before, after, until).**

D14, D15, D16, D17, D18, D24, D25, D26, D27

- c. Read and write time to the hour, half-hour, quarter of an hour, and five-minute intervals.**

D15, D16, D17, D18, D24, D25, D26

- d. Use time to sequence events of the day.**

D13, D29

- e. Use the calendar to determine past and future days.**

D19

- 5. Identify the monetary values of coins and the dollar bill. (P, M, N)**

- a. Select and use the appropriate symbols for dollars and cents.**

A41, A42

- b. Use patterns to count pennies, nickels, dimes, and quarters.**

A32, A37

- c. Identify quarters and half-dollars to count groups of coins.**

A31, A32

- d. Determine the value of money up to \$5.00.**

A27, A28, A29, A30, A31, A32, A34, A36, A37, A38, A40, D4

- e. Compare given values of money up to \$5.00.**

A34, A39

- f. Find equal money amounts with different coin and dollar combinations.**

A28

- g. Make change up to \$1.00.**

A43

- 6. Perform and apply the basic operations of addition, subtraction, and multiplication for solving mathematical problems. (P, N)**

- a. Compute the basic facts 0 to 18 for addition and subtraction with and without manipulatives.**

A26, B2, B3, B4, B5, B6, B7, B8, B9, B10, B11, B12, B13, B14, B15, B16, B17, B18, B19, B20, B21, B22, B23, B24, B25, B26, B27, B28, B29, B30, B31, B32, B33, B34, B35, B36, B37, B38, B39, B40, B41, B42, B43, B44, B47, B48

- b. Add and subtract to find missing addends and subtrahends.**

B12, B20, B50, B95, B97

- c. Use the inverse relationship of addition and subtraction.**

B30, B31, B35, B45, C28

d. Add and subtract numbers presented in vertical and horizontal format.

A26, B2, B3, B4, B5, B6, B7, B8, B9, B10, B11, B12, B13, B14, B15, B16, B17, B18, B19, B20, B21, B22, B23, B24, B25, B26, B27, B28, B29, B30, B31, B32, B33, B34, B35, B36, B37, B38, B39, B40, B41, B42, B43, B44, B47, B48

e. Add two-and three-digit whole numbers with and without regrouping.

C4, C5, C11, C14, C15, C16, C17, C19, C33, C34

f. Subtract two-digit whole numbers with and without regrouping.

a. C6, C7, C8, C9, C20, C21, C22, C23, C24, C26, C45

g. Subtract three-digit whole numbers without regrouping.

C35, C36, C37, C45, C46, C47

h. Model and multiply numbers 0 to 5 using repeated addition.

B52, B53, B57

i. Compute multiplication facts 0 to 5.

B52, B53, B54, B55, B56, B57, B58, B59

j. Skip count by 2's, 3's 5's, and 10's.

A24, B67, B68, B69, B77

k. Use addition and/or subtraction to solve one and two-step problems by drawing, discussing, modeling, and writing explanations.

A28, A29, A30, A32, A36, A37, A42, A46, A49, C37, C42, C43, C46

l. Model multiplication problems by drawing and writing explanations.

B52, B53, B54, B55, B56, B57, B58, B59

7. Demonstrate an understanding of the base ten number system by writing and counting four-digit whole numbers and identifying fractions. (P, M, N)

- a. Identify, model, and write numbers 0 to 1000 in order.**

A12, A22, A47, A51, A69

- b. Sequence numbers using the terms “before,” “after,” and “between.”**

A12, A22, A47, A51, A69

- c. Identify place value of a given digit in a four-digit number.**

A47, A48, A63, A67

- d. Identify and model even and odd numbers.**

A14

- e. Identify, discuss, and draw representations of equivalent fractions through one-third.**

A61, A68

8. Demonstrate the base ten number system by estimating, grouping, and rounding with four-digit whole numbers. (P, D, N)

- a. Estimate quantities to the nearest multiple of ten.**

C10, C38, C41, C44, C50

- b. Group items by ones, tens, and hundreds.**

A45, A46, A48, A49

- c. Round two-digit whole numbers to the nearest multiple of ten.**

A35, A52, A64

- d. Use the symbol $<$, $>$, and $=$ to compare two numbers.**

A21, A34, A39, A50, A58, A66, A69

**Scott Foresman Mathematics
Diagnosis and Intervention System—Part 1
to the
Mississippi Mathematics Framework**

Third Grade

CONTENT STRANDS:

Patterns/Algebraic Thinking (P)
Data Analysis/Prediction (D)
Measurement (M)

Geometric Concepts (G)
Number Sense (N)

COMPETENCIES and Suggested Teaching Objectives:

1. Explore, model, and create patterns. (P, G, N)

- a. Recognize, describe, and extend patterns (e.g., colors, shapes, numbers, letters).**

A14, A23, A44, B40, D1

- b. Create patterns using manipulatives.**

Related Content: A14, A23, A44, B40, D1

- c. Demonstrate and explain the relationship between numeration and patterns.**

A14, A23, A44, B40, B77

2. Identify and classify geometric figures and concepts. (P, M, G, N)

- a. Identify polygons with three, four, five, six, eight, and ten sides.**

D2, D8, D37, D38, D52, D56

- b. Identify and distinguish between parallel, intersecting, and perpendicular lines.**

D53

- c. Identify right angles and compare them to acute and obtuse angles.**

D53, D54, D55

- d. Establish three-dimensional relationships (e.g., circle/sphere, square/cube, triangle/pyramid, and rectangle/rectangular prism).**

D2, D5, D6, D7, D8, D60

- e. Explore geometric concepts through appropriate technology and resources.**

Related Content: D2, D5, D6, D7, D8, D9, D10, D12, D35, D36, D37, D38, D39, D40, D41, D42, D56, D57, D60

3. Develop and process of measurement and related concepts. (P, D, M, G, N)

- a. Identify and compare differences between length, weight/mass, and capacity/volume using English and metric measures.**

Related Content: D45, D46, D47, D48, D49, D50, D61

- b. Choose appropriate units of measurement for length, weight/mass, and capacity/volume.**

Related Content: D45, D46, D47, D48, D49, D50, D61

- c. Convert between pints, quarts, and gallons.**

D46

- d. Convert miles to feet and yards.**

Related Content: D45

- e. Compare metric measurements to English measurements.**

Related Content: D45, D46, D47, D48, D49, D50

f. Using various types of instruments, measure:

- **length in millimeters, meters, kilometers;**

Related Content: D48

- **weight in grams and kilograms;**

Related Content: D50

- **capacity in milliliters and liters;**

Related Content: D49

- **time to nearest minute; and**

Related Content: D14, D15, D16

- **temperature in Celsius and Fahrenheit.**

Related Content: D51

g. Use manipulatives and gridded regions to determine area of shapes.

D59

4. Collect, organize, interpret data, and explore the concepts of probability. (P, D, M, G, N)

- a. Compare and interpret quantities represented on different types of graphs (line, bar, circle), and make predictions based on the information collected.**

D21, D38

- b. Compare data represented on charts and tables.**

Related Content: B37, B49, D63, D64

- c. Use appropriate technology and manipulatives to collect, organize, and display data.**

Related Content: D20, D43, D44, D62, D63, D64

- d. Explore, predict, and model the number of different combinations of two or more objects.**

A33, A40

- e. Experiment and describe the concepts of probability.**

D20, D44, D62, D63, D64

- 5. Use estimation and mental math to obtain solutions to computational and measurement problems using a variety of techniques. (P, D, M, G, N)**

- a. Estimate solutions to problems using basic operations.**

C1, C10, C30, C38, C41, C44, C50, C56

- b. Estimate sums and differences in money problems up to \$100.00.**

Related Content: C1, C30, C39

- c. Estimate elapsed time.**

Related Content: D28

- d. Estimate measures of length, weight/mass, and capacity/volume.**

Related Content: D31, D45, D46, D47, D48, D49, D50, D61

- e. Use mental math to solve problems.**

C31, C48, C49, C55

- 6. Identify number values and relationships of five-digit numbers. (P, D, M, G, N)**

- a. Read, model, and count to five-digit whole numbers.**

A1, A2, A3, A4, A6, A9, A10, A12, A15, A25, B26, B27

- b. Read and write number words for up to five-digit numbers.**

B36

- c. Recognize place value to the ten thousands place.**

A45, A46, A49, A67

- d. Identify the value of a given digit in a five-digit number.**

Related Content: A45, A46, A49, A67

- e. Compare and order five-digit numbers using $<$, $>$, and $=$.**

Related Content: A7, A8, A11, A12, A21, A39, A50, A51, A66

- f. Express numbers in expanded notation.**

A45, A46, A49, A67

- g. Regroup hundreds, thousands, and ten thousands.**

Related Content: A45, A46, A47, C14, C15, C22, C23

- h. Identify points on a number line.**

A52, B67, B68, B69, B70, B77

- i. Round numbers to the nearest 1,000.**

A65

- j. Recognize, draw, model and order fractions with fourths, fifths, sixths, and eighths.**

A55, A56, A57, A59

- k. Recognize, draw, and model equivalent fractions.**

A61, A68

- l. Read and write Roman numerals 1 to 100.**

- m. Use appropriate multimedia resources and manipulative to explore number values and relationships.**

Related Content: A7, A8, A11, A12, A21, A39, A45, A46, A49, A50, A51, A66, A67

7. Model, identify, and apply the four basic operations (P, D, M, G, N)

- a. Choose appropriate operational signs to complete number sentences.**

C40

- b. Add and subtract five-digit numbers with and without regrouping.**

Related Content: A26, B2, B3, B4, B5, B6, B7, B8, B9, B10, B11, B12, B13, B14, B15, B16, B17, B18, B19, B20, B21, B22, B23, B24, B25, B26, B27, B28, B29, B30, B31, B32, B33, B34, B35, B36, B37, B38, B39, B40, B41, B42, B43, B44, B47, B48

- c. Add up to three four-digit addends.**

B2, B5, B6, B7, B8, B9, B10, B11, C4, C5, C11, C14, C15, C16, C17, C19, C33, C34

- d. Recall multiplication facts 0 to 5.**

B52, B53, B54, B55, B56, B57, B58, B59, B70, B71, B72

- e. Model, explore, and state multiplication facts 6 to 12, and division facts 1 to 12.**

B60, B61, B62, B63, B64, B65, B66, B67, B68, B69, B79, B80, B81, B82, B83, B84, B85, B86, B87, B88, B89

- f. Multiply up to three-digit by one-digit multipliers with and without regrouping.**

B52, B53, B54, B55, B56, B57, B58, B59, B70, B71, B72, B73, B74, B75, B76, B77

g. Divide three-digit numbers by one-digit divisors.

Related Content: B61, B62, B63, B64, B65, B66, B80, B81, B82, B83, B84, B85, B86, B87, B88, B89

h. Add and subtract fractions with like denominators.

C60, C61

i. Model, explore, and recognize decimals to tenths.

A70

j. Add and subtract numbers with decimals to tenths.

C1, C30, C39

k. Add amounts of money up to \$999.99 represented with decimal notation.

C1, C30, C39

l. Subtract amounts of money from \$100.00 or less.

C1, C30, C39

m. Count change from \$5.00 or less.

A43

n. Use a variety of multimedia and technology resources to solve problems involving basic operations.

Related Content: A26, B2, B3, B4, B5, B6, B7, B8, B9, B10, B11, B12, B13, B14, B15, B16, B17, B18, B19, B20, B21, B22, B23, B24, B25, B26, B27, B28, B29, B30, B31, B32, B33, B34, B35, B36, B37, B38, B39, B40, B41, B42, B43, B44, B47, B48, B60, B61, B62, B63, B64, B65, B66, B67, B68, B69, B79, B80, B81, B82, B83, B84, B85, B86, B87, B88, B89

8. Use variables and open sentences involving the four basic operations. (P, D, M)

a. Determine the value of variables to complete number sentences.

B91, B94, B95, B96, B97

b. Construct fact families for the basic operations.

B29, B32, B33, B34, B46, B51

c. manipulatives:

- **zero property of addition, subtraction, multiplication, and division;**

Related Content: B10, B66, B79, B71, B84, C25, C36, C47

- **inverse operations of addition, subtraction, multiplication, and division;**

Related Content: B30, B31, B35, B45, B66, B79, C28

- **commutative and associative properties of addition and multiplication; and**

Related Content: B52, B53, B57

- **identify property of addition and multiplication.**

Related Content: B52, B53, B57

9. Apply appropriate strategies to solve word problems. (P, D, M, N)

a. Solve one and two-step word problems using the four basic operations.

A28, A29, A30, A32, A36, A37, A42, A46, A49, B62, B63, B64, B66, B67, B68, B69, B71, B72, B73, B74, B75, B76, B77, B78, B79, B80, B81, B82, B83, B84, B85, B86, B87, B88, B89, C37, C42, C43, C46

b. Solve word problems using time, money, and measurements.

A28, A29, A30, A32, A36, A37, A42, A46, A49

- c. Analyze word problems and determine if the given information is required for the solution.**

Related Content: A28, A29, A30, A32, A36, A37, A42, A46, A49

- d. Create and write word problems using one or more of the basic operations.**

Related Content: B62, B63, B64, B66, B67, B68, B69, B71, B72, B73, B74, B75, B76, B77, B78, B79, B80, B81, B82, B83, B84, B85, B86, B87, B88, B89, C37, C42, C43, C46

- e. Use multimedia resources to investigate and solve word problems.**

Related Content: A28, A29, A30, A32, A36, A37, A42, A46, A49, B62, B63, B64, B66, B67, B68, B69, B71, B72, B73, B74, B75, B76, B77, B78, B79, B80, B81, B82, B83, B84, B85, B86, B87, B88, B89, C37, C42, C43, C46

**Scott Foresman Mathematics
Diagnosis and Intervention System—Part 2
to the
Mississippi Mathematics Framework
Third Grade**

CONTENT STRANDS:

Patterns/Algebraic Thinking (P)
Data Analysis/Prediction (D)
Measurement (M)

Geometric Concepts (G)
Number Sense (N)

COMPETENCIES and Suggested Teaching Objectives:

1. Explore, model, and create patterns. (P, G, N)

- a. Recognize, describe, and extend patterns (e.g., colors, shapes, numbers, letters).**

F30, F48, F53, I4

- b. Create patterns using manipulatives.**

Related content: F30, F48, F53, I4

- c. Demonstrate and explain the relationship between numeration and patterns.**

I4

2. Identify and classify geometric figures and concepts. (P, M, G, N)

- a. Identify polygons with three, four, five, six, eight, and ten sides.**

J8, J10, J11, J12, J20, J21, J22, J23, J35, J36, J49

- b. Identify and distinguish between parallel, intersecting, and perpendicular lines.**

J19, J33

- c. Identify right angles and compare them to acute and obtuse angles.**

J9, J10, J19, J34

- d. Establish three-dimensional relationships (e.g., circle/sphere, square/cube, triangle/pyramid, and rectangle/rectangular prism).**

J16, J28, J29, J41

- e. Explore geometric concepts through appropriate technology and resources.**

J11, J13, J26, J27, J29, J33, J41

3. Develop and process of measurement and related concepts. (P, D, M, G, N)

- a. Identify and compare differences between length, weight/mass, and capacity/volume using English and metric measures.**

J46, J47

- b. Choose appropriate units of measurement for length, weight/mass, and capacity/volume.**

J47

- c. Convert between pints, quarts, and gallons.**

J46

- d. Convert miles to feet and yards.**

J46

- e. Compare metric measurements to English measurements.**

Related content: J46, J47

f. Using various types of instruments, measure:

- length in millimeters, meters, kilometers;
- weight in grams and kilograms;
- capacity in milliliters and liters;
- time to nearest minute; and
- temperature in Celsius and Fahrenheit.

J1, J2, J3, J4, J5, J6, J7, J30, J46, J47

g. Use manipulatives and gridded regions to determine area of shapes.

J15, J31, J32, J43, J52, J53, J55

4. Collect, organize, interpret data, and explore the concepts of probability. (P, D, M, G, N)

a. Compare and interpret quantities represented on different types of graphs (line, bar, circle), and make predictions based on the information collected.

K3, K8, K11, K13, K14, K15, K16

b. Compare data represented on charts and tables.

K7, K8, K9, K10, K14, K15, K17

c. Use appropriate technology and manipulatives to collect, organize, and display data.

K3, K7, K8, K9, K10, K11, K13, K14, K15, K23

d. Explore, predict, and model the number of different combinations of two or more objects.

K5, K19, K20, K30, K31

e. Experiment and describe the concepts of probability.

K1, K2, K3, K4, K6, K18, K19, K27, K28, K32, K33

5. Use estimation and mental math to obtain solutions to computational and measurement problems using a variety of techniques. (P, D, M, G, N)

- a. Estimate solutions to problems using basic operations.**

E6, E9, E18, E27, E28

- b. Estimate sums and differences in money problems up to \$100.00.**

E28

- c. Estimate elapsed time.**

D28

- d. Estimate measures of length, weight/mass, and capacity/volume.**

E6, E9, E18, E27, E28

- e. Use mental math to solve problems.**

E13, E24, E27

6. Identify number values and relationships of five-digit numbers. (P, D, M, G, N)

- a. Read, model, and count to five-digit whole numbers.**

E5

- b. Read and write number words for up to five-digit numbers.**

E5

- c. Recognize place value to the ten thousands place.**

E5

- d. Identify the value of a given digit in a five-digit number.**

E5

- e. Compare and order five-digit numbers using $<$, $>$, and $=$.**

Related content: E4, E15

- f. Express numbers in expanded notation.**

E1, E5, E14, E25

- g. Regroup hundreds, thousands, and ten thousands.**

E8, E11, E12, E19, E20, E22, E23

- h. Identify points on a number line.**

G7, G8

- i. Round numbers to the nearest 1,000.**

E3, E16

- j. Recognize, draw, model and order fractions with fourths, fifths, sixths, and eighths.**

G1, G5, G6

- k. Recognize, draw, and model equivalent fractions.**

G1, G10, G14

- l. Read and write Roman numerals 1 to 100.**

- m. Use appropriate multimedia resources and manipulative to explore number values and relationships.**

E1, E5, E14, E15, E25, E26

7. Model, identify, and apply the four basic operations (P, D, M, G, N)

- a. Choose appropriate operational signs to complete number sentences.**

Related content: I1, I2

- b. Add and subtract five-digit numbers with and without regrouping.**

E20, E22, E23, E29

- c. Add up to three four-digit addends.**

E7, E8, E10, E11, E19, E20, E21, E22, E23

- d. Recall multiplication facts 0 to 5.**

F1, F2, F3, F4, F5, F7, F8, F9, F10

- e. Model, explore, and state multiplication facts 6 to 12, and division facts 1 to 12.**

F1, F2, F3, F4, F5, F7, F8, F9, F10, F11, F14, F15, F16, F17, F18, F19, F20, F21, F22, F23

- f. Multiply up to three-digit by one-digit multipliers with and without regrouping.**

F26, F27

- g. Divide three-digit numbers by one-digit divisors.**

F41

- h. Add and subtract fractions with like denominators.**

G3, G17, G30

- i. Model, explore, and recognize decimals to tenths.**

H1, H5

- j. Add and subtract numbers with decimals to tenths.**

H9, H13

- k. Add amounts of money up to \$999.99 represented with decimal notation.**

E8

- l. Subtract amounts of money from \$100.00 or less.**

E11, E12

- m. Count change from \$5.00 or less.**

Related content: E11, E12

- n. Use a variety of multimedia and technology resources to solve problems involving basic operations.**

E7, E8, E10, E11, E19, E20, E21, E22, E23, E29

- 8. Use variables and open sentences involving the four basic operations. (P, D, M)**

- a. Determine the value of variables to complete number sentences.**

H22, H29, H30, H31, H32, I1, I2, I4, I6, I8, I9, I18, I19, I24, I25, I27, I28, I39, I40

- b. Construct fact families for the basic operations.**

This concept is covered in Part 1, Grades K-2.

- c. manipulatives:**

- zero property of addition, subtraction, multiplication, and division;
- inverse operations of addition, subtraction, multiplication, and division;
- commutative and associative properties of addition and multiplication; and
- identify property of addition and multiplication.

I14, I23, I37, I42

- 9. Apply appropriate strategies to solve word problems. (P, D, M, N)**

- a. Solve one and two-step word problems using the four basic operations.**

E7, E8, E10, E11, E19, E20, E21, E22, E23, E29, F1, F2, F3, F4, F5, F7, F8, F9, F10, F11, F14, F15, F16, F17, F18, F19, F20, F21, F22, F23

b. Solve word problems using time, money, and measurements.

J1, J2, J3, J4, J5, J6, J7, J30, J46, J47, E28

c. Analyze word problems and determine if the given information is required for the solution.

Related content: E7, E8, E10, E11, E19, E20, E21, E22, E23, E29, F1, F2, F3, F4, F5, F7, F8, F9, F10, F11, F14, F15, F16, F17, F18, F19, F20, F21, F22, F23

d. Create and write word problems using one or more of the basic operations.

Related content: E7, E8, E10, E11, E19, E20, E21, E22, E23, E29, F1, F2, F3, F4, F5, F7, F8, F9, F10, F11, F14, F15, F16, F17, F18, F19, F20, F21, F22, F23

e. Use multimedia resources to investigate and solve word problems.

Related content: E7, E8, E10, E11, E19, E20, E21, E22, E23, E29, F1, F2, F3, F4, F5, F7, F8, F9, F10, F11, F14, F15, F16, F17, F18, F19, F20, F21, F22, F23

**Scott Foresman Mathematics
Diagnosis and Intervention System—Part 2
to the
Mississippi Mathematics Framework**

Fourth Grade

CONTENT STRANDS:

Patterns/Algebraic Thinking (P)
Data Analysis/Prediction (D)
Measurement (M)

Geometric Concepts (G)
Number Sense (N)

COMPETENCIES and Suggested Teaching Objectives:

- 1. Explore and discover properties and relationships of number patterns. (P, M, G, N)**

- a. Recognize, describe, and extend a given pattern.**

F30, F48, F53, I4

- b. Analyze a given pattern and generate a similar pattern.**

Related content: F30, F48, F53, I4

- c. Use variables and open sentences to solve problems with the four basic operations.**

H22, H29, H30, H31, H32, I1, I2, I6, I8, I9, I18, I19, I24, I24, I25, I27, I28, I39, I40

- 2. Explore concepts of two and three-dimensional geometry. (P, M, G, N)**

- a. Construct two and three-dimensional geometric figures with concrete materials.**

J29, J37, J38

- b. Identify, describe, classify, and compare two and three-dimensional geometric shapes, figures, and models.**

J8, J12, J16, J20, J21, J22, J28, J29, J35, J36, J41, J49

- c. Investigate transformational results of slides, flips, and turns.**

J26, J27, J39, J50

- d. Identify and model points, lines (including parallel, perpendicular, and intersecting lines), line segments, and rays.**

J19, J33

- e. Recognize right, acute, and obtuse angles.**

J9, J10, J19, J34

- f. Define and label the following parts of a circle: center, radius, diameter, and chord and explore the meaning of circumference of a circle.**

J23, J42, J54, J55

- g. Identify congruent and symmetrical figures.**

J24, J39, J40

- h. Investigate geometric concepts using interactive materials and resources.**

J11, J13, J26, J27, J29, J33, J41

3. Develop the process of measurement and the concept related to units of measurement. (P, M, G, N)

- a. Measure a given object to the nearest fourth of an inch.**

J1

- b. Select, use, compare, and convert within the appropriate standard (English and metric) system of measurement.**

J1, J2, J3, J4, J5, J6, J7, J30, J46, J47

- c. Determine the perimeter and areas (grid areas) of appropriate standard and nonstandard geometric figures.**

J14, J15, J31, J32, J42, J43, J51, J52, J53, J55

- d. Identify the attributes of length, weight, capacity, mass, volume, time, and temperature using English and metric units of measurement.**

J1, J2, J3, J4, J5, J6, J7, J30, J46, J47

- e. Calculate and solve problems with elapsed time.**

D28

- 4. Explore probability and the process of data analysis and predictions. (P, D, M, G, N)**

- a. Collect, organize, and interpret data, using bar graphs, line graphs, pictographs, charts, tables, and tally charts.**

K3, K8, K11, K13, K14, K15, K16

- b. Formulate and solve problems that involve data analysis and prediction.**

K3, K8, K11, K13, K14, K15, K16

- c. Investigate the concepts of probability.**

K1, K2, K3, K4, K6, K18, K19, K27, K28, K32, K33

- 5. Estimate and use mental computation to solve mathematical problems. (P, D, M, N)**

- a. Estimate sums, differences, products, and quotients using a variety of techniques.**

E6, E9, E18, E28

- b. Determine whether estimated answers are reasonable and units are appropriate.**

E6, E9, E18, E28

- c. Estimate and use mental computation to solve real-life problems where exact answers are not required.**

E6, E9, E13, E19, E24, E27, E28

- 6. Identify numerical relationships with whole numbers, decimals, and fractions. (P, D, M, G, N)**

- a. Read and write six-digit whole numbers, decimal numbers through hundredths, and fractions.**

E14, G1, G5, G6, G15, G16

- b. Order and compare six-digit whole numbers, decimal numbers through hundredths, and fractions with denominators of twelve or less.**

E4, E15, G2, G11

- c. Round whole numbers to one hundred thousand and round decimal numbers through hundredths.**

E16

- d. Identify, draw, and model equivalent fractions.**

G1, G10, G14

- e. Using real-life objects, represent, draw, and explain the relationships between fractions and decimals.**

G13

- f. Utilize a variety of multimedia and technology resources to explore numerical relationships.**

E1, E5, E14, E15, E25, E26

7. Utilize the four basic operations for whole numbers and the addition and subtraction of decimals and fractions.

- a. Add and subtract six-digit whole numbers with and without regrouping.**

Related content: E20, E22, E23, E29

- b. Add and subtract decimals to tenths and hundredths.**

H9, H10, H13, H27, H28

- c. Multiply whole numbers by one-digit multipliers, and divide by one-digit divisors, with and without remainders.**

F26, F27, F41

- d. Model and identify factors and multiples of whole numbers to one hundred.**

F47

- e. Add, subtract, multiply, and divide money amounts.**

E8, E11, E12

- f. Count change to \$10.00.**

Related content: E11, E12

- g. Explore the four basic operations through appropriate multimedia resources.**

E7, E8, E10, E11, E19, E20, E21, E22, E23, E29

- h. Add and subtract fractions with like and unlike denominators.**

G3, G4, G17, G20, G21, G30, G31

- i. Apply problem-solving techniques to solve one and two-step problems involving the basic operations.**

E8, E9, E10, E11, E12, E13, E19, E20, E21, E22, E23, E29, F1, F2, F3, F4, F5, F7, F8, F9, F10, F11, F12, F14, F15, F16, F17, F18, F19, F20, F21, F22, F23, F24, F26, F27, F28, F29, F32, F33, F34, F38, F39, F40, F42, F43, F45, F46, F47, F50, F51, F52, F55, F56, F57, F58

**Scott Foresman Mathematics
Diagnosis and Intervention System—Part 2
to the
Mississippi Mathematics Framework
Fifth Grade**

CONTENT STRANDS:

Patterns/Algebraic Thinking (P)
Data Analysis/Prediction (D)
Measurement (M)

Geometric Concepts (G)
Number Sense (N)

COMPETENCIES and Suggested Teaching Objectives:

1. Identify, describe, compare, and classify geometric figures. (P, M, G, N)

- a. Draw, label, describe, classify, and identify points, line segments, and rays.**

J19, J33

- b. Identify, classify, and find the perimeter of polygons.**

J14, J42, J51

- c. Find the area of squares and rectangles.**

J15, J31, J32, J43, J52, J53, J54

- d. Incorporate appropriate technology and manipulatives to explore geometry.**

J11, J13, J26, J27, J29, J33, J41

- e. Use geometric ideas to solve multi-step problems.**

J11, J13, J26, J27, J29, J33, J41

- f. Model, draw, and describe transformations (flips, slides, and turns) of two-dimensional figures.**

J26, J27, J39, J50

- g. Draw, measure, label, describe, and classify angles, quadrilaterals, and triangles.**

J9, J10, J11, J12, J19, J21, J22, J34, J35, J36, J38

**2. Develop concepts and the process of measuring related to units of measure.
(P, D, M, G, N)**

- a. Find measurements of length to nearest millimeter in the metric system and one-eighth inch in the English system.**

Related content: J1, J4

- b. Determine appropriate units for measurement of mass, length, distance, volume, and time in the standard (English and metric) systems.**

J1, J2, J3, J4, J5, J6, J7, J30, J46, J47

- c. Convert units within a given measurement system.**

I49, J46

- d. Estimate measurements of various objects.**

J1, J2, J3, J4, J5, J6, J7

- e. Solve multi-step problems using suitable measurements.**

J1, J2, J3, J4, J5, J6, J7

- f. Incorporate appropriate technology and manipulatives to explore measurement.**

J1, J2, J3, J4, J5, J6, J7, J30, J46, J47

3. Collect, read, organize, and interpret data and explore probability. (P, D, M, G, N)

- a. Investigate the probability and patterns in tossing coins, number cubes, and spinners.**

K1, K2, K3, K4, K6, K18, K20, K27, K28

- b. Draw and label bar, line, circle graphs, and pictographs.**

K3, K8, K11, K13, K14, K15, K16

- c. Gather, organize, and analyze data to create tables, charts, and graphs.**

K7, K8, K9, K10, K17

- d. Incorporate appropriate technology and manipulative to explore data collection, organization, and interpretation.**

K3, K7, K8, K9, K10, K11, K13, K14, K15, K16, K17

4. Explain and explore relationships of whole numbers, fractions, mixed numerals, decimals, and percents. (P, D, G, N)

- a. Compare and order nine-digit whole numbers, decimals to the nearest thousandth, like unlike fractions, and mixed numerals using appropriate symbols.**

Related content: E4, E15

- b. Read and write standard form and expanded notation for numbers through hundred millions.**

E1, E5, E14, E15

- c. Use divisibility rules to identify factors and multiples of whole numbers to 500.**

I6

- d. Model and distinguish between prime and composite numbers, factors and common factors, multiples and common multiples.**

G27, G28, I6

- e. Model and show relationships among fractions, decimals, and percents.**

H3, H4, H7, H24

- f. Model, identify, and write equivalent fractions including improper fractions and mixed numerals with like and unlike denominators.**

G1, G10, G14

- g. Develop the terminology relating to percent and compute percentages of 10, 20, 25, and 50 percent of a number.**

H23, H25, H34, H35, H36

- 5. Use the basic operations to investigate and apply whole numbers, fractions, mixed numbers, and decimals. (P, D, M, G, N)**

- a. Add and subtract nine-digit whole numbers with and without regrouping.**

Related content: E20, E22, E23, E29

- b. Multiply four-digit numbers by two-digit numbers.**

F38, F40

- c. Divide by two-digit divisors with and without remainders.**

F32, F3

- d. Add and subtract like/unlike fractions and mixed numerals.**

G3, G17, G30

- e. Add and subtract decimals.**

H9, H13

- f. Solve problems dealing with money.**

E8, E11, E12

- g. Determine unit price when given total cost of items.**

Related content: H37

- h. Incorporate appropriate technology and manipulatives to explore basic operations of whole numbers, fractions, mixed numbers, and decimals.**

E7, E8, E10, E11, E19, E20, E21, E22, E23, E29

- i. Solve multi-step word problems using the four basic operations with computation and estimation.**

E8, E9, E10, E11, E12, E13, E19, E20, E21, E22, E23, E29, F1, F2, F3, F4, F5, F7, F8, F9, F10, F11, F12, F14, F15, F16, F17, F18, F19, F20, F21, F22, F23, F24, F26, F27, F28, F20, F32, F33, F34, F38, F39, F40, F42, F43, F45, F46, F47, F50, F51, F52, F55, F56, F57, F58

- j. Use symbols and variables in addition, subtraction, multiplication, and division problems.**

H22, H29, H30, H31, H32, I1, I2, I4, I6, I8, I9, I18, I19, I24, I25, I27, I28, I39, I40

- k. Select and use estimation techniques appropriate to specific problems.**

E6, E9, E18, E28

**Scott Foresman Mathematics
Diagnosis and Intervention System—Part 2
to the
Mississippi Mathematics Framework**

Sixth Grade

CONTENT STRANDS:

Patterns/Algebraic Thinking (P)
Data Analysis/Prediction (D)
Measurement (M)

Geometric Concepts (G)
Number Sense (N)

COMPETENCIES and Suggested Teaching Objectives:

- 1. Apply the use of algebraic functions, patterns, sequences, and language. (P, D, M, G, N)**

- a. Solve equations with one variable using addition and subtraction.**

H22, H29, H30, H31, H32, I1, I2, I4, I6, I8, I9, I18, I19, I24, I25, I27, I28, I39, I40

- b. Model simple addition and subtraction problems using integers on a number line.**

I29, I31, I32

- c. Recognize and continue a number pattern and/or a geometric representation (e.g., triangular numbers).**

F30, F48, F53, I4

- d. State a rule to explain a number pattern.**

I4

- e. Using whole numbers, complete a function table based on a given rule.**

I4

- f. Locate points in all four quadrants of the coordinate plane.**

I22, I34

2. Explore geometric patterns and relationships. (P, M, G, N)

- a. Draw points, lines (parallel, perpendicular, intersecting), line segments, and rays.**

J9, J19, J33

- b. Identify, classify, and measure right, acute, obtuse, and straight angles.**

J9, J10, J11, J12, J19, J21, J22, J34, J35, J36, J38

- c. Create tessellations with polygons.**

Readiness: J20

- d. Explore the relationships of three-dimensional figures, including vertices, faces, and edges using manipulative materials.**

J16, J28, J29, J41

- e. Describe, compare, construct, classify and identify flips, slides, turns (reflections, translations, rotations).**

J26, J27, J39, J50

3. Solve geometric problems using formulas. (P, M, G, N)

- a. Calculate the area of parallelograms (squares and rectangles) without using calculators.**

J52

- b. Find the circumference of a circle with and without the use of manipulative materials.**

J23, J42, J54

- c. Determine the area of a circle with and without the use of calculators.**

J55

- d. Find the volume of cubes and rectangular prisms with and without the use of calculators.**

J17, J44, J56

4. Use and explore the concepts of measurement. (P, D, M, G, N)

- a. Measure length to the nearest one-sixteenth inch.**

Related content: J1

- b. Identify appropriate units for measuring length, weight, volume, and temperatures in the standard (English and metric) systems.**

J47

- c. Use appropriate mathematical tools for determining length, weight, volume, and temperature in the standard (English and metric) systems.**

J1, J2, J3, J4, J5, J6, J7, J30, J46, J47

- d. Use estimation to solve problems in the standard (English and metric) systems.**

J2, J3, J4, J5, J6, J7, J30

- e. Convert units within a measurement system.**

J46

- f. Explore the relationship between integers.**

I29, I30

5. Use probability and collect, organize, interpret, and display types of data using manipulatives, paper and pencil, calculators and/or computers. (P, D, M, G, N)

- a. Read and construct line, bar and pictographs.**

K3, K8, K11, K13, K14, K15, K16

b. Read and interpret circle graphs using percents.

Related content: K3, K8, K11, K13, K14, K15, K16

c. Construct and explain a frequency table.

Related content: K13

d. Solve problems involving combinations.

K20, K30

e. Use probability to predict the outcome of a single event and express the results as a fraction or decimal.

K2, K3, K5, K19

f. Estimate and compare data to include mean, median, and mode.

K16, K17, K21

6. Recognize and use place and value, and order of whole and decimal numbers.
(P, D, N)

a. Read, write, and round twelve-digit whole numbers.

Related content: E25

b. Compare and order whole numbers using $<$, $>$, and $=$.

E4, E15

c. Write twelve-digit whole numbers using expanded notation.

Related content: E25

d. Read, write, and round decimal numbers to the nearest ten thousandth.

Related content: E26

e. Compare and order decimal numbers using $<$, $>$, and $=$.

E30

- f. Write decimal numbers through the nearest ten thousandth using expanded notation.**

Related content: E26

- g. Use estimation to determine accuracy of solutions.**

E9, E18, E28

7. Utilize estimation and technology to perform the four basic operations. (P, N)

- a. Multiply a three-digit decimal number by a two-digit decimal number.**

H14, H17, H18

- b. Divide a five-digit decimal number by a two-digit decimal number.**

H19, H20, H21

- c. Round decimal quotients to the nearest whole number, tenths and hundredths.**

Related content: H21

- d. Estimate and solve one and two-step problems involving addition, subtraction, multiplication, and division of decimals, with and without calculators.**

H17, H18, H19, H20, H21

8. Determine multiple relationships among ratios, proportions, decimal numbers, percents, and fractions. (P, D, M, G, N)

- a. Demonstrate different ways to express ratios.**

H29, H31, H32

- b. Create and solve proportional equations using one variable.**

H29, H30, H31, H32

- c. Convert among fractions, decimals, and percents.**

G13, H7, H24

- d. Find the percent of a number.**

H25, H35

- e. Estimate and calculate sale price and/or original price using discount rates.**

H37, H38

9. Explore the relationships between fractions and mixed numerals. (P, M, N)

- a. Compare and order fractions as well as mixed numerals.**

G2, G11, G29

- b. Determine equivalent forms of fractions.**

G1, G10, G14

- c. Use a variety of techniques to express a fraction in simplest form (e.g., least common denominator, prime factorization).**

G12

- d. Locate fractions, decimals, and mixed numerals on a number line.**

G7

- e. Add and subtract mixed numerals, with and without regrouping, expressing the answer in simplest form using like and unlike denominators.**

G17, G18, G22, G23

- f. Multiply and divide proper fractions as well as mixed numerals expressing the answer in simplest form.**

G24, G25, G26

- g. Estimate, solve, and compare solutions to one and two-step problems involving addition, subtraction, multiplication, and division of proper fractions and mixed numerals.**

G3, G4, G17, G30

10. Investigate and apply the concepts of prime and composite numbers, greatest common factor, and the least common multiple.

- a. use the rules of divisibility to determine factors and multiples of a given number.**

G27, G28

- b. Model and write the prime factorization of a number using exponential notation.**

G12

- c. Distinguish between prime and composite numbers, with and without the use of calculators.**

G12

- d. Use the greatest common factor (GCF) to simplify fractions.**

G27

- e. Use the least common multiple (LCM) to find common denominators.**

G28