

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

**Grades PK - 4**

**Subject: MATH**

**Standard: Problem Solving**

**Strand: Problem Solving**

**Substrand Titles that Address the Substran**

(Gr. PreK-4 ) Use various approaches to investigate and understand mathematical concepts.

**Quarter Mile Math Level 1**

**Quarter Mile Math Level 2**

(Gr. PreK-4 ) Develop and apply strategies to solve a wide variety of problems.

**Quarter Mile Math Level 1**

**Quarter Mile Math Level 2**

**Subject: MATH**

**Standard: Computation & Estimation**

**Strand: Computation & Estimation**

**Substrand Titles that Address the Substrand**

(Gr. K-4 ) Use estimation for quantities, measurement, computation, and problem solving.

**Quarter Mile Math Level 1**

**Quarter Mile Math Level 2**

(Gr. K-4 ) Recognize and demonstrate when the use of estimation is appropriate.

**Quarter Mile Math Level 1**

**Quarter Mile Math Level 2**

(Gr. K-4 ) Develop an understanding of the concepts of addition, subtraction, multiplication, and division, using concrete models.

**Quarter Mile Math Level 1**

**Quarter Mile Math Level 2**

(Gr. K-4 ) Demonstrate reasonable proficiency with basic facts and algorithms.

**Quarter Mile Math Level 1**

**Quarter Mile Math Level 2**

(Gr. K-4 ) Develop proficiency with addition, subtraction, multiplication, and division of whole numbers.

**Quarter Mile Math Level 1**

**Quarter Mile Math Level 2**

(Gr. K-4 ) Use a variety of computation techniques, including mental strategies, paper-and-pencil, and technology, as appropriate.

**Quarter Mile Math Level 1**

**Quarter Mile Math Level 2**

**Subject: MATH**  
**Standard: Connections**  
**Strand: Connections**

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

(Gr. K-4 ) Explore, recognize, and use relationships among different topics in mathematics.

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

(Gr. K-4 ) Relate various representations of concepts or procedures to one another.

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

**Subject: MATH**  
**Standard: Number Sense & Number Systems**  
**Strand: Number Sense & Number Systems**

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

(Gr. K-4 ) Have an intuitive understanding of whole numbers.

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

(Gr. K-4 ) Develop number meanings by exploring number relationships through counting, comparing, estimating, ordering, grouping, and patterning.

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

(Gr. K-4 ) Demonstrate place value concepts.

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

**Subject: MATH**  
**Standard: Patterns, Relations, & Algebra**  
**Strand: Patterns, Relations, & Algebra**

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

(Gr. K-4 ) Identify and describe patterns.

**Quarter Mile Math Level 1**

(Gr. K-4 ) Extend and create patterns.

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

**Grades 5 - 8**

**Subject: MATH**  
**Standard: Communication**  
**Strand: Communication**

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

(Gr. 5-8 ) Develop an understanding of mathematics concepts, including the role of mathematical notation and definition.

**Quarter Mile Math Level 2**  
**Quarter Mile Math Level 3**

**Subject: MATH**  
**Standard: Computation & Estimation**  
**Strand: Computation & Estimation**

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

(Gr. 5-8 ) Develop proficiency with addition, subtraction, multiplication, and division of rational numbers.

**Quarter Mile Math Level 2**  
**Quarter Mile Math Level 3**

(Gr. 5-8 ) Create, analyze, and communicate procedures for computation and strategies for estimation.

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

**Subject: MATH**  
**Standard: Connections**  
**Strand: Connections**

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

(Gr. 5-8 ) See how topics and concepts in mathematics are integrated.

**Quarter Mile Math Level 2**  
**Quarter Mile Math Level 3**

(Gr. 5-8 ) Explore problems and describe results by using multiple representations.

**Quarter Mile Math Level 2**

**Subject: MATH**  
**Standard: Number Sense & Number Systems**  
**Strand: Number Sense & Number Systems**

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

(Gr. 5-8 ) Have an intuitive understanding of rational numbers.

**Quarter Mile Math Level 2**  
**Quarter Mile Math Level 3**

(Gr. 5-8 ) Represent and use numbers (integers, fractions, decimals, exponents, and scientific notation).

**Quarter Mile Math Level 2**  
**Quarter Mile Math Level 3**

(Gr. 5-8 ) Demonstrate how basic arithmetic operations are related to one another.

**Quarter Mile Math Level 2**  
**Quarter Mile Math Level 3**

**Subject: MATH**  
**Standard: Patterns, Relations, & Algebra**  
**Strand: Patterns, Relations, & Algebra**

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

(Gr. 5-8 ) Identify, analyze, extend, and create patterns in different formats.

**Quarter Mile Math Level 2**  
**Quarter Mile Math Level 3**

(Gr. 5-8 ) Describe and represent relations through different formats (tables, graphs, verbal rules, open sentences, equations, and geometry).

**Quarter Mile Math Level 2**  
**Quarter Mile Math Level 3**

(Gr. 5-8 ) Identify and justify an appropriate representation for a given situation.

**Quarter Mile Math Level 2**  
**Quarter Mile Math Level 3**

(Gr. 5-8 ) Use concepts of variable, expression, and equation.

**Quarter Mile Math Level 2**  
**Quarter Mile Math Level 3**

(Gr. 5-8 ) Solve linear equations.

**Quarter Mile Math Level 3**

**Subject: MATH**  
**Standard: Problem Solving**  
**Strand: Problem Solving**

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

(Gr. 5-8 ) Use problem-solving approaches to investigate, understand, and develop conjectures about mathematical concepts.

**Quarter Mile Math Level 2**  
**Quarter Mile Math Level 3**

(Gr. 5-8 ) Generalize solutions to apply strategies to new situations.

**Quarter Mile Math Level 2**  
**Quarter Mile Math Level 3**

(Gr. 5-8 ) Use concrete, pictorial, and symbolic representations to develop and apply strategies to solve multi-step and non-routine problems.

**Quarter Mile Math Level 2**

**Subject: MATH**  
**Standard: Statistics & Probability**  
**Strand: Statistics & Probability**

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

(Gr. 5-8 ) Recognize and use the measures of central tendency (mean, median, mode, range).

**Quarter Mile Math Level 2**

**Subject: MATH**  
**Standard: Computation & Estimation**  
**Strand: Computation & Estimation**

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

(Gr. 9-10) Develop proficiency with addition, subtraction, multiplication, and division of real numbers.

**Quarter Mile Math Level 3**

(Gr. 9-10) Apply a variety of computational methods and estimation techniques in finding solutions.

**Quarter Mile Math Level 3**

**Subject: MATH**

**Standard: Connections**

**Strand: Connections**

**Substrand**

**Titles that Address the Substrand**

(Gr. 9-10) Recognize and apply different representations for the same concept.

**Quarter Mile Math Level 3**

(Gr. 9-10) Apply procedures used in one problem situation to other similar situations.

**Quarter Mile Math Level 3**

**Subject: MATH**

**Standard: Number Sense & Number Systems**

**Strand: Number Sense & Number Systems**

**Substrand**

**Titles that Address the Substrand**

(Gr. 9-10) Have an intuitive understanding of the real number system.

**Quarter Mile Math Level 3**

(Gr. 9-10) Apply properties of the real number system.

**Quarter Mile Math Level 3**

**Subject: MATH**

**Standard: Patterns, Relations, & Algebra**

**Strand: Patterns, Relations, & Algebra**

**Substrand**

**Titles that Address the Substrand**

(Gr. 9-10) Represent situations that involve variable quantities with expressions, equations, and inequalities.

**Quarter Mile Math Level 3**

(Gr. 9-10) Solve equations and inequalities.

**Quarter Mile Math Level 3**

(Gr. 9-10) Have an intuitive understanding of algebraic procedures.

**Quarter Mile Math Level 3**

**Subject: MATH**

**Standard: Problem Solving**

**Strand: Problem Solving**

**Substrand**

**Titles that Address the Substrand**

(Gr. 9-10) Apply integrated technological and non-technological problem-solving strategies to solve problems.

**Quarter Mile Math Level 3**

(Gr. 9-10) Use sophisticated as well as basic problem-solving approaches to investigate, understand, and develop conjectures about mathematical concepts.

**Quarter Mile Math Level 3**