



# KENAI PENINSULA BOROUGH SCHOOL DISTRICT

## Federal Programs & Small Schools

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September 1, 2010

### MEMORANDUM

To: KPBSD School Board

Through: Sean Dusek, Assistant Superintendent of Instruction

From: Norma Holmgaard Director of Federal Programs

Re: Adoption of Performance Based Reading, Math & Careers Curriculum

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On August 9, 2010, a worksession was held to review the newly developed Elementary Performance Based Math Curriculum and the newly revised Secondary Performance Based Math, Reading and Careers Curricula.

It is recommended that these curricula now be adopted.

**KENAI PENINSULA BOROUGH SCHOOL DISTRICT**  
**Performance Based Instruction**  
**Elementary Math Curriculum**

|                                       | #   | 01   | 02   | 03  | 04  | 05  | 06   |
|---------------------------------------|-----|--|--|---|---|---|--|
| <b>Numbers &amp; Computation (NC)</b> | .01 | Demonstrate 1:1 correspondence by counting objects to 20<br>Count to and from 20 |  |   |   |   |  |
|                                       | .02 | Read & write whole numbers to 100 and identify ordinal positions to 20           | Read & write whole numbers to 1,000 and identify ordinal positions | Read & write whole numbers to 100,000                                 | Read & write whole numbers to 1 billion                         | Read & write numbers (whole numbers, integers, percents and decimals) | Read and write rational numbers  |
|                                       | .03 | Order & compare whole numbers and objects to 100 (less, more, same)              | Order & compare whole numbers to 1,000                             | Order & compare whole numbers to 100,000                              | Order & compare whole numbers to 1 billion                      | Order and compare whole numbers, integers, percents, and decimals     | Order and compare rational numbers   |
|                                       | .04 | Model & identify place value positions, 1s, 10s                                  | Model & identify place value positions 1s, 10s, 100s               | Model & identify place value positions 1s, 10s, 100s, 1000s & 10,000s | Model & identify place value positions from tenths to 1 billion | Identify place value positions from thousandths to billions           | Identify place value positions of any whole number or decimal to the ten-thousandths place |
|                                       | .05 | Express numbers in expanded notation (T+O)                                       | Express numbers in expanded notation (H+T+O)                       | Express numbers in expanded notation to 100,000                       | Express any number in expanded notation                         |   |  |
|                                       | .06 |  |  |   | Solve squared numbers and order of operations                   | Solve problems with exponents and order of operations                 | Convert a number from scientific notation to standard form and back                        |

|                                       | #   | 01  | 02   | 03   | 04  | 05  | 06   |
|---------------------------------------|-----|---|--|--|---|---|--|
| <b>Numbers &amp; Computation (NC)</b> | .07 | Divide an even set of objects in half (up to 50) and divide geometric shapes (circle, rectangle, or square) into halves, thirds and fourths | Read , write, and identify fractions as equal parts of a whole, region, or set | Identify fractions as equal parts of a whole, region, or set with denominators of 2, 3, 4, & 10. | Identify fractions as equal parts of a whole, region, or set with denominators of 1-12      | Identify fractions as equal parts of a whole, region, or set with denominators of 1-12 & 100  | Identify fractions as equal parts of a whole, region, or set with any rational number. |
|                                       | .08 |   |  |  |   | Correlate fractions with benchmark percents ( $\frac{1}{4}$ , $\frac{1}{3}$ , $\frac{1}{2}$ , $\frac{2}{3}$ , $\frac{3}{4}$ )         | Correlate fractions, decimals, and percents  |
|                                       | .09 |   |  | Identify equivalent fractions with denominators 2, 3, 4, & 10                                    | Identify equivalent fractions w/denominators 1-12 or mixed numbers                          | Identify equivalent fractions w/denominators 1-12 & 100 or mixed numbers  | Identify any equivalent fraction   |
|                                       | .10 |   |  |  |   |   |  |
|                                       | .11 | Use objects, pictures, number lines & problem situations to model and explain addition of whole numbers                                     | Describe or illustrate the process of addition of whole numbers                | Describe or illustrate the process of addition of decimals (money)                               | Describe, illustrate or explain the process of adding fractions with like denominators      | Describe, illustrate or explain the process of adding proper, improper fractions, mixed numbers with like or unlike denominators      |  |
|                                       | .12 | Use objects, pictures, number lines & problem situations to model and explain subtraction of whole numbers                                  | Describe or illustrate the process of subtraction of whole numbers             | Describe or illustrate the process of subtraction of decimals (money)                            | Describe, illustrate or explain the process of subtracting fractions with like denominators | Describe, illustrate or explain the process of subtracting proper, improper fractions, mixed numbers with like or unlike denominators |  |
|                                       |     |   |  |  |   |   |  |

|                                       | #   | 01  | 02   | 03   | 04   | 05  | 06   |
|---------------------------------------|-----|---|--|--|--|---|--|
| <b>Numbers &amp; Computation (NC)</b> | .13 | Identify groups of objects as repeated addition   | Model multiplication using repeated addition                             | Model multiplication using arrays  |  | Describe, illustrate or explain the process of multiplying simple fractions | Describe, illustrate or explain the process of multiplying mixed numbers   |
|                                       | .14 | Identify groups of objects as equal shares        | Use equal shares and repeated subtraction with objects to model division | Use grouping or sharing equally to model division with whole numbers up to 100 |  | Describe, illustrate or explain the process of dividing fractions           | Describe, illustrate or explain the process of dividing mixed numbers      |
|                                       | .15 |   | Model & explain the identity and commutative property of addition        | Describe or illustrate the identity and commutative property of multiplication | Recognize and explain the relationship between the four basic operations |   |  |
|                                       | .16 |   |  |  | Describe or illustrate the associative property of multiplication        | Describe and illustrate the distributive property                           | Describe or illustrate the inverse property of addition and multiplication |
|                                       | .17 | Skip count by 2's to 20 & 5s & 10s to 100         | Skip count by 2s, 5s, & 10s and add and subtract by 10                   | Multiply by 0s-9s  | Recall multiplication & division facts to 144 efficiently                |   |  |
|                                       | .18 | Identify even & odd numbers to 20                 | Identify all even & odd numbers  |  |  |   |  |
|                                       | .19 |   |  | Identify prime and composite numbers   | Identify factors and multiples of a number                               | Identify factors & multiples common to a pair or set of numbers             |  |
|                                       | .20 | Identify fact families for addition & subtraction | Model fact families for addition & subtraction                           | Model fact families for multiplication & division                              |  |   |  |

# Numbers & Computation (NC)

|  | #   | 01  | 02   | 03   | 04   | 05  | 06  |
|--|-----|---|--|--|--|---|---|
|  | .21 | Estimate the number of objects in a given set to 20       | Estimate the result of addition & subtraction to 100                                 | Estimate the result of addition & subtraction to 1000            | Estimate the result of addition & subtraction to 10,000 using a variety of rounding techniques | Estimate the result of addition & subtraction to 100,000 including money using a variety of rounding techniques | Estimate the result of addition & subtraction from thousandths to millions using a variety of rounding techniques |
|  | .22 | Recall addition & subtraction facts to 10 & doubles to 20 | Recall addition & subtraction facts to 20  |  |  |   |   |
|  | .23 |   |  |  | Estimate the results of simple multiplication or division problems                             |   |   |
|  | .24 |   | Solve 2 digit addition & subtraction problems using a variety of models & algorithms | Add or subtract 3 digit whole numbers                            | Add or subtract 4 digit whole numbers  | Add or subtract any whole number  |   |
|  | .25 |   |  |  |  |   |   |
|  | .26 |   |  | Add or subtract decimals to the hundredths place including money |  | Add or subtract decimals to the thousandths place   |   |
|  | .27 |   |  | Multiply 2 digit number by single digit number                   | Multiply 2 digit number by 2 digit number  | Multiply 3 digit by 3 digit numbers   | Multiply any whole number   |
|  | .28 |   |  | Divide 2 digit whole number by single digit                      | Divide 3 digit whole number by a single digit  | Divide any whole number by 2 digits   | Divide any whole number   |
|  | .29 |   |  |  |  | Multiply by decimals (hundredths)   | Multiply & divide all decimals  |
|  | .30 |   |  |  |  | Add & subtract integers   | Add, subtract, multiply, and divide integers  |

|  | #   | 01   | 02   | 03  | 04   | 05   | 06 |
|--|-----|--|--|---|--|--|----|
| <b>Measurement &amp; Geometry (MG)</b> | .01 | Measure and compare objects and concepts: big/little, long/short, before /after, large/small, more/less, same using standard and nonstandard units | Compare and order objects by length, weight, area, time (clock and calendar), temp. using greater/less than, or equal to a given unit of measure | Compare and order objects by volume using greater /less than or equal to a given unit of measure      |  |  |    |
|  | .02 | Draw and measure a line segment to nearest inch or foot  | Draw or measure a line segment or distance to nearest half inch, yard, meter or centimeter and estimate to the nearest inch or foot              | Measure to nearest $\frac{1}{4}$ inch and estimate to the nearest $\frac{1}{2}$ inch or centimeter    | Measure to nearest $\frac{1}{8}$ inch or millimeter                                  | Use a scaled ruler to measure to the nearest $\frac{1}{8}$ inch or millimeter on a map |    |
|  | .03 | Identify instruments used to measure length, time, and temperature   | Select and use appropriate tools for measurement: ruler, clock, thermometer  | Select an appropriate unit of standard or non-standard measurement to estimate length and temperature | Select an appropriate metric measurement to estimate length, weight, and temperature |  |    |
|  | .04 |  |  |   |  | Estimate temperature to nearest +/- 5 degrees  |    |
|  | .05 |  |  |   | Estimate weight to nearest +/- 5 pounds  |  |    |
|  | .06 | Name in sequence the days of the week & months of the year & read a calendar   | Write the date using words and numbers   | Determine elapsed time using a calendar   |  |  |    |

# Measurement & Geometry (MG)

|  | #   | 01   | 02   | 03  | 04  | 05   | 06   |
|--|-----|--|--|---|---|--|--|
|  | .07 | Tell time to the nearest ½ hour using analog and digital clocks  | Tell time to the nearest 1/4 hour using analog and digital clocks and use a. m./p.m.   | Tell time in 5 minute increments  | Tell time to the nearest minute and use equivalent measures (seconds to minutes & hours)                | Calculate elapsed time in minutes and hours  | Solve real world problems using elapsed time and time zones                                      |
|  | .08 |  |  | Know equivalent measurements in the same system for length: standard and metric   | Convert and use equivalent measurements for length in the same system                                   | Identify and use equivalent measures for weight: grams to kilograms, ounces to pounds              | Identify and convert equivalent measures for length, weight, volume for both standard and metric |
|  | .09 | Identify coins & bills by their name, value, equal values & recognize money symbols  | Recognize the role of the decimal point in money and count coins to \$1.00   | Determine possible combinations of coins and bills to a given amount  |   |  |  |
|  | .10 |  |  | Count back change from \$1.00   | Count back change from \$5.00 to \$50.00  | Count back change from multiple purchases from \$100.00  |  |
|  | .11 | Describe, sort, draw, and classify objects according to 3 attributes: size, color, shape   | Construct, compare, classify and describe the relationships among geometric figures including larger/smaller, congruent, and similar | Use the number of sides or lengths of sides to identify, describe, or compare rectangles including squares, and triangles | Use attributes and properties (vertices, edges, faces) to identify, compare, and describe solid figures | Use attributes and properties to identify, compare, and describe rectangular and triangular prisms | Use attributes and properties to identify, classify, or compare regular or irregular polygons    |
|  | .12 | Name, compare & create simple shapes & identify the attributes of circles, rectangles, squares, & triangles on paper & in the real world | Identify and classify 2 dimensional and 3 dimensional shapes and attributes  | Identify 3 dimensional shapes from a 2 dimensional drawing (including nets with simple shapes)                            |   |  |  |

# Measurement & Geometry (MG)

|  | #   | 01   | 02   | 03   | 04   | 05  | 06  |
|--|-----|--|--|--|--|---|---|
|  | .13 | Draw and identify lines of symmetry in simple shapes         | Draw and identify lines of symmetry for real world objects   | Draw, identify, or create geometric figures that are congruent, similar, or symmetrical                | Draw and identify all lines of symmetry on complex shapes: pentagon, octagon                                 | Draw and identify all lines of symmetry on complex shapes: nonagon, decagon                 | Develop and interpret scale models (scale factors such as 1in= 1 ft)                                      |
|  | .14 | Model directional and positional concepts: above/below, etc. | Describe relative location (including a map) using simple terms: inside/outside, north/south, east/west, right /left | Describe relative location using terms: horizontal and vertical  |  |   |   |
|  | .15 |  | Determine and explain the area and perimeter of rectangles using grid paper and manipulatives                        | Determine the area and perimeter of rectangles using grid paper and manipulatives including estimation | Determine & estimate area or perimeter for rectangles, squares, & irregular shapes on grids w/a key or ruler | Estimate or determine area and perimeter of a polygon using a key, ruler, or given measures |   |
|  | .16 |  |  | Draw and identify parallel and intersecting line segments  | Draw and identify perpendicular line segments and midpoints  | Draw and measure quadrilaterals with given dimensions and angles                            | Draw and measure polygons with given dimensions and angles or circles with given dimensions               |
|  | .17 |  |  | Identify the result of slides and flips on polygons by continuing a pattern including tessellations    | Identify the result of rotations on polygons by continuing a pattern   | Draw and describe the results of transformations of polygons                                |   |
|  | .18 |  |  |  | Identify, draw, and compare circles using radius and diameter  | Estimate and determine the area and circumference of a circle using a grid or manipulative  | Estimate the area & circumference of a circle using a grid or manipulatives & compare the relationship of |

|  |  |  |  |  |  |  |                           |
|--|--|--|--|--|--|--|---------------------------|
|  |  |  |  |  |  |  | diameter to circumference |
|--|--|--|--|--|--|--|---------------------------|

|  | #   | 01 | 02 | 03 | 04   | 05  | 06  |
|--|-----|----|----|----|--|---|---|
| <b>Measurement &amp; Geometry<br/>(MG)</b> | .19 |    |    |    | Use the attributes and properties of angles to identify and compare triangles and regular polygons | Use attributes and properties of angles and the number, length, and orientation of sides to identify and compare triangles, polygons and prisms |   |
|  | .20 |    |    |    | Locate points of given coordinates on a grid and identify coordinates for a given point            | Graph a horizontal or vertical line segment on a coordinate grid and identify its length and midpoint   | Graph or identify values of variables on a coordinate plane                                   |
|  | .21 |    |    |    |  |   | Estimate or determine the volume of a right rectangular prism using manipulatives or formulas |

# Functions & Relations (FR)

|  | #   | 01  | 02   | 03   | 04   | 05   | 06  |
|--|-----|---|--|--|--|--|---|
|  | .01 | Identify, name, continue, and create patterns (aabb, abab)  | Identify and continue patterns including numbers   | Identify missing elements in a pattern up to the next three terms (with use of addition, subtraction, and objects) | Extend patterns that use addition, subtraction, multiplication, or symbols up to ten terms, represented by models, tables, sequences, or in problem situations | Extend patterns that use division or symbols up to ten terms, represented by models, tables, sequences, or in problem situations | Extend patterns found in the number system, formed by multiples, factors, perfect squares up to 100, powers of ten, represented in tables, sequences, or problem situations |
|  | .02 |   | Describe a rule or relation that determines and continues a sequence or pattern                | Express a generalization of a pattern using words  | Use rules to express the generalization of a pattern using words, lists, and tables  | Use rules to express the generalization of a pattern using words, lists, and tables with or without variables                    |   |
|  | .03 |   |  | Identify or apply addition and subtraction to find missing values in a function                                    | Identify or apply multiplication and division to find missing values in a function   |  |   |
|  | .04 | Add and subtract whole numbers up to 20 using manipulatives to solve and or create story problems | Create and solve problems using a variety of strategies  | Create and solve problems using a variety of strategies  | Create and solve problems using a variety of strategies  | Create and solve problems using a variety of strategies  | Create and solve problems using a variety of strategies   |
|  | .05 | Use terms equal to, less than, and greater than for numbers up to 100                             | Use appropriate vocabulary or symbols for greater than, less than, and equal to                | Recognize all multiplication & division (symbols) representations  |  |  |   |
|  | .06 | Solve a problem with an unknown (e.g. $7+?=10$ )  | Use an open number sentence (addition or subtraction) to solve an unknown represented by a box | Use an open number sentence (addition or subtraction) to solve an unknown represented by a box                     | Solve for an unknown whole number represented by a letter  | Solve an unknown fraction represented by a letter  | Solve an unknown integer represented by a letter  |

or circle

or circle up to 100

|  | #   | 01  | 02  | 03   | 04  | 05   | 06  |
|--|-----|---|---|--|---|--|---|
| <b>Statistics &amp; Probability (SP)</b> | .01 | Collect and record data to construct real graphs, pictographs, & bar graphs | Collect and record data to interpret and construct a variety of graphs from a variety of realistic situations | Gather, organize, & display data using graphs, tables, & charts w/whole numbers to 25                  | Gather, organize, & display data using graphs, tables, & charts w/whole numbers to 50 | Gather, organize, & display data using graphs, tables, charts, and circle graphs w/whole numbers to 100                            | Gather, organize & display data using graphs, tables, charts, circle graphs, stem & leaf plots, & frequency distributions w/appropriate scale |
|  | .02 | Describe information from simple charts & graphs                            | Describe data from a variety of graphs & other sources  | Use information from a variety of displays (tallies, tables, pictographs, bar graphs or Venn diagrams) | Use information from a variety of displays & graphs                                   | Use information from a variety of displays & graphs (circle & line graph)  | Use information from a variety of displays & graphs   |
|  | .03 |   | Use terms maximum and minimum   | Use mode, median & range w/10 pieces of data   | Use a maximum of 10 pieces of data to find mean, median mode, or range                | Find mean, median, mode, or range in any given set of numbers  | Determine or justify a choice of mean, median, or mode as best representation of data for a practical situation                               |
|  | .04 | Predict, interpret, & compare events or repeated observations               | Recognize the difference between chance & certainty   | Explain differences between chance or certainty & recognize events as such                             | Predict or explain the probability of all possible outcomes in a simple experiment    | Predict or explain the probability of all possible outcomes in an experiment using ratios or fractions to describe the probability | Analyze whether a game is mathematically fair or unfair by describing the probability of all possible outcomes                                |
|  | .05 |   | Determine possible combinations in a given situation involving up to three items                              | Solve problems involving possible combinations   | Solve problems involving possible combinations  | Solve problems involving possible combinations   | Use a systematic approach to find sample spaces & to make predictions about the probability of  |

|  |  |  |  |  |  |  |                    |
|--|--|--|--|--|--|--|--------------------|
|  |  |  |  |  |  |  | independent events |
|--|--|--|--|--|--|--|--------------------|

KENAI PENINSULA BOROUGH SCHOOL DISTRICT PERFORMANCE STANDARDS

| Level 7                            | Middle/High School Mathematics  |
|------------------------------------|---|
| Standard Number                    | Standard Description  |
| <b>Estimation and Computation</b>  |   |
| MA.EC.07.01                        | Memorize basic multiplication and division facts to 144.  |
| MA.EC.07.02                        | Calculate the product of numbers with two digit multipliers.  |
| MA.EC.07.03                        | Multiply decimals that represent money by whole numbers.  |
| MA.EC.07.04                        | Use a long-division method to find the quotient of multi-digitdividend and a one-digit divisor.   |
| MA.EC.07.05                        | Calculate equivalent fractions.   |
| <b>Functions and Relationships</b> |   |
| MA.FR.07.01                        | Identify and extend an arithmetic/geometric pattern and explain its rule.   |
| MA.FR.07.02                        | Analyze patterns using lists and tables.  |
| MA.FR.07.03                        | Evaluate formula by substituting values for variables.  |
| <b>Geometry</b>                    |   |
| MA.GO.07.01                        | Draw and measure angles using a protractor.   |
| MA.GO.07.02                        | Determine the perimeter of regular and irregular polygons.  |
| MA.GO.07.03                        | Determine the area and perimeter of polygons (i.e. triangle, rhombus, trapezoid, parallelogram ).   |
| MA.GO.07.04                        | Plot ordered pairs on a rectangular coordinate grid, identify the quadrants, and connect the points   |
| MA.GO.07.05                        | Draw and name midpoints, intersections, parallel, perpendicular lines, ray, and segment.  |
| MA.GO.07.06                        | Draw 3-D models of a 2-D view from multiple viewpoints.   |
| <b>Measurement</b>                 |   |
| MA.MS.07.01                        | Measure line segments to the nearest 1/8-inch and millimeter.   |
| MA.MS.07.02                        | Identify and use equivalent measurements of time.   |
| MA.MS.07.03                        | Measure the dimensions of a geometric figure.   |
| MA.MS.07.04                        | Tell time to the minute using an analog clock   |
| MA.MS.07.05                        | Find elapsed time to the half-hour.   |
| MA.MS.07.06                        | Calculate change by counting up from the amount of purchase to \$100.   |
| <b>Numeration</b>                  |   |
| MA.NM.07.01                        | Model, order, read, and write positive and negative whole numbers to 1,000,000.   |
| MA.NM.07.02                        | Use, model, and identify place value positions from 0.001 to 100,000.   |
| MA.NM.07.03                        | Convert between simple fractions, decimals, and percents.   |
| MA.NM.07.04                        | Find sums and differences of simple fractions and decimals  |
| MA.NM.07.05                        | Identify and describe factors and multiples   |
| <b>Problem Solving</b>             |   |
| MA.PS.07.01                        | Read and summarize problems using mathematical terms and symbols.   |
| MA.PS.07.02                        | Identify and explain different problem solving strategies and when it is best to use them (guess and check, work backwards, draw a picture, etc.) |
| MA.PS.07.03                        | Write and verbalize essential parts of a problem using appropriate mathematical vocabulary.   |
| MA.PS.07.04                        | Write and verbalize explanations of strategies used to solve problems.  |
| MA.PS.07.05                        | Maintain a math journal that expresses goals, successes, and areas for improvement and explains mathematical ideas, solutions, and methods.       |

KENAI PENINSULA BOROUGH SCHOOL DISTRICT PERFORMANCE STANDARDS

| <b>Level 7</b>                    | <b>Middle/High School Mathematics ... <i>continued</i></b>  |
|-----------------------------------|---|
| Standard Number                   | Standard Description  |
| <b>Statistics and Probability</b> |   |
| MA.PS.07.06                       | Apply math skills and processes to a personal interest (i.e. music, architecture, sports)   |
| MA.SP.07.01                       | Collect and organize data; use it to construct a chart, table, or graph.  |
| MA.SP.07.02                       | Determine the mean, mode, median, and range of a set of data.   |
| MA.SP.07.03                       | In an experiment using given criteria, make predictions, perform experiment, record results, and compare predicted outcome with actual results. |

KENAI PENINSULA BOROUGH SCHOOL DISTRICT PERFORMANCE STANDARDS

| Level 8                            | Middle/High School Mathematics   |
|------------------------------------|--|
| Standard Number                    | Standard Description   |
| <b>Estimation and Computation</b>  |  |
| MA.EC.08.01                        | Convert improper fractions to whole or mixed numbers and identifies equivalent fractions.  |
| MA.EC.08.02                        | Calculate sums and differences of fractions, decimals, and mixed numbers.  |
| MA.EC.08.03                        | Perform 3-digit by 2-digit multiplication and division, and 4-digit by 4-digit addition and subtraction.   |
| MA.EC.08.04                        | Use an alternative number operation to check solutions.  |
| MA.EC.08.05                        | Estimate volume, length, and temperature using metric and standard measurement.  |
| MA.EC.08.06                        | Develop and interpret scales and scale models.   |
| <b>Functions and Relationships</b> |  |
| MA.FR.08.01                        | Graph inequalities on a number line.   |
| MA.FR.08.02                        | Describe patterns formed by multiples, factors, perfect squares, and powers of ten.  |
| MA.FR.08.03                        | Find a missing item in a number sequence with or without a calculator.   |
| MA.FR.08.04                        | Represent and analyze patterns using words, lists, and tables.   |
| MA.FR.08.05                        | Write, solve and explain number sentences that contain a variable.   |
| MA.FR.08.06                        | Identify positive/negative slope and x-intercept/y-intercept   |
| <b>Geometry</b>                    |  |
| MA.GO.08.01                        | Determine area and perimeter of regular and irregular figures using a variety of methods.  |
| MA.GO.08.02                        | Classify and compare various triangles and quadrilaterals according to their sides and/or angles.  |
| MA.GO.08.03                        | Construct polyhedrons and identify characteristics   |
| MA.GO.08.04                        | Locate and describe objects in terms of their position with compass direction .  |
| MA.GO.08.05                        | Identify and model transformations of geometric figures as translations, reflections, or rotations.  |
| <b>Measurement</b>                 |  |
| MA.MS.08.01                        | Measure weights, lengths, and temperature to the nearest unit using metric and standard systems.   |
| MA.MS.08.02                        | Identify and use equivalent measurements in different units within the same measurement system.  |
| MA.MS.08.03                        | Determine elapsed time to the minute.  |
| MA.MS.08.04                        | Calculate and verify correct change from a purchase greater than \$100.  |
| <b>Numeration</b>                  |  |
| MA.NM.08.01                        | Read, model and write positive and negative whole numbers to 1,000,000.  |
| MA.NM.08.02                        | Use, model, and identify place value positions from 0.001 to 1,000,000.  |
| MA.NM.08.03                        | Add and subtract negative numbers  |
| MA.NM.08.04                        | JOURNAL - Describe and demonstrate the relationships among the four basic operations.  |
| MA.NM.08.05                        | Convert between mixed numbers, fractions, and decimals   |
| MA.NM.08.06                        | Model and explain the process of adding and subtracting fractions with common denominators.  |
| MA.NM.08.07                        | Model and explain the process of adding and subtracting decimals   |
| MA.NM.08.08                        | Identify and describe factors and multiples of a number pair, including greatest common factor (divisor) and lowest common multiple (GCF and LCM). |

KENAI PENINSULA BOROUGH SCHOOL DISTRICT PERFORMANCE STANDARDS

| <b>Level 8</b>                    | <b>Middle/High School Mathematics ... <i>continued</i></b>  |
|-----------------------------------|---|
| Standard Number                   | Standard Description  |
| <b>Problem Solving</b>            |   |
| MA.PS.08.01                       | Select and apply appropriate strategies to solve 2 step word problems involving fractions, decimals, and the 4 basic operations.            |
| MA.PS.08.02                       | Clarify a problem, define a solving strategy, and verify results using an alternative strategy.   |
| MA.PS.08.03                       | Illustrate practical mathematical situations using concrete, pictorial, and symbolic representation.  |
| <b>Problem Solving</b>            |   |
| MA.PS.08.04                       | Translate and successfully solves problems between everyday language and mathematical symbols.  |
| MA.PS.08.05                       | Draw logical conclusions about mathematical situations.   |
| MA.PS.08.06                       | Maintain a math journal that expresses goals, successes, and areas for improvement and explains mathematical ideas, solutions, and methods. |
| MA.PS.08.07                       | Apply math skills and processes to a personal interest (i.e. music, architecture, sports,etc.)  |
| <b>Statistics and Probability</b> |   |
| MA.SP.08.01                       | Create and solve probability problems about chance occurrences.   |
| MA.SP.08.02                       | Gather data and find the mean, median, mode, range  |
| MA.SP.08.03                       | Calculate the probability of multiple independent events.   |
| MA.SP.08.04                       | Describe and explain data from tables, charts and graphs; and use the data to predict an outcome.   |

KENAI PENINSULA BOROUGH SCHOOL DISTRICT PERFORMANCE STANDARDS

| Level 9                            | Middle/High School Mathematics  |
|------------------------------------|---|
| Standard Number                    | Standard Description  |
| <b>Estimation and Computation</b>  |   |
| MA.EC.09.01                        | Solves percent problems including percent problems greater than 100%.   |
| MA.EC.09.02                        | Write, solve, and estimate solutions to practical addition, subtraction, multiplication and division problems that use fractions, mixed numbers, decimals and percents. |
| MA.EC.09.03                        | Solve ratio and proportion problems.  |
| MA.EC.09.04                        | Estimate solutions to problems involving fractions, decimals and percents.  |
| MA.EC.09.05                        | Convert between fractions, decimals, and percents.  |
| MA.EC.09.06                        | Define and demonstrate use of prime and composite numbers.  |
| MA.EC.09.07                        | Demonstrate identity, commutative, associative, and distributive properties for addition and multiplication   |
| <b>Functions and Relationships</b> |   |
| MA.FR.09.01                        | Write, solve, and explain number sentences that contain multiple occurrences of a single variable.  |
| MA.FR.09.02                        | Find the slope of a line given two points   |
| MA.FR.09.03                        | Explain and analyze the patterns found in tables, graphs, rules and formulas.   |
| MA.FR.09.04                        | Translate and solve word problems using symbolic expressions, equations, or inequalities.   |
| MA.FR.09.05                        | Combine like terms to simplify expressions.   |
| MA.FR.09.06                        | Evaluate an expression, equation, or inequality by substituting values for a variable.  |
| <b>Geometry</b>                    |   |
| MA.GO.09.01                        | Identify complementary, supplementary, and vertical angles  |
| MA.GO.09.02                        | Graph ordered pairs on a coordinate plane   |
| MA.GO.09.03                        | Model, identify, draw, and describe common three-dimensional figures.   |
| MA.GO.09.04                        | Construct a circle with a given diameter or radius.   |
| MA.GO.09.05                        | Estimate, measure, and add angles with a protractor.  |
| MA.GO.09.06                        | Identify and describe congruent and similar figures.  |
| MA.GO.09.07                        | Identify, classify, compare and sketch regular and irregular polygons.  |
| MA.GO.09.08                        | Calculate circumferences and areas of circles.  |
| MA.GO.09.09                        | Calculate the surface area and volume of a cube and rectangular prism.  |
| <b>Measurement</b>                 |   |
| MA.MS.09.01                        | Solve time problems using information about time zones and elapsed time.  |
| MA.MS.09.02                        | Convert within the standard (inches, feet, and yards) and metric (mm, cm, m) system.  |
| MA.MS.09.03                        | Measure length, weight, area, and volume using an appropriate tool in metric and in standard units.   |
| MA.MS.09.04                        | Write and solve rate problems and use appropriate units for the solutions.  |
| <b>Numeration</b>                  |   |
| MA.NM.09.01                        | Add, subtract, multiply and divide negative whole numbers.  |
| MA.NM.09.02                        | Compare and order whole numbers, fractions, decimals, and integers using inequalities and equalities (models, pictures, symbols and words).                             |
| MA.NM.09.03                        | Identify and describe factors and multiples of a number set, including greatest common factor and lowest common multiple (GCF and LCM).                                 |
| MA.NM.09.04                        | Describe and demonstrate rules of divisibility to determine if one number is a factor or a multiple of another.   |
| MA.NM.09.05                        | Convert between fractions, mixed numbers, decimals, and percents.   |

KENAI PENINSULA BOROUGH SCHOOL DISTRICT PERFORMANCE STANDARDS

| <b>Level 9</b>                    | <b>Middle/High School Mathematics ... <i>continued</i></b>   |
|-----------------------------------|--|
| Performance Standards             | Standard Description   |
| <b>Problem Solving</b>            |  |
| MA.PS.09.01                       | Evaluate results for appropriateness including using estimation  |
| MA.PS.09.02                       | Verify accuracy of solutions by using alternative strategies to solve.   |
| MA.PS.09.03                       | Maintain a math journal that expresses goals, successes, and areas for improvement and explains mathematical ideas, solutions, and methods.                          |
| MA.PS.09.04                       | Apply and use calculations in a science discipline, labeling solutions with appropriate units.   |
| MA.PS.09.05                       | Demonstrate a knowledge of personal finance through balancing a checkbook, calculating net pay, and working with simple interest                                     |
| MA.PS.09.06                       | Evaluate advertising and the methods used to entice buyers   |
| <b>Statistics and Probability</b> |  |
| MA.SP.09.01                       | Create tree diagrams and sample spaces to determine theoretical probabilities about independent events.  |
| MA.SP.09.02                       | Analyze data from tables, charts and graphs to predict an outcome and check for validity and misrepresentation.  |
| MA.SP.09.03                       | Collect and display data in circle graphs, histograms, and scatter plots with and without technology.  |
| MA.SP.09.04                       | Design and conduct a probability experiment and compare the theoretical to the experimental results and represent the data using percents, ratios, and/or fractions. |

KENAI PENINSULA BOROUGH SCHOOL DISTRICT PERFORMANCE STANDARDS

| Level 10                           | Middle/High School Mathematics   |
|------------------------------------|--|
| Standard Number                    | Standard Description   |
| <b>Estimation and Computation</b>  |  |
| MA.EC.10.01                        | Explain when an estimate is appropriate and when an exact answer is needed.  |
| MA.EC.10.02                        | Simplify expressions involving absolute value of real numbers.   |
| MA.EC.10.03                        | Estimate solutions to evaluate reasonableness of results, state whether the estimation is greater than or less than the exact answer.                            |
| MA.EC.10.04                        | Solve problems with variables using equivalent fractions, decimals, or percents.   |
| MA.EC.10.05                        | Multiply and divide rational numbers which include fractions, decimals or percents.  |
| MA.EC.10.06                        | Solve scaling problems that contain whole numbers, fractions, decimals, and percents using proportions.  |
| MA.EC.10.07                        | Analyze and solve problems involving exponential forms of numbers.   |
| MA.EC.10.08                        | Solve one and two step equations with and without variables and then use inverse operations to check answers.  |
| <b>Functions and Relationships</b> |  |
| MA.FR.10.01                        | Create a formula to calculate the nth term in sequential patterns.   |
| MA.FR.10.02                        | Predict an outcome using a pattern from a table or graph.  |
| MA.FR.10.03                        | Translate and use tables of ordered pairs, graphs on coordinate planes, and linear equations to represent patterns.  |
| MA.FR.10.04                        | Predict the graph of linear and non-linear functions.  |
| MA.FR.10.05                        | Graph equalities and inequalities on a coordinate plane.   |
| MA.FR.10.06                        | Translate multiple step word problems into symbolic expressions, equations or inequalities and solves for unknowns.  |
| <b>Geometry</b>                    |  |
| MA.GO.10.01                        | Substitute values into a linear equation to make a table of ordered pairs <b>and graphs the points on a coordinate plane.</b>                                    |
| MA.GO.10.02                        | Calculate the sum of the angles in any convex polygon.   |
| MA.GO.10.03                        | Apply the properties of equality and proportionality to solve problems involving congruent or similar shapes.  |
| MA.GO.10.04                        | Estimate and determine volume and surface area of solid figures using manipulative and formulas (i.e. cylinder, cone, sphere, prism, etc.).                      |
| MA.GO.10.05                        | Identify and graph reflections, rotations and translations on the coordinate plane and describe these transformations in words.                                  |
| MA.GO.10.06                        | Classify, construct and identify properties of angles (compliments, supplements, vertical, etc).   |
| MA.GO.10.07                        | Calculate an angle indirectly by measuring the supplementary or complimentary angles.  |
| <b>Measurement</b>                 |  |
| MA.MS.10.01                        | Write and solve rate problems and apply appropriate units for the solution.  |
| MA.MS.10.02                        | Use, compare, and convert between units in the metric and standard systems for length, mass, weight, area, and volume.   |
| MA.MS.10.03                        | Describe and apply relationships between geometric figures to solve problems.  |
| MA.MS.10.04                        | Explain what happens to ratios when changes are made to one or more dimensions of a figure (i.e. how is the area of a square effected if the length is doubled?) |
| <b>Numeration</b>                  |  |
| MA.NM.10.01                        | Use, explain, and define order of operations and apply to rational numbers.  |
| MA.NM.10.02                        | Write the prime factorization of a number using exponents.   |

KENAI PENINSULA BOROUGH SCHOOL DISTRICT PERFORMANCE STANDARDS

| <b>Level 10</b>                        | <b>Middle/High School Mathematics ... <i>continued</i></b>  |
|--|---|
| Standard Number                        | Standard Description  |
| <b>Numeration ... <i>continued</i></b> |   |
| MA.NM.10.03                            | Add, subtract, multiply, and divide positive/negative numbers including decimals and fractions.   |
| MA.NM.10.04                            | Model ratios and proportions  |
| MA.NM.10.05                            | Express numbers using powers of ten and scientific notation.  |
| MA.NM.10.06                            | Solve problems with variables using inverse functions, identity, commutative, associative and distributive properties.  |
| <b>Problem Solving</b>                 |   |
| MA.PS.10.01                            | Communicate and explain strategies used to solve multi-step word problems in written form.  |
| MA.PS.10.02                            | Maintain a math journal that expresses goals, successes, and areas for improvement and explains mathematical ideas, solutions, and methods.                                   |
| MA.PS.10.03                            | Apply and use calculations in a science discipline, labeling solutions with appropriate units.  |
| MA.PS.10.04                            | Analyze local, state, and federal tax systems (I.e. property, sales, income, hotel, airport, capital gains)   |
| MA.PS.10.05                            | Evaluate the workings of a loan and credit card and the application of various types of interest.   |
| <b>Statistics and Probability</b>      |   |
| MA.SP.10.01                            | Collect, display, and analyze data in a variety of visual displays including frequency distributions, box and whisker plots, stem and leaf plots with and without technology. |
| MA.SP.10.02                            | Interpret and analyze statistical information found in newspapers, magazines, and graphical displays.   |
| MA.SP.10.03                            | Compute the mean, median, mode, and range for a given set of data and identify the strengths and weaknesses of each.  |
| MA.SP.10.04                            | Justify which measure of central tendency best represents a given data set.   |
| MA.SP.10.05                            | Calculate the probability of events with and without replacement.   |
| MA.SP.10.06                            | Design and conduct a statistical study and communicate the results.   |

KENAI PENINSULA BOROUGH SCHOOL DISTRICT PERFORMANCE STANDARDS

| Level 11                           | Middle/High School Mathematics   |
|------------------------------------|--|
| Standard Number                    | Standard Description   |
| <b>Estimation and Computation</b>  |  |
| MA.EC.11.01                        | Perform the proper order of operations with signed numbers and with scientific notations.  |
| MA.EC.11.02                        | Set up and solve rate, ratio, and proportion problems using unit multipliers and conversions (i.e. speed, unit pricing, etc.).                                 |
| MA.EC.11.03                        | Calculate the volume and area of complex figures.  |
| MA.EC.11.04                        | Simplify expressions involving absolute value of real numbers.   |
| MA.EC.11.05                        | Solve problems using percent increase and decrease.  |
| MA.EC.11.06                        | Add, subtract, multiply, and divide rational and common irrational numbers (fraction, decimals, and percents).   |
| <b>Functions and Relationships</b> |  |
| MA.FR.11.01                        | Graph solutions sets of equalities and inequalities.   |
| MA.FR.11.02                        | Evaluate linear data with tables, graphs, and lines of best fit.   |
| MA.FR.11.03                        | Select appropriate scales or graphing ranges for graphing data.  |
| MA.FR.11.04                        | Translate word problems into symbolic expressions, equations, or inequalities and solves for unknowns (including linear and quadratic).                        |
| MA.FR.11.05                        | Create formulas from tables of ordered pairs.  |
| MA.FR.11.06                        | Identify and predict the graphs of families of functions (i.e. linear, absolute value, inverse functions, quadratic, and exponential).                         |
| <b>Geometry</b>                    |  |
| MA.GO.11.01                        | Draw and describe the results of transformations including translations, rotations, reflections, and dilations.  |
| MA.GO.11.02                        | Apply the properties of equality and proportionality to solve problems involving congruent, similar, or symmetrical shapes.                                    |
| MA.GO.11.03                        | Use coordinate geometry to graph non-linear equations, and determine intercepts.   |
| MA.GO.11.04                        | Use equations to identify parallel, perpendicular, and oblique lines.  |
| MA.GO.11.05                        | Find possible solutions to sets of equations or inequalities.  |
| MA.GO.11.06                        | Solve problems using the relationships of angles formed by parallel, perpendicular and intersecting lines.   |
| MA.GO.11.07                        | Identify and use patterns from right triangles to solve application problems.  |
| MA.GO.11.08                        | Draw geometric lines using tools and label with proper notations (midpoint, angle bisector, parallel and perpendicular lines, $A \perp B$ , $S \parallel T$ ). |
| MA.GO.11.09                        | Apply geometric formulas to a variety of situations (i.e. distance, midpoint, slope, area, and volume).  |
| <b>Measurement</b>                 |  |
| MA.MS.11.01                        | Solve practical problems involving proportion and scale.   |
| MA.MS.11.02                        | Solve practical problems involving rate, time, and distance (i.e. travel, speed, mpg).   |
| MA.MS.11.03                        | Use multiple strategies, including formulas and manipulatives, to find rates, volume and surface area using correct units.                                     |
| MA.MS.11.04                        | Find the unknown dimensions of a right triangle using the Pythagorean Theorem or right triangle trigonometry   |
| <b>Numeration</b>                  |  |
| MA.NM.11.01                        | Translate between equivalent representations of the same number (i.e. fractions, decimals, percents, exponents, and scientific notation).                      |
| MA.NM.11.02                        | Find inverse functions.  |
| MA.NM.11.03                        | Apply the order of operations with negative numbers.   |

KENAI PENINSULA BOROUGH SCHOOL DISTRICT PERFORMANCE STANDARDS

| <b>Level 11</b>                   | <b>Middle/High School Mathematics ... <i>continued</i></b>   |
|-----------------------------------|--|
| Standard Number                   | Standard Description   |
| <b>Problem Solving</b>            |  |
| MA.PS.11.01                       | Use and describe math skills in science related applications, issues and careers.  |
| MA.PS.11.03                       | Create a spreadsheet (such as a table of function values) to display and evaluate information.   |
| MA.PS.11.04                       | Maintain a math journal that expresses goals, successes, and areas for improvement and explains mathematical ideas, solutions, and methods.        |
| MA.PS.11.05                       | Use appropriate vocabulary for effective communication in mathematics.   |
| <b>Statistics and Probability</b> |  |
| MA.SP.11.01                       | Sample and record data systematically (i.e. controlled conditions, proper labels).   |
| MA.SP.11.02                       | Explain how statistics are manipulated to influence decisions.   |
| MA.SP.11.03                       | Analyze data using patterns or lines of best fit and use this information to predict future outcomes, influence decisions, and defend conclusions. |
| MA.SP.11.04                       | Evaluate whether or not inferences can be made given the parameters of the data.   |

KENAI PENINSULA BOROUGH SCHOOL DISTRICT PERFORMANCE STANDARDS

| <b>Level 12</b>                    | <b>Middle/High School Mathematics</b>  |
|------------------------------------|--|
| Standard Number                    | Standard Description   |
| <b>Estimation and Computation</b>  |  |
| MA.EC.12.01                        | Add, subtract, multiply, and divide in various forms including scientific notation, powers, and roots with and without variables.  |
| MA.EC.12.02                        | Translate between equivalent representations of algebraic expressions (to include expressions with fractional and negative exponents).   |
| MA.EC.12.03                        | Estimate an equation for a line or curve which models the scatter plot for a given set of data.  |
| MA.EC.12.04                        | Estimate solutions to evaluate reasonableness of results from multi-step problems.   |
| MA.EC.12.05                        | Add, subtract, multiply, divide, and simplify common irrational and rational expressions (i.e. radicals).  |
| MA.EC.12.06                        | Convert from exact to decimal representations of irrational numbers.   |
| MA.EC.12.07                        | Evaluate formulas including quadratic equation, distance formula, slope and midpoint formulas.   |
| MA.EC.12.08                        | Use unit analysis with standard and metric systems.  |
| <b>Functions and Relationships</b> |  |
| MA.FR.12.01                        | Observe and collect data from a physical event and develop a function that describes and predicts that behavior all with the use of technology (i.e. probes, graphing calculator). |
| MA.FR.12.02                        | Create and solve systems of linear and second degree equations, algebraically and graphically, with or without the use of technology.  |
| MA.FR.12.03                        | Identify the dimensions of a matrix and represent a system of linear equations in matrix form.   |
| MA.FR.12.04                        | Translate multiple step word problems into symbolic expressions, equations, or inequalities and solve for unknowns.  |
| MA.FR.12.05                        | Identify, graph, and describe the graphs of basic families of functions including linear, absolute value, quadratic and exponential with or without the use of technology.         |
| MA.FR.12.06                        | Add, subtract, multiply, divide, and simplify polynomials.   |
| <b>Geometry</b>                    |  |
| MA.GO.12.01                        | Identify and label angles, segments, and lines as they relate to circles, and use the properties to solve problems (i.e. tangents, arcs).  |
| MA.GO.12.02                        | Draw and label triangles illustrating the congruency relationships of SSS, SAS, ASA, AAS.  |
| MA.GO.12.03                        | Draw and label similar figures showing the correct relationship between corresponding parts.   |
| MA.GO.12.04                        | Determine if the coordinates of a point satisfy the equation of a graph.   |
| MA.GO.12.05                        | Calculate the distance and midpoint between two points on a coordinate plane.  |
| MA.GO.12.06                        | Explain how the graph of a line changes when the slope or y-intercept changes.   |
| MA.GO.12.07                        | Identify the relationships among alternate interior angles, alternate exterior angles, corresponding angles, supplementary angles, and vertical angles.                            |
| MA.GO.12.08                        | Solve geometrical congruence problems using the relationship between parallel, perpendicular, and oblique lines.   |
| MA.GO.12.09                        | Solve problems using similarity and congruence (i.e. prove two triangles are congruent).   |
| <b>Measurement</b>                 |  |
| MA.MS.12.01                        | Use, compare, and convert between units in the metric and standard system for length, mass, area, volume and temperature.  |
| MA.MS.12.02                        | Calculate unknown dimensions of a geometric figure using indirect methods and formulas (i.e. Pythagorean theorem, alternate interior angles).                                      |

KENAI PENINSULA BOROUGH SCHOOL DISTRICT PERFORMANCE STANDARDS

| <b>Level 12</b>                   | <b>Middle/High School Mathematics ... <i>continued</i></b>  |
|-----------------------------------|---|
| Standard Number                   | Standard Description  |
| <b>Numeration</b>                 |   |
| MA.NM.12.01                       | Identify and classify subsets of the real number system as natural, whole, integer, rational, irrational, real, or imaginary.               |
| <b>Problem Solving</b>            |   |
| MA.PS.12.01                       | Applies practical skills in problems solving using typical business, consumer and real world problems                                       |
| MA.PS.12.02                       | Applies multi-step integrated mathematical problem solving strategies and verifies accuracy of solutions with alternative strategies        |
| MA.PS.12.03                       | Explain, justify and defend mathematical ideas, solutions and methods using multimedia presentations and appropriate visual aids.           |
| MA.PS.12.04                       | Recognizes and applies inductive and deductive reasoning.   |
| MA.PS.12.05                       | Explains the logic and reasoning of an argument.  |
| MA.PS.12.06                       | Maintain a math journal that expresses goals, successes, and areas for improvement and explains mathematical ideas, solutions, and methods. |
| <b>Statistics and Probability</b> |   |
| MA.SP.12.01                       | Compute the range, mean, median, mode, and standard deviation of a set of data and explore applications of each.                            |
| MA.SP.12.02                       | Analyze data from multiple events and predict theoretical probability.  |
| MA.SP.12.03                       | Make inferences based on available data and evaluate whether inferences are valid.  |
| MA.SP.12.04                       | Create and analyze graphical displays from collected data with and without technology.  |
| MA.SP.12.05                       | Identify central tendencies and describe various distribution patterns from a set of data.  |
| MA.SP.12.06                       | Design and conduct an experiment that compares both experimental and theoretical probability.   |
| MA.SP.12.07                       | Calculate probability of independent and compound events.   |
| MA.SP.12.08                       | Define and calculate problems using the fundamental counting principle, factorials, combinations and permutations.                          |

KENAI PENINSULA BOROUGH SCHOOL DISTRICT PERFORMANCE STANDARDS  
Secondary Reading

| <b>LEVEL 7 Language Arts: Reading</b> |  |
|---------------------------------------|--|
| Standard Number                       | Standard Description   |
| <b>Reading Strategies</b>             |  |
| RL.ST.07.01.02                        | Applies pre-reading strategies to the text (set a purpose, focus attention, predict using title, etc.).                |
| RL.ST.07.02.02                        | Makes connections from prior knowledge to the text.  |
| RL.ST.07.03.01                        | Demonstrates understanding of plot by sequencing events in chronological order from a given passage.                   |
| RL.ST.07.04.01                        | Identifies the main idea and supporting details while summarizing a text.  |
| RL.ST.07.05.01                        | Recognizes the importance of vocabulary, and uses context clues, and reference tools to identify the meaning of words. |
| RL.ST.07.06.01                        | Explains themes in a selection.  |
| RL.ST.07.07.01                        | Reads independently for a sustained period of time (20 to 30 minutes).   |
| RL.ST.07.08.01                        | Demonstrates visualization through retelling or drawing.   |
| RL.ST.07.09.01                        | Makes simple predictions based on the text in written or oral form   |
| <b>Reading Skills</b>                 |  |
| RL.RS.07.01.01                        | Demonstrates ability to distinguish between facts and opinions using details or evidence from the text.                |
| RL.RS.07.02.01                        | Demonstrates ability to follow simple instructions from text.  |
| <b>Reading Fluency</b>                |  |
| RL.FL.07.01.01                        | Demonstrates reading fluency including phonemic awareness and decoding skills.   |

KENAI PENINSULA BOROUGH SCHOOL DISTRICT PERFORMANCE STANDARDS  
Secondary Reading

| LEVEL 8                        | Language Arts: Reading  |
|--------------------------------|---|
| Standard Number                | Standard Description  |
| <b>Reading Accuracy</b>        |   |
| RS.RA.08.01.01                 | Demonstrates mastery of phonemic awareness and decoding skills.   |
| RS.RA.08.02.01                 | Uses context clues to identify meaning of words.  |
| <b>Reading Strategies</b>      |   |
| RS.RS.08.01.01                 | Applies pre-reading strategies to the text (set a purpose, focus attention, predict using title, etc.).   |
| RS.RS.08.02.01                 | Makes connections from prior knowledge to the text.   |
| RS.RS.08.03.01                 | During a retelling, includes properties of narrative text (characters, setting and problem/plot/conflict) in simple stories.  |
| RS.RS.08.04.01                 | Uses reference tools to locate and clarify meaning.   |
| <b>Reading Literary Skills</b> |   |
| RS.RL.08.01.01                 | Identifies main idea.   |
| RS.RL.08.02.01                 | Demonstrates ability to distinguish between facts and opinions.   |
| RS.RL.08.03.01                 | Analyzes the characteristics and the effect on the reader of non-fiction and the four structural genres: poetry, novel, drama, short story.   |
| RS.RL.08.04.01                 | Understands themes in a selection.  |
| RS.RL.08.05.01                 | Analyzes the use of literary devices appropriate to the genre (dialog, simile, metaphor, personification, foreshadowing, time sequence, imagery or repetition) to analyze literary works and non-fiction. |
| RS.RL.08.06.01                 | Compares and contrasts cultural events, ideas, settings, and influences in one story or text across other similar stories or texts in other cultures.   |
| <b>Reading Application</b>     |   |
| RS.AP.08.01.01                 | Demonstrates ability to follow simple instructions from text.   |
| RS.AP.08.02.01                 | Reads independently for a sustained period of time (20 to 30 minutes).  |
| RS.AP.08.03.01                 | Recognizes the importance of vocabulary in comprehension.   |
| <b>Reading Fluency</b>         |   |
| RS.FL.08.01.01                 | Understands and demonstrates what fluency is and why it is important for comprehension.   |

KENAI PENINSULA BOROUGH SCHOOL DISTRICT PERFORMANCE STANDARDS  
Secondary Reading

| LEVEL 9                        | Language Arts: Reading  |
|--------------------------------|---|
| Standard Number                | Standard Description  |
| <b>Reading Accuracy</b>        |   |
| RL.AC.0901.01                  | Identifies words using structural, syntactic, and semantic analysis in assessments(ways to read new words).   |
| RL.AC.0902.01                  | Demonstrates ability to understand antonym and synonyms.  |
| <b>Reading Strategies</b>      |   |
| RL.RS.09.01.01                 | Uses self-monitoring and self-correcting to clear up confusing parts of a text (rereads the text, consults another source, asks for help, scans and skims). |
| RL.RS.09.02.01                 | Demonstrates expanding skill of visualization.  |
| RL.RS.09.03.01                 | Explains connections among main ideas/concepts (text to self, text to text, text to world).   |
| RL.RS.09.04.01                 | Draws conclusions by making inferences (predicting).  |
| RL.RS.09.05.01                 | Demonstrates the ability to respond to a story, article, etc. (gives an opinion about or asks questions about a text through annotation/discussion).        |
| RL.RS.09.06.01                 | While reading, consults resources and uses graphic organizers.  |
| RL.RS.09.07.01                 | Able to sequence events in chronological order in a given passage.  |
| <b>Reading Literary Skills</b> |   |
| RL.LS.09.01.01                 | Compares/contrasts the main ideas between related texts.  |
| RL.LS.09.02.01                 | States an author's purpose and audience.  |
| RL.LS.09.03.01                 | Recognizes rhythm, rhyme, alliteration, assonance and onomatopoeia.   |
| RL.LS.09.04.01                 | Analyzes and evaluates themes across a variety of selections (one theme throughout Young Adult literature).   |
| RL.LS.09.05.01                 | Analyzes the effects of historical or cultural influences/events on texts.  |
| RL.LS.09.06.01                 | Recognizes literary devices ie. simile, metaphor personification, idioms, foreshadowing,  |
| RL.LS.09.07.01                 | Summarizes information or ideas from text orally or in written form.  |
| RL.LS.09.08.01                 | Identifies narrative components (plot line)   |
| <b>Reading Application</b>     |   |
| RL.AP.09.01.01                 | Reads independently for a sustained period of time.   |
| RL.AP.09.02.01                 | Recognizes the importance of vocabulary when building comprehension (definition, part of speech, synonyms, antonyms in sentence use)                        |
| RL.AP.09.03.01                 | Demonstrates ability to follow multiple instructions from a text or other printed technical material.   |
| <b>Reading Fluency</b>         |   |
| RL.FL.09.01.01                 | Demonstrates fluency skills (pausing, phrasing, appropriate emphasis and intonation and expression).  |

KENAI PENINSULA BOROUGH SCHOOL DISTRICT PERFORMANCE STANDARDS  
Secondary Reading

| <b>LEVEL 10 Language Arts: Reading</b> |   |
|--|---|
| Standard Number                        | Standard Description  |
| <b>Reading Accuracy</b>                |   |
| RL.AC.10.01.01                         | Utilizes structural, syntactic and semantic analysis to make meaning in text in assessments (root words, prefixes and suffixes).                  |
| RL.AC.10.02.01                         | Demonstrates automatic decoding skills when reading unfamiliar words.   |
| <b>Reading Strategies</b>              |   |
| RL.RS.10.01.01                         | Uses self-monitoring and self-correcting to clear up confusing parts of a text (rereads the text, consults another source, asks for help).        |
| RL.RS.10.02.01                         | Demonstrates ability to draw conclusions using inference, and predictions.  |
| RL.RS.10.03.01                         | Responds to literature through visualization, discussion, writing, drawing, story telling and/or performance.                                     |
| RL.RS.10.04.01                         | Analyzes reading strategies to visualize, connect and question.   |
| <b>Reading Literary Skills</b>         |   |
| RL.LS.10.01.01                         | Understands literary tools simile/metaphor, idioms and personification.   |
| RL.LS.10.02.01                         | Compares/ contrasts author's story components (Characters, setting, theme/moral, rising action, climax and resolution) within any given story.    |
| RL.LS.10.03.01                         | Analyzes the characteristics and the effect on the reader of non-fiction and the four major structural genres: poetry, drama, novel, short story. |
| RL.LS.10.04.01                         | Locates evidence in text and from related experiences to support understanding of theme.  |
| RL.LS.10.05.01                         | Uses text evidence to identify bias and propaganda and analyze author's purpose.  |
| <b>Reading Application</b>             |   |
| RL.AP.10.01.01                         | Summarizes information or ideas from text orally as well as in written form.  |
| RL.AP.10.02.01                         | Demonstrates ability to follow complex instructions from a text or other printed technical material.  |
| RL.AP.10.03.01                         | Reads independently for a variety of purposes exploring new genres (biographies, folk tales, mythology, etc.).                                    |
| RL.AP.10.04.01                         | Builds comprehension with vocabulary.   |
| RL.AP.10.05.01                         | Connects and identifies cultural influences/events in literature.   |
| <b>Reading Fluency</b>                 |   |
| RL.FL.10.01.01                         | Reads and performs poetry or plays.   |

KENAI PENINSULA BOROUGH SCHOOL DISTRICT PERFORMANCE STANDARDS  
Secondary Reading

| <b>LEVEL 11 Language Arts: Reading</b> |   |
|--|---|
| Standard Number                        | Standard Description  |
| <b>Reading Accuracy</b>                |   |
| RL.AC.11.01.01                         | Shows understanding of Latin and Greek root words (ject = to throw) and is able to apply this to determine meaning.   |
| RL.AC.11.02.01                         | Demonstrates and utilizes vocabulary to understand complex analogies (villain:hero::protagonist:___).   |
| <b>Reading Strategies</b>              |   |
| RL.RS.11.01.01                         | Connects literature to another situation.   |
| RL.RS.11.02.01                         | Uses a variety of reference materials for clarifying meaning.   |
| <b>Reading Literary Skills</b>         |   |
| RL.LS.11.01.01                         | Understands the author's craft (ie.point of view, mood, purpose, audience, plot, setting, theme, tone and perspective).   |
| RL.LS.11.02.01                         | Evaluates the intended effects of the author's use of conventions and techniques of genres on the reader (ie use of irony, hyperbolic statements, rich imagery, symbolism, etc.). |
| <b>Reading Application</b>             |   |
| RL.AP.11.01.01                         | Summarizes information or ideas from a text using an outline format.  |
| RL.AP.11.02.01                         | Demonstrates proficiency in reading technical writings (computer program, technical manual, etc.).  |
| RL.AP.11.03.01                         | Responds to literature by making and supporting assertions with evidence from texts.  |
| RL.AP.11.04.01                         | Self-directs reading to gain knowledge and to understand relevant issues.   |
| RL.AP.11.05.01                         | Builds comprehension with vocabulary.   |
| RL.AP.11.06.01                         | Recognizes and reads various types of literature including fiction (modern & historical), poetry, drama and informative essays.   |
| RL.AP.11.07.01                         | Discerns between relevant and irrelevant evidence supporting a theme or main idea.  |
| RL.AP.11.08.01                         | Connects and identifies cultural influences/events in literature.   |
| RL.AP.11.09.01                         | Compares/contrasts the main ideas or concepts as well as literary elements between related texts and cultural texts,  |
| <b>Reading Fluency</b>                 |   |
| RL.FL.11.01.01                         | Reads and performs poetry, plays and short stories orally with appropriate expression.  |

KENAI PENINSULA BOROUGH SCHOOL DISTRICT PERFORMANCE STANDARDS  
Secondary Reading

| <b>LEVEL 12      Language Arts: Reading</b> |  |
|---|--|
| Standard Number                             | Standard Description   |
| <b>Reading Accuracy</b>                     |  |
| RL.AC.12.01.01                              | Demonstrates/utilizes root words, prefixes and suffixes and other language influences and is able to apply this to determine meaning.          |
| RL.AC.12.02.01                              | Understands and applies complex analogies (Mean:Average as Mode:Most)  |
| <b>Reading Skills</b>                       |  |
| RL.RS.12.01.01                              | Analyzes an author's purpose and style.  |
| RL.RS.12.02.01                              | Analyzes a variety of literary genres (short stories, dramas, novels, and poems) and the use of specific literary techniques.                  |
| <b>Reading Application</b>                  |  |
| RL.AP.12.01.01                              | Extends and utilizes reading strategies to include complex connections, questions, predictions, inferences.                                    |
| RL.AP.12.02.01                              | Rephrases and summarizes text (paraphrase).  |
| RL.AP.12.03.01                              | Self-directs reading across all genres to gain knowledge and enjoyment.  |
| RL.AP.12.04.01                              | Recognizes the importance of vocabulary when building comprehension.   |
| RL.AP.12.05.01                              | Follows multitask instructions from a technical manual successfully.   |
| RL.AP.12.06.01                              | Creates a visual representation to teach more complex literary components  |
| RL.AP.12.07.01                              | Analyzes and evaluates themes across a variety of selections.  |
| RL.AP.12.08.01                              | Compares and contrasts stories and expository texts from the perspective, attitudes, and values of the time period in which they were written. |
| <b>Reading Fluency</b>                      |  |
| RL.FL.12.01.01                              | Presents stories and plays for entertainment.  |

KENAI PENINSULA BOROUGH SCHOOL DISTRICT PERFORMANCE STANDARDS  
Secondary Reading

| <b>LEVEL 13      Language Arts: Reading</b> |   |
|---|---|
| Standard Number                             | Standard Description  |
| <b>Reading Application</b>                  |   |
| RL.AP.13.01.01                              | Demonstrates response to literature (e.g., point of view).  |
| RL.AP.13.02.01                              | Interprets longer, more complex passages in text — both fiction and nonfiction.   |
| RL.AP.13.03.01                              | Recognizes the importance of vocabulary when building comprehension.  |
| RL.AP.13.04.01                              | Reads and applies multi-step directions to perform complex procedures and tasks.  |
| RL.AP.13.05.01                              | Identifies in-depth elements of narrative and expository texts in outline or graph form.  |
| RL.AP.13.06.01                              | Organizes literary themes across different societies and eras.  |
| RL.AP.13.07.01                              | Determines figurative, idiomatic, and technical meaning of terms through context.   |
| RL.AP.13.08.01                              | Critiques the power, logic, reasonableness, and audience appeal of arguments advanced in public documents (editorials).           |
| RL.AP.13.09.01                              | Identifies specific devices an author is using to persuade readers.   |
| RL.AP.13.10.01                              | Creates a student reader's response portfolio using self-directed and assigned reading that demonstrates met cognitive awareness. |
| <b>Reading Fluency</b>                      |   |
| RL.FL.13.01.01                              | Performs for an audience while teaching a genre of choice (non-fiction, poetry, play, short stories).                             |

KPBSD Secondary Performance Based Career Curriculum

**Level 6 Career and Content Literacy**

| Performance Standards | Standard Description   | <b>Advanced</b>   |
|-----------------------|--|---|
| CR.06.LT.01.02        | Leads a class or the school in a community service activity.                   | Teaches others to: •Lead a community service project for the class or school that demonstrate empathy and respect for diverse cultures.   |
| CR.06.LT.02.02        | Demonstrates knowledge of motivational elements for people in different roles. | Teaches others how to - Research and cite sources on ways that motivate people in various roles. - Use several ways to motivate others when in a leadership role.   |
| CR.06.LT.03.02        | Serves on the Academic Review Team.  | Teaches others how to: Participate actively on the academic review team for a month or more. - Demonstrate humility, compassion, respect, and teamwork with other members and those going before the review team. - Collaborate with peers and staff for fair consequences and solutions. |

KPBSD Secondary Performance Based Career Curriculum

|                       |  |  |
|-----------------------|--|--|
| <p>CR.06.LT.04.02</p> | <p>Mentors another student to practice workplace skills.</p>                             | <p>Teaches others how to: - Mentor another student, using findings from Careers Interest Survey, to develop a plan with another student to help them build workplace skills (i.e., accepting advice, supervision, discrimination and harassment, safety, equality, transferable skills). - Mentor another student to evaluate effectiveness of plan after two weeks and develop two or more ways to improve.</p> |
| <p>CR.06.LT.05.02</p> | <p>Mentors another student to create and complete an Individual Learning Plan (ILP).</p> | <p>Teaches others how to mentor students in completing ILP's as outlined in "proficient."</p>  |
| <p>CR.06.LT.06.02</p> | <p>Creates a business plan.</p>  | <p>Teaches others how to: - Create a business plan with perfect grammar, punctuation, spelling that effectively communicates the goals of the business. - Use Core Values and Concepts as outlined in "proficient."</p>  |

KPBSD Secondary Performance Based Career Curriculum

|                |   |  |
|----------------|---|--|
| CR.06.LT.07.02 | Refines Portfolio for web-based presentation.   | Teaches others how to update and organize (including grades, special activities, resume, awards, and certificates) and present Portfolio to an appropriate audience using the oral scoring rubric.   |
| CR.06.LT.08.02 | Completes choices for on-line options towards continued learning.                               | Teaches others how to: - Enroll and complete an on-line course. - Reflect on their strengths and weaknesses of on-line learning and potential uses in the future.  |
| CR.06.LT.09.02 | Performs in an office of leadership at KPBSD School (Student Government, Academic Review, etc.) | Teaches others how to - Practice leadership traits that include personal stretch goals when performing in an office of leadership at KPBSD School (student government, yearbook, academic review, CORE court, etc.). - Reflect on strategies for improvement.  |
| CR.06.LT.10.02 | Demonstrates mastery of the process of credit, loans, and debt reduction.                       | Teaches others how to present - Present on dangers and benefits of: - Credit card debt - Loans (personal, car, house, other) - Create personal plan for financial security (living within a real budget, plans for the future, realistic goals and ways to achieve them). - Complete a loan application (real or simulated). |

KPBSD Secondary Performance Based Career Curriculum

| Proficient   | Developing   |
|--|--|
| <p>Leads a community service project for the class or school that demonstrate empathy and respect for diverse cultures. •Project includes an action plan that delegates specific tasks with timelines using the talents of group members. •Leadership style demonstrates traits of effective leaders, respecting input and criticism from others with humility and thoughtfulness.</p> | <p>Leads a community service project for the class or school that demonstrate empathy and respect for diverse cultures.</p>  |
| <p>Using research and citing sources, presents at least five specific ways that people are motivated in various roles. Uses several ways to motivate others when in a leadership role. with timelines using the talents of group members. •Leadership style demonstrates traits of effective leaders, respecting input and criticism from others with humility and thoughtfulness.</p> | <p>Using research and citing sources, presents specific ways that people are motivated in various roles. - Creates several ways to motivate others when in a leadership role.</p>  |
| <p>Participates actively on the academic review team for a month or more. - Demonstrates humility, compassion, respect, and teamwork with other members and those going before the review team. - Collaborates with peers and staff for fair consequences and solutions.</p>   | <p>Participates actively on the academic review team for a month or more. - Demonstrates humility, compassion and respect towards those going before the review team. - Collaborates with peers and staff for fair consequences and solutions.</p> |

|   |   |
|---|---|
| <p>Using findings from Careers Interest Survey, develops a plan with another student to help them build skills for the workplace (i.e., accepting advice, supervision, discrimination and harassment, safety, equality, transferable skills). - Evaluates effectiveness of plan after two weeks and develops two or more ways to improve.</p>   | <p>Using findings from Careers Interest Survey, develops a plan with another student to help them build workplace skills (i.e., accepting advice, supervision, discrimination and harassment, safety, equality, transferable skills).</p> |
| <p>Mentors at least one other student to create an Individual Learning Plan (ILP), looking up their standards they still need to complete and developing a plan that includes: - Specific deadlines with work broken into pieces no more than a couple days for each piece. - Goals that are reasonable. - Signatures from all responsible parties (student, teacher, advisor, parent) - Assistance carrying out the plan and completing with success. - Reflection on what went well and what they would do differently in the future.</p> | <p>Mentors at least one other student to develop and complete an ILP.</p>   |
| <p>Creates a business plan with perfect grammar, punctuation, spelling that effectively communicates the goals of the business. - Uses Core Values and Concepts: (i.e., Baldrige) _ visionary leadership _ customer-driven excellence _ organizational and personal learning _ valuing employees and partners _ agility _ focus on the future _ managing for innovation _ management by fact _ social responsibility _ focus on results and creating value _ systems perspective</p>  | <p>Creates a business plan with perfect grammar, punctuation, spelling that effectively communicates the goals of the business.</p>   |

KPBSD Secondary Performance Based Career Curriculum

|  |  |
|--|--|
| <p>Receives constructive feedback from business partner on Portfolio. - Edits on-line Portfolio for presentation to include grades, special activities, resume, awards, and certificates. - Presents Portfolio to an appropriate audience using the oral scoring rubric.</p>                           | <p>Edits and presents Portfolio to an appropriate audience.</p>  |
| <p>Enrolls and completes an on-line course. - Reflection includes strengths and weaknesses of on-line learning and potential uses in the future.</p>   | <p>Enrolls in an on-line course. - Reflection includes strengths and weaknesses of on-line learning and potential uses in the future.</p>  |
| <p>Practices leadership traits that include personal stretch goals when performing in an office of leadership at KPBSD School (student government, yearbook, academic review, CORE court, etc.). - Reflects on strategies for improvement.</p>   | <p>Practices leadership traits when performing in an office of leadership at KPBSD School (student government, yearbook, academic review, CORE court, etc.). - Reflects on strategies for improvement.</p> |
| <p>Presents on dangers and benefits of: - Credit card debt - Loans (personal, car, house, other) - Creates personal plan for financial security (living within a real budget, plans for the future, realistic goals and ways to achieve them). - Completes a loan application (real or simulated).</p> | <p>Presents on dangers and benefits of: - Credit card debt - Loans (personal, car, house, other) - Creates personal plan for financial security.</p>   |

| <b>Emerging</b>   |
|---|
| Helps plan and conduct a community service project for the class or school that demonstrate empathy and respect for diverse cultures. |
| Investigates specific ways that people are motivated in various roles.  |
| Participates actively on the academic review team for a month or more.  |

Develops a plan with another student to help them build workplace skills (i.e., accepting advice, supervision, discrimination and harassment, safety, equality, transferable skills).

Mentors at least one other student to write an ILP.

Creates a business plan that communicates the goals of the business.

Revises Portfolio.

Explores on-line courses.

Participates in an office of leadership at KPBSD School (student government, yearbook, academic review, CORE court, etc.).

Understands some of the dangers and benefits of credit card debt and loans.