

# Fourth Grade Mathematics Curriculum

**ELO #1: Place Value - Students will read, write, identify and compare numbers to 1 million.**

## **ELO Standards**

- 4.NBT.A.2 Read, write and identify multi-digit whole numbers up to one million using number names, base ten numerals and expanded form.
- 4.NBT.A.3 Compare two multi-digit numbers using the symbols  $>$ ,  $=$  or  $<$ , and justify the solution.

## **Supporting Standards**

- 4.NBT.A.1 Round multi-digit whole numbers to any place.
- 4.NBT.A.4 Understand that in a multi-digit whole number, a digit represent 10 times what it would represents in the place to its right.

## **Instructional and Assessment Resources**

- Math in Focus Sections 1.1, 1.2
- Math in Focus Assessments

**ELO #2: Multi-Digit Arithmetic - Students will be able to add, subtract, multiply and divide multi-digit numbers, determine prime and composite numbers, and list the factors and multiples of a number.**

**ELO Standards**

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| 4.NBT.A.5 | Demonstrate fluency with addition and subtraction of whole numbers.  |
| 4.NBT.A.6 | Multiply a whole number of up to four digits by a one-digit whole number and multiply two two-digit numbers, and justify the solution.                 |
| 4.NBT.A.7 | Find whole-number quotients and remainders with up to four-digit dividends and one-digit divisors, and justify the solution.                           |
| 4.RA.A.1  | Multiply or divide to solve problems involving a multiplicative comparison.  |
| 4.RA.A.2  | Solve multi-step whole number problems involving the four operations and variables and using estimation to interpret the reasonableness of the answer. |
| 4.RA.A.3  | Solve whole number division problems involving variables in which remainders need to be interpreted, and justify the solution.                         |

**Supporting Standards**

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| 4.RA.B.4 | Recognize that a whole number is a multiple of each of its factors and find the multiples for a given whole number.   |
| 4.RA.B.5 | Determine if a whole number within 100 is composite or prime, and find all factor pairs for whole numbers within 100. |
| 4.RA.C.6 | Generate a number pattern that follows a given rule.  |
| 4.RA.C.7 | Use words or mathematical symbols to express a rule for a given pattern.  |

**Instructional and Assessment Resources**

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|---------------|---|
| Math in Focus | Sections 1.3, 2.1, 2.2, 2.3, 3.1, 3.2, 3.4, 3.5 |
| Math in Focus | Assessments                                     |

**ELO #3: Fractions - Students will find equivalent fractions, add and subtract fractions, and simplify fractions.**

**ELO Standards**

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| 4.NF.A.2 | Recognize and generate equivalent fractions.  |
| 4.NF.B.4 | Understand addition and subtraction of fractions as joining/composing and separating/decomposing parts referring to the same whole. |
| 4.NF.B.8 | Solve problems involving multiplication of a fraction by a whole number.  |

**Supporting Standards**

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| 4.NF.A.1 | Explain and/or illustrate why two fractions are equivalent.  |
| 4.NF.A.3 | Compare two fractions using the symbols $>$ , $=$ or $<$ , and justify the solution.   |
| 4.NF.B.4 | Understand addition and subtraction of fractions as joining/composing and separating/decomposing parts referring to the same whole.      |
| 4.NF.B.5 | Decompose a fraction into a sum of fractions with the same denominator and record each decomposition with an equation and justification. |
| 4.NF.B.6 | Solve problems involving adding and subtracting fractions and mixed numbers with like denominators.                                      |
| 4.NF.B.7 | Apply and extend previous understandings of multiplication to multiply a fraction by a whole number.                                     |

**Instructional and Assessment Resources**

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|---------------|-----------------------------|
| Math in Focus | Sections 7.1, 7.2, 7.3, 7.5 |
| Math in Focus | Assessments                 |

**ELO #4: Decimals - Students will read, write and identify decimals. They will understand that decimals are equivalent to fractions and they compare to decimals.**

**ELO Standards**

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| 4.NF.C.9  | Use decimal notation for fractions with denominators of 10 or 100.   |
| 4.NF.C.10 | Understand that fractions and decimals are equivalent representations of the same quantity.                        |
| 4.NF.C.11 | Read, write and identify decimals to the hundredths place using number names, base ten numerals and expanded form. |
| 4.NF.C.12 | Compare two decimals to the hundredths place using the symbols $>$ , $=$ or $<$ , and justify the solution.        |

**Supporting Standards**

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|----------|--|
| 4.NF.A.2 | Recognize and generate equivalent fractions.   |
| 4.NF.A.1 | Explain and/or illustrate why two fractions are equivalent.                          |
| 4.NF.A.3 | Compare two fractions using the symbols $>$ , $=$ or $<$ , and justify the solution. |

**Instructional and Assessment Resources**

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|---------------|-----------------------------|
| Math in Focus | Sections 7.1, 7.2, 7.3, 7.5 |
| Math in Focus | Assessments                 |

**ELO #5: Geometry & Measurement - Students will use measurement conversions, draw and identify angles, measure angles using a protractor, identify lines and classify shapes.**

**ELO Standards**

- 4.GM.A.1 Draw and identify points, lines, line segments, rays, angles, perpendicular lines and parallel lines.
- 4.GM.A.2 Classify two-dimensional shapes by their sides and/or angles.
- 4.GM.B.5 Draw and measure angles in whole-number degrees using a protractor.
- 4.GM.C.8 Apply the area and perimeter formulas for rectangles to solve problems.

**Supporting Standards**

- 4.GM.A.3 Construct lines of symmetry for a two-dimensional figure.
- 4.GM.B.4 Identify and estimate angles and their measure.
- 4.GM.C.6a Know relative sizes of measurement units within one system of units. \* Convert measurements in a larger unit in terms of a smaller unit.
- 4.GM.C.7 Use the four operations to solve problems involving distances, intervals of time, liquid volume, weight of objects and money.

**Instructional and Assessment Resources**

- Math in Focus Sections 9.1, 9.2, 10.1, 10.2, 11.1, 11.2, 12.1, 12.2, 12.4
- Math in Focus Assessments

**ELO #6: Data - Students will read, create and solve problems using tables, graphs and line plots.**

**ELO Standards**

- 4.DS.A.1 Create a frequency table and/or line plot to display measurement data.
- 4.DS.A.2 Solve problems involving addition and subtraction by using information presented in a data display.

**Supporting Standards**

- 4.DS.A.3 Analyze the data in a frequency table, line plot, bar graph or picture graph.

**Instructional and Assessment Resources**

- Math in Focus Chapter 4
- Math in Focus Assessments