

**THE FOLLOWING STATE CURRICULUM STANDARDS ARE ADDRESSED BY  
THE QUARTER MILE MATH SOFTWARE  
FOR THE STATE OF FLORIDA**

**Subject: MATH**

**Standard: Data Analysis And Probability**

**Strand: Standard 1: The Student Understands And Uses The Tools Of Data Analysis For Managing Information.**

**Substrand Titles that Address the Substrand**

(Gr. PreK-2 ) 2. displays data in a simple model to use the concepts of range, median, and mode.

**Quarter Mile Math Level 2**

**Subject: MATH**

**Standard: Number Sense, Concepts, And Operations**

**Strand: Standard 1: The Student Understands The Different Ways Numbers Are Represented And Used In The Real World.**

**Substrand Titles that Address the Substrand**

(Gr. PreK-2 ) 1. associates verbal names, written word names, and standard numerals with the whole numbers less than 1000.

**Quarter Mile Math Level 1**

(Gr. PreK-2 ) 2. understands the relative size of whole numbers between 0 and 1000.

**Quarter Mile Math Level 1**

(Gr. PreK-2 ) 4. understands that whole numbers can be represented in a variety of equivalent forms.

**Quarter Mile Math Level 1**

**Subject: MATH**

**Standard: Number Sense, Concepts, And Operations**

**Strand: Standard 2: The Student Understands Number Systems.**

**Substrand Titles that Address the Substrand**

(Gr. PreK-2 ) 1. understands and applies the concepts of counting (by 2s, 3s, 5s, 10s, 25s, 50s), grouping, and place value with whole numbers between 0 and 100.

**Quarter Mile Math Level 1**

(Gr. PreK-2 ) 2. uses number patterns and the relationships among counting, grouping, and place value strategies to demonstrate an understanding of the whole number system.

**Quarter Mile Math Level 1**

**Subject: MATH**

**Standard: Number Sense, Concepts, And Operations**

**Strand: Standard 3: The Student Understands The Effects Of Operations On Numbers And The Relationships Among These Operations, Selects Appropriate Operations, And Computes For Problem Solving.**



## Quarter Mile Math Level 2

**Subject: MATH**  
**Standard: Number Sense, Concepts, And Operations**  
**Strand: Standard 2: The Student Understands Number Systems.**

**Substrand**                      **Title that Address the Substrand**

(Gr. 3-5 ) 1. uses place-value concepts of grouping based upon powers of ten (thousandths, hundredths, tenths, ones, tens, hundreds, thousands) within the decimal number system.

**Quarter Mile Math Level 1**  
**Quarter Mile Math Level 2**

(Gr. 3-5 ) 2. recognizes and compares the decimal number system to the structure of other number systems such as the Roman numeral system or bases other than ten.

**Quarter Mile Math Level 2**

**Subject: MATH**  
**Standard: Number Sense, Concepts, And Operations**  
**Strand: Standard 3: The Student Understands The Effects Of Operations On Numbers And The Relationships Among These Operations, Selects Appropriate Operations, And Computes For Problem Solving.**

**Substrand**                      **Titles that Address the Substrand**

(Gr. 3-5 ) 1. understands and explains the effects of addition, subtraction, and multiplication on whole numbers, decimals, and fractions, including mixed numbers, and the effects of division on whole numbers, including the inverse relationship of multiplication and division.

**Quarter Mile Math Level 1**  
**Quarter Mile Math Level 2**

(Gr. 3-5 ) 2. selects the appropriate operation to solve specific problems involving addition, subtraction, and multiplication of whole numbers, decimals, and fractions, and division of whole numbers.

**Quarter Mile Math Level 1**  
**Quarter Mile Math Level 2**

**Subject: MATH**  
**Standard: Number Sense, Concepts, And Operations**  
**Strand: Standard 5: The Student Understands And Applies Theories Related To Numbers.**

**Substrand**                      **Titles that Address the Substrand**

(Gr. 3-5 ) 1. understands and applies basic number theory concepts, including primes, composites, factors, and multiples.

**Quarter Mile Math Level 1**  
**Quarter Mile Math Level 2**

**Subject: MATH**  
**Standard: Data Analysis And Probability**  
**Strand: Standard 1: The Student Understands And Uses The Tools Of Data Analysis For Managing Information.**

**Substrand**                      **Titles that Address the Substrand**

(Gr. 6-8 ) 2. understands and applies the concepts of range and central tendency (mean, median, and mode).

**Quarter Mile Math Level 2**

**Subject: MATH**

**Standard: Data Analysis And Probability**

**Strand: Standard 3: The Student Uses Statistical Methods To Make Inferences And Valid Arguments About Real-world Situations.**

**Substrand Titles that Address the Substrand**

(Gr. 6-8 ) 1. formulates hypotheses, designs experiments, collects and interprets data, and evaluates hypotheses by making inferences and drawing conclusions based on statistics (range, mean, median, and mode) and tables, graphs, and charts.

**Quarter Mile Math Level 2**

**Subject: MATH**

**Standard: Number Sense, Concepts, And Operations**

**Strand: Standard 1: The Student Understands The Different Ways Numbers Are Represented And Used In The Real World.**

**Substrand Titles that Address the Substrand**

(Gr. 6-8 ) 1. associates verbal names, written word names, and standard numerals with integers, fractions, decimals; numbers expressed as percents; numbers with exponents; numbers in scientific notation; radicals; absolute value; and ratios.

**Quarter Mile Math Level 2**

**Quarter Mile Math Level 3**

(Gr. 6-8 ) 2. understands the relative size of integers, fractions, and decimals; numbers expressed as percents; numbers with exponents; numbers in scientific notation; radicals; absolute value; and ratios.

**Quarter Mile Math Level 2**

**Quarter Mile Math Level 3**

(Gr. 6-8 ) 4. understands that numbers can be represented in a variety of equivalent forms, including integers, fractions, decimals, percents, scientific notation, exponents, radicals, and absolute value.

**Quarter Mile Math Level 2**

**Quarter Mile Math Level 3**

**Subject: MATH**

**Standard: Number Sense, Concepts, And Operations**

**Strand: Standard 2: The Student Understands Number Systems.**

**Substrand Titles that Address the Substrand**

(Gr. 6-8 ) 1. understands and uses exponential and scientific notation.

**Quarter Mile Math Level 2**

(Gr. 6-8 ) 2. understands the structure of number systems other than the decimal number system.

**Quarter Mile Math Level 2**

**Subject: MATH**

**Standard: Number Sense, Concepts, And Operations**

**Strand: Standard 3: The Student Understands The Effects Of Operations On Numbers And The Relationships Among These Operations, Selects Appropriate Operations, And Computes For Problem Solving.**

**Substrand Titles that Address the Substrand**

(Gr. 6-8 ) 1. understands and explains the effects of addition, subtraction, multiplication, and division on whole numbers, fractions, including mixed numbers, and decimals, including the inverse relationships of positive and negative numbers.

**Quarter Mile Math Level 2**

**Quarter Mile Math Level 3**

(Gr. 6-8 ) 2. selects the appropriate operation to solve problems involving addition, subtraction, multiplication, and division of rational numbers, ratios, proportions, and percents, including the appropriate application of the algebraic order of operations.

**Quarter Mile Math Level 2**

**Quarter Mile Math Level 3**

**Subject: MATH**

**Standard: Number Sense, Concepts, And Operations**

**Strand: Standard 4: The Student Uses Estimation In Problem Solving And Computation.**

**Substrand**

**Titles that Address the Substrand**

(Gr. 6-8 ) 1. uses estimation strategies to predict results and to check the reasonableness of results.

**Quarter Mile Math Level 2**

**Quarter Mile Math Level 3**

**Subject: MATH**

**Standard: Number Sense, Concepts, And Operations**

**Strand: Standard 1: The Student Understands The Different Ways Numbers Are Represented And Used In The Real World.**

**Substrand**

**Titles that Address the Substrand**

(Gr. 9-12) 2. understands the relative size of integers, rational numbers, irrational numbers, and real numbers.

**Quarter Mile Math Level 3**

(Gr. 9-12) 4. understands that numbers can be represented in a variety of equivalent forms, including integers, fractions, decimals, percents, scientific notation, exponents, radicals, absolute value, and logarithms.

**Quarter Mile Math Level 2**

**Quarter Mile Math Level 3**

**Subject: MATH**

**Standard: Number Sense, Concepts, And Operations**

**Strand: Standard 3: The Student Understands The Effects Of Operations On Numbers And The Relationships Among These Operations, Selects Appropriate Operations, And Computes For Problem Solving.**

**Substrand**

**Titles that Address the Substrand**

(Gr. 9-12) 1. understands and explains the effects of addition, subtraction, multiplication, and division on real numbers, including square roots, exponents, and appropriate inverse relationships.

**Quarter Mile Math Level 2**

(Gr. 9-12) 2. selects and justifies alternative strategies, such as using properties of numbers, including inverse, identity, distributive, associative, transitive, that allow operational shortcuts for computational procedures in real-world or mathematical problems.

**Quarter Mile Math Level 3**

(Gr. 9-12) 3. adds, subtracts, multiplies, and divides real numbers, including square roots and exponents, using appropriate methods of computing, such as mental mathematics, paper and pencil, and calculator.

**Quarter Mile Math Level 2**

### Quarter Mile Math Level 3

**Subject: MATH**

**Standard: Number Sense, Concepts, And Operations**

**Strand: Standard 4: The Student Uses Estimation In Problem Solving And Computation.**

**Substrand**

**Titles that Address the Substrand**

(Gr. 9-12) 1. uses estimation strategies in complex situations to predict results and to check the reasonableness of results.

**Quarter Mile Math Level 2**