

CENTRAL MONTESSORI SCHOOL

# Scope and Sequence

Elementary Program

**2012/2013**

# Central Montessori School Elementary Scope and Sequence: Six Year Cycle

## Citizenship and Study Skills

<b>Classroom guidelines</b>
Care of self and belongings. "Teacher will take care of others."
Respect and care for others and their belongings.
Respect and care for your interior and exterior environments and all that is in them.
Willingly join in group activities/work with a friend/work independently
Tell a teacher if angry, upset or hurt.
Keep your hands to self.
Always do your best and do not worry about mistakes.
Ask many, many questions every day. Be curious and Brave!
<b>Communication skills/Social behaviors</b>
Respond positively to requests and challenges. This will help you have a positive self-image.
Come very close to someone you want to talk to and touch his or her shoulder.
Speak respectfully to others.
Patiently wait for your turn to speak to someone or to use a material.
Do not interrupt others if they are speaking to someone
Use a calm and kind voice, even if someone makes a mistake.
Call children by their given names only.
Always talk about your behavior, not anyone else's.
Tell a teacher when you go to the bathroom, library, porch, or home.
Only talk about people who are present.
Do not repeat negative language. Report negative language to a teacher.
Identify ways to serve our school and our community.
<b>Moving carefully and purposefully in the classroom</b>
Always walk slowly, carefully and quietly through the room.
Walk around workspaces.
If you drop or spill something, always pick or clean it up.
Sit with your hands in your lap so others will not trip, fall or step on you.
Once you sit down for group time, do not move to another place.
Take only your space and do not save a place for a friend.
Take work from shelves only, not from tables or mats.
Always keep your hands to your side or in your lap when you are observing someone work.
Do not touch another child's work or speak to him/her while (s)he has work in front of her/him.
Only teachers may open a door unless they tell you it is ok for you to open a door.

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Carry sharp items like a pencil or a pair of scissors, with its point down.
Always manage your materials in an organized, orderly fashion.
<b>Work Cycles</b>
Do not lean on tables or materials.
Make lessons selections throughout the day with periods of rest in-between.
Ask a teacher for a lesson before removing materials from the shelf for the first time.
Take work from shelves only, not from tables or mats.
Use only one workspace at a time.
Try very hard to complete your work in a timely manner.
Concentrate on your work, work carefully and pay close attention to details.
Always strive to maintain focused attention on your task for increasing amounts of time.
Work hard to problem solve if you need to find a solution/answer.
Ask a teacher if you need help with any of your lessons.
Record your work in your work journal unless otherwise instructed.
Have a teacher check your work before restoring it.
Only take work home that has a teacher's check on it.
Restore the materials you use to their correct place and leave them ready for the next person.
Restore your mat or table area before selecting your next work.
Complete assigned homework in timely manner.
Participate in all science fairs and enrichment activities

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## Academic/Intellectual Development

<b>LANGUAGE ARTS</b>
Conversation skills: Expresses self logically-allows others to participate
Presentation skills: Organizes information
Performance skills: Speaks appropriately for audience and venue
Group story-building
Acquires meaningful vocabulary: Expressive, mathematic, scientific, artistic and positive social vocabulary and expression.
<b>Cursive writing</b>
Unlined paper
Lined paper
<b>Writes with/without visual representation</b>
Letters
Words
<b>Grammar/function of word</b>
Identifies simple nouns and pronouns
Identify verbs
Identify adjective
Identify articles
Identify conjunctions
Identify prepositions
Identify adverbs
Identify different types of nouns
Identify different types of verbs
Applies rules for creating regular and irregular verb conjugations as well as other uses for various verb form
Identify different types of adjectives
Identify different types of articles
Identify different types conjunctions
Identify different types prepositions (focus)
Identify different types adverbs
Identify different types pronouns
Diagram simple sentences
Sentence analyzes uses for nouns, adjectives, adverbs, pronouns and prepositions
Study of grammatical arrangements in other languages
Constructs and diagrams sentences according to specific patterns such as simple, compound, and complex

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Identifies main clause and subordinate clause
<b>Word Study</b>
Rhyming words
Synonyms
Homophones
Compound words
Syllables
Opposites
Capitalization of proper nouns
Capitalization in all appropriate incidences
Word Families-common suffixes, prefixes
Common Abbreviations
Sound alike phonemes
Syllables (identify numbers)
Plurals/possessive nouns
<b>Spelling</b>
Short vowel words
Long vowel words
Blends
Sight words
Phonograms
Spelling lists (individual and/or group)
Spell 1,2,3,4,5,6,7,8,9,10> sight words
Alphabetizing
Pre-dictionary skills (word boxes)
Dictionary studies
Applies various strategies for gaining vocabulary and for word recognition in multiple contexts
<b>Composition</b>
Creates sentences
Creates paragraphs
Composes and writes stories
Daily journal recordings (dictates, traces dictation, builds, writes own sentences)
Creates book reports-paraphrases and summarize material
Writes poetry and prose
Creates original works of poetry based on given patterns

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Creative writing
Expository writing
Persuasive writing
<b>Mechanics of Writing</b>
Follows rules of capitalization
Follows rules of punctuation: period, question marks, comma, quotation marks
Understands proofreading marks
Proofreads own work with guidance
Proofreads own work without guidance
Editing
Publication of written work
Calligraphy of native language
<b>Mechanics of reading</b>
Reads at or above grade level
Reads chapter books
Reads for enjoyment
Uses reference books to gain information (dictionary, atlas, etc.)
Group readings
Book reports given to group
<b>Literature</b>
Understands difference between fact and opinion
Make reasonable predictions about what will happen next in the story
Participates in literary discussion following group readings
Can identify first action, middle, final action and can identify problem and solution
Can identify plot, characters, make predictions, extrapolate, make inferences
Respects others points of view
Novel studies-shared experience with other readers through discussion and exploration of relevance to one's own life and to others.
Explores themes of novels through artistic self-expression and artistic expressions of others
Compares and contrasts literature to other forms of media
Considers different perspectives on historical events, cultures and situations presented in novel
Interprets author's intent and motivations of characters
Defines opinions and inferences using textual evidence
Identifies and uses alliteration, analogies and metaphors
Identifies and uses different genres of literature

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<b>Library skills</b>
Identifies parts of a book
Identifies non-fiction/fiction
Treats books with respect
Demonstrates skill with reference aids such as guide words, table of contents and alphabetizing
<b>Spanish</b>
Follows directions given in Spanish
Participates in common greetings
Knows days of the week, months and seasons of the year
Knows common foods
Knows numbers up to 100
Knows names and titles of family members
Describe daily weather
Describe daily clothing
Identify and express emotions/feelings
Developing beginning conversational skills
Collecting written Spanish words/vocabulary cards
Composing sentences in Spanish
Spanish grammar
Spanish alphabet
Read simple Spanish books
<b>MATHEMATICS</b>
<b>Hierarchy of Numbers</b>
Place value of numbers (less than 9,999)
Large numerals (less than 999,999,999)
Standard and expanded numerals
Exchange games
<b>Skip Counting (multiples of numbers)</b>
E1 level: 0,1,2,5,10 (home support is important)
E2 level: 9,3,4,11 (home support is important)
E3 level: 6,7,8 (home support is important)
Factoring numbers, discover prime numbers
Table memorization activities: multiples, factors
Exponential notation: squaring/square root, cubing/cube root
Different base systems

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Negative number line and equations
<b>Four or more column operations with or without materials</b>
Static (no exchanging): addition, multiplication, subtraction, division
Exchange Games
Dynamic (exchanging): addition, multiplication, subtraction, division (short)
Missing sign operations
Parenthesis used in equations
Order of operations
Use of number line to 100
Use of negative number line to -20
<b>Measurements</b>
Arbitrary measurements
Measures volume
Linear measurements
Reads thermometer
Measurement of mass-equal arm balance and equivalency work-grams
Geometric measurements: perimeter, area, diameter, circumference, altitude, angles
Use measurement conversions
<b>Fractions</b>
Identify $\frac{1}{10}$ - 1
Identify and use fractions smaller than $\frac{1}{10}$
Identify and use mixed numbers, proper and improper fractions
Convert mixed numbers, proper and improper fractions to same
Four operations with like denominators
Four operations with unlike denominators
Fraction equivalency to summation of one (tenths)
Fraction equivalency: reducing fractions
Decimal fraction work
Decimal-hierarchy work: build and read fractions
Representative quantities from millions to millionths accurately using place values in various formats
Converts fractions to decimals and percentages
Rounds to various decimal place values
Uses proportions
Identify parts of clock and time by hour, $\frac{1}{2}$ hour, $\frac{1}{4}$ hour, minutes
Calculate hours from present, half hours from present, mixed minutes from present



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Money – Name of penny, nickel, dime, quarter, dollar
Knows value of coins
Records amounts on paper (\$0.00)
Adds and subtracts amounts
Exchanges values:\$1 equivalency in coins and bills
<b>Graphs/Data</b>
Take simple surveys
Creates, picture graphs, bar graphs
Assigns interpretive value to information on graphs
Use data representations and interpretation
Probability and statistics (data collecting, comparative methods of data display)
<b>Patterns, functions, algebra</b>
Identifies odd and even patterns
Number line-whole numbers with mixed operations
Identifies odd and even
Estimates values
Finds unknown values
Builds Venn Diagram
Identify repeating patterns-expanding patterns
Uses number comparisons (more than, less than)
Understands congruency, similarity, equivalency
Identifies probability as low/high
Rounds numbers to nearest 10, 100, 1000
Knows Roman Numerals up to 100
Uses tally marks
<b>Word Problems</b>
Uses all four operations
Word problems with multiple steps and mixed operations
Identifies and applies various strategies for solving word problems
Uses estimations to solve word problems and check accuracy of answers
Applies algebraic reasoning to solve “real life” mathematical problems
Uses number patterns to solve word problems
<b>Geometry (identify and name)</b>
Point to solid study
Plane shapes: name and identify parts of...

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Circle and curvilinear shapes: name and identify parts of
Name and measure single angles
Understand and measure relationships of angles
Triangles: name and identify parts of
Triangles: names of based on sides and angles
Rectangle (square) perimeter study
Polygons named
Geometric Solids: identify ovoid, ellipsoid, sphere, cylinder, prism, pyramid, cone
Congruency, similarity, equivalency
Applies knowledge of equivalence to solve for the area of polygons
Explore and measure area
Explore and measure volume
Pythagorean Theorem
Introduction to the Geometry of the Pentagram
<b>SCIENCE</b>
Uses the tools of science, microscope, binoculars, measuring instruments etc.
Identifies Fundamental Needs of All Living Things
Classifies living organisms into five families
Plant, animal, mineral identification
<b>Study of Five Kingdoms-Classification</b>
Introduction to the Tree of Life
Names kingdoms
Understands major features of each category
Applies classification techniques
Linnaean classification hierarchy
Identifies features of each phyla studied
<b>Botany (Nomenclature parts &amp; function of...)</b>
Plants: needs of a plant
Identifies plant products and their values
Evolutionary role of plants
Classification by class and phyla
Care of classroom plants (needs of plants)
Gardening
Observes and explains life cycles of plants
Observations of plants in nature

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Gifts of Plants
Nitrogen cycle
<b>Zoology (Nomenclature parts &amp;function of...)</b>
History of Life of Earth-Great Lesson
Evolution/adaptation is basis for survival and progress of species: fossils as evidence
Living and Non-living classification
Non-vertebrates/Vertebrates classification
Inter-relativeness of living things: how organisms build and maintain mutually beneficial conditions for many species
Food webs: herbivores, carnivores, omnivores & prey, predator relationships
Introduction to 8 major biomes and zones: desert, ocean, torrid, mountain, forest, grasslands, arctic, temperate
Participate in composting -producers of recycled energy
External parts of the human anatomy (needs of animals)
Function 6 major systems: circulatory, skeletal, respiratory, digestive, nervous , muscular
Compares function of exterior and internal anatomy of chordates
The Structure of Life: intro to cellular biology
Focus on lower kingdoms: Monera, Protista, and Fungi
Observation and care of wild animals (needs of animals)
Human interactions with animals-impact of...
Gifts of animals
<b>Physical Science(Experiments/Demonstrations)-Big Bang Great Lesson</b>
States of Matter: identify solid, liquid, gas
Build atoms of elements
Construct elements chart
Construct common molecules
Explore chemical bonds
Concepts of energy, electricity and conservation
Explore influences of heat, pressure, density and volume
The study of and work of: water, light, gas, sound, magnetism, friction, weight/gravity/mass, temperature, force
Study of waves: kinds, parts of in light and sound
Simple machines: intro. and use of lever, inclined plane, wheel/axle, pulley
<b>Studies of the Physical Earth</b>
Formation of the earth
In relationship to the sun and planets
Parts of the Earth
Ocean studies: geographic features, regions of...

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River studies: parts of and function of
Volcanoes: Ring of Fire, parts of and function of
Rock cycle
Minerals and their roles
Land and water forms
Island study
Tectonic plates
Regions of the world
Parts of the biosphere: lithosphere, atmosphere, hydrosphere
Weather Awareness: erosion and natural forces
<b>Earth Sciences</b>
Cycles, heat, water, oxygen/carbon dioxide
Study of sources/uses of energy
Systems of conservation
<b>Continent Studies-Political</b>
Map skills-compass, directionality, latitude, longitude
Continents of the world
Major rivers of the world
Oceans of the world
Names of major countries of each continent
United States Studies
Identifies and names capitals of states in the United States
Virginia State Study
Match flags to N. A. and S. A. countries
Focus and report of specific countries
<b>Our Place in Space and Time Unit</b>
Cosmology: formation of the universe
Astronomy: solar system(s), planets
Study of peoples, their cultures and how they meet their fundamental needs
Resources of a culture
Study of animals from different continents
<b>Science Fair Participation</b>
Understands simple steps: guess, predict, experiment, conclude, record observations, use of control
Actively selects projects
Researches projects

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Follows instructions
Can discuss observations
Completes projects
Presents organized information to peers and teachers
<b>HISTORY</b>
Creates personal timeline
Uses time line of Life
Create timelines of flora and fauna, geographical transitions
Uses time line of civilization
Identifies and compares major time periods of civilizations
Uses timeline of modern humans
Develop timeline of inventions
Develop timeline of the Age of Exploration
American studies: Coming to America-immigration
History of United States: Introduction to political and social
American folk culture
Native American cultures
Pre-Colombian Central and South American cultures
Uses/makes subject time lines
Reads and creates reports of heroes (scientists, presidents etc.)
<b>THE ARTS</b>
<b>Visual Arts</b>
Skill building with tools
Manages and restores materials
Paints
Clay
Construction
Experiments freely
Willing to share ideas and products with others
Builds individual portfolios for small group "shows"
<b>Music</b>
Keep a steady beat
Reads rhythm cards
Plays to rhythm cards
Joins in singing

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Solo singing
Knows staff and musical alphabet
Builds simple measures-composes
<b>Performances</b>
Comes to school knowing lines or poetry
Is able and willing to practice at school
Follows verbal instructions
Waits for turn patiently
Projects voice
Can remember cue before his/her lines
Participates in making props, costumes, stage settings
Helps others with performance skills
Is confident in front of a group of friends, parents, strangers
Creates and directs performance
<b>Movement</b>
Controls movement while close to others
Participates in group games
Plays outdoors enough to raise heart rate
Participates in Yoga
Plays with others
Can engage in competitive activities and demonstrate good sportsmanship skills
Develops soccer skills, dribble, shoot, head, pass, receive and trap
Participates in annual Running in Circles program

Lower Elementary Lessons  
 Upper Elementary Lessons