



WACO MONTESSORI SCHOOL

Lower Elementary Program Curriculum Scope & Sequence

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*This document is meant as a guide. Variations and deviations meant for the purpose of individualization for the benefit of the individual or the classroom are to be made as appropriate.

Lower Elementary Overview

Lower Elementary at Waco Montessori School is a program for students ages 6-9. Encompassing multiple areas of curriculum, the work is accomplished at the individual pace and academic level of each student. According to the Montessori approach to education, students in this age range continue to need hands-on experience with concrete materials to aid in concept acquisition that leads later to abstraction. Therefore, students in the 6-9 program at Waco Montessori School are encouraged to interact with concrete materials in all areas of study. Students in this age range also demonstrate eagerness to learn and work in an environment that supports them with positive regard and individualized attention to their needs.

The study of the English language in this program takes many forms. The overall goal of this skill area is to give students the skills required to become strong communicators, both in written and oral forms. This is accomplished through the development of reading skills, learning language mechanics, understanding all the parts of English grammar, learning and practicing the conventions of the English language including punctuation and capitalization. Through teacher structured reading groups, students develop comprehension skills, expand vocabulary, and make connections to their own experiences. The overarching goal of reading groups is for students to develop an appreciation for literature that goes beyond the simple act of reading, but extends itself to sharing the experience of literature with others. The Writing curriculum expands students' writing skills through exploration of various approaches to creative writing, poetry writing and research. Students expand their communication skills through the creative writing process of writing and the presentation of completed work.

Mathematics in Upper Elementary includes multiple strands of study. Students use materials to understand the four operation processes with whole numbers, word problems, and fractions. Students pursue a study of Geometry that begins with the study of polygons, quadrilaterals, triangles and solids. They later learn the basic concepts of Geometry which includes the study of lines and study of angles. This is followed by measurement of angles. Additionally, students are introduced to graphing and measurement.

Cultural studies in Lower Elementary are the heart of the curriculum. Cultural studies include the study of History, Geography (including Earth Science), Citizenship and Social Study Skills. Our history curriculum exposes the students to the evolutionary development of mankind with regard to language, math, marking of time and recognizing the universal needs of mankind. These lessons and extensions give the student a sense of his or her place in the flow of time. Students begin with the study of early humans, classical civilizations, Middle Ages, Renaissance and modern man. Geography is divided into three separate strands: Functional, Physical, and Political. Functional Geography exposes the students to the scientific laws that govern the universe including the stars and planets. Study of the Earth helps the students understand that the earth is ever changing and incorporates learning about plate tectonics, volcanoes, and the rock cycle. Physical Geography gives students an opportunity to explore the earth's land and water forms, biomes and habitats. Political Geography includes a study of the continents and countries. Studying geography gives a student an awareness of his or her place in the world, and develops a sense of responsibility.

The study of science at this level is meant to engage students in exploration of the living and non-living worlds and to elicit excitement for the study of science. This is accomplished through botany and zoology strands and includes hands-on activities beginning with classification exercises, independent researches and exploration of the scientific method.

English Language Arts

The study of the English Language in this program takes many forms. The overall goal of this skill area is to give students the skills required to become strong communicators, both in written and oral forms. This is accomplished through the development of reading skills, exploring language mechanics, learning about English grammar, and practicing the conventions of the English language such as punctuation and capitalization. Additionally, the writing curriculum expands students' writing repertoires through explorations of various approaches to creative writing, poetry writing, and expository writing.

Area of Study & Examples of Materials used	Objectives
<p>Listening and Speaking</p> <ul style="list-style-type: none"> • Grace & Courtesy lessons • Oral Presentations • Large group lessons • Small group lessons • Read aloud 	<ul style="list-style-type: none"> • Communicates clearly by putting thoughts and feelings into spoken words • Listens and engages actively and purposefully in a variety of settings • Listens to enjoy and appreciate spoken language • Listens and speaks to gain and share knowledge of his/her own culture, the culture of others, and the common elements of culture • Speaks clearly and appropriately to different audiences for different purposes and occasions • Able to identify parts of a story that has been read aloud
<p>Reading</p> <ul style="list-style-type: none"> • History of writing • Sight words • Spelling • Classified nomenclature (common and scientific) • Emergent Reader Books • Word Study • Researches • Reading commands • Readers' Theatre • Sentence reading • Library books • Fundamental Human Needs • Grammar Boxes • SRA • RFU • Reading comprehension • Word problems • Geometry task cards 	<ul style="list-style-type: none"> • Demonstrates knowledge of concepts of print • Orally demonstrates phonological awareness (an understanding that spoken language is composed of sequences of sound) • Uses letter-sound knowledge to decode written language • Uses a variety of word recognition strategies • Reads with fluency and understanding in text at independent reading level • Reads widely for different purposes in varied sources • Acquires an extensive vocabulary through reading and systematic word study • Uses a variety of strategies to comprehend a wide range of text of increasing levels • Expresses and supports responses to various types of text • Analyzes the characteristics of various types of text (genre) • Generates questions and conducts research using information from various sources • Inquires and conducts research using a variety of sources • Reads to increase knowledge of his/her own culture, the culture of others, and the common elements of cultures • Demonstrates logical expression completing grammar boxes, reading analysis and sentence analysis • Able to read clause analysis

English Language Arts continued

Area of Study & Examples of Materials used	Objectives
<p>Writing</p> <ul style="list-style-type: none"> • Research • Spelling • Sentence reading • Grammar boxes • Function of words • Compositions • Journal writing 	<ul style="list-style-type: none"> • Writes for a variety of audiences and purposes and in a variety of forms • Composes original texts, applying conventions of written language such as capitalization, punctuation, handwriting, penmanship, and spelling to communicate clearly • Applies standard grammar and usage to communicate clearly and effectively in writing • Selects and uses writing processes for self-initiated and assigned writing • Evaluates his/her own writing and the writings of others • Uses writing as a tool for learning and research • Interacts with writers inside and outside of the classroom in ways that reflect the practical uses of writing • Demonstrates logical expression in question games, reading analysis and sentence analysis • Able to write clause analysis

Mathematics

Mathematics in Lower Elementary includes multiple topics of study including mathematical operations, place value representations, geometry, statistics and problem solving approaches. Students become fluent in all of the operations in whole numbers, decimals and fractions. Students pursue a study of Geometry that takes them through a study of plane figures that leads into the exploration and development of area and volume formulas. Additionally, students study data representations and interpretation, measurement conversions, place value, probability and much more.

Area of Study & Examples of Materials used	Objectives
Numerical Operations & Quantitative Reasoning <ul style="list-style-type: none"> • History of Numbers • Golden Bead, Stamp Game • Small Bead frame • Large Bead frame • Checkerboard • Test Tubes • Money Boxes • Word problem cards • Practice drill cards • Graphing 	<ul style="list-style-type: none"> • Uses whole numbers to describe and compare quantities • Adds and subtracts to solve meaningful problem involving whole numbers • Recognizes and solves problems in addition and subtraction situations • Adds and subtracts whole numbers to solve problems • Able to count by 2, 4, 5, 8 and 25 • Models multiplication and division • Recognizes and solves problems in multiplication and division situations • Understands how place value is used to represent whole numbers • Uses place value to communicate about increasingly large whole numbers in verbal and written form, including money • Uses place value to represent whole numbers and decimals • Uses pairs of whole numbers to describe fractional parts of whole objects or sets of objects • Understands concept of fractions • Describes how fractions are used to name parts of whole objects or sets of objects • Uses fraction names and symbols (with denominators of 10 or less) to describe fractional parts of whole objects or sets of objects • Able to add, subtract, multiply and divide fraction by fraction and fraction by whole number • Understands concepts of decimals • Able to read and write decimals • Estimates to determine reasonable results • Represents and uses rational numbers in a variety of equivalent forms
Patterns, Relationships & Algebraic Thinking <ul style="list-style-type: none"> • Divisibility • Multiples • Factors • Early squaring and cubing • Chain work 	<ul style="list-style-type: none"> • Uses patterns in numbers and operations • Uses patterns to describe relationships and make predictions • Uses patterns to solve problems • Uses lists, tables, and charts to express patterns and relationships • Uses patterns in multiplication and division • Uses organization structures to analyze and describe patterns and relationships

Mathematics continued

Area of Study & Examples of Materials used	Objectives
<p>Geometry & Spatial Reasoning</p> <ul style="list-style-type: none"> ● Geometry cabinet ● Polygons ● Quadrilaterals ● Curved figures ● Triangles ● Solids ● Study of line ● Study of angles ● Measurement of angles ● Graphing 	<ul style="list-style-type: none"> ● Uses attributes to identify two- and three-dimensional geometric figures ● Compares and contrasts two- and three-dimensional geometric figures or both ● Recognizes that a line can be used to represent numbers and fractions and their properties and relationships ● Identifies and describes attributes of geometric figures using formal geometric language (including angles, polygons, and circles) ● Recognizes the connection between numbers and their properties and points on a line ● Generates geometric definitions using critical attributes ● Recognizes the connection between ordered pairs of numbers and locations of points on a plane
<p>Measurement</p> <ul style="list-style-type: none"> ● Measurement materials ● Time ● Temperature ● Use of compass and straight edge ● Informal cooking and science experiments ● Word problems 	<ul style="list-style-type: none"> ● Directly compares the attributes of length, area, weight/mass, capacity and temperature ● Uses comparative language to solve problems and answer questions ● Recognizes and uses models that approximate standard units (metric and customary) of length, weight/mass, capacity and time ● Understands that time can be measured ● Uses time to describe and compare situations ● Uses standard tools to estimate and measure time and temperature (Fahrenheit) ● Directly compares the attributes of length and weight/mass, and uses comparative language to solve problems and answer questions ● Selects and uses standard units to describe length and weight/mass ● Reads and writes time and measures temperature to solve problems ● Solves application problems involving estimation and measurement of length, time, temperature, volume weight and angles

Cultural Studies

Cultural studies in Lower Elementary are the heart of the curriculum. Cultural studies include the study of History, Geography (including Earth Science), Citizenship and Social Study Skills.

Area of Study & Examples of Materials used	Objectives
<p>History</p> <ul style="list-style-type: none"> • Independent research • History timelines • Fundamental needs of human beings • BC/AC Timeline and nomenclature • Days of the Week/Months of the Year Nomenclature and research 	<ul style="list-style-type: none"> • Identifies contributions of people • Describes origins of holidays • Distinguishes among past, present and future • Able to explain the significance of celebrations • Describes and measures calendar time • Creates and interprets timelines • Names several sources of information about a given event • Identifies reasons people formed communities • Describes how individuals, events and ideas have shaped communities over time • Compares ways people in communities meet their needs, in the past and present • Describes historical times in terms of years, decades and centuries
<p>Functional Geography</p> <ul style="list-style-type: none"> • Creation story • Stars, galaxies, and constellations • Solar system and planets • Geography charts <ul style="list-style-type: none"> • Formation of the Earth • Solar energy of the Earth • Movements of the Earth and consequences of such movements 	<ul style="list-style-type: none"> • Identifies natural resources and how they are used • Identifies active and functioning processes affecting the earth as a planet in our solar system • Understands vocabulary: planet, star, solar system, constellation, galaxy

Cultural Studies continued

Area of Study & Examples of Materials used	Objectives
<p>Physical Geography</p> <ul style="list-style-type: none"> ● Globes ● Layers of the Earth ● Plate Tectonics ● Volcanoes ● Rock cycle ● Land and water forms ● Biomes 	<ul style="list-style-type: none"> ● Identifies layers of the earth ● Describes plate tectonic movements ● Identifies parts of a volcano ● Identifies three types of rocks and the process origin ● Describes physical and human characteristics of places ● Identifies major landforms and bodies of water on maps and globes ● Describes the physical characteristics of major biomes of the Earth ● Identifies plants and animals which flourish in each biome
<p>Political Geography</p> <ul style="list-style-type: none"> ● Globes ● Hemispheres ● Continent study ● Maps/Pin maps 	<ul style="list-style-type: none"> ● Uses cardinal directions, scale, compass rose, grid and symbols to locate places and interpret maps and globes ● Identifies how people in different communities adapt to or modify variations in the physical environment ● Identifies ways people can conserve and replenish resources ● Identifies relationships between people and their physical environment ● Draws maps to show places ● Identifies continents ● Names significant physical features on continent of study ● Identifies some major countries on continent of study ● Researches one country in detail: <u>understands its physical geography, culture, flora and fauna, history</u>
<p>Citizenship</p> <ul style="list-style-type: none"> ● Class meeting ● Grace and courtesy ● Independent research ● Community service 	<ul style="list-style-type: none"> ● Identify characteristics of good citizenship and identify historic figures and ordinary people who exemplify good citizenship ● Explain patriotic symbols, such as the Liberty Bell ● Recite the Pledge of Allegiance ● Identify patriotic songs and symbols ● Explain the importance of civic participation and identify examples of actions people can take to improve the community ● Identify examples of organizations that the common good
<p>Social Study Skills</p> <ul style="list-style-type: none"> ● Presentations ● Nomenclature ● Class meeting ● Group work ● Research 	<ul style="list-style-type: none"> ● Sequence and categorize information ● Obtain information from a variety of sources ● Use table of contents and glossaries to locate information ● Uses problem-solving and decision-making skills, working independently and with others, in a variety of settings

Science

The study of science at this level is meant to engage students in exploration of the living and non-living worlds and to promote a positive regard for the study of the sciences. This is accomplished through hands-on activities ranging from classification exercises to working through various applications of the scientific method of investigation. Topics of study were developed through student feedback about particular areas of study they desired.

Area of Study & Examples of Materials used	Standards & Objectives
Scientific Process	<ul style="list-style-type: none"> • Conducts classroom and field investigations following home and school safety procedures • Develops abilities necessary to do scientific inquiry in the field and the classroom • Knows that information and critical thinking are used in making decisions • Uses age appropriate tools and models to verify that organisms and objects and parts of organisms and objects can be observed, described, and measured • Uses scientific inquiry methods during field and laboratory investigations • Knows how to use a variety of tools and methods to conduct science inquiry
Zoology	<ul style="list-style-type: none"> • Researches the five kingdoms. • Observes dissection of a frog and a fish.
Botany	<ul style="list-style-type: none"> • Studies the Cordite phylum. • Identifies and labels the parts of a plant: root, stem, flower, fruit and seed • Observes plant growth.