



Montessori School of Champaign-Urbana Curriculum List and Expected Outcomes Lower Elementary (1st-3rd grades)

*Individual instructors reserve the right to supplement this list with topics of their own choosing or based on student interest

Cultural Studies

All grades

- 5 Great Lessons: Origin of the Universe, Origin of Life, Origin of Humans, Origin of Language, Origin of Numbers
- Physical Science Experiments
- Study of the Sun: size, composition, role in the solar system
- Distance of sun to planets
- Volcano models and experiments
- Watersheds
- Flower, fruit, seed dissection
- Cave drawing murals
- Petroglyphs and pictographs
- The origins of geometry
- Continent studies

1st grade

- Listening to creation stories
- Solar system 3-part cards
- Planet research worksheet
- Planet models
- Parts of the earth
- Parts of a volcano
- The water cycle
- Types of weather
- Basic land and water forms
- Parts of a river
- Parts of a mountain
- 3 types of rock
- World map labels (cardinal directions, 7 continents, 5 great oceans)
- Compass rose
- Continent maps
- Cardinal directions
- Biotic and abiotic sorting
- Types of biomes
- Biome animal sorting

- Biome maps
- Timeline of Life construction and illustrations
- Basic kingdom sorting
- Botany parts of (plant, root, stem, branch, leaf, flower, fruit, seed)
- Leaf shapes tracing inset
- Life cycle of a plant
- Parts of plants we eat
- Vertebrates and invertebrates sorting
- Zoology parts of vertebrates (fish, amphibian, reptile, bird, mammal) 1st
- Beginning animal research
- Animal continent sorting
- Life cycles
- Food groups
- Fundamental needs of humans
- Parts of a flag
- Cave painting matching
- One to one correspondence
- Tally marks
- Past/present/future sorting
- Using a calendar/months of the year
- 7 Continent Studies

2nd grade

- Parts of the sun
- Solar system definitions
- Planet research
- Solar system models
- Parts of the earth definitions
- Types of volcanoes
- Water cycle review
- Types of precipitation
- Mountains & rivers continent maps
- Mini geology research
- The rock cycle
- World oceans map labeling
- Map keys and legends
- Map making
- Parts of a biome
- Parts of the soil
- Biomes project cards
- Biome maps
- Timeline of Life construction & recording
- Botany stories
- Leaf shapes poster
- Leaf margins patterns
- Leaf vein patterns
- Herbivore/carnivore/omnivore
- Food chains and webs
- Animal stories
- Bird/fish/mammal/reptile example species cards
- Internal characteristics of fish, amphibians, reptiles, birds, and mammals
- Wildlife treasury box animal research cards
- Human body layers/systems
- Cave painting geography cards
- Fundamental needs of humans
- Ancient civilizations around the world

- 7 Wonders of the Ancient World
- 7 Wonders of the Modern World
- World religions
- Stages of progression of civilization (shelter, land transportation, water transportation, air transportation, lighting, heating)
- Moon phases
- Days of the week history
- 7 Continent Studies

3rd grade

- Plate tectonics
- Layers of the earth calculations
- Volcano research
- Ring of Fire map plotting
- "If you were a water drop" writing
- Types of clouds
- Weather instruments 3-part cards
- Weather data recollection, recording, graphing
- Advanced land and water forms
- Land and water forms map
- Mountain OR river research project/presentation
- Geology research
- Rock cycle info cards
- Biomes continent maps
- Advanced biomes project cards
- Layers of the soil
- Biome carbon cycle 3-part cards
- Biome nitrogen cycle 3-part cards
- Timeline of Life construction & project w/ rubric
- Plant kingdom chart *2nd and 3rd*
- Types of plants: vascular/nonvascular, seed/spores, angiosperm/gymnosperm
- Species of trees
- Botany experiments
- Animal kingdom chart
- Vertebrate chart
- Invertebrate chart
- Parts of invertebrates (cnidaria, porifera, echinoderm, platyhelminth, nematode, annelid, mollusk, arthropod, mollusk)
- Clock of eras
- Body systems
- Chart of human needs: construction and discussion questions
- History of human needs cards (food, shelter, clothing, defense, transportation, medicine, art, religion)
- Ancient civilizations around the world
- Ancient hominid species
- Human needs project cards
- Ancient alphabets
- History of writing timeline
- BCE/CE timeline
- Timeline of numerals
- Months of the year history
- 7 Continent Studies

Language: Reading Mechanics

Pre-k level, CVC words

- Words and picture matching
- Missing letter
- Rhyming matching
- Vowel sliders
- Picture and phrase matching
- Picture and sentence matching
- Command sentences
- Rhyming lists
- Booklets and word lists

Kindergarten level, blends and digraphs

- Words and picture matching beginning blends
- Words and picture matching ending blends
- Words and picture matching digraphs
- Missing letter(s)
- Word lists
- Sliders
- Rhyming matching
- Sentence and picture matching

1st grade, long vowel sounds

- Long a sounds
- Long e sounds
- Long i sounds
- Long o sounds
- Long u sounds
- Picture and word matching
- Spelling game
- Rhyming matching
- Sentences with moveable alphabet
- Word lists
- Spelling lists group by letter sound pattern

2nd grade, special combinations

- R and vowel combinations
- Double consonant
- Endings: le, al, all
- Soft c
- Soft j
- Qu and ch as K
- Silent g, l, k, p, gh, w, we
- Ea as a short e sound
- Y as an i sound
- Spelling lists group by letter sound pattern

3rd grade, special combinations

- Endings: ed, ied
- Endings: ing, ong
- Endings: ink
- Words with ine, ave, ive, ice sounds
- Words with oo, ou, oy, oi sounds
- Endings: sion, tion endings
- Words with: our, aw, au, ou, ow sounds
- Spelling lists group by letter sound pattern
- Advanced spelling list (words that do not follow the pattern)

Language: Reading comprehension, writing, word study, grammar

1st grade

- Think aloud reading
- Parts of a story
- Oral retelling
- Story mapping
- Book group (beginning)
- Storyboards w/ moveable alphabet 1, 2, and 4 frame
- Story sequencing cards
- Story starter picture cards
- Capital letters
- Periods
- Writing complete sentences
- Animal research template
- Narrative writing template
- Opinion writing template
- Haiku and acrostic poetry
- Sight word memorization
- Animals homes/young/sounds/groups
- Alphabetizing
- Vocabulary Classification
- Compound words
- Use of the dictionary
- Synonyms picture matching
- Antonyms picture matching
- Syllabication
- Nouns/articles
- Adjectives
- Verbs
- Prepositions
- Grammar Game 1

2nd grade

- 5-finger retell
- Graphic organizers
- Book group (intermediate)
- Fiction text structures
- Nonfiction text structures
- Writing summaries
- Writing origin stories
- Writing a letter
- Writing stories using story starter prompts
- Story sequence and parts
- Writer's workshop narrative writing project
- Paragraph writing
- Synonyms advanced
- Antonyms advanced
- Singular/plural
- Contractions
- Common abbreviations
- Exclamation points
- Question marks
- Adverbs
- Pronouns
- Conjunctions

- Interjections
- Grammar game 2
- Intro to subject/predicate

3rd grade

- Book group (advanced)
- Making connections (text to self, text, world)
- Fact vs. opinion analysis
- Writing prompts
- Fact vs. opinion
- Essay format
- Research format
- Persuasive format
- Biography project
- Poetry task cards
- Book report
- Possessives
- Homonyms and homophones
- Prefixes and suffixes
- Positive/comparative/superlative
- Quotation marks
- Punctuation paragraphs
- Symbol sentences
- Verb conjugation
 - Regular verbs
 - Irregular verbs
- Reading analysis
 - Action/subject
 - Subject/predicate
 - Compound subject/predicate
 - Subject/predicate/DO

Math

1st grade

- Sandpaper numerals, making quantities, fill in missing numbers in a sequence
- Introduction to the decimal system using the golden bead material and numeral cards
- Addition with colored bead bars and sets of objects
- Addition with golden beads: multi-digit, static (no carrying)
- Seguin teens board: adding single digit numbers to 10 to create teen numbers
- Greater than, less than: sequencing one less and one more, comparing quantities using $<$ $>$ $=$
- Addition strip board: using quantities of 20 or less to generate addition equations
- Seguin tens board: adding single digit numbers to tens numbers
- Numeration: 100 board, 200 board, 100 chain sequencing by 10s, 1,000 chain sequencing by 10s, fill in missing numbers in sequence beyond 100
- Addition finger-board (full) for review of single digit addition
- Introduction to the Clock: o'clock, half past, quarter past, quarter till, minutes past,

- Metric measures: centimeters, celsius thermometer, milliliters/centiliters/liters, weight in grams
- US money: recognition of coins, quantity of coins, adding mixed quantities of coins
- Memorization of single digit addition facts using full, half, and blank finger charts and missing addend equations
- Expanded notation of numerals up to the 1,000s place
- Addition with golden beads: multi-digit, dynamic (with carrying from one place value to another)
- Addition snake game: long linear addition search for 10
- Addition with stamp game: multi-digit, dynamic
- Addition with bead frame: multi-digit, dynamic
- Addition abstraction: multi-digit, dynamic
- Addition of teens and tens
- Numeration beyond 100: sequencing
- Subtraction strip board: using quantities of 20 or less
- Fractions: introduction to physical fractions, numerator/fractional line/denominator, building fractions with manipulatives, equivalence, comparing quantities
- Addition of tens
- Telling time: digital
- Addition with dot board: two or more addends, dynamic

2nd grade

- Multiplication, static: beadboard arrays, golden beads, multiplication circles
- Multiplication snake game: practice of single digit multiplication facts
- Fractions: equivalence
- Subtraction snake game: practice of single digit subtraction facts
- Metric measures: centimeters/meters, celsius thermometer, milliliters/liters, grams/kilograms
- Long linear addition: grouping by tens
- Telling time: digital to analog
- US money: decimal point- dollar and cents
- Fractions: equivalence
- Graphing: bar graphs
- Memorization of multiplication: beadboard, sets of
- Multiplication with golden beads: multi-digit, static (review)
- Numeration and expanded notation
- Memorization of multiplication facts: finger charts full, half, blank
- Subtraction with golden beads: multi-digit, static
- Fractions: addition of like
- Memorization of multiplication tables 1-10
- Multiplication with golden beads: multi-digit, dynamic
- Multiplication with stamp game: multi-digit, static

- Fractions: addition of like, comparing quantities
- Memorization of multiplication tables 1-10
- Subtraction with golden beads: multi-digit, dynamic
- Multiplication with bead frame: multi-digit, static
- Subtraction with stamp game: multi-digit, static
- Memorization of single digit subtraction facts: strip board, fingerboards full/half/blank
- Subtraction with bead frame: multi-digit, static
- Numeration and expanded notation
- Operations in the abstract: addition, subtraction, story problems

3rd grade

- Multiplication with bead frame: multi-digit, dynamic
- Roman numerals
- Fractions: addition of like, subtraction of like
- Fractions: multiplication of a fraction by a whole number
- Numeration and place value
- Division with beadboard and golden beads: single digit divisor, static
- Metric measures: centimeters/meters/kilometers, grams/kilograms, milliliters/liters, celsius thermometer
- Multiplication with bead frame: multi-digit, dynamic
- Memorization of division facts: beadboard, fingerboards
- Multiplication: abstract, one-digit multiplier
- Fractions: addition and subtraction of like, comparing quantities, number lines, fractional parts of a number
- Memorization of division review
- US money: adding and subtracting with decimal point, words to decimals, story problems
- Operations in the abstract: addition, subtraction, multiplication
- Graphing: ordered pairs, bar graphs
- Division with stamp game: dynamic, single-digit divisor
- Fractions: subtraction of like
- Divisibility
- Numeration: comparing, expanded notation, words to numerals
- Fractions: number lines
- Multiples: Long bead chains, 100 chart
- Rounding
- Special combinations: Missing factors, divisors
- Operations in the abstract: Addition, subtraction, multiplication, division, story problems

Geometry

1st grade

- Basic geometric shapes: circle, square, triangle identification and definitions
- From point to solid: point, line, surface, solid identification and definitions
- Point to solid nomenclature
- Basic geometric shapes review
- Study of lines
- Regular polygons
- Equilateral, isosceles and scalene triangles

2nd grade

- Regular polygons
- Curvilinear shapes
- Angles of triangles: obtuse, acute, right
- Study of angles
- Regular polygons
- Quadrilaterals
- Curvilinear shapes

3rd grade

- Regular polygons
- Inscribed figures
- Constructive triangles
- Study of angles: whole/straight, right/obtuse/acute, parts of an angle, perpendicular lines, angles and fractions, consecutive angles
- Relationships between two lines nomenclature
- Congruence and Symmetry
- Calculating perimeter of polygons
- Calculating area of polygons
- Calculating volume of solids
- Parts of a circle