

PRO-Core Grade 2 Mathematics Standards

Operations and Algebraic Thinking [OAT]

- 1 [1] Use addition and subtraction within 100 to solve one- and two-step word problems.
- 2 [2] Fluently add and subtract within 20 using mental strategies.
- 3 [3] Determine whether a group of objects (up to 20) has an odd or even number of members.
- 4 [4] Use addition to find the total number of objects arranged in rectangular arrays with up to 5 rows and up to 5 columns.

Number and Operations in Base Ten [NBT]

- 5 [1-2] Understand that the three digits of a three-digit number represent amounts of hundreds, tens, and ones. Count forward and backward within 1,000 by ones, tens, and hundreds, starting at any number; skip count by 5s starting at any multiple of 5.
- 6 [3] Read and write numbers to 1000 using base-ten numerals, number names, expanded form, and equivalent representations.
- 7 [4] Compare two three-digit numbers based on meanings of the hundreds, tens, and ones digits, using $>$, $=$, and $<$ symbols.
- 8 [5] Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.
- 9 [6] Add up to four two-digit numbers using strategies based on place value and properties of operations.
- 10 [7~9] Add and subtract within 1000, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. Explain why addition and subtraction strategies work.
- 11 [8] Mentally add 10 or 100 to a given number 100–900, and mentally subtract 10 or 100 from a given number 100–900.

Measurement and Data [MDA]

- 12 [1-2] Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes. Describe how measurements relate to the size of the unit chosen.
- 13 [3] Estimate lengths using units of inches, feet, centimeters, and meters.
- 14 [4] Measure to determine how much longer one object is than another, expressing the length difference in terms of a standard length unit.
- 15 [5] Use addition and subtraction within 100 to solve word problems involving lengths that are given in the same units.
- 16 [6] Represent whole numbers as lengths from 0 on a number line diagram with equally spaced points corresponding to the numbers 0, 1, 2, ..., and represent whole number sums and differences within 100.
- 17 [7] Tell and write time from analog and digital clocks to the nearest five minutes, using a.m. and p.m.
- 18 [8] Find the value of a collection of quarters, dimes, nickels, and pennies. Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies, using \$ and ¢ symbols appropriately.

- 19 [9] Generate measurement data by measuring lengths of several objects to the nearest whole unit, or by making repeated measurements of the same object. Show the measurements by creating a line plot.
- 20 [10] Complete picture graphs and bar graphs to represent a data set with up to four categories. Solve simple put together, take apart and compare problems using data in the graph.

Geometry [GEO]

- 21 [1] Recognize and identify triangles, quadrilaterals, pentagons, and hexagons based on the number of sides or vertices. Recognize and identify cubes, rectangular prisms, cones, and cylinders.
- 22 [2-3] Partition a rectangle into rows and columns of same-size squares and count to find the total number of them. Partition circles and rectangles into two, three, or four equal shares, describe the shares using the words halves, thirds, fourths, or quarters. Describe the whole as two halves, three thirds, or four fourths in realworld contexts.

PRO-Core Grade 3 Mathematics Standards

Operations and Algebraic Thinking [OAT]

- 1 [1] Interpret products of whole numbers.
- 2 [2] Interpret whole-number quotients of whole numbers.
- 3 [3] Use multiplication and division with 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities.
- 4 [4] Determine the unknown whole number in a multiplication or division equation relating three whole numbers.
- 5 [5] Apply properties of operations as strategies to multiply and divide.
- 6 [6] Understand division as an unknown-factor problem.
- 7 [7] Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division or properties of operations.
- 8 [8] Solve two-step word problems using the four operations. Represent these problems using a letter or symbol for the unknown. Assess the reasonableness of answers using mental computation and estimation strategies.
- 9 [9] Identify arithmetic patterns and explain them using properties of operations.

Number and Operations in Base Ten [NBT]

- 10 [1] Use place value understanding to round whole numbers to the nearest 10 or 100.
- 11 [2] Fluently add and subtract within 1000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction.
- 12 [3] Multiply one-digit whole numbers by multiples of 10 in the range 10–90 using strategies based on place value and properties of operations.

Number and Operations—Fractions [NFR]

- 13 [1] Understand a fraction $\frac{1}{b}$ as the quantity formed by 1 part when a whole is partitioned into b equal parts; understand a fraction $\frac{a}{b}$ as the quantity formed by a parts of size $\frac{1}{b}$.
- 14 [2] Understand a fraction as a number on the number line; represent fractions on a number line diagram.
- 15 [3] Explain equivalence of fractions in special cases, and compare fractions by reasoning about their size; use the symbols $>$, $=$, or $<$.

Measurement and Data [MDA]

- 16 [1] Tell and write time to the nearest minute and measure time intervals in minutes. Solve word problems involving addition and subtraction of time intervals in minutes. Solve word problems by adding and subtracting dollars with dollars and cents with cents.
- 17 [2] Measure and estimate liquid volumes and masses of objects using standard units of grams (g), kilograms (kg), and liters (l); solve one-step word problems.
- 18 [3] Create a scaled picture graph and a scaled bar graph to represent a data set with several categories; solve one- and two-step problems using information presented in scaled pictures and scaled bar graphs.
- 19 [4] Generate measurement data by measuring lengths using rulers marked with halves and fourths of an inch; show the data by creating a line plot.

- 20 [5-6] Recognize area as an attribute of plane figures and understand concepts of area measurement. Measure areas by counting unit squares (square cm, square m, square in, square ft, and improvised units).
- 21 [7] Relate area to the operations of multiplication and addition. Solve mathematical and real world problems by finding the areas of rectangles and figures composed of rectangles.
- 22 [8] Solve real world and mathematical problems involving perimeters of polygons.

Geometry [GEO]

- 23 [1] Draw and describe triangles, quadrilaterals (rhombuses, rectangles, and squares), and polygons (up to 8 sides) based on the number of sides and the presence or absence of square corners (right angles).
- 24 [2] Partition shapes into parts with equal areas; express the area of each part as a unit fraction of the whole.

PRO-Core Grade 4 Mathematics Standards

Operations and Algebraic Thinking [OAT]

- 1 [1] Interpret a multiplication equation as a comparison.
- 2 [2] Multiply or divide to solve word problems involving multiplicative comparison by using drawings and equations with a symbol for the unknown number.
- 3 [3] Solve multistep word problems using the four operations and a letter variable; assessing the reasonableness of answers by using estimation strategies including rounding.
- 4 [4] When given a whole number in the range 1-100, find all factor pairs, or determine whether the number is a multiple, prime or composite.
- 5 [5] Generate a number or shape pattern that follows a given rule and identify features of the pattern that were not explicit in the rule itself.

Number and Operations in Base Ten [NBT]

- 6 [1-2] Recognize in a multi-digit whole number, a digit in one place represents ten times what it represents in the place to its right; read and write multi-digit numbers standard form, word form, and expanded form; compare two multi-digit numbers using $>$, $=$, and $<$.
- 7 [3] Use place value understanding to round multi-digit whole numbers to any place.
- 8 [4] Fluently add and subtract multi-digit whole numbers using a standard algorithm.
- 9 [5] Multiply a whole number of up to four digits by a one digit whole number and multiply two digit numbers. Illustrate and explain by using equations, rectangular arrays, and/or area models.
- 10 [6] Find whole-number quotients and remainders with up to 4 digit dividends and one-digit divisors. Illustrate and explain by using equations, rectangular arrays, and/or area models.

Number and Operations—Fractions [NFR]

- 11 [1-2] Explain why a fraction a/b is equivalent to a fraction by using fraction models; recognize and generate equivalent fractions; compare two fractions with different numerators and denominators using $>$, $=$, $<$ or visual models.
- 12 [3] Understand a fraction a/b with $a > 1$ as a sum of fractions $1/b$; add and subtract fractions and mixed numbers with like denominators in equations and story problems.
- 13 [4] Apply and extend previous understandings of multiplication to multiply a fraction by a whole number in equations and story problems.
- 14 [5] Express a fraction with denominator 10 as an equivalent fraction with denominator 100 and use this technique to be able to add the fractions.
- 15 [6-7] Use decimal notation for fractions with denominators 10 or 100; compare two decimals to hundredths using $>$, $=$, $<$ or visual models.

Measurement and Data [MDA]

- 16 [1] Know relative sizes of metric measurement units; express measurements in a larger unit in terms of a smaller unit; record in a two-column table.
- 17 [2] Use the four operations to solve word problems involving distances, intervals of time, liquid volumes, masses of objects, and money.

- 18 [3] Develop efficient strategies to determine the area and perimeter of rectangles in real world and mathematical problems.
- 19 [4] Display and interpret data in graphs (picture graphs, bar graphs and line plots) to solve problems.
- 20 [5] Recognize angles as geometric shapes, and understand concepts of angle measurement.
- 21 [6] Measure angles using a protractor. Sketch angles of specific measure.
- 22 [7] Recognize angle measure as additive; use this knowledge to find the measure of unknown angles.

Geometry [GEO]

- 23 [1] Draw points, lines, line segments, rays, angles, and perpendicular and parallel lines. Identify these in two-dimensional figures.
- 24 [2] Classify two-dimensional figures based on the presence or absence of parallel or perpendicular lines or the presence or absence of angles of a specified size.

PRO-Core Grade 5 Mathematics Standards

Operations and Algebraic Thinking [OAT]

- 1 [1] Use parentheses in numerical expressions, and evaluate expressions with this symbol.
- 2 [2] Write and interpret (without evaluating) simple expressions that record calculations with numbers.
- 3 [3] Generate two numerical patterns using two given rules. Identify corresponding relationships, form ordered pairs, and graph on a coordinate plane.

Number and Operations in Base Ten [NBT]

- 4 [1] Recognize in a multi-digit number, a digit in one place represents ten times as much as it represents in the place to its right and $\frac{1}{10}$ of what it represents in its place to its left.
- 5 [2] When multiplying or dividing by powers of ten, explain patterns of zeros or the placement of a decimal point. Use whole-number exponents to denote powers of 10.
- 6 [3] Read, write, and compare decimals to thousandths.
- 7 [4] Use place value understanding to round decimals to any place, millions through hundredths.
- 8 [5] Fluently multiply multi-digit whole numbers using a standard algorithm.
- 9 [6] Find whole number quotients of whole numbers with up to four-digit dividends and two digit divisors; illustrate and explain using equations, arrays, and/or models.
- 10 [7] Add and subtract decimals, including decimals and whole numbers. Multiply whole numbers by decimals. Divide whole numbers by decimals and decimal by whole numbers.

Number and Operations—Fractions [NFR]

- 11 [1] Add and subtract fractions with unlike denominators (including mixed fractions).
- 12 [2] Solve word problems involving addition and subtraction of fractions referring to the same whole, including cases of unlike denominators.
- 13 [3] Interpret a fraction as division of the numerator by the denominator. Solve word problems with the division of whole numbers resulting in an answer of a fraction or whole number.
- 14 [4] Apply and extend previous understandings of multiplication to multiply a fraction or whole number by a fraction. Interpret products of fractions and/or be able to display such products in arrays.
- 15 [5] Interpret multiplication of fractions as scaling (resizing).
- 16 [6] Solve real world problems involving multiplication of fractions and mixed numbers using models or equations.
- 17 [7] Apply and extend previous understandings of division to divide unit fractions by whole numbers and whole numbers by unit fractions.

Measurement and Data [MDA]

- 18 [1] Know relative sizes of U.S. customary measurement unit and convert between in solving multi-step, real-world problems.
- 19 [2] Display and interpret data in graphs to solve problems, including those with US. customary units in fractions or decimals.

- 20 [3-4] Recognize volume as an attribute of solid figures and understand concepts of volume measurement. Measure volumes by counting unit cubes, using cubic cm, in, ft, and improvised units.
- 21 [5] Relate volume to the operations of multiplication and addition and solve problems involving volume.

Geometry [GEO]

- 22 [1] Use axes to define a coordinate system, understand the parts of a coordinate system and the process involved in locating and representing ordered pairs.
- 23 [2] Represent real world and mathematical problems by graphing points in the first quadrant of the coordinate plane, and interpret coordinate values of points in the context of the situation.
- 24 [3-4] Identify and describe commonalities and differences between types of triangles based on angle measures and side lengths. Identify and describe commonalities and differences between types of quadrilaterals based on angle measures, side lengths, and the presence or absence of parallel and perpendicular lines.



PRO-Core Grade 6 Mathematics Standards

Ratios and Proportional Relationships [RPR]

- 1 [1] Understand the concept of a ratio and use language to describe a ratio relationship between two quantities.
- 2 [2] Understand the concept of a unit rate associated with a ratio (limited to non-complex fractions).
- 3 [3] Use ratio and rate reasoning to solve real-world and mathematical problems.

The Number System [NSY]

- 4 [1] Interpret and compute quotients of fractions and solve word problems involving division of fractions by fractions.
- 5 [2] Fluently divide multi-digit numbers using the standard algorithm.
- 6 [3] Fluently add, subtract, multiply, and divide multi-digit decimals using standard algorithms.
- 7 [4] Find the GCF of two numbers = 100 and the LCM of two numbers = 12. Use the distributive property to express a sum of two whole numbers with a common factor.
- 8 [5-6] Understand a rational number as a point on a number line. Extend number lines and coordinates to include negative numbers; understanding that used together positive and negative numbers describe quantities having opposite directions or values.
- 9 [7] Understand ordering and absolute value of rational numbers.
- 10 [8] Solve real-world and mathematical problems by graphing points in all four quadrants of the coordinate plane; using absolute value to find distances between points with the same first or second coordinate.

Expressions and Equations [EEQ]

- 11 [1-2] Write and evaluate expressions involving exponents. Write, read, and evaluate expressions in which letters stand for numbers.
- 12 [3-4] Apply properties of operations to generate equivalent expressions. Identify when two equations are equivalent.
- 13 [5] Use substitution to determine whether a given number in a specified set makes an equation or inequality true.
- 14 [6] Use variables to represent numbers and write expressions; understand that a variable can represent an unknown number.
- 15 [7] Solve real-world and mathematical problems by writing and solving equations.
- 16 [8] Write inequalities to represent a constraint or condition. Recognize inequalities have infinitely many solutions; represent solutions of inequalities on number line diagrams.
- 17 [9] Use variables to represent two quantities that change in relationship to one another. Analyze the relationship between the two using graphs and tables, and relate these to the equation.

Geometry [GEO]

- 18 [1] Find the area of triangles, quadrilaterals, and polygons by composing into rectangles or decomposing into triangles and other shapes.

- 19 [2] Find the volume of a rectangular prism with fractional edge lengths by packing it with unit cubes. Apply the formulas $V=lwh$ and $V=bh$ to find volumes of right rectangular prisms with fractional edge lengths.
- 20 [3] Draw polygons in the coordinate plane given coordinates for the vertices.
- 21 [4] Represent 3D figures using nets made of rectangles and triangles, and use the nets to find the surface area of these figures. Apply techniques to real-world and mathematical problems.

Statistics and Probability [SPR]

- 22 [1-2] Recognize a statistical question anticipates variability in the data related to the question. Understand that a set of data collected to answer a statistical question has a distribution which can be described by its center, spread, and overall shape.
- 23 [3] Recognize the difference between a measure of center and a measure of variation.
- 24 [4] Display numerical data in plots on a number line, including dot plots, histograms, and box plots.
- 25 [5] Summarize numerical data sets in relation to their context.

PRO-Core Grade 7 Mathematics Standards

Ratios and Proportional Relationships [RPR]

- 1 [1] Compute unit rates associated with ratios of fractions, including lengths, areas and other quantities measured in like or different units.
- 2 [2] Recognize and represent proportional relationships between quantities; identify constant of proportionality; represent with equations; explain (x,y) in the graph of a proportional relationship.
- 3 [3] Use proportional relationships to solve multistep ratio and percent problems.

The Number System [NSY]

- 4 [1] Apply and extend previous understandings of addition and subtraction to add and subtract rational numbers; represent addition and subtraction on a horizontal or vertical number line diagram.
- 5 [2] Apply and extend previous understandings of multiplication and division and of fractions to multiply and divide rational numbers; change fraction to decimal using long division.
- 6 [3] Solve real-world and mathematical problems involving the four operations with rational numbers.

Expressions and Equations [EEQ]

- 7 [1] Apply properties of operations as strategies to add, subtract, factor, and expand linear expressions with rational coefficients.
- 8 [2] In a problem context, understand that rewriting an expression in different forms can shed light on the problem and how the quantities in it are related.
- 9 [3] Solve multi-step real-life and mathematical problems posed with positive and negative rational numbers in any form; convert between forms as appropriate; assess reasonableness of answers using mental computation and estimation.
- 10 [4] Use variables to represent quantities in a real-world or mathematical problem; construct and solve simple equations and inequalities to solve problems by reasoning about the quantities.

Geometry [GEO]

- 11 [1] Solve problems involving similar figures and scale drawings. Represent proportional relationships within and between similar figures.
- 12 [2] Draw (freehand, ruler and protractor, technology) geometric shapes with given conditions. Focus on constructing triangles and quadrilaterals with given conditions and determining how the conditions affect the number and types of figures that can be created.
- 13 [3] Describe the two-dimensional figures that result from slicing three-dimensional figures.
- 14 [4] Understand the relationships among the circumference, diameter, area, and radius of a circle. Know the formulas for and solve problems using the area and circumference of a circle.
- 15 [5] Use facts about supplementary, complementary, vertical, and adjacent angles in a multistep problem to write and solve simple equations for an unknown angle in a figure.

- 16 [6] Solve real-world and mathematical problems involving area, volume, surface area of two- and three-dimensional objects made of triangles, quadrilaterals, polygons, cubes, and right prisms.

Statistics and Probability [SPR]

- 17 [1] Understand that statistics are used to gain information about a population by examining a sample of the population. Differentiate between a sample and a population and understand that generalizations from a sample are valid only if the sample is representative of that population.
- 18 [2] Broaden statistical reasoning by using the GAISE model: formulate questions, collect data, analyze data, and interpret results.
- 19 [3] Summarize quantitative data sets in relation to their context by using mean absolute deviation. Informally assess the degree of visual overlap of two numerical data distributions by expressing it as a multiple of a measure of variability.
- 20 [5] Understand that the probability of a chance event is a number between 0 and 1 that expresses the likelihood of the event occurring.
- 21 [6] Approximate the probability of a chance event by collecting data on the chance process that produces it; predict the approximate relative frequency given the probability.
- 22 [7] Develop a probability model and use it to find probabilities of events. Compare probabilities from a model to observed frequencies; explain possible sources of discrepancy.
- 23 [8] Find probabilities of compound events using organized lists, tables, tree diagrams, and simulation.

PRO-Core Grade 8 Mathematics Standards

The Number System [NSI]

- 1 [1] Know that real numbers are either rational or irrational. Understand that every number has a decimal expansion which is repeating, terminating, or is non-repeating and non-terminating.
- 2 [2] Use rational approximations of irrational numbers to compare irrational numbers, locate them approximately on a number line diagram, and estimate the value of expressions.

Expressions and Equations [EEQ]

- 3 [1] Understand, explain and apply the properties of integer exponents to generate equivalent numerical expressions.
- 4 [2] Use square root and cube root symbols to represent solutions to equations ($x^2 = p$; $x^3 = p$). Evaluate roots of small perfect squares and cubes. Know that $\sqrt{2}$ is irrational.
- 5 [3] Use numbers in the form of a single digit times an integer power of 10 to estimate very large or small quantities; express how many times as much one is than the other.
- 6 [4] Use and perform operations with numbers expressed in scientific notation, including problems using both decimal and scientific notation.
- 7 [5] Graph proportional relationships, interpreting the unit rate as the slope of the graph. Compare two different proportional relationships represented in different ways.
- 8 [6] Use similar triangles to explain why the slope m is the same between any two distinct points on a non-vertical line; derive the equations $y = mx$ and $y = mx + b$.
- 9 [7] Solve linear equations in one variable, including those with 0, 1 or infinitely many solutions, rational coefficients, and requiring distributive property and collecting like terms.
- 10 [8] Analyze and solve pairs of simultaneous linear equations graphically; solve real world problems using two linear equations in two variables.

Functions [FCN]

- 11 [1-2] Understand that a function is a rule that assigns to each input exactly one output; compare properties of two functions represented in different ways: algebraically, graphically, tables, verbal descriptions.
- 12 [3] Interpret the equation $y = mx + b$ as defining a linear function, whose graph is a straight line; give examples of functions that are not linear.
- 13 [4] Construct a function to model a linear relationship or situation. Determine and interpret the rate of change and initial value from a description or two (x, y) values; from a table or graph.
- 14 [5] Describe qualitatively the functional relationship between two quantities by analyzing a graph; sketch a graph that that represents a function that has been described verbally.

Geometry [GEO]

- 15 [1] Verify experimentally the properties of rotations, reflections, and translations.
- 16 [2] Understand that two-dimensional figures are congruent if one can be obtained from the other by a sequence of rotations, reflections, and translations; describe a congruence sequence.

- 17 [3] Describe the effect of dilations, translations, rotations, and reflections on twodimensional figures using coordinates.
- 18 [4] Understand that two-dimensional figures are similar if one can be obtained from another by a sequence of rotations, reflections, translations, and dilations; describe a similarity sequence.
- 19 [5] Informally establish facts about the angle sum and exterior angle of triangles, angles created when parallel lines and a transversal, and the angle-angle criterion for similar triangles.
- 20 [6-8] Analyze and justify a proof of the Pythagorean Theorem and its converse. Apply the Pythagorean Theorem to determine side lengths in right triangles in real-world and problems, including finding the distance between two points in a coordinate system.
- 21 [9] Solve real-world and mathematical problems involving volumes of cones, cylinders, and spheres and use them to solve real-world and mathematical problems.

Statistics and Probability [SAP]

- 22 [1] Construct and interpret scatter plots for bivariate measurement data. Describe patterns (clustering, outliers, positive or negative association, linear association, nonlinear association).
- 23 [2-3] Informally fit a straight line for scatterplots that suggest a linear relationship, assess the fit by judging the closeness of the data points to the line; use the equation of a linear model to solve problems.
- 24 [4] Construct and interpret a two-way table summarizing data on two categorical variables collected from the same subjects; describe possible association between the two variables.



PRO-Core High School Integrated Math I Standards

Number and Quantity [NAQ]

- 1 [N.Q.1-3] Reason quantitatively and use units to solve problems.

Algebra [ALG]

- 2 [A.SSE.1a,b,3] Interpret the structure of expressions: linear, exponential, with integer exponents.
- 3 [A.CED.1-4] Create equations that describe numbers or relationships: linear, exponential (integer inputs only; linear only for 3).
- 4 [A.REI.1] Understand solving equations as a process of reasoning and explain the reasoning.
- 5 [A.REI.3] Solve equations and inequalities in one variable.
- 6 [A.REI.5-6a] Solve systems of equations: linear systems.
- 7 [A.REI.10-12] Represent and solve equations and inequalities graphically: linear and exponential.

Functions [FUN]

- 8 [F.IF.1-3] Understand the concept of a function and use function notation: Focus on linear and exponential.
- 9 [F.IF.4a,5a] Interpret functions that arise in applications in terms of a context.
- 10 [F.IF.7a,e,9a] Analyze functions using different representations.
- 11 [F.BF.1a,2] Build a function that models a relationship between two quantities.
- 12 [F.BF.4a] Build new functions from existing functions: Linear, exponential; focus on vertical translations for exponential.
- 13 [F.LE.1a-2] Construct and compare linear, quadratic, and exponential models and solve problems: linear and exponential.
- 14 [F.LE.5] Interpret expressions for functions in terms of the situation they model.

Geometry [GEO]

- 15 [G.CO.1-5] Experiment with transformations in the plane.
- 16 [G.CO.6-8] Understand congruence in terms of rigid motions.
- 17 [G.CO.9-11] Prove geometric theorems both formally and informally using a variety of methods.
- 18 [G.CO.12-13] Make geometric constructions.
- 19 [G.CO.14] Classify and analyze geometric figures.
- 20 [G.GPE.5,7] Use coordinates to prove simple geometric theorems algebraically: include distance formula; relate to Pythagorean theorem.
- 21 [G.C.2-3] Understand and apply theorems about circles.

Statistics and Probability [SAP]

- 22 [S.ID.1-3] Summarize, represent, and interpret data on a single count or measurement variable.
- 23 [S.ID.5-6] Summarize, represent, and interpret data on two categorical and quantitative variables: linear focus.
- 24 [S.ID.7-8] Interpret linear models.

PRO-Core High School Integrated Math II Standards

Algebra [ALG]

- 1 [A.SSE.1-2] Interpret the structure of expressions: quadratic and exponential.
- 2 [A.SSE.3] Write expressions in equivalent forms to solve problems: quadratic and exponential.
- 3 [A.APR.1a] Perform arithmetic operations on polynomials: polynomials that simplify to quadratics.
- 4 [A.CED.1b,2b,4c] Create equations that describe numbers or relationships: include formulas involving quadratic terms.
- 5 [A.REI.4a,b] Solve equations and inequalities in one variable: quadratics with real coefficients.
- 6 [A.REI.7,11] Solve systems of equations: linear-quadratic systems.

Functions [FUN]

- 7 [F.IF.4b,5b] Interpret functions that arise in applications in terms of the context.
- 8 [F.IF.7b,8a,b,9b] Analyze functions using different representations.
- 9 [F.BF.1a] Build a function that models a relationship between two quantities.
- 10 [F.BF.3a] Build new functions from existing functions.
- 11 [F.LE.3] Construct and compare linear, quadratic, and exponential models and solve problems: including quadratic.

Geometry [GEO]

- 12 [G.SRT.1-3] Understand similarity in terms of similarity transformations.
- 13 [G.SRT.4-5] Prove and apply theorems both formally and informally involving similarity using a variety of methods.
- 14 [G.SRT.6-8a] Define trigonometric ratios and solve problems involving right triangles.
- 15 [G.C.1] Understand and apply theorems about circles.
- 16 [G.C.5] Find arc lengths and areas of sectors of circles.
- 17 [G.GPE.1] Translate between the geometric description and the equation for a conic section.
- 18 [G.GPE.4,6] Use coordinates to prove simple geometric theorems algebraically and to verify specific geometric statements.
- 19 [G.GMD.1,3] Explain volume formulas and use them to solve problems.
- 20 [G.GMD.4] Visualize the relation between two-dimensional and three-dimensional objects.
- 21 [G.GMD.5-6] Understand the relationships between lengths, area, and volumes.
- 22 [G.MG.1-3] Apply geometric concepts in modeling situations.

Statistics and Probability [SAP]

- 23 [S.CP.1-5] Understand independence and conditional probability and use them to interpret data.
- 24 [S.CP.6-7] Use the rules of probability to compute probabilities of compound events in a uniform probability model.



PRO-Core High School Algebra I Standards

Number and Quantity [NAQ]

- 1 [N.Q.1-3] Reason quantitatively and use units to solve problems.

Algebra [ALG]

- 2 [A.SSE.1-2] Interpret the structure of expressions
- 3 [A.SSE.3] Write expressions in equivalent forms to solve problems
- 4 [A.APR.1a] Perform arithmetic operations on polynomials.
- 5 [A.CED.1-4] Create equations that describe numbers or relationships.
- 6 [A.REI.1] Understand solving equations as a process of reasoning and explain the reasoning.
- 7 [A.REI.3-4ab] Solve equations and inequalities in one variable.
- 8 [A.REI.7] Solve a simple system consisting of a linear equation and a quadratic equation in two variables algebraically and graphically.
- 9 [A.REI.5,6a] Verify that, given a system of two equations in two variables, replacing one equation by the sum of that equation and a multiple of the other produces a system with the same solutions. Solve systems of equations algebraically and graphically.
- 10 [A.REI.10-12] Represent and solve linear and exponential equations and inequalities graphically.

Functions [FUN]

- 11 [F.IF.1-3] Understand the concept of a function and use function notation.
- 12 [F.IF.4b-5b] Interpret linear, exponential, and quadratic functions that arise in applications in terms of the context.
- 13 [F.IF.7-9] Analyze functions using different representations.
- 14 [F.BF.1a,2] Build a function that models a relationship between two quantities.
- 15 [F.BF.3a,4a] Build new functions from existing functions.
- 16 [F.LE.1-3] Construct and compare linear, quadratic, and exponential models and solve problems.
- 17 [F.LE.5] Interpret expressions for functions in terms of the situation they model.

Statistics and Probability [SAP]

- 18 [S.ID.1-3] Summarize, represent, and interpret data on a single count or measurement variable.
- 19 [S.ID.5-6c] Summarize, represent, and interpret data on two categorical and quantitative variables.
- 20 [S.ID.7-8] Interpret linear models.

PRO-Core High School Algebra II/Integrated Math III Standards

Number and Quantity [NAQ]

- 1 [N.RN.1-3] Extend the properties of exponents to rational exponents. Use properties of rational and irrational numbers.
- 2 [N.CN.1-2] Perform arithmetic operations with complex numbers.
- 3 [N.CN.7] Solve quadratic equations with real coefficients that have complex solutions.

Algebra [ALG]

- 4 [A.SSE.1-2] Interpret the structure of expressions.
- 5 [A.SSE.3-4] Write expressions in equivalent forms to solve problems.
- 6 [A.APR.1b,2,3] Perform arithmetic operations on polynomials. Understand the relationship between zeros and factors of polynomials.
- 7 [A.APR.4-5] Prove polynomial identities and use them to describe numerical relationships.
- 8 [A.APR.6-7] Rewrite simple rational expressions in different forms; write $a(x)/b(x)$ in the form $q(x) + r(x)/b(x)$, where $a(x)$, $b(x)$, $q(x)$, and $r(x)$ are polynomials with the degree of $r(x)$ less than the degree of $b(x)$, using inspection, long division, or, for the more complicated examples, a computer algebra system.
- 9 [A.CED.1-4] Create equations that describe numbers or relationships.
- 10 [A.REI.2] Understand solving equations as a process of reasoning and explain the reasoning.
- 11 [A.REI.6b] Solve systems of linear equations algebraically and graphically. Extend to include solving systems of linear equations in three variables, but only algebraically.
- 12 [A.REI.11] Represent and solve equations and inequalities graphically.

Functions [FUN]

- 13 [F.IF.4-6] Interpret functions that arise in applications in terms of a context.
- 14 [F.IF.7-9] Analyze functions using different representations.
- 15 [F.BF.1b] Write a function that describes a relationship between two quantities. Combine standard function types using arithmetic operations.
- 16 [F.BF.3] Identify the effect on the graph of replacing $f(x)$ by $f(x) + k$, $kf(x)$, $f(kx)$, and $f(x + k)$ for specific values of k (both positive and negative); find the value of k given the graphs. Experiment with cases and illustrate an explanation of the effects on the graph using technology. Include recognizing even and odd functions from their graphs and algebraic expressions for them.
- 17 [F.LE.4] Construct and compare linear, quadratic, and exponential models and solve problems.
- 18 [F.TF.1-2] Extend the domain of trigonometric functions using the unit circle.
- 19 [F.TF.5] Model periodic phenomena with trigonometric functions.
- 20 [F.TF.8] Prove and apply trigonometric identities.

Geometry [GEO]

- 21 [G.C.6] Find arc lengths and areas of sectors of circles.

Statistics and Probability [SAP]

- 22 [S.ID.4,6,9] Summarize, represent, and interpret data on a single count or measurement variable, or two categorical and quantitative variables. Interpret linear models.
- 23 [S.IC.1-2] Understand and evaluate random processes underlying statistical experiments.
- 24 [S.IC.3-6] Make inferences and justify conclusions from sample surveys, experiments and observational studies.



PRO-Core High School Geometry Standards

Geometry [GEO]

- 1 [G.CO.1-5] Experiment with transformations in the plane.
- 2 [G.CO.6-8] Understand congruence in terms of rigid motions.
- 3 [G.CO.9-11] Prove geometric theorems, both formally and informally, using a variety of methods.
- 4 [G.CO.12-13] Make geometric constructions.
- 5 [G.CO.14] Classify and analyze geometric figures.
- 6 [G.SRT.1-3] Understand similarity in terms of similarity transformations.
- 7 [G.SRT.4-5] Prove and apply theorems both formally and informally, involving similarity using a variety of methods.
- 8 [G.SRT.6-8a] Define trigonometric ratios and solve problems involving right triangles.
- 9 [G.C.1-3] Understand and apply theorems about circles.
- 10 [G.C.5] Find arc lengths and areas of sectors of circles.
- 11 [G.GPE.1] Translate between the geometric description and the equation for a conic section.
- 12 [G.GPE.4-7] Use coordinates to prove simple geometric theorems algebraically and to verify specific geometric statements.
- 13 [G.GMD.1,3] Explain volume formulas and use them to solve problems.
- 14 [G.GMD.4] Visualize the relation between two-dimensional and three-dimensional objects.
- 15 [G.GMD.5-6] Understand the relationships between lengths, area, and volumes.
- 16 [G.MG.1-3] Apply geometric concepts in modeling situations.

Statistics and Probability [SAP]

- 17 [S.CP.1-5] Understand independence and conditional probability and use them to interpret data: link to data from simulations or experiments.
- 18 [S.CP.6-7] Use the rules of probability to compute probabilities of compound events in a uniform probability model.

PRO-Core Grade 2 ELA/Reading Standards

Reading Literary Text [LIT]

- 1 [RL.2.1] Ask and answer such questions as who, what, where, when, why, and how to demonstrate understanding of key details in a text.
- 2 [RL.2.2] Analyze literary text development. a) Determine the lesson or moral. b) Retell stories, including fables and folktales from diverse cultures.
- 3 [RL.2.3] Describe how characters in a story respond to major events and challenges.
- 4 [RL.2.4] Describe how words and phrases (e.g., regular beats, alliteration, rhymes, repeated lines) supply rhythm and meaning in a story, poem, or song.
- 5 [RL.2.5] Describe the overall structure of a story, including describing how the beginning introduces the story and the ending concludes the action.
- 6 [RL.2.6] Distinguish between points of view when referring to narrators and characters, recognizing when the narrator is a character in the story.
- 7 [RL.2.7] Use information gained from the illustrations and words in a print or digital text to demonstrate understanding of its characters, setting, or plot.
- 8 [RL.2.9] Compare and contrast two or more versions of the same story (e.g., Cinderella stories) by different authors or from different cultures.

Reading Informational Text [INF]

- 9 [RI.2.1] Ask and answer such questions as who, what, where, when, why, and how to demonstrate understanding of key details in a text.
- 10 [RI.2.2] Analyze informational text development. a) Identify the main topic of a multi-paragraph text. b) Identify the focus of specific paragraphs within the text.
- 11 [RI.2.3] Describe the connection between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text.
- 12 [RI.2.4] Determine the meaning of words and phrases in a text relevant to a grade 2 topic or subject area.
- 13 [RI.2.5] Know and use various text features (e.g., captions, bold print, subheadings, glossaries, indexes, electronic menus, icons) to locate key facts or information in a text efficiently.
- 14 [RI.2.6] Identify the main purpose of a text, including what the author wants to answer, explain, or describe.
- 15 [RI.2.7] Explain how specific images (e.g., a diagram showing how a machine works) contribute to and clarify a text.
- 16 [RI.2.8] Identify the main points an author uses in a text and, with support, explain how reasons connect to the main points.
- 17 [RI.2.9] Compare and contrast the most important points presented by two texts on the same topic.

Foundational Skills [FOU]

- 18 [RF.2.3] Know and apply grade-level phonics and word analysis skills in decoding words.
 - a) Distinguish long and short vowels when reading regularly spelled one-syllable words.
 - b) Know spelling-sound correspondences for additional common vowel teams. c) Decode regularly spelled two-syllable words with long vowels. d) Decode words with common

prefixes and suffixes. e) Identify words with inconsistent but common spelling-sound correspondences. f) Recognize and read grade-appropriate irregularly spelled words.

Language [VOC]

- 19 [L.2.4] Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 2 reading and content, choosing flexibly from an array of strategies. a) Use sentence-level context as a clue to the meaning of a word or phrase. b) Determine the meaning of the new word formed when a known prefix is added to a known word. c) Use a known root word as a clue to the meaning of an unknown word with the same root. d) Use knowledge of the meaning of individual words to predict the meaning of compound words. e) Use glossaries and beginning dictionaries, both print and digital, to determine or clarify the meaning of words and phrases.
- 20 [L.2.5] Demonstrate understanding of word relationships and nuances in word meanings. a) Identify real-life connections between words and their use. b) Distinguish shades of meaning among closely related and closely related adjectives.

PRO-Core Grade 3 ELA/Reading Standards

Reading Literary Text [LIT]

- 1 [RL.3.1] Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.
- 2 [RL.3.2] Analyze literary text development. a) Determine a theme and explain how it is conveyed through key details in the text. b) Retell stories, including fables, folktales, and myths from diverse cultures.
- 3 [RL.3.3] Describe characters in a story (traits, motivations, or feelings) and explain how they contribute to the sequence of events.
- 4 [RL.3.4] Determine the meaning of words and phrases, distinguishing literal from non-literal language.
- 5 [RL.3.5] Refer to parts of stories, dramas, and poems when writing or speaking about a text, using terms such as chapter, scene, and stanza; describe how each successive part builds on earlier sections.
- 6 [RL.3.6] Describe the difference between points of view in texts, particularly first- and third-person narration.
- 7 [RL.3.7] Explain how specific aspects of a text's illustrations contribute to what is conveyed by the words in a story (e.g., emphasize aspects of a character or setting).
- 8 [RL.3.9] Compare and contrast themes, setting, plots of stories written by the same author about the same or similar characters (e.g., in books from a series).

Reading Informational Text [INF]

- 9 [RI.3.1] Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.
- 10 [RI.3.2] Analyze informational text development. a) Determine the main idea of a text. b) Retell the key details and explain how they support the main idea.
- 11 [RI.3.3] Describe the relationship between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text, using language that pertains to time, sequence, and cause/effect.
- 12 [RI.3.4] Determine the meaning of general academic and domain-specific words and phrases in a text.
- 13 [RI.3.5] Use text features and search tools (key words, sidebars, hyperlinks) to locate information relevant to a given topic.
- 14 [RI.3.6] Distinguish their own point of view from that of the author of a text.
- 15 [RI.3.7] Use information from illustrations (maps, photos) and words to demonstrate understanding of the text (where, when, why, and how key events occur).
- 16 [RI.3.8] Describe the relationships between the evidence and points an author uses throughout a text.
- 17 [RI.3.9] Compare and contrast most important points and key details presented in two texts on the same topic.

Language [VOC]

- 18 [L.3.4] Determine or clarify the meaning of unknown and multiple-meaning word and phrases based on grade 3 reading and content, choosing flexibly from a range of strategies. a) Use sentence-level context as a clue to the meaning of a word or phrase. b)

Determine the meaning of the new word formed when a known affix is added to a known word. c) Use a known root word as a clue to the meaning of an unknown word with the same root. d) Use glossaries or beginning dictionaries, both print and digital, to determine or clarify the precise meaning of key words and phrases.

19 [L.3.5] Demonstrate understanding of word relationships and nuances in word meanings.

a) Distinguish the literal and nonliteral meanings of words and phrases in context. b) Identify real-life connections between words and their use. c) Distinguish shades of meaning among related words that describe states of mind or degrees of certainty.

PRO-Core Grade 4 ELA/Reading Standards

Reading Literary Text [LIT]

- 1 [RL.4.1] Refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text.
- 2 [RL.4.2] Analyze literary text development. a) Determine a theme of a story, drama, or poem from details in the text. b) Summarize the text, incorporating a theme determined from details in the text.
- 3 [RL.4.3] Describe in depth a character, setting, or event in a story or drama, drawing on specific details in the text (e.g., a character's thoughts, words, or actions).
- 4 [RL.4.4] Determine the meaning of words and phrases as they are used in a text, including those that allude to significant characters found in mythology (e.g., Herculean).
- 5 [RL.4.5] Explain major differences between poems, drama, and prose, and refer to the structural elements of poems (e.g., verse, rhythm, meter) and drama (e.g., casts of characters, settings, descriptions, dialogue, stage directions).
- 6 [RL.4.6] Explain the differences in the point(s) of view in a text and different perspectives of the characters.
- 7 [RL.4.7] Make connections between the text of a story or drama and a visual or oral presentation of the text, identifying where each version reflects specific descriptions and directions in the text.
- 8 [RL.4.9] Compare and contrast the treatment of similar themes and topics (e.g., opposition of good and evil) and patterns of events (e.g., the quest) in stories, myths, and traditional literature from different cultures.

Reading Informational Text [INF]

- 9 [RI.4.1] Refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text.
- 10 [RI.4.2] Analyze informational text development. a) Determine the main idea of a text and explain how it is supported by key details. b) Provide a summary of the text that includes the main idea and key details, as well as other important information.
- 11 [RI.4.3] Explain events, procedures, ideas, or concepts in a historical, scientific, or technical text, including what happened and why, based on specific information in the text.
- 12 [RI.4.4] Determine the meaning of general academic and domain-specific words or phrases in a text relevant to a grade 4 topic or subject area.
- 13 [RI.4.5] Describe the overall structure (e.g., chronology, comparison, cause/effect, problem/solution) of events, ideas, concepts, or information in a text or part of a text.
- 14 [RI.4.6] Compare and contrast a firsthand and secondhand account of the same event or topic; describe the differences in focus and the information provided.
- 15 [RI.4.7] Interpret information presented visually, orally, or quantitatively (e.g., in charts, graphs, diagrams, time lines, animations, or interactive elements on Web pages) and explain how the information contributes to an understanding of the text in which it appears.
- 16 [RI.4.8] Explain how an author uses evidence to support particular points in a text.
- 17 [RI.4.9] Integrate information from two texts on the same topic.

Language [VOC]

- 18 [L.4.4] Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 4 reading and content, choosing flexibly from a range of strategies. a) Use context (e.g., definitions, examples, or restatements in text) as a clue to the meaning of a word or phrase. b) Use common, grade-appropriate Greek and Latin affixes and roots as clues to the meaning of a word. c) Consult reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation and determine or clarify the precise meaning of key words and phrases.
- 19 [L.4.5] Demonstrate understanding of figurative language, word relationships, and nuances in word meanings. a) Explain the meaning of simple similes and metaphors (e.g., as pretty as a picture) in context. b) Recognize and explain the meaning of common idioms, adages, and proverbs. c) Demonstrate understanding of words by relating them to their antonyms and synonyms.

PRO-Core Grade 5 ELA/Reading Standards

Reading Literary Text [LIT]

- 1 [RL.5.1] Quote accurately from a text when explaining what the text says explicitly and when drawing inferences from the text.
- 2 [RL.5.2] Analyze literary text development. a) Determine a theme of a story, drama, or poem from details in the text, including how characters in a story or drama respond to challenges or how the speaker in a poem reflects upon a topic. b) Summarize the text, incorporating a theme determined from details in the text.
- 3 [RL.5.3] Compare and contrast two or more characters, settings, or events in a story or drama, drawing on specific details in the text (e.g., how characters interact).
- 4 [RL.5.4] Determine the meaning of words and phrases as they are used in a text, including figurative language such as metaphors, similes, and idioms.
- 5 [RL.5.5] Explain how a series of chapters, scenes, or stanzas fits together to provide the overall structure of a particular story, drama, or poem.
- 6 [RL.5.6] Describe how a narrator's or speaker's point of view influences how events are described.
- 7 [RL.5.7] Analyze how visual and multimedia elements contribute to the meaning, tone, or beauty of a text (e.g., graphic novel, multimedia presentation of fiction, folktale, myth, poem).
- 8 [RL.5.9] Compare and contrast stories in the same genre (e.g., mysteries and adventure stories) on their approaches to similar themes and topics.

Reading Informational Text [INF]

- 9 [RI.5.1] Quote accurately from a text when explaining what the text says explicitly and when drawing inferences from the text.
- 10 [RI.5.2] Analyze informational text development. a) Determine the main ideas of a text and explain how they are supported by key details. b) Provide a summary of the text that includes the main ideas and key details, as well as other important information.
- 11 [RI.5.3] Explain the relationships or interactions between two or more individuals, events, ideas, or concepts in a historical, scientific, or technical text based on specific information in the text.
- 12 [RI.5.4] Determine the meaning of general academic and domain-specific words and phrases in a text relevant to a grade 5 topic or subject area.
- 13 [RI.5.5] Compare and contrast the overall structure (e.g., chronology, comparison, cause/effect, problem/solution) of events, ideas, concepts, or information in two or more texts.
- 14 [RI.5.6] Analyze multiple accounts of the same event or topic, noting important similarities and differences in the point of view they represent.
- 15 [RI.5.7] Draw on information from multiple print or digital sources, demonstrating the ability to locate an answer to a question quickly or to solve a problem efficiently.
- 16 [RI.5.8] Explain how an author uses evidence to support particular points in a text, identifying which evidence supports corresponding points.
- 17 [RI.5.9] Integrate information from several texts on the same topic.

Language [VOC]

- 18 [L.5.4] Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 5 reading and content, choosing flexibly from a range of strategies. a) Use context (e.g., cause/effect relationships and comparisons in text) as a clue to the meaning of a word or phrase. b) Use common, grade-appropriate Greek and Latin affixes and roots as clues to the meaning of a word. c) Consult reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation and determine or clarify the precise meaning of key words and phrases.
- 19 [L.5.5] Demonstrate understanding of figurative language, word relationships, and nuances in word meanings. a) Interpret figurative language, including similes and metaphors, in context. b) Recognize and explain the meaning of common idioms, adages, and proverbs. c) Use the relationship between particular words (e.g., synonyms, antonyms, homographs) to better understand each of the words.

PRO-Core Grade 6 ELA/Reading Standards

Reading Literary Text [LIT]

- 1 [RL.6.1] Cite textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.
- 2 [RL.6.2] Analyze literary text development. a) Determine a theme of a text and how it is conveyed through particular details. b) Incorporate a theme and story details into an objective summary of the text.
- 3 [RL.6.3] Describe how a particular story’s or drama’s plot unfolds in a series of episodes as well as how the characters respond or change as the plot moves toward a resolution.
- 4 [RL.6.4] Determine the meaning of words and phrases as they are used in a text, including figurative and connotative meanings; analyze the impact of a specific word choice on meaning and tone.
- 5 [RL.6.5] Analyze how a particular sentence, chapter, scene, or stanza fits into the overall structure of a text and contributes to the development of the theme, setting, or plot.
- 6 [RL.6.6] Explain how an author develops the point of view of the narrator or speaker in a text.
- 7 [RL.6.7] Compare and contrast the experience of reading a story, drama, or poem to listening to or viewing an audio, video, or live version of the text, including contrasting what they “see” and “hear” when reading the text to what they perceive when they listen or watch.
- 8 [RL.6.9] Compare and contrast texts in different forms or genres (e.g., stories and poems; historical novels and fantasy stories) in terms of their approaches to similar themes and topics.

Reading Informational Text [INF]

- 9 [RI.6.1] Cite textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text. • Cite specific textual evidence to support analysis of primary and secondary sources. • Cite specific textual evidence to support analysis of science and technical texts.
- 10 [RI.6.2] Analyze informational text development. a) Determine a central idea of a text and how it is conveyed through particular details. b) Provide an objective summary of the text that includes the central idea and relevant details. • Analyze content area-specific text development. a) Determine the central ideas or information of a primary or secondary source. b) Provide an accurate and objective summary that includes the central ideas of the source. • a) Determine central ideas or conclusions of a text. b) Provide an accurate and objective summary that includes the central ideas or conclusions of the text.
- 11 [RI.6.3] Analyze in detail how a key individual, event, or idea is introduced, illustrated, and elaborated in a text (e.g., through examples or anecdotes). • Identify key steps in a text’s description of a process related to history/social studies. • Follow precisely a multistep procedure when carrying out experiments, taking measurements, or performing technical tasks.
- 12 [RI.6.4] Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings.
- 13 [RI.6.5] Analyze how a particular sentence, paragraph, chapter, or section fits into the overall structure of a text and contributes to the development of the ideas. • Describe how

- a text presents information (e.g., sequentially, comparatively, causally). • Analyze the structure an author uses to organize a text, including how the major sections contribute to the whole and to an understanding of the topic.
- 14 [RI.6.6] Determine an author’s point of view or purpose in a text and explain how it is conveyed in the text. connotative, and technical meanings. • Identify aspects of a text that reveal an author’s perspective or purpose (e.g., loaded language, inclusion or avoidance of particular facts). • Analyze the author’s purpose in providing an explanation, describing a procedure, or discussing an experiment in a text.
- 15 [RI.6.7] Integrate information presented in different media or formats (e.g., visually, quantitatively) as well as in words to develop a coherent understanding of a topic or issue. • Integrate visual information (e.g., in charts, graphs, photographs, videos, or maps) with other information in print and digital texts. • Integrate quantitative or technical information expressed in words in a text with a version of that information expressed visually (e.g., in a flowchart, diagram, model, graph, or table).
- 16 [RI.6.8] Trace and evaluate the argument and specific claims in a text, distinguishing claims that are supported by reasons and evidence from claims that are not. • Distinguish among fact, opinion, and reasoned judgment in a text. • Distinguish among facts, reasoned judgment based on research findings, and speculation in a text.
- 17 [RI.6.9] Compare and contrast one author’s presentation of events with that of another (e.g., a memoir written by and a biography on the same person). • Analyze the relationship between a primary and secondary source on the same topic. • Compare and contrast the information gained from experiments, simulations, video, or multimedia sources with that gained from reading a text on the same topic.

Language [VOC]

- 18 [L.6.4] Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 6 reading and content, choosing flexibly from a range of strategies. a) Use context (e.g., the overall meaning of a sentence or paragraph; a word’s position or function in a sentence) as a clue to the meaning of a word or phrase. b) Use common, grade-appropriate Greek or Latin affixes and roots as clues to the meaning of a word (e.g., audience, auditory, audible). c) Consult reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation of a word or determine or clarify its precise meaning or part of speech. d) Verify the preliminary determination of the meaning of a word or phrase (e.g., by checking the inferred meaning in context or in a dictionary). • Determine the meaning of words and phrases as they are used in a text, including vocabulary specific to domains related to history/social studies. • Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to grade 6 texts and topics.
- 19 [L.6.5] Demonstrate understanding of figurative language, word relationships, and nuances in word meanings a) Interpret figures of speech (e.g., personification) in context. b) Use the relationship between particular words (e.g., cause/effect, part/whole, item/category) to better understand each of the words. c) Distinguish among the connotations (associations) of words with similar denotations (definitions) (e.g., stingy, scrimping, economical, frugal, thrifty).

PRO-Core Grade 7 ELA/Reading Standards

Reading Literary Text [LIT]

- 1 [RL.7.1] Cite several pieces of textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.
- 2 [RL.7.2] Analyze literary text development. a) Determine a theme of a text and analyze its development over the course of the text. b) Incorporate the development of a theme and other story details into an objective summary of the text.
- 3 [RL.7.3] Analyze how particular elements of a story or drama interact (e.g., how setting shapes the characters or plot).
- 4 [RL.7.4] Determine the meaning of words and phrases as they are used in a text, including figurative and connotative meanings; analyze the impact of specific language choices, such as sensory words or phrases, on meaning and tone, including rhymes and other repetitions of sounds (e.g., alliteration) on a specific verse or stanza of a poem or section of a story or drama.
- 5 [RL.7.5] Analyze how a drama's or poem's form or structure (e.g., soliloquy, sonnet) contributes to its meaning.
- 6 [RL.7.6] Analyze how an author develops and contrasts the points of view of different characters or narrators in a text.
- 7 [RL.7.7] Compare and contrast a written story, drama, or poem to its audio, filmed, staged, or multimedia version, analyzing the effects of techniques unique to each medium (e.g., lighting, sound, color, or camera focus and angles in a film).
- 8 [RL.7.8] Compare and contrast a fictional portrayal of a time, place, or character and a historical account of the same period as a means of understanding how authors of fiction use or alter history.

Reading Informational Text [INF]

- 9 [RI.7.1] Cite several pieces of textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text • Cite specific textual evidence to support analysis of primary and secondary sources. • Cite specific textual evidence to support analysis of science and technical texts.
- 10 [RI.7.2] Analyze informational text development. a) Determine two or more central ideas in a text and analyze their development over the course of the text. b) Provide an objective summary of the text that includes the central ideas and their development. • Analyze content area-specific text development. a) Determine the central ideas or information of a primary or secondary source. b) Provide an accurate and objective summary that includes the central ideas of the source. • Analyze content area-specific text development. a) Determine central ideas or conclusions of a text. b) Provide an accurate and objective summary that includes the central ideas or conclusions of the text.
- 11 [RI.7.3] Analyze the interactions between individuals, events, and ideas in a text (e.g., how ideas influence individuals or events, or how individuals influence ideas or events). • Identify key steps in a text's description of a process related to history/social studies. • Follow precisely a multistep procedure when carrying out experiments, taking measurements, or performing technical tasks.

- 12 [RI.7.4] Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings; analyze the impact of a specific word choice on meaning and tone.
- 13 [RI.7.5] Analyze the structure an author uses to organize a text, including how the major sections contribute to the whole and to the development of the ideas. • Describe how a text presents information (e.g., sequentially, comparatively, causally). • Analyze the structure an author uses to organize a text, including how the major sections contribute to the whole and to an understanding of the topic.
- 14 [RI.7.6] Determine an author’s perspective or purpose in a text and analyze how the author distinguishes his or her position from that of others. • Identify aspects of a text that reveal an author’s perspective or purpose (e.g., loaded language, inclusion or avoidance of particular facts). • Analyze the author’s purpose in providing an explanation, describing a procedure, or discussing an experiment in a text.
- 15 [RI.7.7] Compare and contrast a text to an audio, video, or multimedia version of the text, analyzing each medium’s portrayal of the subject (e.g., how the delivery of a speech affects the impact of the words). • Integrate visual information (e.g., in charts, graphs, photographs, videos, or maps) with other information in print and digital texts. • Integrate quantitative or technical information expressed in words in a text with a version of that information expressed visually (e.g., in a flowchart, diagram, model, graph, or table).
- 16 [RI.7.8] Trace and evaluate the argument and specific claims in a text, assessing whether the reasoning is sound and the evidence is relevant and sufficient to support the claims. • Distinguish among fact, opinion, and reasoned judgment in a text. • Distinguish among facts, reasoned judgment based on research findings, and speculation in a text.
- 17 [RI.7.9] Analyze how two or more authors writing about the same topic shape their presentations of key information by emphasizing different evidence or advancing different interpretations of facts. • Analyze the relationship between a primary and secondary source on the same topic. • Compare and contrast the information gained from experiments, simulations, video, or multimedia sources with that gained from reading a text on the same topic.

Language [VOC]

- 18 [L.7.4] Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 7 reading and content, choosing flexibly from a range of strategies. a) Use context (e.g., the overall meaning of a sentence or paragraph; a word’s position or function in a sentence) as a clue to the meaning of a word or phrase. b) Use common, grade-appropriate Greek or Latin affixes and roots as clues to the meaning of a word (e.g., belligerent, bellicose, rebel). c) Consult general and specialized reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation of a word or determine or clarify its precise meaning or part of speech. d) Verify the preliminary determination of the meaning of a word or phrase (e.g., by checking the inferred meaning in context or in a dictionary). • Determine the meaning of words and phrases as they are used in a text, including vocabulary specific to domains related to history/social studies. • Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to grade 7 texts and topics.

- 19 [L.7.5] Demonstrate understanding of figurative language, word relationships, and nuances in word meanings. a) Interpret figures of speech (e.g., literary, biblical, and mythological allusions) in context. b) Use the relationship between particular words (e.g., synonym/antonym, analogy) to better understand each of the words. c) Distinguish among the connotations (associations) of words with similar denotations (definitions) (e.g., refined, respectful, polite, diplomatic, condescending).

PRO-Core Grade 8 ELA/Reading Standards

Reading Literary Text [LIT]

- 1 [RL.8.1] Cite the textual evidence that most strongly supports an analysis of what the text says explicitly as well as inferences drawn from the text.
- 2 [RL.8.2] Analyze literary text. a) Determine a theme of a text and analyze its development over the course of the text, including its relationship to the characters, setting, and plot. b) Incorporate a theme and its relationship to other story elements into an objective summary of the text.
- 3 [RL.8.3] Analyze how particular lines of dialogue or incidents in a story or drama propel the action, reveal aspects of a character, or provoke a decision.
- 4 [RL.8.4] Determine the meaning of words and phrases as they are used in a text, including figurative and connotative meanings; analyze the impact of specific word choices on meaning and tone, including analogies or allusions to other texts.
- 5 [RL.8.5] Compare and contrast the structure of two or more texts and analyze how the differing structure of each text contributes to its meaning and style.
- 6 [RL.8.6] Analyze how differences in the points of view of the characters and the audience or reader (e.g., created through the use of dramatic irony) create such effects as suspense or humor.
- 7 [RL.8.7] Analyze the extent to which a filmed or live production of a story or drama stays faithful to or departs from the text or script, evaluating the choices made by the director or actors.
- 8 [RL.8.9] Analyze how a modern work of fiction draws on themes, patterns of events, or character types from myths, traditional stories, or religious works such as the Bible, including describing how the material is rendered new.

Reading Informational Text [INF]

- 9 [RI.8.1] Cite the textual evidence that most strongly supports an analysis of what the text says explicitly as well as inferences drawn from the text. • Cite specific textual evidence to support analysis of primary and secondary sources. • Cite specific textual evidence to support analysis of science and technical texts.
- 10 [RI.8.2] Analyze informational text development. a) Determine a central idea of a text and analyze its development over the course of the text, including its relationship to supporting ideas. b) Incorporate central ideas and their relationships into an objective summary of the text. • Analyze content area-specific text development. a) Determine the central ideas or information of a primary or secondary source. b) Provide an accurate and objective summary that includes the central ideas of the source. • a) Determine central ideas or conclusions of a text. b) Provide an accurate and objective summary that includes the central ideas or conclusions of the text.
- 11 [RI.8.3] Analyze how a text makes connections among and distinctions between individuals, ideas, or events (e.g., through comparisons, analogies, or categories). • Identify key steps in a text’s description of a process related to history/social studies. • Follow precisely a multistep procedure when carrying out experiments, taking measurements, or performing technical tasks.

- 12 [RI.8.4] Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings; analyze the impact of specific word choices on meaning and tone, including analogies or allusions to other texts.
- 13 [RI.8.5] Analyze in detail the structure of a specific paragraph in a text, including the role of particular sentences in developing and refining a key concept. • Describe how a text presents information (e.g., sequentially, comparatively, causally). • Analyze the structure an author uses to organize a text, including how the major sections contribute to the whole and to an understanding of the topic.
- 14 [RI.8.6] Determine an author’s point of view or purpose in a text and analyze how the author acknowledges and responds to conflicting evidence or viewpoints. • Identify aspects of a text that reveal an author’s perspective or purpose (e.g., loaded language, inclusion or avoidance of particular facts). • Analyze the author’s purpose in providing an explanation, describing a procedure, or discussing an experiment in a text.
- 15 [RI.8.7] Evaluate the advantages and disadvantages of using different mediums (e.g., print or digital text, video, multimedia) to present a particular topic or idea. • Integrate visual information (e.g., in charts, graphs, photographs, videos, or maps) with other information in print and digital texts. • Integrate quantitative or technical information expressed in words in a text with a version of that information expressed visually (e.g., in a flowchart, diagram, model, graph, or table).
- 16 [RI.8.8] Delineate and evaluate the argument and specific claims in a text, assessing whether the reasoning is sound and the evidence is relevant and sufficient; recognize when irrelevant evidence is introduced. • Distinguish among fact, opinion, and reasoned judgment in a text. • Distinguish among facts, reasoned judgment based on research findings, and speculation in a text.
- 17 [RI.8.9] Analyze a case in which two or more texts provide conflicting information on the same topic and identify where the texts disagree on matters of fact or interpretation. • Analyze the relationship between a primary and secondary source on the same topic. • Compare and contrast the information gained from experiments, simulations, video, or multimedia sources with that gained from reading a text on the same topic.

Language [VOC]

- 18 [L.8.4] Determine or clarify the meaning of unknown and multiple-meaning words or phrases based on grade 8 reading and content, choosing flexibly from a range of strategies. a) Use context (e.g., the overall meaning of a sentence or paragraph; a word’s position or function in a sentence) as a clue to the meaning of a word or phrase. b) Use common, grade-appropriate Greek or Latin affixes and roots as clues to the meaning of a word (e.g., precede, recede, secede). c) Consult general and specialized reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation of a word or determine or clarify its precise meaning or its part of speech. d) Verify the preliminary determination of the meaning of a word or phrase (e.g., by checking the inferred meaning in context or in a dictionary). • Determine the meaning of words and phrases as they are used in a text, including vocabulary specific to domains related to history/social studies. • Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to grades 6–8 texts and topics.

19 [L.8.5] Demonstrate understanding of figurative language, word relationships, and nuances in word meanings. disagree on matters of fact or interpretation. a) Interpret figures of speech (e.g. verbal irony, puns) in context. b) Use the relationship between particular words to better understand each of the words. c) Distinguish among the connotations (associations) of words with similar denotations (definitions) (e.g., bullheaded, willful, firm, persistent, resolute).

PRO-Core Grade 9 ELA/Reading Standards

Reading Literary Text [LIT]

- 1 [RL.9.1] Cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.
- 2 [RL.9.2] Analyze literary text development. a) Determine a theme of a text and analyze in detail its development over the course of the text, including how it emerges and is shaped and refined by specific details. b) Provide an objective summary of the text that includes the theme and relevant story elements.
- 3 [RL.9.3] Analyze how complex characters (e.g., those with multiple or conflicting motivations) develop over the course of a text, interact with other characters, and advance the plot or develop the theme.
- 4 [RL.9.4] Determine the meaning of words and phrases as they are used in the text, including figurative and connotative meanings; analyze the cumulative impact of specific word choices on meaning and tone (e.g., how the language evokes a sense of time and place; how it sets a formal or informal tone).
- 5 [RL.9.5] Analyze how an author’s choices concerning how to structure a text, order events within it (e.g., parallel plots), and manipulate time (e.g., pacing, flashbacks) create such effects as mystery, tension, or surprise.
- 6 [RL.9.6] Analyze how a point of view, perspective, or cultural experience is reflected in a work of literature from outside the United States, drawing on a wide reading of world literature.
- 7 [RL.9.7] Analyze the representation of a subject or a key scene in two different artistic mediums, including what is emphasized or absent in each treatment (e.g., Auden’s “Musée des Beaux Arts” and Breughel’s Landscape with the Fall of Icarus).
- 8 [RL.9.9] Analyze how an author alludes to and transforms source material in a specific work (e.g., how Shakespeare treats a theme or topic from Ovid or the Bible or how a later author draws on a play by Shakespeare).

Reading Informational Text [INF]

- 9 [RI.9.1] Cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text. • Cite specific textual evidence to support analysis of primary and secondary sources, attending to such features as the date and origin of the information. • Cite specific textual evidence to support analysis of science and technical texts, attending to the precise details of explanations or descriptions.
- 10 [RI.9.2] Analyze informational text development. a) Determine a central idea of a text and analyze its development over the course of the text, including how it emerges and is shaped and refined by specific details. b) Provide an objective summary of the text that includes the development of the central idea and how details impact this idea. • Analyze content area-specific text development. a) Determine the central ideas or information of a primary or secondary source. b) Provide an accurate and objective summary of how key events or central ideas develop over the course of the text. • Analyze content area-specific text development. a) Determine the central ideas or conclusions of a text. b) Provide an accurate and objective summary of the central ideas of the text that traces the text’s explanation or depiction of a complex process, phenomenon, or concept.

- 11 [RI.9.3] Analyze how the author unfolds an analysis or series of ideas or events, including the order in which the points are made, how they are introduced and developed, and the connections that are drawn between them. • Analyze in detail a series of events described in a text; determine whether earlier events caused later ones or simply preceded them. • Follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks, attending to special cases or exceptions defined in the text.
- 12 [RI.9.4] Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings; analyze the cumulative impact of specific word choices on meaning and tone (e.g., how the language of a court opinion differs from that of a newspaper).
- 13 [RI.9.5] Analyze in detail how an author’s ideas or claims are developed and refined by particular sentences, paragraphs, or larger portions of a text (e.g., a section or chapter). • Analyze how a text uses structure to emphasize key points or advance an explanation or analysis. • Analyze the structure of the relationships among concepts in a text, including relationships among key terms (e.g., force, friction, reaction force, energy).
- 14 [RI.9.6] Determine an author’s perspective or purpose in a text and analyze how an author uses rhetoric to advance that point of view or purpose. • Compare the perspectives of two or more authors for how they treat the same or similar topics, including which details they include and emphasize in their respective accounts. • Analyze the author’s purpose in providing an explanation, describing a procedure, or discussing an experiment in a text, defining the question the author seeks to address.
- 15 [RI.9.7] Analyze various accounts of a subject told in different mediums (e.g., a person’s life story in both print and multimedia), determining which details are emphasized in each account. • Integrate quantitative or technical analysis (e.g., charts, research data) with qualitative analysis in print or digital text. • Translate quantitative or technical information expressed in words in a text into visual form (e.g., a table or chart) and translate information expressed visually or mathematically (e.g., in an equation) into words.
- 16 [RI.9.8] Delineate and evaluate the argument and specific claims in a text, assessing whether the reasoning is valid and the evidence is relevant and sufficient; identify false statements and fallacious reasoning. • Assess the extent to which the reasoning and evidence in a text support the author’s claims. • Assess the extent to which the reasoning and evidence in a text support the author’s claim or a recommendation for solving a scientific or technical problem.
- 17 [RI.9.9] Analyze seminal U.S. documents of historical and literary significance (e.g., Washington’s Farewell Address, the Gettysburg Address, Roosevelt’s Four Freedoms speech, King’s “Letter from Birmingham Jail”), including how they address related themes and concepts. • Compare and contrast treatments of the same topic in several primary and secondary sources. • Compare and contrast findings presented in a text to those from other sources (including their own experiments), noting when the findings support or contradict previous explanations or accounts.

Language [VOC]

- 18 [L.9.4] Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 9 reading and content, choosing flexibly from a range of

- strategies. a) Use context (e.g., the overall meaning of a sentence, paragraph, or text; a word's position or function in a sentence) as a clue to the meaning of a word or phrase. b) Identify and correctly use patterns of word changes that indicate different meanings or parts of speech (e.g., analyze, analysis, analytical; advocate, advocacy). c) Consult general and specialized reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation of a word or determine or clarify its precise meaning, part of speech, or etymology. d) Verify the preliminary determination of the meaning of a word or phrase (e.g., by checking the inferred meaning in context or in a dictionary).
- Determine the meaning of words and phrases as they are used in a text, including vocabulary describing political, social, or economic aspects of history/social studies.
 - Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to grade 9 texts and topics.
- 19 [L.9.5] Demonstrate understanding of figurative language, word relationships, and nuances in word meanings. a) Interpret figures of speech (e.g., euphemism, oxymoron) in context and analyze their role in the text. b) Analyze nuances in the meaning of words with similar denotations.

PRO-Core Grade 10 ELA/Reading Standards

Reading Literary Text [LIT]

- 1 [RL.10.1] Cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.
- 2 [RL.10.2] Analyze literary text development. a) Determine a theme of a text and analyze in detail its development over the course of the text, including how it emerges and is shaped and refined by specific details. b) Provide an objective summary of the text that includes the theme and relevant story elements.
- 3 [RL.10.3] Analyze how complex characters (e.g., those with multiple or conflicting motivations) develop over the course of a text, interact with other characters, and advance the plot or develop the theme.
- 4 [RL.10.4] Determine the meaning of words and phrases as they are used in the text, including figurative and connotative meanings; analyze the cumulative impact of specific word choices on meaning and tone (e.g., how the language evokes a sense of time and place; how it sets a formal or informal tone).
- 5 [RL.10.5] Analyze how an author’s choices concerning how to structure a text, order events within it (e.g., parallel plots), and manipulate time (e.g., pacing, flashbacks) create such effects as mystery, tension, or surprise.
- 6 [RL.10.6] Analyze how a point of view, perspective, or cultural experience is reflected in a work of literature from outside the United States, drawing on a wide reading of world literature.
- 7 [RL.10.7] Analyze the representation of a subject or a key scene in two different artistic mediums, including what is emphasized or absent in each treatment (e.g., Auden’s “Musée des Beaux Arts” and Breughel’s Landscape with the Fall of Icarus).
- 8 [RL.10.9] Analyze how an author alludes to and transforms source material in a specific work (e.g., how Shakespeare treats a theme or topic from Ovid or the Bible or how a later author draws on a play by Shakespeare).

Reading Informational Text [INF]

- 9 [RI.10.1] Cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text. • Cite specific textual evidence to support analysis of primary and secondary sources, attending to such features as the date and origin of the information. • Cite specific textual evidence to support analysis of science and technical texts, attending to the precise details of explanations or descriptions.
- 10 [RI.10.2] Analyze informational text development. a) Determine a central idea of a text and analyze its development over the course of the text, including how it emerges and is shaped and refined by specific details. b) Provide an objective summary of the text that includes the development of the central idea and how details impact this idea. • Analyze content area-specific text development. a) Determine the central ideas or information of a primary or secondary source. b) Provide an accurate and objective summary of how key events or central ideas develop over the course of the text. • Analyze content area-specific text development. a) Determine the central ideas or conclusions of a text. b) Provide an accurate and objective summary of the central ideas of the text that traces the text’s explanation or depiction of a complex process, phenomenon, or concept.

- 11 [RI.10.3] Analyze how the author unfolds an analysis or series of ideas or events, including the order in which the points are made, how they are introduced and developed, and the connections that are drawn between them. • Analyze in detail a series of events described in a text; determine whether earlier events caused later ones or simply preceded them. • Follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks, attending to special cases or exceptions defined in the text.
- 12 [RI.10.4] Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings; analyze the cumulative impact of specific word choices on meaning and tone (e.g., how the language of a court opinion differs from that of a newspaper).
- 13 [RI.10.5] Analyze in detail how an author’s ideas or claims are developed and refined by particular sentences, paragraphs, or larger portions of a text (e.g., a section or chapter). • Analyze how a text uses structure to emphasize key points or advance an explanation or analysis. • Analyze the structure of the relationships among concepts in a text, including relationships among key terms (e.g., force, friction, reaction force, energy).
- 14 [RI.10.6] Determine an author’s perspective or purpose in a text and analyze how an author uses rhetoric to advance that point of view or purpose. • Compare the perspectives of two or more authors for how they treat the same or similar topics, including which details they include and emphasize in their respective accounts. • Analyze the author’s purpose in providing an explanation, describing a procedure, or discussing an experiment in a text, defining the question the author seeks to address.
- 15 [RI.10.7] Analyze various accounts of a subject told in different mediums (e.g., a person’s life story in both print and multimedia), determining which details are emphasized in each account. • Integrate quantitative or technical analysis (e.g., charts, research data) with qualitative analysis in print or digital text. • Translate quantitative or technical information expressed in words in a text into visual form (e.g., a table or chart) and translate information expressed visually or mathematically (e.g., in an equation) into words.
- 16 [RI.10.8] Delineate and evaluate the argument and specific claims in a text, assessing whether the reasoning is valid and the evidence is relevant and sufficient; identify false statements and fallacious reasoning. • Assess the extent to which the reasoning and evidence in a text support the author’s claims. • Assess the extent to which the reasoning and evidence in a text support the author’s claim or a recommendation for solving a scientific or technical problem.
- 17 [RI.10.9] Analyze seminal U.S. documents of historical and literary significance (e.g., Washington’s Farewell Address, the Gettysburg Address, Roosevelt’s Four Freedoms speech, King’s “Letter from Birmingham Jail”), including how they address related themes and concepts. • Compare and contrast treatments of the same topic in several primary and secondary sources. • Compare and contrast findings presented in a text to those from other sources (including their own experiments), noting when the findings support or contradict previous explanations or accounts.

Language [VOC]

- 18 [L.10.4] Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 10 reading and content, choosing flexibly from a range of

- strategies. a) Use context (e.g., the overall meaning of a sentence, paragraph, or text; a word's position or function in a sentence) as a clue to the meaning of a word or phrase. b) Identify and correctly use patterns of word changes that indicate different meanings or parts of speech (e.g., analyze, analysis, analytical; advocate, advocacy). c) Consult general and specialized reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation of a word or determine or clarify its precise meaning, part of speech, or etymology. d) Verify the preliminary determination of the meaning of a word or phrase (e.g., by checking the inferred meaning in context or in a dictionary).
- Determine the meaning of words and phrases as they are used in a text, including vocabulary describing political, social, or economic aspects of history/social studies.
 - Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to grade 10 texts and topics.
- 19 [L.10.5] Demonstrate understanding of figurative language, word relationships, and nuances in word meanings. a) Interpret figures of speech (e.g., euphemism, oxymoron) in context and analyze their role in the text. b) Analyze nuances in the meaning of words with similar denotations.

PRO-Core Grade 11 ELA/Reading Standards

Reading Literary Text [LIT]

- 1 [RL.11.1] Cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text, including determining where the text leaves matter uncertain.
- 2 [RL.11.2] Analyze literary text development. a) Determine two or more themes of a text and analyze their development over the course of the text, including how they interact and build on one another. b) Produce a thorough analysis of the text.
- 3 [RL.11.3] Analyze the impact of the author's choices regarding how to develop and relate elements of a story or drama (e.g., where a story is set, how the action is ordered, how the characters are introduced and developed.)
- 4 [RL.11.4] Determine the connotative, denotative, and figurative meanings of words and phrases as they are used in the text; analyze the impact of author's diction, including multiple-meaning words or language that is particularly evocative to the tone and mood of the text.
- 5 [RL.11.5] Analyze how an author's choices concerning how to structure specific parts of a text (e.g., the choice of where to begin or end a story, the choice to provide a comedic or tragic resolution) contribute to its overall structure and meaning as well as its aesthetic impact.
- 6 [RL.11.6] Analyze a case in which grasping point of view requires distinguishing what is directly stated in a text from what is really meant (e.g., satire, sarcasm, irony, or understatement) and evaluate the impact of these literary devices on the content and style of the text.
- 7 [RL.11.7] Analyze multiple interpretations of a story, drama, or poem (e.g., recorded or live production of a play or recorded novel or poetry), evaluating how each version interprets the source text.
- 8 [RL.11.9] Demonstrate knowledge of eighteenth-, nineteenth- and early-twentieth-century foundational works of American literature, including how two or more diverse texts from the same period treat similar themes and/or topics.

Reading Informational Text [INF]

- 9 [RI.11.1] Cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text, including determining where the text leaves matters uncertain. • Cite specific textual evidence to support analysis of primary and secondary sources, connecting insights gained from specific details to an understanding of the text as a whole. • Cite specific textual evidence to support analysis of science and technical texts, attending to important distinctions the author makes and to any gaps or inconsistencies in the account.
- 10 [RI.11.2] Analyze informational text development. a) Determine two or more central ideas of a text and analyze their development over the course of the text, including how they interact and build on one another. b) Craft an informative abstract that delineates how the central ideas of a text interact and build on one another. • Analyze content area-specific text development. a) Determine the central ideas or information of a primary or secondary source. b) Provide an accurate and objective summary that makes clear the relationships among the central ideas and key details. • Analyze content area-specific text

- development. a) Determine the central ideas or conclusions of a text. b) Provide an objective summary of the central ideas of the text, paraphrasing complex concepts, processes, or information presented in simpler but still accurate terms.
- 11 [RI.11.3] Analyze a complex set of ideas or sequence of events and explain how specific individuals, ideas, or events interact and develop over the course of the text. • Evaluate various explanations for actions or events and determine which explanation best accords with textual evidence, acknowledging where the text leaves matters uncertain. • Follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks; analyze the specific results based on explanations in the text.
- 12 [RI.11.4] Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings; analyze how an author uses and refines the meaning of a key term or terms over the course of a text (e.g., how Madison defines faction in Federalist No. 10).
- 13 [RI.11.5] Analyze and evaluate the effectiveness of the structure an author uses in his or her exposition or argument, including whether the structure makes points clear, convincing, and engaging. • Analyze in detail how a complex primary source is structured, including how key sentences, paragraphs, and larger portions of the text contribute to the whole. • Analyze how the text structures information or ideas into categories or hierarchies, demonstrating understanding of the information or ideas.
- 14 [RI.11.6] Determine an author’s perspective or purpose in a text in which the rhetoric is particularly effective, analyzing how style and content contribute to the power, persuasiveness, or beauty of the text. • Evaluate authors’ differing perspectives on the same historical event or issue by assessing the authors’ claims, reasoning, and evidence. • Analyze the author’s purpose in providing an explanation, describing a procedure, or discussing an experiment in a text, identifying important issues that remain unresolved.
- 15 [RI.11.7] Integrate and evaluate multiple sources of information presented in different media or formats (e.g., visually, quantitatively) as well as in words in order to address a question or solve a problem. • Integrate and evaluate multiple sources of information presented in diverse formats and media (e.g., visually, quantitatively, as well as in words) in order to address a question or solve a problem. • Integrate and evaluate multiple sources of information presented in diverse formats and media (e.g., quantitative data, video, multimedia) in order to address a question or solve a problem.
- 16 [RI.11.8] Delineate and evaluate the reasoning in seminal U.S. texts and the premises, purposes, and arguments in works of public advocacy (e.g., The Federalist, presidential addresses). • Evaluate an author’s premises, claims, and evidence by corroborating or challenging them with other information. • Evaluate the hypotheses, data, analysis, and conclusions in a science or technical text, verifying the data when possible and corroborating or challenging conclusions with other sources of information.
- 17 [RI.11.9] Analyze seventeenth-, eighteenth-, and nineteenth-century foundational U.S. documents of historical and literary significance (including The Declaration of Independence, the Preamble to the Constitution, the Bill of Rights, and Lincoln’s Second Inaugural Address) for their themes, purposes, and rhetorical features. • Integrate information from diverse sources, both primary and secondary, into a coherent understanding of an idea or event, noting discrepancies among sources. • Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent

understanding of a process, phenomenon, or concept, resolving conflicting information when possible.

Language [VOC]

- 18 [L.11.4] Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 11 reading and content, choosing flexibly from a range of strategies. a) Use context (e.g., the overall meaning of a sentence, paragraph, or text; a word's position or function in a sentence) as a clue to the meaning of a word or phrase. b) Identify and correctly use patterns of word changes that indicate different meanings or parts of speech (e.g., conceive, conception, conceivable). c) Consult general and specialized reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation of a word or determine or clarify its precise meaning, part of speech, etymology, or standard usage. d) Verify the preliminary determination of the meaning of a word or phrase (e.g., by checking the inferred meaning in context or in a dictionary). • Determine the meaning of words and phrases as they are used in a text, including analyzing how an author uses and refines the meaning of a key term over the course of a text (e.g., how Madison defines faction in Federalist No. 10). • Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to grade 11 texts and topics.
- 19 [L.11.5] Demonstrate understanding of figurative language, word relationships, and nuances in word meanings. a) Interpret figures of speech (e.g., hyperbole, paradox) in context and analyze their role in the text. b) Analyze nuances in the meaning of words with similar denotations.

PRO-Core Grade 12 ELA/Reading Standards

Reading Literary Text [LIT]

- 1 [RL.12.1] Cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text, including determining where the text leaves matter uncertain.
- 2 [RL.12.2] Analyze literary text development. a) Determine two or more themes of a text and analyze their development over the course of the text, including how they interact and build on one another. b) Produce a thorough analysis of the text.
- 3 [RL.12.3] Analyze the impact of the author's choices regarding how to develop and relate elements of a story or drama (e.g., where a story is set, how the action is ordered, how the characters are introduced and developed.)
- 4 [RL.12.4] Determine the connotative, denotative, and figurative meanings of words and phrases as they are used in the text; analyze the impact of author's diction, including multiple-meaning words or language that is particularly evocative to the tone and mood of the text.
- 5 [RL.12.5] Analyze how an author's choices concerning how to structure specific parts of a text (e.g., the choice of where to begin or end a story, the choice to provide a comedic or tragic resolution) contribute to its overall structure and meaning as well as its aesthetic impact.
- 6 [RL.12.6] Analyze a case in which grasping point of view requires distinguishing what is directly stated in a text from what is really meant (e.g., satire, sarcasm, irony, or understatement) and evaluate the impact of these literary devices on the content and style of the text.
- 7 [RL.12.7] Analyze multiple interpretations of a story, drama, or poem (e.g., recorded or live production of a play or recorded novel or poetry), evaluating how each version interprets the source text.
- 8 [RL.12.9] Demonstrate knowledge of eighteenth-, nineteenth- and early-twentieth-century foundational works of American literature, including how two or more diverse texts from the same period treat similar themes and/or topics.

Reading Informational Text [INF]

- 9 [RI.12.1] Cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text, including determining where the text leaves matters uncertain. • Cite specific textual evidence to support analysis of primary and secondary sources, connecting insights gained from specific details to an understanding of the text as a whole. • Cite specific textual evidence to support analysis of science and technical texts, attending to important distinctions the author makes and to any gaps or inconsistencies in the account.
- 10 [RI.12.2] Analyze informational text development. a) Determine two or more central ideas of a text and analyze their development over the course of the text, including how they interact and build on one another. b) Craft an informative abstract that delineates how the central ideas of a text interact and build on one another. • Analyze content area-specific text development. a) Determine the central ideas or information of a primary or secondary source. b) Provide an accurate and objective summary that makes clear the relationships among the central ideas and key details. • Analyze content area-specific text

- development. a) Determine the central ideas or conclusions of a text. b) Provide an objective summary of the central ideas of the text, paraphrasing complex concepts, processes, or information presented in simpler but still accurate terms.
- 11 [RI.12.3] Analyze a complex set of ideas or sequence of events and explain how specific individuals, ideas, or events interact and develop over the course of the text. • Evaluate various explanations for actions or events and determine which explanation best accords with textual evidence, acknowledging where the text leaves matters uncertain. • Follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks; analyze the specific results based on explanations in the text.
- 12 [RI.12.4] Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings; analyze how an author uses and refines the meaning of a key term or terms over the course of a text (e.g., how Madison defines faction in Federalist No. 10).
- 13 [RI.12.5] Analyze and evaluate the effectiveness of the structure an author uses in his or her exposition or argument, including whether the structure makes points clear, convincing, and engaging. • Analyze in detail how a complex primary source is structured, including how key sentences, paragraphs, and larger portions of the text contribute to the whole. • Analyze how the text structures information or ideas into categories or hierarchies, demonstrating understanding of the information or ideas.
- 14 [RI.12.6] Determine an author's perspective or purpose in a text in which the rhetoric is particularly effective, analyzing how style and content contribute to the power, persuasiveness, or beauty of the text. • Evaluate authors' differing perspectives on the same historical event or issue by assessing the authors' claims, reasoning, and evidence. • Analyze the author's purpose in providing an explanation, describing a procedure, or discussing an experiment in a text, identifying important issues that remain unresolved.
- 15 [RI.12.7] Integrate and evaluate multiple sources of information presented in different media or formats (e.g., visually, quantitatively) as well as in words in order to address a question or solve a problem. • Integrate and evaluate multiple sources of information presented in diverse formats and media (e.g., visually, quantitatively, as well as in words) in order to address a question or solve a problem. • Integrate and evaluate multiple sources of information presented in diverse formats and media (e.g., quantitative data, video, multimedia) in order to address a question or solve a problem.
- 16 [RI.12.8] Delineate and evaluate the reasoning in seminal U.S. texts and the premises, purposes, and arguments in works of public advocacy (e.g., The Federalist, presidential addresses). • Evaluate an author's premises, claims, and evidence by corroborating or challenging them with other information. • Evaluate the hypotheses, data, analysis, and conclusions in a science or technical text, verifying the data when possible and corroborating or challenging conclusions with other sources of information.
- 17 [RI.12.9] Analyze seventeenth-, eighteenth-, and nineteenth-century foundational U.S. documents of historical and literary significance (including The Declaration of Independence, the Preamble to the Constitution, the Bill of Rights, and Lincoln's Second Inaugural Address) for their themes, purposes, and rhetorical features. • Integrate information from diverse sources, both primary and secondary, into a coherent understanding of an idea or event, noting discrepancies among sources. • Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent

understanding of a process, phenomenon, or concept, resolving conflicting information when possible.

Language [VOC]

- 18 [L.12.4] Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 12 reading and content, choosing flexibly from a range of strategies. a) Use context (e.g., the overall meaning of a sentence, paragraph, or text; a word's position or function in a sentence) as a clue to the meaning of a word or phrase. b) Identify and correctly use patterns of word changes that indicate different meanings or parts of speech (e.g., conceive, conception, conceivable). c) Consult general and specialized reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation of a word or determine or clarify its precise meaning, part of speech, etymology, or standard usage. d) Verify the preliminary determination of the meaning of a word or phrase (e.g., by checking the inferred meaning in context or in a dictionary). • Determine the meaning of words and phrases as they are used in a text, including analyzing how an author uses and refines the meaning of a key term over the course of a text (e.g., how Madison defines faction in Federalist No. 10). • Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to grade 12 texts and topics.
- 19 [L.12.5] Demonstrate understanding of figurative language, word relationships, and nuances in word meanings. a) Interpret figures of speech (e.g., hyperbole, paradox) in context and analyze their role in the text. b) Analyze nuances in the meaning of words with similar denotations.



PRO-Core Grade 2 Science Standards

Earth and Space Science [ESS]

- 1 [2.ESS.1] The atmosphere is primarily made up of air.
- 2 [2.ESS.2] Water is present in the atmosphere.
- 3 [2.ESS.3] Long- and short-term weather changes occur due to changes in energy.

Physical Science [PHS]

- 4 [2.PS.1] Forces change the motion of an object.

Life Science [LIS]

- 5 [2.LS.1] Living things cause changes on Earth.
- 6 [2.LS.2] All organisms alive today result from their ancestors, some of which may be extinct. Not all kinds of organisms that lived in the past are represented by living organisms today.



PRO-Core Grade 3 Science Standards

Earth and Space Science [ESS]

- 1 [3.ESS.1] Earth's nonliving resources have specific properties.
- 2 [3.ESS.2] Earth's resources can be used for energy.
- 3 [3.ESS.3] Some of Earth's resources are limited.

Physical Science [PHS]

- 4 [3.PS.1] All objects and substances in the natural world are composed of matter.
- 5 [3.PS.2] Matter exists in different states, each of which has different properties.
- 6 [3.PS.3] Heat, electrical energy, light, sound and magnetic energy are forms of energy.

Life Science [LIS]

- 7 [3.LS.1] Offspring resemble their parents and each other.
- 8 [3.LS.2] Individuals of the same kind of organism differ in their inherited traits. These differences give some individuals an advantage in surviving and/or reproducing.
- 9 [3.LS.3] Plants and animals have life cycles that are part of their adaptations for survival in their natural environments.



PRO-Core Grade 4 Science Standards

Earth and Space Science [ESS]

- 1 [4.ESS.1] Earth's surface has specific characteristics and landforms that can be identified.
- 2 [4.ESS.2] The surface of Earth changes due to weathering.
- 3 [4.ESS.3] The surface of Earth changes due to erosion and deposition.

Physical Science [PHS]

- 4 [4.PS.1] When objects break into smaller pieces, dissolve, or change state, the total amount of matter is conserved.
- 5 [4.PS.2] Energy can be transferred from one location to another or can be transformed from one form to another.

Life Science [LIS]

- 6 [4.LS.1] Changes in an organism's environment are sometimes beneficial to its survival and sometimes harmful.
- 7 [4.LS.2] Fossils can be compared to one another and to present-day organisms according to their similarities and differences.



PRO-Core Grade 5 Science Standards

Earth and Space Science [ESS]

- 1 [5.ESS.1] The solar system includes the sun and all celestial bodies that orbit the sun. Each planet in the solar system has unique characteristics.
- 2 [5.ESS.2] The sun is one of many stars that exist in the universe.
- 3 [5.ESS.3] Most of the cycles and patterns of motion between the Earth and sun are predictable.

Physical Science [PHS]

- 4 [5.PS.1] The amount of change in movement of an object is based on the mass of the object and the amount of force exerted.
- 5 [5.PS.2] Light and sound are forms of energy that behave in predictable ways.

Life Science [LIS]

- 6 [5.LS.1] Organisms perform a variety of roles in an ecosystem.
- 7 [5.LS.2] All of the processes that take place within organisms require energy.



PRO-Core Grade 6 Science Standards

Earth and Space Science [ESS]

- 1 [6.ESS.1] Minerals have specific, quantifiable properties.
- 2 [6.ESS.2] Igneous, metamorphic and sedimentary rocks have unique characteristics that can be used for identification and/or classification.
- 3 [6.ESS.3] Igneous, metamorphic and sedimentary rocks form in different ways.
- 4 [6.ESS.4] Soil is unconsolidated material that contains nutrient matter and weathered rock.
- 5 [6.ESS.5] Rocks, minerals and soils have common and practical uses.

Physical Science [PHS]

- 6 [6.PS.1] Matter is made up of small particles called atoms.
- 7 [6.PS.2] Changes of state are explained by a model of matter composed of particles that are in motion.
- 8 [6.PS.3] There are two categories of energy: kinetic and potential.
- 9 [6.PS.4] An object's motion can be described by its speed and the direction in which it is moving.

Life Science [LIS]

- 10 [6.LS.1] Cells are the fundamental unit of life.
- 11 [6.LS.2] All cells come from pre-existing cells.
- 12 [6.LS.3] Cells carry on specific functions that sustain life.
- 13 [6.LS.4] Living systems at all levels of organization demonstrate the complementary nature of structure and function.

PRO-Core Grade 7 Science Standards

Earth and Space Science [ESS]

- 1 [7.ESS.1] The hydrologic cycle illustrates the changing states of water as it moves through the lithosphere, biosphere, hydrosphere and atmosphere.
- 2 [7.ESS.2] Thermal-energy transfers in the ocean and the atmosphere contribute to the formation of currents, which influence global climate patterns.
- 3 [7.ESS.3] The atmosphere has different properties at different elevations and contains a mixture of gases that cycle through the lithosphere, biosphere, hydrosphere and atmosphere.
- 4 [7.ESS.4] The relative patterns of motion and positions of the Earth, moon and sun cause solar and lunar eclipses, tides, and phases of the moon.
- 5 [7.ESS.5] The relative positions of Earth and the sun cause patterns we call seasons.

Physical Science [PHS]

- 6 [7.PS.1] Elements can be organized by properties.
- 7 [7.PS.2] Matter can be separated or changed, but in a closed system, the number and types of atoms remains constant.
- 8 [7.PS.3] Energy can be transformed or transferred but is never lost.
- 9 [7.PS.4] Energy can be transferred through a variety of ways.

Life Science [LIS]

- 10 [7.LS.1] Energy flows and matter is transferred continuously from one organism to another and between organisms and their physical environments.
- 11 [7.LS.2] In any particular biome, the number, growth and survival of organisms and populations depend on biotic and abiotic factors.



PRO-Core Grade 8 Science Standards

Earth and Space Science [ESS]

- 1 [8.ESS.1] The composition and properties of Earth's interior are identified by the behavior of seismic waves.
- 2 [8.ESS.2] Earth's lithosphere consists of major and minor tectonic plates that move relative to each other.
- 3 [8.ESS.3] A combination of constructive and destructive geologic processes formed Earth's surface.
- 4 [8.ESS.4] Evidence of the dynamic changes of Earth's surface through time is found in the geologic record.

Physical Science [PHS]

- 5 [8.PS.1] Objects can experience a force due to an external field such as magnetic, electrostatic, or gravitational fields.
- 6 [8.PS.2] Forces can act to change the motion of objects.

Life Science [LIS]

- 7 [8.LS.1] Diversity of species, a result of variation of traits, occurs through the process of evolution and extinction over many generations. The fossil records provide evidence that changes have occurred in number and types of species.
- 8 [8.LS.2] Every organism alive today comes from a long line of ancestors who reproduced successfully every generation.
- 9 [8.LS.3] The characteristics of an organism are a result of inherited traits received from parent(s).



PRO-Core High School Physical Science Standards

Study of Matter [MAT]

- 1 [PS.M.1] Classification of matter
- 2 [PS.M.2] Atoms
- 3 [PS.M.3] Periodic trends of the elements
- 4 [PS.M.4] Bonding and compounds
- 5 [PS.M.5] Reactions of matter

Energy and Waves [ENE]

- 6 [PS.EW.1] Conservation of Energy
- 7 [PS.EW.2] Transfer and transformation of energy (including work)
- 8 [PS.EW.3] Waves
- 9 [PS.EW.4] Thermal energy
- 10 [PS.EW.5] Electricity

Forces and Motion [FOR]

- 11 [PS.FM.1] Motion
- 12 [PS.FM.2] Forces
- 13 [PS.FM.3] Dynamics (how forces affect motion)

The Universe [UNI]

- 14 [PS.U.1] History of the universe
- 15 [PS.U.2] Galaxies
- 16 [PS.U.3] Stars



PRO-Core High School Biology Standards

Heredity [HER]

- 1 [B.H.1] Cellular genetics
- 2 [B.H.2] Structure and function of DNA in cells
- 3 [B.H.3] Genetic mechanisms and inheritance
- 4 [B.H.4] Mutations
- 5 [B.H.5] Modern genetics

Evolution [EVO]

- 6 [B.E.1] Mechanisms
- 7 [B.E.2] Speciation

Diversity and Interdependence of Life [DIV]

- 8 [B.DI.1] Biodiversity
- 9 [B.DI.2] Ecosystems
- 10 [B.DI.3] Loss of diversity

Cells [CEL]

- 10 [B.C.1] Cell structure and function
- 11 [B.C.2] Cellular processes

PRO-Core High School Chemistry Standards

Structure and Properties of Matter [STR]

- 1 [C.PM.1] Atomic structure
- 2 [C.PM.2] Periodic table
- 3 [C.PM.3] Chemical bonding
- 4 [C.PM.4] Representing compounds
- 5 [C.PM.5] Quantifying matter
- 6 [C.PM.6] Intermolecular forces of attraction

Interactions of Matter [INT]

- 7 [C.IM.1] Chemical reactions
- 8 [C.IM.2] Gas laws
- 9 [C.IM.3] Stoichiometry



PRO-Core Grade 2 Social Studies Standards

History [HIS]

- 1 [1] Time can be shown graphically on calendars and timelines.
- 2 [2] Change over time can be shown with artifacts, maps and photographs.
- 3 [3] Science and technology have changed daily life.
- 4 [4] Biographies can show how people's actions have shaped the world in which we live.

Geography [GEO]

- 5 [5] Maps and their symbols, including cardinal directions, can be interpreted to answer questions about location of places.
- 6 [6] The work that people do is impacted by the distinctive human and physical characteristics in the place where they live.
- 7 [7] Human activities alter the physical environment, both positively and negatively.
- 8 [8] Cultures develop in unique ways, in part through the influence of the physical environment.
- 9 [9] Interactions among cultures lead to sharing ways of life.

Government [GOV]

- 10 [10] Respect for the rights of self and others includes making responsible choices and being accountable for personal actions.
- 11 [11] Groups are accountable for choices they make and actions they take.
- 12 [12] There are different rules and laws that govern behavior in different settings.

Economics [ECO]

- 13 [13] Information displayed on bar graphs can be used to compare quantities.
- 14 [14] Resources can be used in various ways.
- 15 [15] Most people around the world work in jobs in which they produce specific goods and services.
- 16 [16] People use money to buy and sell goods and services.
- 17 [17] People earn income by working.

PRO-Core Grade 3 Social Studies Standards

History [HIS]

- 1 [1] Events in local history can be shown on timelines organized by years, decades and centuries.
- 2 [2] Primary and secondary sources can be used to show change over time.
- 3 [3] Local communities change over time.

Geography [GEO]

- 4 [4] Physical and political maps have distinctive characteristics and purposes. Places can be located on a map by using the title, key, alphanumeric grid and cardinal directions.
- 5 [5] Daily life is influenced by the agriculture, industry and natural resources in different communities.
- 6 [6] Evidence of positive and negative human modification of the environment can be observed in the local community.
- 7 [7] Systems of transportation and communication move people, products and ideas from place to place.
- 8 [8] Communities may include diverse cultural groups.

Government [GOV]

- 9 [9] Members of local communities have rights and responsibilities.
- 10 [10] Individuals make the community a better place by taking action to solve problems in a way that promotes the common good.
- 11 [11] Laws are rules which apply to all people in a community and describe ways people are expected to behave. Laws promote order and security, provide public services and protect the rights of individuals in the local community.
- 12 [12] Governments have authority to make and enforce laws.
- 13 [13] The structure of local governments may differ from one community to another.

Economics [ECO]

- 14 [14] Line graphs are used to show changes in data over time.
- 15 [15] Both positive and negative incentives affect individuals' choices and behaviors.
- 16 [16] Individuals must make decisions because of the scarcity of resources. Making a decision involves a trade-off.
- 17 [17] A consumer is a person whose wants are satisfied by using goods and services. A producer makes goods and/or provides services.
- 18 [18] A market is where buyers and sellers exchange goods and services.
- 19 [19] Making decisions involves weighing costs and benefits.
- 20 [20] A budget is a plan to help people make personal economic decisions for the present and future and to become more financially responsible.

PRO-Core Grade 4 Social Studies Standards

History [HIS]

- 1 [1] The order of significant events in Ohio and the United States can be shown on a timeline.
- 2 [2] Primary and secondary sources can be used to create historical narratives.
- 3 [3] Various groups of people have lived in Ohio over time including American Indians, migrating settlers and immigrants. Interactions among these groups have resulted in cooperation, conflict and compromise.
- 4 [4] The 13 colonies came together around a common cause of liberty and justice, uniting to fight for independence during the American Revolution and to form a new nation.
- 5 [5] The Northwest Ordinance incorporated democratic ideals into the territories. It provided a process for territories to become states and recognized them as equal to the other existing states.
- 6 [6] Ongoing conflicts on the Ohio frontier with American Indians and Great Britain contributed to the United States' involvement in the War of 1812.
- 7 [7] Following the War of 1812, Ohio continued to play a key role in national conflicts including the anti-slavery movement and the Underground Railroad.
- 8 [8] Many technological innovations that originated in Ohio benefited the United States.

Geography [GEO]

- 9 [9] A map scale and cardinal and intermediate directions can be used to describe the relative location of physical and human characteristics of Ohio and the United States.
- 10 [10] The economic development of the United States continues to influence and be influenced by agriculture, industry and natural resources in Ohio.
- 11 [11] The regions of the United States known as the North, South and West developed in the early 1800s largely based on their physical environments and economies.
- 12 [12] People have modified the environment throughout history resulting in both positive and negative consequences in Ohio and the United States.
- 13 [13] The population of the United States has changed over time, becoming more diverse (e.g., racial, ethnic, linguistic, religious). Ohio's population has become increasingly reflective of the cultural diversity of the United States.
- 14 [14] Ohio's location and its transportation systems continue to influence the movement of people, products and ideas in the United States.

Government [GOV]

- 15 [15] Individuals have a variety of opportunities to act in and influence their state and national government. Citizens have both rights and responsibilities in Ohio and the United States.
- 16 [16] Civic participation in a democratic society requires individuals to make informed and reasoned decisions by accessing, evaluating and using information effectively to engage in compromise.
- 17 [17] Laws can protect rights, provide benefits and assign responsibilities.
- 18 [18] The U.S. Constitution establishes a system of limited government and protects citizens' rights; five of these rights are addressed in the First Amendment.

19 [19] A constitution is a written plan for government. The Ohio Constitution and the United States' Constitution separate the major responsibilities of government among three branches.

Economics [ECO]

- 20 [20] Tables and charts organize data in a variety of formats to help individuals understand information and issues.
- 21 [21] Entrepreneurs organize productive resources and take risks to make a profit and compete with other producers.
- 22 [22] Saving a portion of income contributes to an individual's financial well-being. Individuals can reduce spending to save more of their income.

PRO-Core Grade 5 Social Studies Standards

History [HIS]

- 1 [1] Events can be arranged in order of occurrence using the conventions of B.C. and A.D. or B.C.E. and C.E.
- 2 [2] Early Indian civilizations (Maya, Inca, Aztec, Mississippian) existed in the Western Hemisphere prior to the arrival of Europeans. These civilizations had developed unique governments, social structures, religions, technologies, and agricultural practices and products.
- 3 [3] European exploration and colonization during the 1400s–1600s had lasting effects which can be used to understand the Western Hemisphere today.

Geography [GEO]

- 4 [4] Geographic tools can be used to gather, process and report information about people, places and environments. Cartographers decide which information to include in maps.
- 5 [5] Latitude and longitude can be used to make observations about location and generalizations about climate.
- 6 [6] Regions can be determined using various criteria (e.g., landform, climate, population, cultural or economic).
- 7 [7] The variety of physical environments within the Western Hemisphere influences human activities. Likewise, human activities modify the physical environments.
- 8 [8] American Indians developed unique cultures with many different ways of life. American Indian tribes and nations can be classified into cultural groups based on geographic and cultural similarities.
- 9 [9] Political, environmental, social and economic factors cause people, products and ideas to move from place to place in the Western Hemisphere and results in diversity.
- 10 [10] The Western Hemisphere is culturally diverse (e.g., language, food, religion, art, music) due to the influences and interactions of a variety of world cultures.

Government [GOV]

- 11 [11] Individuals can better understand public issues by gathering, interpreting and checking information for accuracy from multiple sources. Data can be displayed graphically to effectively and efficiently communicate information.
- 12 [12] Democracies, dictatorships and monarchies are categories for understanding the relationship between those in power or authority and citizens.

Economics [ECO]

- 13 [13] Information displayed in circle graphs can be used to show relative proportions of segments of data to an entire body of data.
- 14 [14] The choices made by individuals and governments have both present and future consequences.
- 15 [15] The availability of productive resources (i.e., entrepreneurship, human resources, capital goods and natural resources) promotes specialization that could lead to trade.
- 16 [16] The availability of productive resources and the division of labor can have a positive or negative impact on productive capacity.

- 17 [17] Regions and countries become interdependent when they specialize in what they produce best and then trade with other regions to increase the amount and variety of goods and services available.
- 18 [18] Workers can improve their ability to earn income by gaining new knowledge, skills and experiences.



PRO-Core Grade 6 Social Studies Standards

History [HIS]

- 1 [1] Multiple tier timelines can be used to show relationships among events and places.
- 2 [2] Early civilizations (India, Egypt, China and Mesopotamia) had unique governments, economic systems, social structures, religions, technologies and agricultural practices and products. The cultural practices and products of these early civilizations can be used to help understand the Eastern Hemisphere today.

Geography [GEO]

- 3 [3] Geographic tools can be used to gather, process and report information about people, places and environments. Cartographers decide which information to include and how it is displayed.
- 4 [4] Latitude and longitude can be used to identify absolute location.
- 5 [5] Regions can be determined, classified and compared using various criteria (e.g., landform, climate, population, cultural, or economic).
- 6 [6] The variety of physical environments within the Eastern Hemisphere influences human activities. Likewise, human activities modify the physical environment.
- 7 [7] Political, environmental, social and economic factors cause people, products and ideas to move from place to place in the Eastern Hemisphere in the past and today.
- 8 [8] Diffusion of agricultural practices and products, technology, cultural practices and major world religions (Buddhism, Christianity, Hinduism, Islam and Judaism) impacted the Eastern Hemisphere.

Government [GOV]

- 9 [9] Different perspectives on a topic can be obtained from a variety of historic and contemporary sources and used to effectively communicate and defend a claim based on evidence. Sources should be examined for accuracy and credibility.
- 10 [10] Governments can be categorized as monarchies, theocracies, dictatorships or democracies, but categories may overlap and labels may not accurately represent how governments function. The extent of citizens' liberties and responsibilities varies according to limits on governmental authority.

Economics [ECO]

- 11 [11] Economists compare data sets to draw conclusions about relationships among them.
- 12 [12] The choices made by individuals and governments have both present and future consequences. The evaluation of choices is relative and may differ across individuals and societies.
- 13 [13] The fundamental questions of economics include what to produce, how to produce and for whom to produce.
- 14 [14] When regions and/or countries specialize, global trade occurs.
- 15 [15] The interaction of supply and demand, influenced by competition, helps to determine price in a market. This interaction also determines the quantities of outputs produced and the quantities of productive resources (entrepreneurship, human resources, natural resources and capital) used.

16 [16] When selecting items to buy, individuals can weigh costs and benefits and compare the price and quality of available goods and services.

PRO-Core Grade 7 Social Studies Standards

History [HIS]

- 1 [1] Historians and archaeologists describe historical events and issues from the perspectives of people living at the time to avoid evaluating the past in terms of today's norms and values.
- 2 [2] The civilizations that developed in Greece and Rome had an enduring impact on later civilizations. This legacy includes governance and law, engineering and technology, art and architecture, as well as literature and history. The Roman Empire also played an instrumental role in the spread of Christianity.
- 3 [3] The Roman Empire collapsed due to various internal and external factors (political, social and economic) which led to the development of feudalism and the manorial system in the region. The fall of Rome and later invasions also allowed for the creation of new Empires in the region.
- 4 [4] The Mongols conquered much of Asia which led to unified states in China and Korea. Mongol failure to conquer Japan allowed a feudal system to persist.
- 5 [5] Achievements in medicine, science, mathematics and geography by the Islamic civilization dominated most of the Mediterranean after the decline of the Roman Empire. These achievements were introduced into Western Europe as a result of the Muslim conquests, Crusades and trade, influencing the European Renaissance.
- 6 [6] The decline of feudalism, the rise of nation-states and the Renaissance in Europe introduced revolutionary ideas, leading to cultural, scientific and social changes.
- 7 [7] The Reformation introduced changes in religion including the emergence of Protestant faiths and a decline in the political power and social influence of the Roman Catholic Church.
- 8 [8] Empires in Africa grew as commercial and cultural centers along trade routes.
- 9 [9] The advent of the trans-Saharan slave trade had profound effects on both West and Central Africa and the receiving societies.
- 10 [10] European economic and cultural influence dramatically increased through explorations, conquests and colonization.
- 11 [11] The Columbian Exchange (e.g., the exchange of fauna, flora and pathogens) among previously unconnected parts of the world reshaped societies in ways still evident today.

Geography [GEO]

- 12 [12] Maps and other geographic representations can be used to trace the development of human settlement over time.
- 13 [13] Geographic factors promote or impede the movement of people, products and ideas.
- 14 [14] Trade routes connecting Africa, Europe and Asia helped foster the spread of ideas, technology, goods and major world religions (Buddhism, Christianity, Hinduism, Islam and Judaism) impacted the Eastern Hemisphere.
- 15 [15] Improvements in transportation, communication and technology have facilitated cultural diffusion among peoples around the world.

Government [GOV]

- 16 [16] Analyzing individual and group perspectives is essential to understanding historic and contemporary issues. Opportunities for civic engagement exist for students to connect real world issues and events to classroom learning.
- 17 [17] Greek democracy and the Roman Republic were radical departures from monarchy and theocracy, influencing the structure and function of modern democratic governments.
- 18 [18] With the decline of feudalism, consolidation of power resulted in the emergence of nation states.

Economics [ECO]

- 19 [19] Individuals, governments and businesses must analyze costs and benefits when making economic decisions. A cost-benefit analysis consists of determining the potential costs and benefits of an action and then balancing the costs against the benefits.
- 20 [20] The variability in the distribution of productive resources in the various regions of the world contributed to specialization, trade and interdependence.
- 21 [21] The growth of cities and empires fostered the growth of markets. Market exchanges encouraged specialization and the transition from barter to monetary economies.

PRO-Core Grade 8 Social Studies Standards

History [HIS]

- 1 [1] Primary and secondary sources are used to examine events from multiple perspectives and to present and defend a position.
- 2 [2] North America, originally inhabited by American Indians, was explored and colonized by Europeans for economic and religious reasons.
- 3 [3] Competition for control of territory and resources in North America led to conflicts among colonizing powers.
- 4 [4] The practice of race-based slavery led to the forced migration of Africans to the American colonies and contributed to colonial economic development. Their knowledge, skills and traditions were essential to the development of the colonies.
- 5 [5] The ideas of the Enlightenment and dissatisfaction with colonial rule led English colonists to write the Declaration of Independence and launch the American Revolution.
- 6 [6] Key events and significant figures in American history influenced the course and outcome of the American Revolution.
- 7 [7] The outcome of the American Revolution was national independence and new political, social and economic relationships for the American people.
- 8 [8] Problems arising under the Articles of Confederation led to debate over the adoption of the U.S. Constitution.
- 9 [9] Actions of early presidential administrations established a strong federal government, provided peaceful transitions of power and repelled a foreign invasion.
- 10 [10] The United States added to its territory through treaties and purchases.
- 11 [11] Westward expansion contributed to economic and industrial development, debates over sectional issues, war with Mexico and the displacement of American Indians.
- 12 [12] Disputes over the nature of federalism, complicated by economic developments in the United States, resulted in sectional issues, including slavery, which led to the American Civil War.
- 13 [13] Key events and significant figures in American history influenced the course and outcome of the Civil War.
- 14 [14] The Reconstruction period resulted in changes to the U.S. Constitution, an affirmation of federal authority and lingering social and political differences.

Geography [GEO]

- 15 [15] Modern and historical maps and other geographic tools are used to analyze how historic events are shaped by geography.
- 16 [16] The availability of natural resources contributed to the geographic and economic expansion of the United States, sometimes resulting in unintended environmental consequences.
- 17 [17] The movement of people, products and ideas resulted in new patterns of settlement and land use that influenced the political and economic development of the United States.
- 18 [18] Cultural biases, stereotypes and prejudices had social, political and economic consequences for minority groups and the population as a whole.
- 19 [19] Americans began to develop a unique national identity among diverse regional and cultural populations based on democratic ideals.



Government [GOV]

- 20 [20] Active participation in social and civic groups can lead to the attainment of individual and public goals.
- 21 [21] Informed citizens understand how media and communication technology influence public opinion.
- 22 [22] The U.S. Constitution established a federal republic, providing a framework for a national government with elected representatives, separation of powers, and checks and balances.
- 23 [23] The U.S. Constitution protects citizens' rights by limiting the powers of government.

Economics [ECO]

- 24 [24] Choices made by individuals, businesses and governments have both present and future consequences.
- 25 [25] The Industrial Revolution fundamentally changed the means of production as a result of improvements in technology, use of new power resources, the advent of interchangeable parts and the shift from craftwork to factory work.
- 26 [26] Governments can impact markets by means of spending, regulations, taxes and trade barriers.

PRO-Core High School World History Standards

Historical Thinking and Skills [HTS]

- 1 [1-3] The use of primary and secondary sources of information includes an examination of the credibility of each source. Historians develop theses and use evidence to support or refute positions. Historians analyze cause, effect, sequence and correlation in historical events, including multiple causation and long- and short-term causal relations.

Age of Enlightenment (1600–1800) [ENL]

- 2 [4] The Scientific Revolution impacted religious, political, and cultural institutions by challenging how people viewed the world.
- 3 [5] Enlightenment ideas regarding human nature and society challenged religious authority, absolute rule and mercantilism.
- 4 [6] Enlightenment ideas on the relationship of the individual and the government influenced the American and French Revolutions.

Age of Revolutions (1750–1914) [REV]

- 5 [7] The American and French Revolutions influenced Latin American revolutions for independence.
- 6 [8] Industrialization had social, political and economic effects on Western Europe and the world.

Imperialism (1800–1914) [IMP]

- 7 [9] Imperial expansion had political, economic and social roots.
- 8 [10] Imperialism involved land acquisition, extraction of raw materials, spread of Western values and direct political control.
- 9 [11] The consequences of imperialism were viewed differently by the colonizers and the colonized.

Achievements and Crises (1900–1945) [ACH]

- 10 [12] Advances in technology, communication and transportation improved lives, but also had negative consequences.
- 11 [13] The causes of World War I included militarism, imperialism, nationalism and alliances.
- 12 [14] The consequences of World War I and the worldwide depression set the stage for the Russian Revolution, the rise of totalitarianism, aggressive Axis expansion and the policy of appeasement which in turn led to World War II.
- 13 [15] Oppression and discrimination resulted in the Armenian Genocide during World War I and the Holocaust during World War II.
- 14 [16] World War II devastated most of Europe and Asia, led to the occupation of Eastern Europe and Japan, and began the atomic age.

The Cold War (1945–1991) [COL]

- 15 [17] The United States and the Soviet Union became superpowers and competed for global influence.

- 16 [18] Treaties and agreements at the end of World War II changed national boundaries and created multinational organizations.
- 17 [19] Religious diversity, the end of colonial rule and rising nationalism have led to regional conflicts in the Middle East.
- 18 [20] Postwar global politics led to the rise of nationalist movements in Africa and Southeast Asia.
- 19 [21] Political and social struggles have resulted in expanded rights and freedoms for women and indigenous peoples.

Globalization (1991–Present) [GLO]

- 20 [22] The break-up of the Soviet Union ended the Cold War and created challenges for its former allies, the former Soviet republics, Europe, the United States and the non-aligned world.
- 21 [23] Regional and ethnic conflicts in the post-Cold War era have resulted in acts of terrorism, genocide and ethnic cleansing.
- 22 [24] Political and cultural groups have struggled to achieve self-governance and self-determination.
- 23 [25] Emerging economic powers and improvements in technology have created a more interdependent global economy.
- 24 [26] Proliferation of nuclear weapons has created a challenge to world peace.
- 25 [27] The rapid increase of global population, coupled with an increase in life expectancy and mass migrations have created societal and governmental challenges.
- 26 [28] Environmental concerns, impacted by population growth and heightened by international competition for the world's energy supplies, have resulted in a new environmental consciousness and a movement for the sustainability of the world's resources.



PRO-Core High School American History Standards

Historical Thinking and Skills [HTS]

- 1 [1-3] The use of primary and secondary sources of information includes an examination of the credibility of each source. Historians develop theses and use evidence to support or refute positions. Historians analyze cause, effect, sequence and correlation in historical events, including multiple causation and long- and short-term causal relations.

Founding Documents [FDO]

- 2 [4] The Declaration of Independence elaborates on the rights and role of the people in building the foundations of the American nation through the principles of unalienable rights and consent of the people.
- 3 [5] The Northwest Ordinance elaborates on the rights and role of the people in building the foundations of the American nation through its establishment of natural rights and setting up educational institutions.
- 4 [6] The U.S. Constitution established the foundations of the American nation and the relationship between the people and their government.
- 5 [7] The debate presented by the Federalist and Anti-Federalist Papers over protections for individuals and limits on government power resulted in the Bill of Rights. The Bill of Rights provides constitutional protections for individual liberties and limits on governmental power.

Industrialization and Progressivism [IND]

- 6 [8-9] The rise of corporations, heavy industry, mechanized farming and technological innovations transformed the American economy from an agrarian to an increasingly urban industrial society. The rise of industrialization led to a rapidly expanding workforce. Labor organizations grew amidst unregulated working conditions, laissez-faire policies toward big business, and violence toward supporters of organized labor.
- 7 [10-11] Immigration, internal migration and urbanization transformed American life. Continued settlement by Americans in the West intensified conflict with American Indians and reinforced the policy of the reservation system.
- 8 [12] Following Reconstruction, old political and social structures reemerged and racial discrimination was institutionalized.
- 9 [13] The Progressive era was an effort to address the ills of American society stemming from industrial capitalism, urbanization and political corruption.

Foreign Affairs from Imperialism to Post World War I [FOR]

- 10 [14] As a result of overseas expansion, the Spanish-American War and World War I, the United States emerged as a world power.
- 11 [15] After World War I, the United States pursued efforts to maintain peace in the world. However, as a result of the national debate over the Versailles Treaty ratification and the League of Nations, the United States moved away from the role of world peacekeeper and limited its involvement in international affairs.

Prosperity, Depression and the New Deal [PRO]

- 12 [16] Racial intolerance, anti-immigrant attitudes and the Red Scare contributed to social unrest after World War I.
- 13 [17] An improved standard of living for many, combined with technological innovations in communication, transportation and industry, resulted in social and cultural changes and tensions.
- 14 [18] Movements such as the Harlem Renaissance, African-American migration, women's suffrage and Prohibition all contributed to social change.
- 15 [19] The Great Depression was caused, in part, by the federal government's monetary policies, stock market speculation, and increasing consumer debt. The role of the federal government expanded as a result of the Great Depression.
- 16 [20] During the 1930s, the U.S. government attempted to distance the country from earlier interventionist policies in the Western Hemisphere as well as retain an isolationist approach to events in Europe and Asia until the beginning of World War II.
- 17 [21] United States policy and mobilization of its economic and military resources during World War II affected American society. Despite mistreatment, marginalized groups played important roles in the war effort while continuing to protest unfair treatment.

The Cold War [COL]

- 18 [22] Use of atomic weapons changed the nature of war, altered the balance of power and began the nuclear age.
- 19 [23-24] The United States followed a policy of containment during the Cold War in response to the spread of communism. The Second Red Scare and McCarthyism reflected Cold War fears in American society.
- 20 [25] The Cold War and conflicts in Korea and Vietnam influenced domestic and international politics.
- 21 [26] The collapse of communist governments in Eastern Europe and the U.S.S.R. brought an end to the Cold War.

Social Transformations in the United States [SOC]

- 22 [27] Following World War II, the United States experienced a struggle for racial and gender equality and the extension of civil rights.
- 23 [28-29] The postwar economic boom and advances in science and technology, produced changes in American life. The continuing population flow from cities to suburbs, the internal migrations from the Rust Belt to the Sun Belt, and the increase in immigration resulting from passage of the 1965 Immigration Act have had social and political effects.
- 24 [30] Political debates focused on the extent of the role of government in the economy, environmental protection, social welfare and national security.

United States and the Post-Cold War World [UNI]

- 25 [31] Improved global communications, international trade, transnational business organizations, overseas competition and the shift from manufacturing to service industries have impacted the American economy.
- 26 [32-33] Focusing on domestic policy, the United States faces ongoing social, political, national security, and economic challenges in the post-Cold War era and following the attacks on September 11, 2001. Focusing on foreign policy, the United States faces

ongoing economic, political, military, and social challenges in the post-Cold War era and following the attacks of September 11, 2001.

PRO-Core High School American Government Standards

Civic Participation and Skills [CIV]

- 1 [3] Issues can be analyzed through the critical use of information from public records, surveys, research data and policy positions of advocacy groups.
- 2 [4] The processes of persuasion, compromise, consensus building and negotiation contribute to the resolution of conflicts and differences.

Basic Principles of the U.S. Constitution [BAS]

- 3 [5] As the supreme law of the land, the U.S. Constitution incorporates basic principles which help define the government of the United States as a federal republic including its structure, powers and relationship with the governed.
- 4 [6] The Federalist Papers and the Anti-Federalist Papers framed the national debate over the basic principles of government encompassed by the Constitution of the United States.
- 5 [7] Constitutional government in the United States has changed over time as a result of amendments to the U.S. Constitution, Supreme Court decisions, legislation and informal practices.
- 6 [8] The Bill of Rights was drafted in response to the national debate over the ratification of the Constitution of the United States.
- 7 [9] The constitutional amendments known collectively as the Reconstruction Amendments extended new constitutional protections to African Americans, though the struggle to fully achieve equality would continue.
- 8 [10] Constitutional amendments have provided for civil rights such as suffrage for disenfranchised groups.
- 9 [11] Constitutional amendments have altered provisions for the structure and functions of the federal government.

Structure and Functions of the Federal Government [STR]

- 10 [12] Law and public policy are created and implemented by three branches of government; each functions with its own set of powers and responsibilities.
- 11 [13] The political process creates a dynamic interaction among the three branches of government in addressing current issues.

Role of the People [ROL]

- 12 [14] In the United States, people have rights that protect them from undue governmental interference. Rights carry responsibilities that help define how people use their rights and that require respect for the rights of others.
- 13 [15] Historically, the United States has struggled with majority rule and the extension of minority rights. As a result of this struggle, the government has increasingly extended civil rights to marginalized groups and broadened opportunities for participation.

Ohio's State and Local Governments [OHI]

- 14 [16] As a framework for the state, the Ohio Constitution has similarities and differences to the federal Constitution; it was changed in 1851 to address difficulties governing the state.



15 [17] Individuals in Ohio have a responsibility to assist state and local governments as they address relevant and often controversial problems that directly affect their communities.

Public Policy [PUB]

16 [18] A variety of entities within the three branches of government, at all levels, address public policy issues that arise in domestic and international affairs.

17 [19] Individuals and organizations play a role within federal, state and local governments in helping to determine public (domestic and foreign) policy.

Government and the Economy [GOV]

18 [20] The federal government uses spending and tax policy to maintain economic stability and foster economic growth. Regulatory actions carry economic costs and benefits.

19 [21] The Federal Reserve System uses monetary tools to regulate the nation's money supply and moderate the effects of expansion and contraction in the economy.