



BROWNELL TALBOT

Grade 4 Prioritized Math Standards

The prioritized standards listed align with both the NCTM (National Council for Teachers of Mathematics) and the Nebraska State Standards. The NCTM also includes a set of Process Standards for grades preschool through 12 that highlight mathematical processes that students draw on to acquire and use their content knowledge (see the link on the next page).

Number & Operations

<p>Understand numbers, ways of representing numbers, relationships among numbers, and number systems</p>	<p>Read, write, and demonstrate multiple equivalent representations for whole numbers up to one million and decimals to the hundredths and thousandths, using objects, visual representations, standard form, word form, and expanded notation.</p> <p>Recognize the value of each place-value as 10 times the position to the right and as one-tenth of the value of the place to the left.</p> <p>Compare and order fractions having unlike numerators and unlike denominators using visual representations (number line), comparison symbols and verbal reasoning (e.g., using benchmarks or common numerators or common denominators.)</p> <p>Recognize and generate equivalent forms of commonly used fractions, decimals, and percents (e.g. halves, thirds, fourths, fifths, tenths).</p>
<p>Understand meanings of operations and how they relate to one another</p>	<p>Multiply a two-digit whole number by a two-digit whole number using the standard algorithm. Multiply multi-digit whole numbers using standard algorithm.</p> <p>Divide up to a four-digit whole number by a one-digit and two-digit divisor with and without a remainders using a standard algorithm.</p> <p>Multiply and divide by the powers of 10.</p>
<p>Compute fluently and make reasonable estimates</p>	<p>Add and subtract fractions and mixed numbers with like (and unlike) denominators.</p> <p>Solve real-life problems involving equations with fractions.</p>

Algebra	
Understand patterns, relations, & functions	Represent and analyze patterns and functions, using words, tables, and graphs.
Represent and analyze mathematical situations and structures using algebraic symbols	Demonstrate, represent, and show relationships with expressions and equations for algebraic equations.
Use mathematical models to represent and understand quantitative relationships	Solve one-and two-step equations which use any or all of the four basic operations and include the use of a letter to represent the unknown quantity; use representation such as graphs, tables, and equations.
Geometry	
Analyze characteristics and properties of two and three dimensional geometric shapes and develop mathematical arguments about geometric relationships	Classify two-dimensional and three-dimensional shapes based on the presence of lines, angles, and side attributes.
Measurement	
Understand measurable attributes of objects and the units, systems, and processes of measurement	Identify and use the appropriate tools, operations, and units of measurement, both customary and metric, to solve real-life problems involving time, length, weight, mass, capacity, and volume.
Data Analysis & Probability	
Formulate questions that can be addressed with data and collect, organize, and display relevant data to answer them	Create and compare displays of all types of graphs that represent the data.

NCTM Process Standards: brownell.edu/nctm