

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

Grades K - K

Subject: MATH

Standard: I. BASIC ARITHMETIC, ESTIMATION, AND ACCURATE COMPUTATIONS

Strand: 01. Understand and use numbers

Substrand Titles that Address the Substrand

(Gr. K) a. Demonstrate an understanding of the verbal, symbolic, and physical representations of a number.
Quarter Mile Math Level 1

(Gr. K) b. Demonstrate knowledge of our numeration system by counting in a variety of ways.
Quarter Mile Math Level 1

Subject: MATH

Standard: I. BASIC ARITHMETIC, ESTIMATION, AND ACCURATE COMPUTATIONS

Strand: 03. Estimate and judge reasonableness of results.

Substrand Titles that Address the Substrand

(Gr. K) b. Evaluate the reasonableness of an answer.
Quarter Mile Math Level 1

Subject: MATH

Standard: II. MATHEMATICAL REASONING AND PROBLEM SOLVING

Strand: 01. Understand and use a variety of problem-solving skills.

Substrand Titles that Address the Substrand

(Gr. K) a. Select strategies appropriate for solving a problem.
Quarter Mile Math Level 1

Subject: MATH

Standard: IV. CONCEPTS AND LANGUAGE OF ALGEBRA

Strand: 01. Use algebraic symbolism as a tool to represent mathematical relationships.

Substrand Titles that Address the Substrand

(Gr. K) a. Compare sets of objects using vocabulary (less than, greater than, and same as).
Quarter Mile Math Level 1

(Gr. K) b. Explore the relationship between addition and subtraction.
Quarter Mile Math Level 1

Grades 1 - 1

Subject: MATH

Standard: I. BASIC ARITHMETIC, ESTIMATION, AND ACCURATE COMPUTATIONS

Strand: 01. Understand and use numbers.

Substrand Titles that Address the Substrand

(Gr. 1) a. Order and compare whole numbers to 100.

Quarter Mile Math Level 1

(Gr. 1) b. Demonstrate knowledge of our numeration system by counting in a variety of ways.

Quarter Mile Math Level 1

(Gr. 1) e. Demonstrate the knowledge of place value through 99.

Quarter Mile Math Level 1

Subject: MATH

Standard: I. BASIC ARITHMETIC, ESTIMATION, AND ACCURATE COMPUTATIONS

Strand: 02. Perform computations accurately.

Substrand Titles that Address the Substrand

(Gr. 1) a. Demonstrate proficiency of addition up to 10 and an understanding of subtraction from 9.

Quarter Mile Math Level 1

Subject: MATH

Standard: I. BASIC ARITHMETIC, ESTIMATION, AND ACCURATE COMPUTATIONS

Strand: 03. Estimate and judge reasonableness of results.

Substrand Titles that Address the Substrand

(Gr. 1) b. Use estimation to predict computation results.

Quarter Mile Math Level 1

(Gr. 1) c. Evaluate the reasonableness of an answer.

Quarter Mile Math Level 1

Subject: MATH

Standard: II. MATHEMATICAL REASONING AND PROBLEM SOLVING

Strand: 01. Understand and use a variety of problem-solving skills.

Substrand Titles that Address the Substrand

(Gr. 1) a. Select strategies appropriate for solving a problem.

Quarter Mile Math Level 1

(Gr. 1) b. Select and use appropriate operations.

Quarter Mile Math Level 1

Subject: MATH

Standard: IV. CONCEPTS AND LANGUAGE OF ALGEBRA

Strand: 01. Use algebraic symbolism as a tool to represent mathematical relationships.

Substrand Titles that Address the Substrand

(Gr. 1) c. Compare numbers using vocabulary (less than, greater than, and equal to, more, less, same, fewer, bigger, smaller).

Quarter Mile Math Level 1

(Gr. 1) d. Identify true and false number sentences.

Quarter Mile Math Level 1

(Gr. 1) f. Explore the relationship between addition and subtraction and demonstrate reversal of operations.

Quarter Mile Math Level 1

Subject: MATH

Standard: VII. FUNCTIONS AND MATHEMATICAL MODELS

Strand: 01. Understand the concept of functions.

Substrand Titles that Address the Substrand

(Gr. 1) d. Understand appropriate vocabulary.

Quarter Mile Math Level 1

Grades 2 - 2

Subject: MATH

Standard: I. BASIC ARITHMETIC, ESTIMATION, AND ACCURATE COMPUTATIONS

Strand: 01. Understand and use numbers.

Substrand Titles that Address the Substrand

(Gr. 2) a. Order and compare whole numbers.

Quarter Mile Math Level 1

(Gr. 2) b. Demonstrate an understanding of our numeration system by counting in a variety of ways.

Quarter Mile Math Level 1

(Gr. 2) f. Demonstrate the knowledge of place value through 999.

Quarter Mile Math Level 1

(Gr. 2) g. Understand appropriate vocabulary.

Quarter Mile Math Level 1

Subject: MATH

Standard: I. BASIC ARITHMETIC, ESTIMATION, AND ACCURATE COMPUTATIONS

Strand: 02. Perform computations accurately.

Substrand Titles that Address the Substrand

(Gr. 2) a. Demonstrate proficiency with addition and subtraction facts through 18.

Quarter Mile Math Level 1

(Gr. 2) b. Add whole numbers with and without regrouping through 99.

Quarter Mile Math Level 1

(Gr. 2) c. Explore double digit subtraction of whole numbers with regrouping through 99.

Quarter Mile Math Level 1

(Gr. 2) d. Add with multiple, one-digit addends.

Quarter Mile Math Level 1

(Gr. 2) e. Explore multiplication.

Quarter Mile Math Level 1

Subject: MATH

Standard: I. BASIC ARITHMETIC, ESTIMATION, AND ACCURATE COMPUTATIONS

Strand: 03. Estimate and judge reasonableness of results.

Substrand Titles that Address the Substrand

(Gr. 2) a. Use estimation to predict computation results.

Quarter Mile Math Level 1

(Gr. 2) b. Evaluate the reasonableness of an answer.

Quarter Mile Math Level 1

Subject: MATH

Standard: II. MATHEMATICAL REASONING AND PROBLEM SOLVING

Strand: 01. Understand and use a variety of problem-solving skills.

Substrand Titles that Address the Substrand

(Gr. 2) a. Select strategies appropriate for solving a problem.

Quarter Mile Math Level 1

(Gr. 2) b. Select and use appropriate operations.

Quarter Mile Math Level 1

Subject: MATH

Standard: IV. CONCEPTS AND LANGUAGE OF ALGEBRA

Strand: 01. Use algebraic symbolism as a tool to represent mathematical relationships.

Substrand Titles that Address the Substrand

(Gr. 2) c. Compare numbers using vocabulary (less than, greater than, and equal to) and symbols ($<$, $>$, $=$).

Quarter Mile Math Level 1

(Gr. 2) f. Understand relationship between addition and subtraction and demonstrate reversal of operations.

Quarter Mile Math Level 1

Grades 3 - 3

Subject: MATH

Standard: I. BASIC ARITHMETIC, ESTIMATION, AND ACCURATE COMPUTATIONS

Strand: 01. Understand and use numbers.

Substrand Titles that Address the Substrand

(Gr. 3) a. Order and compare whole numbers.

Quarter Mile Math Level 1

(Gr. 3) c. Explore decimals using money through hundredths.

Quarter Mile Math Level 2

(Gr. 3) e. Demonstrate the knowledge of place value through 9,999.

Quarter Mile Math Level 1

(Gr. 3) f. Understand appropriate vocabulary.

Quarter Mile Math Level 1

Subject: MATH

Standard: I. BASIC ARITHMETIC, ESTIMATION, AND ACCURATE COMPUTATIONS

Strand: 02. Perform computations accurately.

Substrand	Titles that Address the Substrand
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(Gr. 3) a. Add and subtract whole numbers with and without regrouping through 999.

Quarter Mile Math Level 1

(Gr. 3) b. Add three one and two digit addends.

Quarter Mile Math Level 1

(Gr. 3) c. Multiply whole numbers through 10×10 .

Quarter Mile Math Level 1

(Gr. 3) d. Explore the relationship between multiplication and division.

Quarter Mile Math Level 1

(Gr. 3) e. Select and use an appropriate method of computation from mental math, paper and pencil, calculator or a combination of the three.

Quarter Mile Math Level 1

(Gr. 3) f. Use appropriate vocabulary

Quarter Mile Math Level 1

Subject: MATH

Standard: I. BASIC ARITHMETIC, ESTIMATION, AND ACCURATE COMPUTATIONS

Strand: 03. Estimate and judge reasonableness of results.

Substrand	Titles that Address the Substrand
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(Gr. 3) a. Use estimation to predict computation results.

Quarter Mile Math Level 1

(Gr. 3) b. Evaluate the reasonableness of an answer.

Quarter Mile Math Level 1

(Gr. 3) c. Use appropriate vocabulary.

Quarter Mile Math Level 1

Subject: MATH

Standard: II. MATHEMATICAL REASONING AND PROBLEM SOLVING

Strand: 01. Understand and use a variety of problem-solving skills.

Substrand	Titles that Address the Substrand
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(Gr. 3) a. Select strategies appropriate for solving a problem.

Quarter Mile Math Level 1

(Gr. 3) b. Select and use appropriate operations.

Quarter Mile Math Level 1

Subject: MATH

Standard: IV. CONCEPTS AND LANGUAGE OF ALGEBRA

Strand: 01. Use algebraic symbolism as a tool to represent mathematical relationships.

Substrand Titles that Address the Substrand

(Gr. 3) c. Use symbols ($<$, $>$, $=$) to express relationships.

Quarter Mile Math Level 1

Grades 4 - 4

Subject: MATH

Standard: I. BASIC ARITHMETIC, ESTIMATION, AND ACCURATE COMPUTATIONS

Strand: 01. Understand and use numbers.

Substrand Titles that Address the Substrand

(Gr. 4) a. Order and compare whole numbers, commonly used fractions, and decimals with money through hundredths.

Quarter Mile Math Level 2

(Gr. 4) b. Understand decimals with money through hundredths.

Quarter Mile Math Level 2

(Gr. 4) d. Know whole number place value and patterns of periods (tens to millions).

Quarter Mile Math Level 2

Subject: MATH

Standard: I. BASIC ARITHMETIC, ESTIMATION, AND ACCURATE COMPUTATIONS

Strand: 02. Perform computations accurately.

Substrand Titles that Address the Substrand

(Gr. 4) a. Add, subtract, multiply, and divide whole numbers.

Quarter Mile Math Level 2

(Gr. 4) b. Know multiplication facts through 10s.

Quarter Mile Math Level 2

(Gr. 4) c. Add and subtract fractions with like denominators (do not require simplification).

Quarter Mile Math Level 2

(Gr. 4) d. Add and subtract decimals using money.

Quarter Mile Math Level 2

(Gr. 4) e. Select and use an appropriate method of computation from mental math, paper and pencil, calculator or a combination of the three.

Quarter Mile Math Level 2

Subject: MATH

Standard: I. BASIC ARITHMETIC, ESTIMATION, AND ACCURATE COMPUTATIONS

Strand: 03. Estimate and judge reasonableness of results.

Substrand Titles that Address the Substrand

(Gr. 4) a. Estimate and/or use exact numbers, as appropriate and necessary in calculation.

Quarter Mile Math Level 2

(Gr. 4) b. Evaluate the reasonableness of an answer.

Quarter Mile Math Level 2

Subject: MATH

Standard: II. MATHEMATICAL REASONING AND PROBLEM SOLVING

Strand: 01. Understand and use a variety of problem-solving skills.

Substrand Titles that Address the Substrand

(Gr. 4) a. Select strategies appropriate for solving a problem.

Quarter Mile Math Level 2

(Gr. 4) b. Select and use appropriate operations.

Quarter Mile Math Level 2

Subject: MATH

Standard: IV. CONCEPTS AND LANGUAGE OF ALGEBRA

Strand: 01. Use algebraic symbolism as a tool to represent mathematical relationships.

Substrand Titles that Address the Substrand

(Gr. 4) b. Use symbols ($<$, $>$, $=$) to express relationships.

Quarter Mile Math Level 2

(Gr. 4) e. Compare relative values of whole numbers.

Quarter Mile Math Level 2

Subject: MATH

Standard: VI. DATA ANALYSIS, PROBABILITY AND STATISTICS

Strand: 01. Understand data analysis.

Substrand Titles that Address the Substrand

(Gr. 4) b. Determine an average (mean) of a set of whole numbers.

Quarter Mile Math Level 2

Grades 5 - 5

Subject: MATH

Standard: I. BASIC ARITHMETIC, ESTIMATION, AND ACCURATE COMPUTATIONS

Strand: 01. Understand and use numbers.

Substrand Titles that Address the Substrand

(Gr. 5) a. Understand and use the patterns of the periods of whole numbers through billions and the patterns of place value of decimals through thousandths.

Quarter Mile Math Level 2

(Gr. 5) b. Understand the decimal system through thousandths.

Quarter Mile Math Level 2

(Gr. 5) c. Explore the relationship between decimals and simple fractions.

Quarter Mile Math Level 2

(Gr. 5) d. Show a sense of magnitudes and relative magnitudes of numbers, decimals, and simple fractions.

Quarter Mile Math Level 2

(Gr. 5) e. Explore and apply number theory concepts; e.g., prime, composite, multiples and factors.

Quarter Mile Math Level 2

Subject: MATH

Standard: I. BASIC ARITHMETIC, ESTIMATION, AND ACCURATE COMPUTATIONS

Strand: 02. Perform computations accurately.

Substrand **Titles that Address the Substrand**

(Gr. 5) a. Instantly recall basic multiplication and division facts up to tens.

Quarter Mile Math Level 2

(Gr. 5) b. Add, subtract, multiply, and divide whole numbers.

Quarter Mile Math Level 2

(Gr. 5) c. Add and subtract fractions with like denominators and simplify as necessary.

Quarter Mile Math Level 2

(Gr. 5) d. Add and subtract decimals through thousandths.

Quarter Mile Math Level 2

(Gr. 5) e. Evaluate basic numerical expressions using the order of operations. (parenthesis only)

Quarter Mile Math Level 2

Subject: MATH

Standard: I. BASIC ARITHMETIC, ESTIMATION, AND ACCURATE COMPUTATIONS

Strand: 03. Estimate and judge reasonableness of results.

Substrand **Titles that Address the Substrand**

(Gr. 5) a. Estimate whole number, and decimal problems.

Quarter Mile Math Level 2

(Gr. 5) b. Recognize when estimation is appropriate and understand the usefulness of an estimate as distinct from an exact answer.

Quarter Mile Math Level 2

(Gr. 5) c. Determine whether a given estimate is an overestimate or underestimate.

Quarter Mile Math Level 2

Subject: MATH

Standard: IV. CONCEPTS AND LANGUAGE OF ALGEBRA

Strand: 01. Use algebraic symbolism as a tool to represent mathematical relationships.

Substrand **Titles that Address the Substrand**

(Gr. 5) c. Use symbols ($<$, $>$, $=$) to express relationships.

Quarter Mile Math Level 2

Subject: MATH

Standard: IV. CONCEPTS AND LANGUAGE OF ALGEBRA

Strand: 03. Solve algebraic equations and inequalities.

Quarter Mile Math Level 2

Subject: MATH

Standard: I. BASIC ARITHMETIC, ESTIMATION, AND ACCURATE COMPUTATIONS

Strand: 02. Perform computations accurately.

Substrand Titles that Address the Substrand

(Gr. 6) a. Instantly recall basic multiplication and division facts from 12 x 12 times table.

Quarter Mile Math Level 2

(Gr. 6) b. Add, subtract, multiply, and divide whole numbers, fractions, decimal and real numbers.

Quarter Mile Math Level 2

Quarter Mile Math Level 3

(Gr. 6) c. Explore the use of exponents.

Quarter Mile Math Level 2

(Gr. 6) d. Evaluate numerical expressions using the order of operations.

Quarter Mile Math Level 2

Quarter Mile Math Level 3

Subject: MATH

Standard: I. BASIC ARITHMETIC, ESTIMATION, AND ACCURATE COMPUTATIONS

Strand: 03. Estimate and judge reasonableness of results.

Substrand Titles that Address the Substrand

(Gr. 6) a. Estimate whole number, decimal and fraction problems.

Quarter Mile Math Level 2

Quarter Mile Math Level 3

(Gr. 6) b. Recognize when estimation is appropriate and understand the usefulness of an estimate as distinct from an exact answer.

Quarter Mile Math Level 2

Quarter Mile Math Level 3

(Gr. 6) c. Determine whether a given estimate is an overestimate or underestimate.

Quarter Mile Math Level 2

Quarter Mile Math Level 3

Subject: MATH

Standard: III. CONCEPTS AND PRINCIPLES OF MEASUREMENT

Strand: 03. Apply the concepts of ratios and proportions.

Substrand Titles that Address the Substrand

(Gr. 6) a. Explore the use of proportions, ratios, and scales.

Quarter Mile Math Level 2

Subject: MATH

Standard: IV. CONCEPTS AND LANGUAGE OF ALGEBRA

Strand: 01. Use algebraic symbolism as a tool to represent mathematical relationships.

Substrand Titles that Address the Substrand

(Gr. 6) a. Explore the meaning and use of variables in simple expressions, equations.

Quarter Mile Math Level 2

Quarter Mile Math Level 3

Subject: MATH

Standard: IV. CONCEPTS AND LANGUAGE OF ALGEBRA

Strand: 02. Evaluate algebraic expressions.

Substrand **Titles that Address the Substrand**

(Gr. 6) a. Explore and use the following properties in evaluating mathematical and algebraic expressions: associative, commutative, identity, inverse and distributive.

Quarter Mile Math Level 2

Quarter Mile Math Level 3

Subject: MATH

Standard: IV. CONCEPTS AND LANGUAGE OF ALGEBRA

Strand: 03. Solve algebraic equations and inequalities.

Substrand **Titles that Address the Substrand**

(Gr. 6) a. Solve one step equations using inverse operations with whole numbers.

Quarter Mile Math Level 2

Subject: MATH

Standard: VI. DATA ANALYSIS, PROBABILITY AND STATISTICS

Strand: 03. Apply simple statistical measurements.

Substrand **Titles that Address the Substrand**

(Gr. 6) a. Explore the use of measures of central tendency mean, median, and mode with simple sets of data and explore their appropriate use.

Quarter Mile Math Level 2

Subject: MATH

Standard: VII. FUNCTIONS AND MATHEMATICAL MODELS

Strand: 02. Apply functions to a variety of problems.

Substrand **Titles that Address the Substrand**

(Gr. 6) a. Use patterns and functions to represent and solve simple problems.

Quarter Mile Math Level 2

Quarter Mile Math Level 3

Grades 7 - 7

Subject: MATH

Standard: I. BASIC ARITHMETIC, ESTIMATION, AND ACCURATE COMPUTATIONS

Strand: 01. Understand and use numbers.

Substrand **Titles that Address the Substrand**

(Gr. 7) a. Understand and use real numbers (integers, fractions, decimals) to solve problems.

Quarter Mile Math Level 3

(Gr. 7) b. Explore and expand the use of percents and ratios to solve problems.

Quarter Mile Math Level 3

(Gr. 7) c. Understand and use integers including absolute value.

Quarter Mile Math Level 3

(Gr. 7) d. Show a sense of magnitudes and relative magnitudes of real numbers (integers, fractions, decimals).

Quarter Mile Math Level 3

(Gr. 7) g. Explore scientific notation and its uses.

Quarter Mile Math Level 2

Subject: MATH

Standard: I. BASIC ARITHMETIC, ESTIMATION, AND ACCURATE COMPUTATIONS

Strand: 02. Perform computations accurately.

Substrand **Titles that Address the Substrand**

(Gr. 7) a. Add, subtract, multiply, and divide fractions and decimals.

Quarter Mile Math Level 3

(Gr. 7) b. Explore basic operations with integers.

Quarter Mile Math Level 3

(Gr. 7) c. Expand the use of exponents.

Quarter Mile Math Level 2

(Gr. 7) d. Evaluate numerical expressions using the order of operations.

Quarter Mile Math Level 3

Subject: MATH

Standard: I. BASIC ARITHMETIC, ESTIMATION, AND ACCURATE COMPUTATIONS

Strand: 03. Estimate and judge reasonableness of results.

Substrand **Titles that Address the Substrand**

(Gr. 7) a. Estimate using decimals and fractions.

Quarter Mile Math Level 3

(Gr. 7) b. Recognize when estimation is appropriate and understand the usefulness of an estimate as distinct from an exact answer.

Quarter Mile Math Level 3

Subject: MATH

Standard: III. CONCEPTS AND PRINCIPLES OF MEASUREMENT

Strand: 03. Apply the concepts of ratios and proportions.

Substrand **Titles that Address the Substrand**

(Gr. 7) a. Develop the use of proportions, ratios, and scales.

Quarter Mile Math Level 3

Subject: MATH

Standard: IV. CONCEPTS AND LANGUAGE OF ALGEBRA

Strand: 01. Use algebraic symbolism as a tool to represent mathematical relationships.

(Gr. 8) a. Understand and use the order of operations in evaluating algebraic expressions.

Quarter Mile Math Level 3

(Gr. 8) b. Simplify algebraic expressions with like terms.

Quarter Mile Math Level 3

Subject: MATH

Standard: IV. CONCEPTS AND LANGUAGE OF ALGEBRA

Strand: 03. Solve algebraic equations and inequalities.

Substrand Titles that Address the Substrand

(Gr. 8) a. Solve one and two step equations and inequalities using inverse operations.

Quarter Mile Math Level 3

Subject: MATH

Standard: VI. DATA ANALYSIS, PROBABILITY AND STATISTICS

Strand: 03. Apply simple statistical measurements.

Substrand Titles that Address the Substrand

(Gr. 8) a. Choose and calculate the appropriate measure of central tendency mean, median, and mode.

Quarter Mile Math Level 3

Grades 9 - 12

Subject: MATH

Standard: I. BASIC ARITHMETIC, ESTIMATION, AND ACCURATE COMPUTATIONS

Strand: A. Understand and use numbers

Substrand Titles that Address the Substrand

(Gr. 9-12) 1. Understand and use positive and negative numbers, fractions, decimals, percentages, and scientific notations.

Quarter Mile Math Level 3

(Gr. 9-12) 2. Understand properties of the real number system.

Quarter Mile Math Level 3

(Gr. 9-12) 4. Use number theory concepts (e.g., divisibility rules, factors, multiples, primes) to solve problems.

Quarter Mile Math Level 2

Subject: MATH

Standard: I. BASIC ARITHMETIC, ESTIMATION, AND ACCURATE COMPUTATIONS

Strand: B. Perform computations accurately.

Substrand Titles that Address the Substrand

(Gr. 9-12) 1. Use the proper order of operations. Perform operations with real numbers.

Quarter Mile Math Level 3

Subject: MATH

Standard: IV. CONCEPTS AND LANGUAGE OF ALGEBRA

Strand: A. Use algebraic symbolism as a tool to represent mathematical relationships.

Substrand Titles that Address the Substrand

(Gr. 9-12) 1. Understand and use variables, expressions, equations and inequalities.

Quarter Mile Math Level 3

Subject: MATH

Standard: IV. CONCEPTS AND LANGUAGE OF ALGEBRA

Strand: B. Evaluate algebraic expressions.

Substrand

Titles that Address the Substrand

(Gr. 9-12) 1. Understand and use procedures for operating on algebraic expressions.

Quarter Mile Math Level 3

Subject: MATH

Standard: VI. DATA ANALYSIS, PROBABILITY AND STATISTICS

Strand: C. Apply simple statistical measurements.

Substrand

Titles that Address the Substrand

(Gr. 9-12) 1. Understand basic statistical concepts including mean (average), median, mode, range, and standard deviation.

Quarter Mile Math Level 2