Fourth Grade Math Standards and Benchmarks

Standard 1: Acquire and use powerful, flexible and widely applicable skills in all areas of mathematics.

- M.04.01.01 Engage in tasks for which the solution method is not known in advance.
- M.04.01.02 Reason in a wide range of mathematical and applied settings.
- M.04.01.03 Share ideas and clarify understanding to learn mathematics and to communicate mathematically.
- M.04.01.04 Connect mathematical ideas to deepen understanding.
- M.04.01.05 Represent mathematical processes and products in multiple ways.

Standard 2: Understand and apply basic and advanced properties of the concepts of numbers.

- M.04.02.01 Understand the concept of place values for whole numbers through the millions.
- M.04.02.03 Compare fractions for halves, thirds, fourths, eighths and tenths.
- M.04.02.04 Identify fractions, decimals, mixed numbers and whole numbers. Recognize that mixed numbers and improper fractions name the same quantity.
- M.04.02.05 Understand decimal notation as an extension of the base-ten system of writing whole numbers.

Standard 3: Use basic and advanced procedures while performing in the processes of computation.

- M.04.03.01 Know basic multiplication facts and related division facts 0-9.
- M.04.03.02 Developing an understanding of decimal numbers.
- M.04.03.03 Divide by a 1-digit divisor with or without a remainder (with or without physical objects).
- M.04.03.04 Understand the concept of estimating and rounding numbers expressed through the thousands (e.g., nearest thousand).

Standard 4: Understand and apply basic and advanced properties of the concepts of measurement.

- M.04.04.03a Use appropriate units of measurement of length, weight, volume, temp. in the standard system to problem solve (e.g., perimeter, area).
- M.04.04.03b Use appropriate units of measurement of length, weight, volume, temp. in the metric system to problem solve (e.g., perimeter, area).

Standard 5: Understand and apply basic and advanced properties of the concepts of geometry.

- M.04.05.01 Understand characteristics of line (e.g., parallel, perpendicular, intersecting) and angles (e.g., right, acute, obtuse).
- M.04.05.02 Understand basic properties of figures (e.g., two- or three-dimensionality, symmetry, number of faces, type of angle).
- M.04.05.03 Know basic geometric language for describing and naming shapes (e.g., trapezoid, parallelogram, cube, sphere and polygon).
- M.04.05.04 Understand basic geometric transformations in a plane and the relationships among transformed figures (e.g., symmetry, congruency, similarity, slide, flip and turn).
- M.04.05.05 Understand the characteristics and features of coordinates and the coordinate plane (e.g., the horizontal axis and vertical axis).

Standard 6: Understand and apply basic and advanced concepts of statistics and data analysis.

- M.04.06.01 Read and interpret simple tables, graphs (e.g., simple bar, line and charts [e.g., pie]).
- M.04.06.02 Use line, circle and bar graphs with various scale increments to display information.

Standard 7: Understand and apply basic and advanced concepts of probability.

None for 4^{th} grade

Standard 8: Understand and apply basic and advanced properties of functions and algebra.

- M.04.08.01 Solve open sentences involving multiplication and division (n x 4 = 12 and/or 12 n = 4).
- M.04.08.02 Use symbols of equality (=) and inequality (<, >).
- M.04.08.03 Understand that the same pattern can be represented in different ways (e.g., using words, pictures and numbers).