

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

**Subject: MATH**  
**Standard: Mathematical Knowledge**  
**Strand: Estimation, Measurement, And Computation**

<b>Substrand</b>	<b>Titles that Address the Substrand</b>
(Gr. K-3 ) 5.13 use multiple computational procedures with whole numbers;	<b>Quarter Mile Math Level 1</b>
(Gr. K-3 ) 5.14 add and subtract single-digit and multi-digit whole numbers;	<b>Quarter Mile Math Level 1</b>
(Gr. K-3 ) 5.15 multiply whole numbers using at least one single-digit factor ;	<b>Quarter Mile Math Level 1</b>
(Gr. K-3 ) 5.16 divide whole numbers using single-digit divisors;	<b>Quarter Mile Math Level 1</b>
(Gr. K-3 ) 5.17 make estimates before measuring, counting and computing;	<b>Quarter Mile Math Level 1</b>
(Gr. K-3 ) 5.18 round whole numbers and values of money as an estimation strategy;	<b>Quarter Mile Math Level 1</b> <b>Quarter Mile Math Level 2</b>
(Gr. K-3 ) 5.21 read and write decimal notation when representing money.	<b>Quarter Mile Math Level 2</b>

**Subject: MATH**  
**Standard: Mathematical Knowledge**  
**Strand: Number Sense**

<b>Substrand</b>	<b>Titles that Address the Substrand</b>
(Gr. K-3 ) 6.13 decompose and recompose whole numbers using addition and subtraction;	<b>Quarter Mile Math Level 1</b>
(Gr. K-3 ) 6.14 build whole numbers using the concept of place value using base ten;	<b>Quarter Mile Math Level 1</b>
(Gr. K-3 ) 6.15 demonstrate an understanding of order relations for whole numbers;	<b>Quarter Mile Math Level 1</b>
(Gr. K-3 ) 6.16 examine the relative effect of operations on whole numbers;	<b>Quarter Mile Math Level 1</b>

(Gr. K-3 ) 6.18 connect repeated addition with multiplication and repeated subtraction with division;

**Quarter Mile Math Level 1**

(Gr. K-3 ) 6.19 recognize inverse operations: subtraction/addition and division/multiplication;

**Quarter Mile Math Level 1**

(Gr. K-3 ) 6.21 count on, count back, and count by multiples.

**Quarter Mile Math Level 1**

**Subject: MATH**

**Standard: Mathematical Knowledge**

**Strand: Patterns, Relationships, And Functions**

**Substrand**

**Titles that Address the Substrand**

(Gr. K-3 ) 10.12 sort numbers into different classes such as evens, odds, multiples and factors.

**Quarter Mile Math Level 1**

**Subject: MATH**

**Standard: Mathematical Processes**

**Strand: Communicate Mathematically**

**Substrand**

**Titles that Address the Substrand**

(Gr. K-10) 2.04 read mathematics with understanding;

**Quarter Mile Math Level 1**

**Quarter Mile Math Level 2**

**Quarter Mile Math Level 3**

**Subject: MATH**

**Standard: Mathematical Processes**

**Strand: Mathematical Connections**

**Substrand**

**Titles that Address the Substrand**

(Gr. K-10) 4.02 integrate mathematical problem-solving with other curricular areas;

**Quarter Mile Math Level 1**

**Quarter Mile Math Level 2**

**Quarter Mile Math Level 3**

(Gr. K-10) 4.04 use various representations of the same concept;

**Quarter Mile Math Level 1**

**Quarter Mile Math Level 2**

**Quarter Mile Math Level 3**

**Subject: MATH**

**Standard: Mathematical Processes**

**Strand: Solve Problems**

**Substrand**

**Titles that Address the Substrand**

(Gr. K-10) 1.01 persist and solve problems from start to finish;

**Quarter Mile Math Level 1**

**Quarter Mile Math Level 2**

### Quarter Mile Math Level 3

(Gr. K-10) 1.02 investigate and build their understanding of mathematical content;

**Quarter Mile Math Level 1**

**Quarter Mile Math Level 2**

**Quarter Mile Math Level 3**

(Gr. K-10) 1.04 develop and apply strategies to solve problems;

**Quarter Mile Math Level 1**

**Quarter Mile Math Level 2**

**Quarter Mile Math Level 3**

(Gr. K-10) 1.05 interpret results with respect to the original problem;

**Quarter Mile Math Level 1**

**Quarter Mile Math Level 2**

**Quarter Mile Math Level 3**

(Gr. K-10) 1.06 generalize strategies and solutions to new problem situations.

**Quarter Mile Math Level 1**

**Quarter Mile Math Level 2**

**Quarter Mile Math Level 3**

### Grades 4 - 5

**Subject: MATH**

**Standard: Mathematical Knowledge**

**Strand: Algebra**

#### Substrand

#### Titles that Address the Substrand

(Gr. 4-5 ) 7.40 solve equations using methods such as inverse operations, mental math, and guess and check;

**Quarter Mile Math Level 2**

(Gr. 4-5 ) 7.42 use letters as variable representations.

**Quarter Mile Math Level 2**

**Subject: MATH**

**Standard: Mathematical Knowledge**

**Strand: Estimation, Measurement, And Computation**

#### Substrand

#### Titles that Address the Substrand

(Gr. 4-5 ) 5.43 use algorithms for addition, subtraction, multiplication and division with understanding;

**Quarter Mile Math Level 2**

(Gr. 4-5 ) 5.44 use multiple computational procedures to add and subtract fractions and decimals, to multiply fractions, and to divide whole numbers using multi-digit divisors;

**Quarter Mile Math Level 2**

(Gr. 4-5 ) 5.46 make estimates before measuring and computing and determine if an estimate is reasonable;

**Quarter Mile Math Level 2**

(Gr. 4-5 ) 5.47 round decimals as an estimation strategy;

**Quarter Mile Math Level 2**

(Gr. 4-5 ) 5.48 determine if an estimate is more appropriate than an exact answer;

## Quarter Mile Math Level 2

(Gr. 4-5 ) 5.49 make change by counting on and counting back.

### Quarter Mile Math Level 2

**Subject: MATH**

**Standard: Mathematical Knowledge**

**Strand: Number Sense**

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

(Gr. 4-5 ) 6.40 connect physical, verbal and symbolic representations of fractions, decimals, and whole numbers;

### Quarter Mile Math Level 2

(Gr. 4-5 ) 6.42 build decimal representations using base ten;

### Quarter Mile Math Level 2

(Gr. 4-5 ) 6.43 demonstrate the need for and the connection between decimals and fractions;

### Quarter Mile Math Level 2

(Gr. 4-5 ) 6.44 demonstrate an understanding of order relations for fractions, decimals, and whole numbers using physical, verbal and symbolic representations;

### Quarter Mile Math Level 2

(Gr. 4-5 ) 6.45 examine the relative effect of operations on whole numbers, fractions, and decimals;

### Quarter Mile Math Level 2

(Gr. 4-5 ) 6.46 recognize the arbitrary size of a unit and its relationship to fractional and decimal parts.

### Quarter Mile Math Level 2

## Grades 6 - 8

**Subject: MATH**

**Standard: Mathematical Knowledge**

**Strand: Algebra**

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

(Gr. 6-8 ) 7.62 evaluate algebraic expressions and formulas for given values of the variable;

### Quarter Mile Math Level 2

### Quarter Mile Math Level 3

(Gr. 6-8 ) 7.63 solve linear equations using concrete, informal, and formal methods;

### Quarter Mile Math Level 2

### Quarter Mile Math Level 3

(Gr. 6-8 ) 7.64 solve proportions;

### Quarter Mile Math Level 2

### Quarter Mile Math Level 3

(Gr. 6-8 ) 7.65 solve linear inequalities and non-linear equations using informal methods.

### Quarter Mile Math Level 2

### Quarter Mile Math Level 3

**Subject: MATH**

**Standard: Mathematical Knowledge**

**Strand: Estimation, Measurement, And Computation**

**Substrand Titles that Address the Substrand**

(Gr. 6-8 ) 5.64 apply order of operations;  
**Quarter Mile Math Level 2**  
**Quarter Mile Math Level 3**

(Gr. 6-8 ) 5.65 choose and explain an appropriate method for calculating an answer in a given situation;  
**Quarter Mile Math Level 2**  
**Quarter Mile Math Level 3**

(Gr. 6-8 ) 5.66 use multiple computational procedures with rational numbers;  
**Quarter Mile Math Level 2**  
**Quarter Mile Math Level 3**

(Gr. 6-8 ) 5.67 determine if an estimate is an over-estimate or an under-estimate.  
**Quarter Mile Math Level 2**  
**Quarter Mile Math Level 3**

**Subject: MATH**  
**Standard: Mathematical Knowledge**  
**Strand: Number Sense**

**Substrand Titles that Address the Substrand**

(Gr. 6-8 ) 6.60 connect physical, verbal and symbolic representations of rational numbers;  
**Quarter Mile Math Level 2**  
**Quarter Mile Math Level 3**

(Gr. 6-8 ) 6.61 apply multiple representations of numbers: integers, fractions, decimals, percents, exponents, and scientific notation;  
**Quarter Mile Math Level 2**

(Gr. 6-8 ) 6.63 demonstrate an understanding of order relations for rational numbers;  
**Quarter Mile Math Level 2**  
**Quarter Mile Math Level 3**

(Gr. 6-8 ) 6.64 examine the relative effect of operations on rational numbers;  
**Quarter Mile Math Level 2**  
**Quarter Mile Math Level 3**

(Gr. 6-8 ) 6.65 use various forms of 'one' to demonstrate the equivalence of fractions.  
**Quarter Mile Math Level 2**

**Subject: MATH**  
**Standard: Mathematical Knowledge**  
**Strand: Statistics And Probability**

**Substrand Titles that Address the Substrand**

(Gr. 6-8 ) 9.63 calculate and use mean, median, mode and range to interpret data;  
**Quarter Mile Math Level 2**

**Grades 9 - 10**

**Subject: MATH**  
**Standard: Mathematical Knowledge**  
**Strand: Algebra**

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

(Gr. 9-10) 7.95 solve linear and quadratic algebraic problems using graphs, tables, equations, formulas and matrices;  
**Quarter Mile Math Level 3**

(Gr. 9-10) 7.96 solve systems of equations algebraically, graphically and with matrices;  
**Quarter Mile Math Level 3**

(Gr. 9-10) 7.97 solve inequalities graphically and symbolically;  
**Quarter Mile Math Level 3**

**Subject: MATH**  
**Standard: Mathematical Knowledge**  
**Strand: Estimation, Measurement, And Computation**

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

(Gr. 9-10) 5.92 compute with real numbers;  
**Quarter Mile Math Level 3**

(Gr. 9-10) 5.94 extend computation procedures to algebraic procedures;  
**Quarter Mile Math Level 3**

**Subject: MATH**  
**Standard: Mathematical Knowledge**  
**Strand: Number Sense**

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

(Gr. 9-10) 6.90 connect physical, verbal and symbolic representations of real numbers;  
**Quarter Mile Math Level 3**

(Gr. 9-10) 6.91 demonstrate an understanding of order relations for real numbers;  
**Quarter Mile Math Level 3**

(Gr. 9-10) 6.92 examine the relative effects of operations on real numbers;  
**Quarter Mile Math Level 3**