

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

Grades K - K

Subject: MATH

Standard: 1.0 Number, Operation, And Quantitative Reasoning

Strand: 1 Number, Operation, And Quantitative Reasoning

Substrand Titles that Address the Substrand

(Gr. K) The student uses numbers to name quantities ((A) use one-to-one correspondence and language such as more than, same number as, or two less than to describe relative sizes of sets of concrete objects; (B) use sets of concrete objects to represent quantities given in verbal or written form (through 9); and (C) use numbers to describe how many objects are in a set (through 20))

Quarter Mile Math Level 1

Grades 1 - 1

Subject: MATH

Standard: 1.0 Number, Operation, And Quantitative Reasoning

Strand: 1 Number, Operation, And Quantitative Reasoning

Substrand Titles that Address the Substrand

(Gr. 1) The student uses whole numbers to describe and compare quantities. ((A) compare and order whole numbers up to 99 (less than, greater than, or equal to) using sets of concrete objects and pictorial models; (B) create sets of tens and ones using concrete objects to describe, compare, and order whole numbers; (C) use words and numbers to describe the values of individual coins such as penny, nickel, dime, and quarter and their relationships; and (D) read and write numbers to 99 to describe sets of concrete objects)

Quarter Mile Math Level 1

(Gr. 1) The student recognizes and solves problems in addition and subtraction situations. ((A) model and create addition and subtraction problem situations with concrete objects and write corresponding number sentences; and (B) learn and apply basic addition facts (sums to 18) using concrete models.)

Quarter Mile Math Level 1

Subject: MATH

Standard: 2.0 Patterns, Relationships, And Algebraic Thinking

Strand: 2 Patterns, Relationships, And Algebraic Thinking

Substrand Titles that Address the Substrand

(Gr. 1) The student recognizes patterns in numbers and operations. ((A) find patterns in numbers, including odd and even; (B) compare and order whole numbers using place value; and (C) identify patterns in related addition and subtraction sentences (fact families for sums to 18) such as $2 + 3 = 5$, $3 + 2 = 5$, $5 - 2 = 3$, and $5 - 3 = 2$.)

Quarter Mile Math Level 1

Subject: MATH

Standard: 6.0 Underlying Processes And Mathematical Tools

Page 1 of 6

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Strand: 6 Underlying Processes And Mathematical Tools

Substrand Titles that Address the Substrand

(Gr. 1) The student applies Grade 1 mathematics to solve problems connected to everyday experiences and activities in and outside of school. ((A) identify mathematics in everyday situations; (B) use a problem-solving model, with guidance as needed, that incorporates understanding the problem, making a plan, carrying out the plan, and evaluating the solution for reasonableness; (C) select or develop an appropriate problem-solving strategy including drawing a picture, looking for a pattern, systematic guessing and checking, or acting it out in order to solve a problem; and (D) use tools such as real objects, manipulatives, and technology to solve problems)

Quarter Mile Math Level 1

Grades 2 - 2

Subject: MATH

Standard: 1.0 Number, Operation, And Quantitative Reasoning

Strand: 1 Number, Operation, And Quantitative Reasoning

Substrand Titles that Address the Substrand

(Gr. 2) The student understands how place value is used to represent whole numbers. (use concrete models to represent, compare, and order whole numbers (through 999), read the numbers, and record the comparisons using numbers and symbols (>, <, =)).

Quarter Mile Math Level 1

(Gr. 2) The student adds and subtracts whole numbers to solve problems. ((A) recall and apply basic addition facts (sums to 18); (B) select addition or subtraction and solve problems using two-digit numbers, whether or not regrouping is necessary; and (C) determine the value of a collection of coins less than one dollar.)

Quarter Mile Math Level 1

Subject: MATH

Standard: 2.0 Patterns, Relationships, And Algebraic Thinking

Strand: 2 Patterns, Relationships, And Algebraic Thinking

Substrand Titles that Address the Substrand

(Gr. 2) The student uses patterns in numbers and operations. ((A) find patterns in numbers such as in a 100s chart; (B) use patterns in place value to compare and order whole numbers through 999; (C) use patterns to develop strategies to remember basic addition facts; and (D) solve subtraction problems related to addition facts (fact families) such as $8 + 9 = 17$, $9 + 8 = 17$, $17 - 8 = 9$, and $17 - 9 = 8$.)

Quarter Mile Math Level 1

Grades 3 - 3

Subject: MATH

Standard: 1.0 Number, Operation, And Quantitative Reasoning

Strand: 1 Number, Operation, And Quantitative Reasoning

Substrand Titles that Address the Substrand

(Gr. 3) The student adds and subtracts to solve meaningful problems involving whole numbers. ((A) model addition and subtraction using pictures, words, and numbers; and (B) select addition or subtraction and use the operation to solve problems involving whole numbers through 999.)

Quarter Mile Math Level 1

(Gr. 3) The student estimates to determine reasonable results. ((A) round two-digit numbers to the nearest ten and three-digit numbers to the nearest hundred; and (B) estimate sums and differences beyond basic facts.)

Quarter Mile Math Level 1

Subject: MATH
Standard: 2.0 Patterns, Relationships, And Algebraic Thinking
Strand: 2 Patterns, Relationships, And Algebraic Thinking

Substrand **Titles that Address the Substrand**

(Gr. 3) The student uses patterns to solve problems. ((A) identify and extend whole-number and geometric patterns to make predictions and solve problems; (B) identify patterns in multiplication facts using concrete objects, pictorial models, or technology; and (C) identify patterns in related multiplication and division sentences (fact families) such as $2 \times 3 = 6$, $3 \times 2 = 6$, $6 \div 2 = 3$, $6 \div 3 = 2$.)

Quarter Mile Math Level 1

Subject: MATH
Standard: 3.0 Geometry And Spatial Reasoning
Strand: 3 Geometry And Spatial Reasoning

Substrand **Titles that Address the Substrand**

(Gr. 3) The student recognizes that numbers can be represented by points on a line. (locate and name points on a line using whole numbers and fractions such as halves.)

Quarter Mile Math Level 1

Grades 4 - 4

Subject: MATH
Standard: 1.0 Number, Operation, And Quantitative Reasoning
Strand: 1 Number, Operation, And Quantitative Reasoning

Substrand **Titles that Address the Substrand**

(Gr. 4) The student uses place value to represent whole numbers and decimals. ((A) use place value to read, write, compare, and order whole numbers through the millions place; and (B) use place value to read, write, compare, and order decimals involving tenths and hundredths, including money, using concrete models.)

Quarter Mile Math Level 1

Quarter Mile Math Level 2

(Gr. 4) The student adds and subtracts to solve meaningful problems involving whole numbers and decimals. ((A) use addition and subtraction to solve problems involving whole numbers; and (B) add and subtract decimals to the hundredths place using concrete and pictorial models.)

Quarter Mile Math Level 2

(Gr. 4) The student multiplies and divides to solve meaningful problems involving whole numbers. ((A) model factors and products using arrays and area models; (B) represent multiplication and division situations in picture, word, and number form; (C) recall and apply multiplication facts through 12×12 ; (D) use multiplication to solve problems involving two-digit numbers; and (E) use division to solve problems involving one-digit divisors.)

Quarter Mile Math Level 2

(Gr. 4) The student estimates to determine reasonable results. ((A) round whole numbers to the nearest ten, hundred, or thousand to approximate reasonable results in problem situations; and (B) estimate a product or quotient beyond basic facts.)

Quarter Mile Math Level 2

Subject: MATH
Standard: 2.0 Patterns, Relationships, And Algebraic Thinking

Strand: 2 Patterns, Relationships, And Algebraic Thinking

Substrand Titles that Address the Substrand

(Gr. 4) The student uses patterns in multiplication and division. ((A) use patterns to develop strategies to remember basic multiplication facts; (B) solve division problems related to multiplication facts (fact families) such as $9 \times 9 = 81$ and $81 \div 9 = 9$; and (C) use patterns to multiply by 10 and 100.)

Quarter Mile Math Level 2

Subject: MATH

Standard: 3.0 Geometry And Spatial Reasoning

Strand: 3 Geometry And Spatial Reasoning

Substrand Titles that Address the Substrand

(Gr. 4) The student recognizes the connection between numbers and points on a number line. The student is expected to locate and name points on a number line using whole numbers, fractions such as halves and fourths, and decimals such as tenths.

Quarter Mile Math Level 2

Grades 5 - 5

Subject: MATH

Standard: 1.0 Number, Operation, And Quantitative Reasoning

Strand: 1 Number, Operation, And Quantitative Reasoning

Substrand Titles that Address the Substrand

(Gr. 5) The student uses place value to represent whole numbers and decimals. ((A) use place value to read, write, compare, and order whole numbers through the billions place; and (B) use place value to read, write, compare, and order decimals through the thousandths place.)

Quarter Mile Math Level 2

(Gr. 5) The student uses fractions in problem-solving situations. ((A) generate equivalent fractions; (B) compare two fractional quantities in problem-solving situations using a variety of methods, including common denominators; and (C) use models to relate decimals to fractions that name tenths, hundredths, and thousandths.)

Quarter Mile Math Level 2

(Gr. 5) The student adds, subtracts, multiplies, and divides to solve meaningful problems. ((A) use addition and subtraction to solve problems involving whole numbers and decimals; (B) use multiplication to solve problems involving whole numbers (no more than three digits times two digits without technology); (C) use division to solve problems involving whole numbers (no more than two-digit divisors and three-digit dividends without technology); (D) identify prime factors of a whole number and common factors of a set of whole numbers; and (E) model and record addition and subtraction of fractions with like denominators in problem-solving situations.)

Quarter Mile Math Level 2

(Gr. 5) The student estimates to determine reasonable results. ((A) round whole numbers and decimals through tenths to approximate reasonable results in problem situations; and (B) estimate to solve problems where exact answers are not required.)

Quarter Mile Math Level 2

Grades 6 - 6

Subject: MATH

Standard: 1.0 Number, Operation, And Quantitative Reasoning

Strand: 1 Number, Operation, And Quantitative Reasoning

(Gr. 7) The student solves problems involving proportional relationships. ((A) estimate and find solutions to application problems involving percent; and (B) estimate and find solutions to application problems involving proportional relationships such as similarity, scaling, unit costs, and related measurement units.)

Quarter Mile Math Level 3

Subject: MATH

Standard: 5.0 Probability And Statistics

Strand: 5 Probability And Statistics

Substrand **Titles that Address the Substrand**

(Gr. 7) The student uses measures of central tendency and range to describe a set of data. ((A) describe a set of data using mean, median, mode, and range; and (B) choose among mean, median, mode, or range to describe a set of data and justify the choice for a particular situation.)

Quarter Mile Math Level 3

Grades 8 - 8

Subject: MATH

Standard: 1.0 Number, Operation, And Quantitative Reasoning

Strand: 1 Number, Operation, And Quantitative Reasoning

Substrand **Titles that Address the Substrand**

(Gr. 8) The student selects and uses appropriate operations to solve problems and justify solutions. ((A) select and use appropriate operations to solve problems and justify the selections; (B) add, subtract, multiply, and divide rational numbers in problem situations; (C) evaluate a solution for reasonableness; and (D) use multiplication by a constant factor (unit rate) to represent proportional relationships; for example, the arm span of a gibbon is about 1.4 times its height, $a = 1.4h$.)

Quarter Mile Math Level 3

Subject: MATH

Standard: 6.0 Underlying Processes And Mathematical Tools

Strand: 6 Underlying Processes And Mathematical Tools

Substrand **Titles that Address the Substrand**

(Gr. 8) The student applies Grade 8 mathematics to solve problems connected to everyday experiences, investigations in other disciplines, and activities in and outside of school. ((A) identify and apply mathematics to everyday experiences, to activities in and outside of school, with other disciplines, and with other mathematical topics; (B) use a problem-solving model that incorporates understanding the problem, making a plan, carrying out the plan, and evaluating the solution for reasonableness; (C) select or develop an appropriate problem-solving strategy from a variety of different types, including drawing a picture, looking for a pattern, systematic guessing and checking, acting it out, making a table, working a simpler problem, or working backwards to solve a problem; and (D) select tools such as real objects, manipulatives, paper/pencil, and technology or techniques such as mental math, estimation, and number sense to solve problems.

Quarter Mile Math Level 3