

**Flossmoor School District 161
Mathematics Curriculum Framework
Grade 3**

Month August/September

Goal #6 Number Sense

Objective
SD161.T1 Develop students' ability to know how and when to use a calculator
SD161.T2 Use estimation to judge the reasonableness to an answer, with or without a calculator
SD161 Timed Test in addition; subtraction through 18
6.3.01 Read, write, recognize, and model equivalent representations of whole numbers and their place values up to 10,000
6.3.02 Identify and write (in words and standard form) whole numbers up to 10,000
6.3.05 Order and compare whole numbers up to 10,000 using symbols ($>$, $<$, or $=$) and words (e.g., greater (more) than, less than, equal to, between)
6.3.08 Solve problems involving descriptions of numbers, including characteristics and relationships (e.g., odd/even, greater than, less than)
6.3.09 Solve problems and number sentences involving addition and subtraction with regrouping up to 10,000

Goal #6 Number Sense (Continued)

6.3.12 Use the inverse relationships between addition and subtraction to complete basic fact sentences and solve problems (e.g., $5 + 3 = 8$ and $8 - 3 = \underline{\quad}$)
6.3.13 Solve problems involving the additive identity of zero (e.g., $3+0 = 3$)
6.3.14 Make estimates appropriate to a given situation with whole numbers

Goal #8 Algebra

8.3.02 Write an expression to represent a given situation

8.3.03 Represent simple mathematical relationships with number sentences (equations and inequalities)

8.3.04 Solve one-step addition and subtraction equations that have a missing number or missing operation sign (e.g., $3 + \square = 5$, $6 \square 1 = 7$)

8.3.05 Solve word problems involving unknown quantities

Goal #9 Geometry

9.3.11 Determine the distance between two points on the number line in whole numbers

Mathematics Curriculum Framework – Grade 3

Month October

Goal #6 Number Sense

Objective
SD161 Timed test in addition; subtraction through 18
6.3.01 Read, write, recognize, and model equivalent representations of whole numbers and their place values up to 100,000
6.3.02 Identify and write (in words and standard form) whole numbers up to 100,000
6.3.03 Recognize a fraction represented with a pictorial model <ul style="list-style-type: none">• M – wholes, halves, fourths, thirds• D/A – sixths, eighths
6.3.07 Identify and locate whole numbers and halves on a number line and a ruler
6.3.08 Solve problems involving descriptions of numbers, including characteristics and relationships (e.g., odd/even, greater than, less than)

Goal #8 Algebra

SD161.T1 Develop students' ability to know how and when to use a calculator
8.3.01 Determine a missing term in a pattern (sequence), describe a pattern (sequence), and extend a pattern (sequence) when given a description or pattern (sequence).

Goal #10 Data Analysis, Statistics, and Probability

10.3.04 Classify events using words such as certain, most likely, equally likely, least likely, possible, and impossible
10.3.05 Describe the chances associated with a context presented visually, including using the response format “3 out of 4”

Mathematics Curriculum Framework – Grade 3

Month November

Goal #6 Number Sense

Objective
SD161 Timed test in addition; subtraction through 18
6.3.01 Read, write, recognize, and model equivalent representations of whole numbers and their place values up to 100,000
6.3.02 Identify and write (in words and standard form) whole numbers up to 100,000
6.3.05 Order and compare whole numbers up to 100,000
6.3.06 Order and compare decimals expressed using monetary units
6.3.08 Solve problems involving descriptions of numbers, including characteristics and relationships (e.g., odd/even, factors/multiples, greater than, less than)
6.3.10 Solve problems involving the value of a collection of bills and coins whose total value is \$10.00 or less, and make change

Goal 8 Algebra

SD161.T1 Develop students' ability to know how and when to use a calculator
8.3.01 Determine a missing term in a pattern (sequence), describe a pattern (sequence), and extend a pattern (sequence) when given a description or pattern (sequence).

Mathematics Curriculum Framework – Grade 3

Month December

Goal #6 Number Sense

Objective
SD161 Timed test in addition; subtraction through 18
6.3.01 Read, write, recognize, and model equivalent representations of whole numbers and their place values up to 1,000,000

Goal #7 Measurement

7.3.01 Solve problems involving simple elapsed time in compound units (e.g., hours, minutes, days)
7.3.02 Select and use appropriate standard units and tools to measure length (to the nearest inch or cm), time (to the nearest minute), and temperature (to the nearest degree)
7.3.03 Solve problems involving the perimeter of a polygon with given side lengths or a given non-standard unit (e.g., paperclip)
7.3.04 Solve problems involving the area of a figure when the whole and half square units are shown within the figure
7.3.05 Compare and estimate length (including perimeter), area, and weight/mass using referents

Mathematics Curriculum Framework – Grade 3

Month January

Goal #6 Number Sense

Objective
SD161 Multiplication time test
6.3.01 Read, write, recognize, and model equivalent representations of whole numbers and their place values up to 1,000,000
6.3.04 Represent multiplication as repeated addition
6.3.11 Model and apply basic multiplication facts (up to 10×10), and apply them to related multiples of 10 (e.g., $3 \times 4 = 12$, $30 \times 4 = 120$)
6.3.11 Model and apply division facts (up to $100 \div 10$)
6.3.12 Use the inverse relationships between addition/subtraction and multiplication/division to complete basic fact sentences and solve problems (e.g., $5 + 3 = 8$, $8 - 3 = \square$)
6.3.13 Solve problems involving the multiplicative identity of one (e.g., $3 \times 1 = 3$) and the additive identity of zero (e.g., $3 + 0 = 3$)

Goal #8 Algebra

8.3.02 Write an expression to represent a given situation
8.3.03 Represent simple mathematical relationships with number sentences (equations and inequalities)
8.3.04 Solve one-step addition and subtraction equations that have a missing number or missing operation sign (e.g., $3 + \square = 5$, $6 \square 1 = 7$)
8.3.05 Solve word problems involving unknown quantities

Mathematics Curriculum Framework – Grade 3

Month February

Goal #6 Number Sense

Objective
SD161 Multiplication timed test through 12
6.3.01 Read, write, recognize, and model equivalent representations of whole numbers and their place values up to 1,000,000

Goal #9 Geometry

9.3.01 Identify, describe, and sketch two-dimensional shapes (triangles, quadrilaterals, pentagons, hexagons, and octagons) according to the number of sides, length of sides, number of vertices, and right angles
9.3.02 Identify and describe three-dimensional shapes (cubes, spheres, cones, cylinders, prisms, and pyramids) according to their characteristics (faces, edges, vertices)
9.3.03 Locate and identify points using numbers and symbols on a grid, and describe how points relate to each other on a grid (e.g., ♥ is 2 units below ☀, point A is 3 units to the right of point B)
9.3.04 Identify whether or not a figure has a line of symmetry, and sketch or identify the line of symmetry
9.3.06 (9.4.08) Identify and sketch parallel lines and right angles

Goal #9 Geometry (Continued)

9.3.07 Identify the two-dimensional components of a three-dimensional object (e.g., a cube has square faces)
9.3.08 Identify a three-dimensional object from its net
9.3.09 Predict the result of putting shapes together (composing) and taking them apart (decomposing)
9.3.10 Identify congruent and similar figures by visual inspection
9.4.03 Differentiate between polygons and non-polygons

Mathematics Curriculum Framework – Grade 3

Month March

Goal #6 Number Sense

Objective
SD161 Multiplication timed test through 12
6.3.01 Read, write, recognize, and model equivalent representations of whole numbers and their place values up to 1,000,000

Goal #7 Measurement

7.3.03 Solve problems involving the perimeter of a polygon with given side lengths or a given non-standard unit (e.g. paperclip)
7.3.04 Compare and estimate length (including perimeter), area, and weight/mass using referents
7.3.06 Determine the volume of a solid figure that shows cubic units
7.3.07 Solve problems involving simple unit conversions <u>within the same measurement system</u> for time and length

Goal #9 Geometry

9.3.05 Identify images resulting from flips (reflections), slides (translations), or turns (rotations)
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Goal #10 Data Analysis, Statistics, and Probability

10.3.01 Read and interpret data represented in a pictograph, bar graph, Venn diagram (with two circles), tally chart, or table
10.3.02 Complete missing parts of a pictograph, bar graph, tally chart, or table for a given set of data
10.3.03 Determine the mode, given a set of data or a graph

Mathematics Curriculum Framework – Grade 3

Month April

Goal #6 Number Sense

Objective
SD161 Division timed test through 12
6.3.01 Read, write, recognize, and model equivalent representations of whole numbers and their place values up to 1,000,000
6.3.11 Model and apply basic multiplication facts (up to 10×10), and apply them to related multiples of 10 (e.g., $3 \times 4 = 12$, $30 \times 4 = 120$)
6.3.12 Solve problems involving division of numbers (up to two digits by one digit with remainders) Example: $32 \div 7$
6.4.10 Solve problems and number sentences involving addition and subtraction with regrouping and multiplication (up to three-digit by one-digit)

Goal #7 Measurement

7.4.03 Solve problems involving the perimeter of a polygon with given side lengths and the area of a square, rectangle, or irregular shape composed of rectangles using diagrams, models, and grids or by measuring (may include sketching a figure from its description)
7.4.04 Compare and estimate length (including perimeter), area, volume, and weight/mass using referents
7.4.06 Solve problems involving unit conversions <u>within the same measurement system</u> for weight/mass

Goal #8 Algebra

8.4.02 Write an expression using letters or symbols to represent an unknown quantity
8.4.03 Evaluate algebraic expressions with a whole number variable value (e.g., evaluate $3 + m$ when $m = 4$)

Goal #10 Data Analysis, Statistics, and Probability

10.4.01 Read and interpret data represented in a line (dot) plot, line graph, or circle graph

10.4.02 Create a pictograph, bar graph, tally chart, or table for a given set of data

10.4.03 Determine the mode and range, given a set of data or a graph

Mathematics Curriculum Framework – Grade 3

Month May/June

Goal #6 Number Sense

Objective
SD161 Division timed test through 17
6.3.01 Read, write, recognize, and model equivalent representations of whole numbers and their place values up to 1,000,000
6.3.12 Solve problems involving division of numbers (up to two digits by one digit with remainders) Example: $32 \div 7$
6.4.06 Order and compare decimals through hundredths

Goal #8 Algebra

8.4.04 Identify or represent situations with well-defined patterns using words, tables, and graphs (e.g., represent temperature and time in a line graph)
8.4.05 Translate between different representations (table, written, or pictorial) of whole number relationships

Goal #9 Geometry

9.4.04 Graph, locate, identify points, and describe paths using ordered pairs (first quadrant)
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Goal #10 Data Analysis, Statistics, and Probability

10.4.01 Read and interpret data represented in a line (dot) plot, line graph, or circle graph
10.4.02 Create a pictograph, bar graph, tally chart, or table for a given set of data
10.4.03 Determine the mode and range, given a set of data or a graph