

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

**Grades K - 4**

**Subject: MATH**

**Standard: Algebraic Concepts And Relationships**

**Strand: Algebraic Concepts And Relationships**

**Substrand Titles that Address the Substrand**

(Gr. K-4 ) 1. Students recognize, describe, extend, create, and generalize patterns by using manipulatives, numbers, and graphic representations.

**Quarter Mile Math Level 1**

**Quarter Mile Math Level 2**

(Gr. K-4 ) 2. Students use knowledge of patterns when solving problems.

**Quarter Mile Math Level 1**

**Subject: MATH**

**Standard: Measurement**

**Strand: Measurement**

**Substrand Titles that Address the Substrand**

(Gr. K-4 ) 5. Students determine, by counting, the value of a collection of bills and coins up to \$10.00, compare the value of the coins or bills, and make change from \$5.00.

**Quarter Mile Math Level 1**

**Subject: MATH**

**Standard: Number Operation And Concepts**

**Strand: Number Operation And Concepts**

**Substrand Titles that Address the Substrand**

(Gr. K-4 ) 1. Students use the concept of place value to read and write numbers up to 999,999.

**Quarter Mile Math Level 1**

**Quarter Mile Math Level 2**

(Gr. K-4 ) 2. Students compare number values and order sets of numbers

**Quarter Mile Math Level 1**

**Quarter Mile Math Level 2**

(Gr. K-4 ) 3. Students perform arithmetic operations on whole numbers by fluently applying knowledge of math facts to solve problems.

**Quarter Mile Math Level 1**

**Quarter Mile Math Level 2**

(Gr. K-4 ) 4. Students justify their choice of procedures for performing whole number operations and the relationships between various methods of computation.

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

(Gr. K-4 ) 5. Students use a variety of mental computation and estimation techniques in solving problems

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

(Gr. K-4 ) 6. Students evaluate the reasonableness of results of number operations

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

**Subject: MATH**

**Standard: Problem Solving And Mathematical Reasoning**

**Strand: Problem Solving And Mathematical Reasoning**

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

(Gr. K-4 ) 2. Students select strategies appropriate for solving the problems.

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

(Gr. K-4 ) 3. Students select and use appropriate operations.

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

(Gr. K-4 ) 4. Students use mathematical language to solve real-world and content problems, communicating the reasonableness of the methods and results.

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

**Subject: MATH**

**Standard: Tools And Technology**

**Strand: Tools And Technology**

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

(Gr. K-4 ) 3. Students use computers and software to find, sort, classify and display data or represent spatial relationships and patterns, to develop mathematical understanding, and to solve problems.

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

**Grades 5 - 8**

**Subject: MATH**

**Standard: Algebraic Concepts And Relationships**

**Strand: Algebraic Concepts And Relationships**

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

(Gr. 5-8 ) 1. Students identify variables, expressions, inequalities, and equations.

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

(Gr. 5-8 ) 2. Students translate in both directions word phrases and sentences to mathematical expressions and equations.

**Quarter Mile Math Level 2**

**Quarter Mile Math Level 3**

(Gr. 5-8 ) 3. Students solve one- and two-step linear equations and inequalities.

**Quarter Mile Math Level 3**

(Gr. 5-8 ) 4. Students evaluate algebraic expressions and formulas given the values for variables.

**Quarter Mile Math Level 2**

**Quarter Mile Math Level 3**

**Subject: MATH**

**Standard: Number Operation And Concepts**

**Strand: Number Operation And Concepts**

**Substrand**

**Titles that Address the Substrand**

(Gr. 5-8 ) 1. Students represent and use numbers in a variety of equivalent forms (such as changing from percent to decimal to fraction, etc.) and in a problem-solving context: Integers as prime factors, factors, and multiples; Rational numbers including fractions, decimals, percents, ratios, and proportions; Roots and powers.

**Quarter Mile Math Level 2**

**Quarter Mile Math Level 3**

(Gr. 5-8 ) 2. Students extend their understanding and use of basic arithmetic operations on rational numbers. Simplify numerical expressions using the order of operations; Develop and use order relations (comparisons) for rational numbers.

**Quarter Mile Math Level 2**

**Quarter Mile Math Level 3**

(Gr. 5-8 ) 3. Students use number sense for mental math, estimation, and justifying the reasonableness of solutions to problems involving rational numbers.

**Quarter Mile Math Level 2**

**Quarter Mile Math Level 3**

**Subject: MATH**

**Standard: Problem Solving And Mathematical Reasoning**

**Strand: Problem Solving And Mathematical Reasoning**

**Substrand**

**Titles that Address the Substrand**

(Gr. 5-8 ) 1. Students apply math skills, including mental-math, number sense, estimation, and basic operations in problem-solving situations.

**Quarter Mile Math Level 2**

**Quarter Mile Math Level 3**

(Gr. 5-8 ) 2. Students, given a problem to solve, choose a strategy, apply the strategy to find an acceptable solution, and communicate the process involved.

**Quarter Mile Math Level 2**

**Quarter Mile Math Level 3**

**Subject: MATH**

**Standard: Number Operation And Concepts**

**Strand: Number Operation And Concepts**

**Substrand**

**Titles that Address the Substrand**

(Gr. 9-11) 1. Students represent, use, and apply numbers in a variety of forms including rational, radical and exponential expressions.

**Quarter Mile Math Level 3**

(Gr. 9-11) 2. Students apply the structure and properties of the real number system including the use of opposites, reciprocals, estimation, and absolute value.

**Quarter Mile Math Level 3**

**Subject: MATH**

**Standard: Problem Solving And Mathematical Reasoning**

**Strand: Problem Solving And Mathematical Reasoning**

**Substrand**

**Titles that Address the Substrand**

(Gr. 9-11) 3. Students demonstrate strategies for solving multiple-step problems.

**Quarter Mile Math Level 3**