

THIRD GRADE NUMBER SENSE

Number sense is a way of thinking about number and quantity that is flexible, intuitive, and very individualistic. It grows as students are exposed to activities that cause them to think about numbers in many ways and in different contexts. Number sense includes the ability to compute accurately, to self correct by detecting errors, and to recognize results as reasonable.

According to the California Framework, a person has “Number Sense” if he or she has an intuitive feel for number size and combinations as well as the ability and facility to work with numbers in problem situations in order to make sound decision and reasonable judgments.

The mathematics curriculum enables students to work with numbers to develop number sense traits that include a thorough understanding of number meanings, abilities to represent quantities in multiple ways, recognize the magnitude of number, to know the relative effects of operating on numbers, and to estimate and judge the reasonableness of quantitative results.

Numbers enable students to count, to measure, to compare, and to make predictions. Helping students to develop number sense requires appropriate modeling, posing process questions, encouraging thinking about numbers, and in general creating a classroom environment that nurtures number sense.

In third grade, students continue to develop their understanding of place value. As they develop abstraction in regard to place value they are less dependent on concrete models for smaller numbers. Students develop confidence with numbers to 10,000 and are able to read, write, and work with large numbers. Students develop deeper understanding about multiplication and are able to use the commutative and associative properties. They learn multiplication facts and know how they are related to division and can use this to solve problems.

KEY STANDARDS

- * Identify the place value for each digit in numbers to 10,000.
- * Use expanded notation to represent numbers.
- * Find the sum or difference of two whole numbers between 0 and 10,000.
- * Memorize to automaticity the multiplication table for numbers between 1 and 10.
- * Use the inverse relationship of multiplication and division to compute and check results.
- * Solve simple problems involving multiplication of multi-digit numbers by one digit numbers.
- * Solve problems involving addition, subtraction, multiplication, and division of money amounts in decimal notations.
- * Multiply and divide money amounts in decimal notation using whole number multipliers and divisors.
- * Add and subtract simple fractions.