

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

**Grades K - 4**

**Subject: MATH**

**Standard: Algebra**

**Strand: Students Demonstrate An Understanding Of Concepts And Processes That Allow Them To Analyze, Represent, And Describe Relationships Among Variable Quantities And To Apply Algebraic Methods To Real-world Situations**

**Substrand Titles that Address the Substrand**

(Gr. K-4 ) A-1- demonstrating a conceptual understanding of variables, expressions, equations, and inequalities (e.g., use letters or boxes to represent values; understand =, , <, and > symbols);

**Quarter Mile Math Level 1**

**Quarter Mile Math Level 2**

**Subject: MATH**

**Standard: Number And Number Relations**

**Strand: Students Demonstrate An Understanding Of The Real Number System And Communicate The Relationships Within That System Using A Variety Of Techniques And Tools.**

**Substrand Titles that Address the Substrand**

(Gr. K-4 ) N-2- demonstrating number sense and estimation skills, giving particular attention to common equivalent reference points (i.e.,  $1/4 = 25\% = .25$ ;  $2 = 50\% = .5$ ;  $\$1 = 100\%$ , etc.);

**Quarter Mile Math Level 1**

**Quarter Mile Math Level 2**

(Gr. K-4 ) N-3- reading, writing, representing, comparing, ordering, and using whole numbers in a variety of forms (e.g., standard notation, number line, and geometrical representation);

**Quarter Mile Math Level 1**

**Quarter Mile Math Level 2**

(Gr. K-4 ) N-4- demonstrating a conceptual understanding of the meaning of the basic arithmetic operations (add, subtract, multiply, and divide) and their relationships to each other;

**Quarter Mile Math Level 1**

**Quarter Mile Math Level 2**

(Gr. K-4 ) N-5- selecting appropriate operation(s) (add, subtract, multiply, and divide) for a given situation;

**Quarter Mile Math Level 1**

**Quarter Mile Math Level 2**

(Gr. K-4 ) N-7- constructing, using, and explaining procedures to compute and estimate with whole numbers (e.g., mental math strategies)

**Quarter Mile Math Level 1**

**Quarter Mile Math Level 2**

(Gr. K-4 ) N-8- selecting and using appropriate computational methods and tools for given situations involving whole numbers (e.g., estimation, mental arithmetic, calculator, or paper and pencil);

**Quarter Mile Math Level 1**

**Quarter Mile Math Level 2**

(Gr. K-4 ) N-1- constructing number meaning and demonstrating that a number can be expressed in many different forms (e.g., standard notation, number words, number lines, geometrical representation, fractions, and decimals);

**Quarter Mile Math Level 2**

### **Grades 5 - 8**

**Subject: MATH**

**Standard: Algebra**

**Strand: Students Demonstrate An Understanding Of Concepts And Processes That Allow Them To Analyze, Represent, And Describe Relationships Among Variable Quantities And To Apply Algebraic Methods To Real-world Situations**

#### **Substrand**

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

(Gr. 5-8 ) A-1-M demonstrating a conceptual understanding of variables, expressions, equations, and inequalities (e.g., symbolically represent real-world problems as linear terms, equations, or inequalities);

**Quarter Mile Math Level 3**

**Subject: MATH**

**Standard: Number And Number Relations**

**Strand: Students Demonstrate An Understanding Of The Real Number System And Communicate The Relationships Within That System Using A Variety Of Techniques And Tools.**

#### **Substrand**

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

(Gr. 5-8 ) N-4-M demonstrating a conceptual understanding of the meaning of the basic arithmetic operations (add, subtract, multiply and divide) and their relationships to each other;

**Quarter Mile Math Level 2**

**Quarter Mile Math Level 3**

(Gr. 5-8 ) N-1-M demonstrating that a rational number can be expressed in many forms, and selecting an appropriate form for a given situation (e.g., fractions, decimals, and percents);

**Quarter Mile Math Level 2**

**Quarter Mile Math Level 3**

(Gr. 5-8 ) N-3-M reading, writing, representing, and using rational numbers in a variety of forms (e.g., integers, mixed numbers, and improper fractions);

**Quarter Mile Math Level 2**

**Quarter Mile Math Level 3**

(Gr. 5-8 ) N-6-M constructing, using, and explaining procedures to compute and estimate with rational numbers employing mental math strategies;

**Quarter Mile Math Level 2**

**Quarter Mile Math Level 3**

(Gr. 5-8 ) N-7-M selecting and using appropriate computational methods and tools for given situations involving rational numbers (e.g., estimation, or exact computation using mental arithmetic, calculator, computer, or paper and pencil);

**Quarter Mile Math Level 2**

**Quarter Mile Math Level 3**

(Gr. 5-8 ) N-8-M demonstrating a conceptual understanding and applications of proportional reasoning (e.g., determining equivalent ratios, finding a missing term of a given proportion).

**Quarter Mile Math Level 2**

**Quarter Mile Math Level 3**

(Gr. 5-8 ) N-2-M demonstrating number sense and estimation skills to describe, order, and compare rational numbers (e.g., magnitude, integers, fractions, decimals, and percents);

**Quarter Mile Math Level 2**

**Quarter Mile Math Level 3**

**Grades 9 - 12**

**Subject: MATH**

**Standard: Algebra**

**Strand: Students Demonstrate An Understanding Of Concepts And Processes That Allow Them To Analyze, Represent, And Describe Relationships Among Variable Quantities And To Apply Algebraic Methods To Real-world Situations**

**Substrand**

**Titles that Address the Substrand**

(Gr. 9-12) A-4-H solving algebraic equations and inequalities using a variety of techniques with the appropriate tools (e.g., hand-held manipulatives, graphing calculator, symbolic manipulator, or pencil and paper).

**Quarter Mile Math Level 3**

(Gr. 9-12) A-2-H recognizing the relationship between operations involving real numbers and operations involving algebraic expressions;

**Quarter Mile Math Level 3**

**Subject: MATH**

**Standard: Number And Number Relations**

**Strand: Students Demonstrate An Understanding Of The Real Number System And Communicate The Relationships Within That System Using A Variety Of Techniques And Tools.**

**Substrand**

**Titles that Address the Substrand**

(Gr. 9-12) N-7-H justifying reasonableness of solutions and verifying results.

**Quarter Mile Math Level 3**

(Gr. 9-12) N-1-H demonstrating an understanding of the real number system;

**Quarter Mile Math Level 3**

(Gr. 9-12) N-2-H demonstrating that a number can be expressed in many forms, and selecting an appropriate form for a given situation (e.g., fractions, decimals, percents, and scientific notation);

**Quarter Mile Math Level 3**

(Gr. 9-12) N-3-H using number sense to estimate and determine if solutions are reasonable;

**Quarter Mile Math Level 2**

(Gr. 9-12) N-5-H selecting and using appropriate computational methods and tools for given situations (e.g., estimation, or exact computation using mental arithmetic, calculator, symbolic manipulator, or paper and pencil);

**Quarter Mile Math Level 3**