

DeskTop Homeschool Solutions
d.b.a., MommieTeach Online Courses
Brochure & Course Outline

Grades 2–13: Core Curriculum



Reading Comprehension

Reading is a continued priority in grades 2–5. Emphasis is placed on learning about words, reading text with fluency and expression, and learning comprehension strategies. The student will read a variety of fiction and nonfiction texts, which relate to all areas of the curriculum.

Reading

The student will apply word-analysis skills when reading.

- a) Use knowledge of regular and irregular vowel patterns.
- b) Decode regular multi-syllabic words.

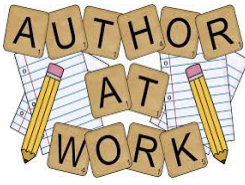
The student will expand vocabulary when reading. a) Use knowledge of homophones.

- b) Use knowledge of roots, affixes, synonyms, and antonyms.
- c) Apply meaning clues, language structure, and phonetic strategies.
- d) Use context to clarify meaning of unfamiliar words. e) Use vocabulary from other content areas.
- g) Use word reference resources including the glossary, dictionary, and thesaurus.

The student will read and demonstrate comprehension of assigned reading materials.

- a) Set a purpose for reading.
- b) Make connections between previous experiences and reading selections.
- c) Identify the author's purpose.
- f) Ask and answer questions about what is read. g) Draw conclusions about text.
- h) Identify the main idea.
- i) Identify supporting details.
- j) Use reading strategies to monitor comprehension throughout the reading process.
- k) Identify new information gained from reading.
 - l) Use encyclopedias and other reference books, including online reference materials.

Use table of contents, indices, and charts.



Writing

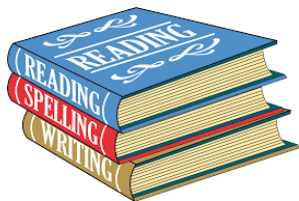
The Writing class includes daily online assignments as well as a once weekly on-site workshop, held in my home. Students will use the online resources planned each week to complete assignments, guided lessons, and assessment activities. During the weekly on-site workshop, students will work one-on-one with me on their writing assignments and projects, with a focus on the writing process, editing, proofreading, revising drafts, and producing the final draft.

The student will write for a variety of purposes.

- a) Identify the intended audience.
- b) Use a variety of pre-writing strategies.
- c) Write a clear topic sentence focusing on the main idea.
- d) Learn strategies for sound paragraph development.
- d)e) Use strategies for organization of information and elaboration according to the type of writing.
- f) Include details that elaborate the main idea.
- g) Revise writing for clarity of content using specific vocabulary and information.

The student will edit writing for correct grammar, capitalization, punctuation, and spelling. The student will use available technology for reading and writing.

- a) Use complete sentences.
- b) Use transition words to vary sentence structure. c) Use the word I in compound subjects.
- d) Use past and present verb tense. e) Use singular possessives.
- f) Use commas in a simple series. g) Use simple abbreviations.
- h) Use apostrophes in contractions with pronouns and in possessives.
- i) Use the articles a, an, and the correctly.
- b) Include prepositional phrases. c) Eliminate double negatives.
- d) Use noun-pronoun agreement.
- e) Use commas in series, dates, and addresses. f) Incorporate adjectives and adverbs.
- g) Use correct spelling for frequently used words, including common homophones.
- h) Use singular possessives.



Language Arts II:

The student will edit writing for correct grammar, capitalization, spelling, punctuation, sentence structure, and paragraphing.

- a) Use plural possessives.

- b) Use adjective and adverb comparisons. c) Identify and use interjections.
- d) Use apostrophes in contractions and possessives. e) Use quotation marks with dialogue.
- f) Use commas to indicate interrupters.
- g) Use a hyphen to divide words at the end of a line. h) Edit for fragments and run-on sentences.
- i) Eliminate double negatives.
- j) Use correct spelling of commonly used words.
- j) Use correct spelling for frequently used sight words, k) Identify and use conjunctions, including irregular plurals.

The student will write a short report. a) Construct questions about the topic. b) Identify appropriate resources. c) Collect and organize information about the topic into a short report. d) Understand the difference between plagiarism and using own words.

di)

Language Arts I

Language Arts I: The student will edit writing for correct grammar, capitalization, spelling, punctuation, sentence structure, and paragraphing.

- a) Use subject-verb agreement.

Spelling & Vocabulary

Spelling & Vocabulary Development

The student will expand vocabulary when reading context materials, as well as through word lists and curriculum-based lessons and learning units.

- a) Use context to clarify meanings of unfamiliar words. b) Use knowledge of academic spelling rules, word roots, affixes, synonyms, antonyms, and homophones. c) Use word-reference materials, including the glossary, dictionary, and thesaurus.
- d) Develop vocabulary by listening to and reading a variety of texts.
- e) Use vocabulary from other content areas.



MATHEMATICS PROGRAMS

Grades 3–12

- **Elementary Mathematics:** Grades 2–5

Number Sense, Multiplication & Division, Fractions, Percent, Place Value, Positive & Negative Integers, Time, Money, and Measurement.

- **Middle School Mathematics:** Grades 6–8

Number Sense Review, Fractions, Percent, Ratio, Introduction to Proportions, Time, Measurement, Intro to Geometry, and Pre-Algebra.

- **High School Mathematics:** Grades 9–12

Pre-Algebra Review, Algebra 1 & 2, Geometry 1 & 2, Pre-Calculus

Write the fractions' names; and
compare fractions having like and unlike denominators, using words and symbols

($>$, $<$, or $=$).

Computation and Estimation

Focus: Computation and Fraction Operations

3.4 The student will estimate solutions to and solve single-step and multistage problems involving the sum or difference of two whole numbers, each 9,999 or less, with or without regrouping.

3.5 The student will recall multiplication facts through

Standards are placed with an emphasis on learning multiplication and division facts through the twelves table. Students will be fluent in the basic addition facts through the tens table and the corresponding subtraction facts. Concrete materials and two-dimensional representations will be used to introduce addition and subtraction with fractions and the concept of probability as chance. Students will use the twelves table, and the corresponding division facts.

3.6 The student will represent multiplication and division, using area, set, and number line models, and create and solve problems that involve multiplication of two whole numbers, one factor 99 or less and the second factor 5 or less.

• Measurement

Standard units (U.S. Customary and metric) to measure Focus: U.S. Customary and Metric Units, Area and temperature, length, liquid volume, and

weight and identify relevant properties of shapes, points, line segments, rays, angles, verticals, and lines. Students will investigate and describe the identity and commutative properties for addition and multiplication.

• Number and Number Sense

Focus: Place Value and Fractions

3.1 The student will a) read and write six-digit numerals and identify the place value and value of each digit; b) round whole numbers, 9,999 or less, to the nearest ten, hundred, and thousand; and c) compare two whole numbers between 0 and 9,999, using symbols ($>$, $<$, or $=$) and words (greater than, less than, or equal to).

3.2 The student will recognize and use the inverse relationships between addition/subtraction and multiplication/division to complete basic fact sentences. The student will use these relationships to solve problems.

3.3

Perimeter, and Time

3.8 The student will determine, by counting, the value of a collection of bills and coins whose total value is \$5.00 or less, compare the value of the bills and coins, and make change.

3.9 The student will estimate and use U.S. Customary and metric units to measure

a) length to the nearest $\frac{1}{2}$ -inch, inch, foot, yard, centimeter, and meter;

b) liquid volume in cups, pints, quarts, gallons, and liters; c) weight/mass in ounces, pounds, grams, and kilograms; and d) area and perimeter.

3.10 The student will a) measure the distance around a polygon in order to determine perimeter; and

b) count the number of square units needed to cover a given surface in order to determine area.

3.11 The student will a) tell time to the nearest minute, using analog and digital clocks; and

b) determine elapsed time in one-hour increments over a 12-hour period.

a) name and write fractions (including mixed numbers) 3.12 The student will identify equivalent periods of represented by a model;

b) model fractions (including mixed numbers) and time, including relationships among days, months, and years, as well as minutes and hours.

3.13 The student will read temperature to the nearest degree from a Celsius thermometer and a Fahrenheit thermometer. Real thermometers and physical models of thermometers will be used.

- **Geometry**

Focus: Properties and Congruence Characteristics of Plane and Solid Figures

3.14 The student will identify, describe, compare, and contrast characteristics of plane and solid geometric figures (circle, square, rectangle, triangle, cube, rectangular prism, square pyramid, sphere, cone, and cylinder) by identifying relevant characteristics, including the number of angles, vertices, and edges, and the number and shape of faces, using concrete models.

3.15 The student will identify and draw representations of points, line segments, rays, angles, and lines.

3.16 The student will identify and describe congruent and non-congruent plane figures.

- **Probability and Statistics**

Focus: Applications of Data and Chance

3.17 The student will

a) collect and organize data, using observations, measurements, surveys, or experiments;

b) construct a line plot, a picture graph, or a bar graph to represent the data; and

c) read and interpret the data represented in line plots, bar graphs, and picture graphs and write a sentence analyzing the data.

3.18 The student will investigate and describe the concept of probability as chance and list possible results of a given situation.

Elementary math standards place emphasis on multiplication and division with whole numbers and the corresponding division facts as they become proficient in multiplying larger numbers. Students also will refine their estimation skills for computations and measurements. Students will identify and describe representations of points, lines, line segments, rays, and angles, including endpoints and vertices. Concrete materials and two-dimensional representations will be used to solve problems involving perimeter, patterns, probability, and equivalence of fractions and decimals. Students will recognize images of figures resulting from geometric transformations, such as reflection, translation, and rotation. Students will investigate and describe the associative property for addition and multiplication.

- **Number and Number Sense**

Focus: Place Value, Fractions, and Decimals

4.1 The student will a) identify orally and in writing the place value for each digit in a whole number expressed through millions; b) compare two whole numbers expressed through millions, using symbols ($>$, $<$, or $=$); and c) round whole numbers expressed through millions to the nearest thousand, ten thousand, and hundred thousand.

4.2 The student will a) compare and order fractions and mixed numbers; b) represent equivalent fractions; and c) identify the division statement that represents a fraction.

4.3 The student will a) read, write, represent, and identify decimals expressed through thousandths;

b) round decimals to the nearest whole number, tenth, and hundredth; c) compare and order decimals; and d) given a model, write the decimal and fraction equivalents.

- **Computation and Estimation**

Focus: Factors and Multiples, and Fraction and Decimal Operations

4.4 The student will a) estimate sums, differences, products, and quotients of whole numbers;

b) add, subtract, and multiply whole numbers; c) divide

solving problems involving addition and subtraction of whole numbers, finding quotients with and without fractions and decimals by finding common multiples and factors. Students will be fluent in the basic multiplication facts through the twelves table

remainders; and d) solve single-step and multi-step addition, subtraction, and multiplication problems with whole numbers.

4.5 The student will a) determine common multiples and factors, including least common multiple and greatest common factor; b) add and subtract fractions

4.11 The student will a) investigate congruence of plane figures after geometric transformations, such as having like and unlike denominators that are limited to reflection, translation, and rotation, using mirrors,

2, 3, 4, 5, 6, 8, 10, and 12, and simplify the resulting fractions, using common multiples and factors; c) add and subtract with decimals; and

d) solve single-step and multi-step practical problems involving addition and subtraction with fractions and with decimals.

- **Measurement**

Focus: Equivalence within U.S. Customary and Metric Systems

4.6 The student will a) estimate and measure

paper folding, and tracing; and b) recognize the images of figures resulting from geometric transformations, such as translation, reflection, and rotation.

4.12 The student will a) define polygon; and b) identify polygons with 10 or fewer sides.

- **Probability and Statistics**

Focus: Outcomes and Data

4.13 The student will a) predict the likelihood of an outcome of a simple event; and

b) represent probability as a number between 0 and 1, weight/mass and describe the results in U.S. Customary inclusive. and metric units as appropriate; and b) identify equivalent measurements between units within the U.S. Customary system (ounces, pounds, and tons) and between units within the metric system (grams and kilograms).

4.7 The student will a) estimate and measure length, and describe the result in both metric and U.S. Customary units; and b) identify equivalent measurements between units within the U.S. Customary system (inches and feet; feet and yards; inches and yards; yards and miles) and between units within the metric system (millimeters and centimeters; centimeters and meters; and millimeters and meters).

4.8 The student will a) estimate and measure liquid volume and describe the results in U.S. Customary units; and b) identify equivalent measurements. The student will collect, organize, display, and interpret data from a variety of graphs.

3.2

- **Patterns, Functions, and Algebra**

Focus: Geometric Patterns, Equality, and Properties

4.15 The student will recognize, create, and extend numerical and geometric patterns.

4.16 The student will a) recognize and demonstrate the meaning of equality in an equation; and b) investigate and describe the associative property for addition and multiplication.

Nationwide SOL's place emphasis on number sense with whole numbers, fractions, and decimals. This focus includes concepts of prime and composite numbers, identifying even and odd numbers, and solving problems using order of operations for positive

between units within the U.S. Customary system (cups, whole numbers. Students will develop proficiency in pints, quarts, and gallons).

4.9 The student will determine elapsed time in hours and minutes within a 12-hour period.

- **Geometry**

Focus: Representations and Polygons

4.10 The student will a) identify and describe

the use of fractions and decimals to solve problems. Students will collect, display, and analyze data in a variety of ways and solve probability problems, using a sample space or tree diagram. Students also will solve problems involving volume, area, and perimeter. Students will be introduced to variable expressions and

representations of points, lines, line segments, rays, and open sentences, and will model one-step linear

angles, including endpoints and verticals; and b) identify representations of lines that illustrate intersection, parallelism, and perpendicularity. equations in one variable, using addition and subtraction. Students will investigate and recognize the distributive property. All of these skills assist in the development of the algebraic concepts needed for success in the middle grades.

- **Number and Number Sense**

Focus: Prime and Composite Numbers and Rounding

Decimals

5.1 The student, given a decimal through thousandths, will round to the nearest whole number,

tenth, or hundredth., area, or volume is appropriate for a given situation; c) identify equivalent measurements within the metric system; d) estimate and then measure to solve problems, using U.S. Customary and metric units; and e) choose an appropriate unit of measure for a given situation involving measurement using U.S. Customary and metric units.

5.9 The student will identify and describe the diameter,

5.2 The student will a) recognize and name fractions in radius, chord, and circumference of a their equivalent decimal form and vice versa; and b) circle.

compare and order fractions and decimals in a given set 5.10 The student will determine an amount of elapsed from least to greatest and greatest to least.

5.3 The student will a) identify and describe the characteristics of prime and composite numbers; and b) identify and describe the characteristics of even and odd numbers.

- **Computation and Estimation**

Compute time in hours and minutes within a 24-hour period.

5.11 The student will measure right, acute, obtuse, and straight angles

- **Geometry**

Focus: Classification and Subdividing

5.12 The student will classify a) angles as right, acute,

Focus: multi-step Applications and Order of Operations obtuse, or straight; and b) triangles as right, acute,

5.4 The student will create and solve single-step and multi-step practical problems involving addition, subtraction, multiplication, and division with and without remainders of whole numbers.

5.5 The student will a) find the sum, difference, product, and quotient of two numbers expressed as decimals through thousandths (divisors with only one nonzero digit); and b) create and solve single-step and multi-step practical problems involving decimals.

5.6 The student will solve single-step and multi-step practical problems involving addition and subtraction with fractions and mixed numbers and express answers in simplest form.

obtuse, equilateral, scalene, or isosceles.

5.13 The student, using plane figures (square, rectangle, triangle, parallelogram, rhombus, and trapezoid), will a) develop definitions of these plane figures; and b) investigate and describe the results of combining and subdividing plane figures.

• **Probability and Statistics**

Focus: Outcomes and Measures of Center

5.14 The student will make predictions and determine the probability of an outcome by constructing a sample space.

5.15 The student, given a problem situation, will collect, organize, and interpret data in a variety of

5.7 The student will evaluate whole number numerical forms, using stem-and-leaf plots and line graphs. expressions, using the order of operations limited to parentheses, addition, subtraction, multiplication, and division.

• **Measurement**

Focus: Perimeter, Area, Volume, and Equivalent Measures

5.8 The student will a) find perimeter, area, and volume in standard units of measure; b) differentiate among perimeter, area, and volume and identify whether the application of the concept of perimeter,

5.16 The student will a) describe mean, median, and mode as measures of center;

b) describe mean as fair share; c) find the mean, median, mode, and range of a set of data; and describe the range of a set of data as a measure of variation.

• **Patterns, Functions, and Algebra**

Focus: Equations and Properties

5.17 The student will describe the relationship found in a number pattern and express the relationship.

5.18 The student will a) investigate and describe the concept of variable; b) write an open sentence to represent a given mathematical relationship, using a variable; c) model one-step linear equations in one (storytelling), government (kings), and economic development (trade).

3.3 The student will study the exploration of the Americas by

variable, using addition and subtraction; and d) create a a) describing the accomplishments of Christopher problem situation based on a given open sentence, using a single variable.

5.19 The student will investigate and recognize the distributive property of multiplication over addition.



Social Sciences

Elementary

Introduction to History and Social Science

The standards for third-grade students include an introduction to the heritage and contributions of the peoples of ancient Greece and Rome and the West African empire of Mali. Students should continue developing map skills and demonstrate an understanding of basic economic concepts. Students will explain the importance of the basic principles of democracy and will identify the contributions of selected individuals. Students will recognize that Americans are a people who have diverse ethnic origins, customs, and traditions, who all contribute to American life, and who are united as Americans by common principles.

History

3.1 The student will explain how the contributions of ancient Greece and Rome have influenced the present world in terms of architecture, government (direct and representative democracy), and sports.

3.2 The student will study the early West African empire of Mali by describing its oral tradition

Columbus, Juan Ponce de León, Jacques

Cartier, and Christopher Newport;

b) identifying the reasons for exploring, the information gained, the results of the travels, and the impact of the travels on American Indians. Geography

3.4 The student will develop map skills by a) locating Greece, Rome, and West Africa;

b) describing the physical and human characteristics of

Greece, Rome, and West Africa;

c) explaining how the people of Greece, Rome, and

West Africa adapted to and/or changed their environment to meet their needs.

3.5 The student will develop map skills by

a) positioning and labeling the seven continents and five oceans to create a world map;

b) using the equator and prime meridian to identify the Northern, Southern, Eastern, and Western Hemispheres;

c) locating the countries of Spain, England, and France; d) locating the regions in the Americas explored by Christopher Columbus (San Salvador in the Bahamas), Juan Ponce de León (near St. Augustine, Florida), Jacques Cartier (near Quebec, Canada), and Christopher Newport, (Jamestown, Virginia);

e) locating specific places, using a simple letter-number grid system.

3.6 The student will read and construct maps, tables, graphs, and/or charts

Economics

3.7 The student will explain how producers in ancient

Greece, Rome, and the West African empire

of Mali used natural resources, human resources, and capital resources in the production of goods and services.

3.8 The student will recognize that because people and regions cannot produce everything they want, they specialize in what they do best and trade for 4th – 5th Grade Social Sciences.

the rest.

3.9 The student will identify examples of making an economic choice and will explain the idea of opportunity cost (what is given up when making a choice).

Civics

3.10 The student will recognize the importance of government in the community, Virginia, and the United States of America by

a) explaining the purpose of rules and laws;

Virginia Studies (For Grades 6–12: U.S. & World Studies are part of Social Sciences: to include U.S. & World History, U.S. & World Geography, and Political & Social Science)

The standards for Virginia Studies allow students to develop a greater understanding of Virginia’s rich history, from the cultures of its native peoples and the

b) explaining that the basic purposes of government are founding of Jamestown to the present. Geographic, to make laws, carry out laws, and decide if laws have been broken;

c) explaining that government protects the rights and property of individuals.

3.11 The student will explain the importance of the basic principles that form the foundation of a republican form of government by a) describing the individual rights to life, liberty, and the pursuit of happiness; and equality

under the law; economic, and civic concepts are presented within this

historical context. Students will develop the skills needed to analyze, interpret, and demonstrate knowledge of important events and ideas in our history, and will understand the contributions made by people of diverse cultural and ethnic backgrounds. Students will use geographic tools to examine the influence of physical and cultural geography on Virginia history. Ideas that form the foundation for political institutions in Virginia and the United States

b) identifying the contributions of George Washington; also will be included as part of the story of Virginia.

Thomas Jefferson; Abraham Lincoln; Rosa Parks; Thurgood Marshall; Martin Luther King, Jr.; and Cesar Chavez;

c) recognizing that Veterans Day and Memorial Day honor people who have served to protect the country’s freedoms,

d) describing how people can serve the community, state, and nation.

3.12 The student will recognize that Americans are a people of diverse ethnic origins, customs, and traditions, who are united by the basic principles of a republican form of government and

respect for individual rights and freedoms.

The study of history must emphasize the intellectual

skills required for responsible citizenship. Students practice these skills as they extend their understanding of the essential knowledge defined by all of the standards for history and social science.

Virginia: The Physical Geography and Native Peoples VS.2 The student will demonstrate knowledge of the physical geography and native peoples, past and present, of Virginia by a) locating Virginia and its bordering states on maps of the United States;

b) locating and describing Virginia’s Coastal Plain (Tidewater), Piedmont, Blue Ridge Mountains, Valley and Ridge, and Appalachian Plateau; c) locating and identifying water features important to the early history of Virginia (Atlantic Ocean, Chesapeake Bay, James River, York River, Potomac River, Rappahannock River, and Lake Drummond and the Dismal Swamp); d) locating three American Indian language groups (the Algonquian, the Siouan, and the Iroquoian) on a map of Virginia; e) describing how

American Indians related to the climate and their environment to secure food, clothing, and shelter; f) describing how

enslaved African Americans, free African

Americans, and American Indians in the Revolutionary

War era, including George Washington, Thomas

archaeologists have recovered new material evidence at Jefferson, Patrick Henry, and James Lafayette;

sites including Werowocomoco and Jamestown;

c) identifying the importance of the Battle of Great

g) identifying and locating the current state-recognized Bridge, the ride of Jack Jouett, and the tribes.

Colonization and Conflict: 1607 through the American Revolution

VS.3 The student will demonstrate knowledge of the first permanent English settlement in America

by a) explaining the reasons for English colonization;

b) describing how geography influenced the decision

to settle at Jamestown; c) identifying the importance of the charters of the Virginia Company of London in establishing the Jamestown settlement; d) identifying the importance of the General Assembly (1619) as the first representative legislative body in English America; e) identifying the importance of the arrival of Africans and English women to the Jamestown

settlement; f) describing the hardships faced by settlers at Jamestown and the changes that took place to ensure survival; g) describing the interactions between the English settlers and the native peoples, including the contributions of Powhatan to the survival of the settlers.

VS.4 The student will demonstrate knowledge of life in the Virginia colony by a) explaining the importance of agriculture and its influence on the institution of slavery; b) describing how the culture of colonial Virginia reflected the origins of European (English, Scots-Irish, German) immigrants, Africans, and American Indians; c) explaining the reasons for the relocation of Virginia's capital from Jamestown to Williamsburg to Richmond; d) describing how money, barter, and credit were used; e) describing everyday life in colonial Virginia.

VS.5 The student will demonstrate knowledge of the role of Virginia in the American Revolution by

a) identifying the reasons why the colonies went to war with Great Britain, as expressed in the Declaration of Independence;

b) identifying the various roles played by whites, American victory at Yorktown.

Sciences Courses Offered: The curriculum for the sciences change frequently. For a specific curriculum in the sciences, please contact me for an updated Course Guide.

Elementary Grades: Life & Earth Science

Middle School Grades: Earth Science

High School Grades: Biology & Chemistry

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