NEAR NORTH MONTESSORI SCHOOL

Curriculum Scope & Sequence

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Introduction

This document was created to help the reader understand the scope and sequence of the Near North Montessori School curriculum. It is designed to demonstrate the continuum of knowledge from one developmental level to the next and to illustrate the depth of each subject area.

At NNMS, we prepare our students for life by offering them a rigorous academic program that develops important skills for success such as creativity, communication, critical thinking, independence, confidence, and resilience. Dr. Montessori referred to this approach as “Educating the Whole Child,” that is, catering to each student’s academic, physical, emotional, spiritual, and moral development. Montessori’s developmental approach recognizes that each child reaches certain milestones at different stages. As such, the Montessori lessons are presented to students when they are developmentally ready and have mastered certain prerequisite activities.

We hope that this Curriculum Scope and Sequence document also provides you with a common language for Montessori exercises to better communicate and understand the work your child is doing in the classroom, leading to more robust conversations between students, parents, and faculty.

Dr. Montessori’s Five Great Lessons

Dr. Montessori uses the Five Great Lessons at the elementary levels as an introduction to all topics, providing a “big picture” to demonstrate how the sciences, art, history, language, and geography are interrelated. Students are then introduced to increasing levels of detail and complexity within these broad areas.

THE STORY OF CREATION OF THE UNIVERSE describes how minerals and chemicals formed the elements; how matter transforms to three states of solid, liquid, and gas; how particles joined together and formed the earth; how heavier particles sank to earth’s core and volcanoes erupted; how mountains were formed and the atmosphere condensed into rain, creating oceans, lakes, and rivers. Students are introduced to lessons in physics, astronomy, geology, and chemistry. For example, they learn about light, heat, convection currents, gravity, galaxies, planetary systems, Earth’s crust, volcanoes, erosion, climate, and physical geography.

THE STORY OF THE COMING OF LIFE explains how single-cell and multi-cell forms of life became embedded in the bottom of the sea and formed fossils. The Paleozoic, Mesozoic, and Cenozoic periods are traced beginning with the kingdom of trilobites and ending with human beings. A timeline shows the beginning of invertebrates, followed by fish and plants, then amphibians, reptiles, and birds and mammals. This is the basis for lessons in chemistry, nutrition, categories of animals and plants, care and requirements of different animals, and their interrelationship within an ecological system. Students are introduced to formal scientific language of zoology, botany, and anthropology.

THE STORY OF HUMANS introduces human beings and their unique endowments of intellect and will. The aim is for the children to imagine what life was like for early humans. This is the basis for lessons in prehistory and the emergence of ancient civilizations. Students are introduced to an analytical tool to compare cultures, and how climate and topography influence culture and political geography.

THE STORY OF LANGUAGE describes the origin, structure and types of writing and speaking. It begins with a discussion of the Egyptians, who had two kinds of symbols – one for ideas and one for sounds. The story goes on to describe the Phoenicians, who used the Egyptian’s sound pictures but not their idea pictures. Next, it describes the contributions of the Hebrews, Greeks, and Romans. Students use grammar materials which help them examine how language is put together and to refine capitalization and punctuation. They are introduced to the study of the origin of English words from other languages, the meanings of prefixes and suffixes, and different forms of writing such as poetry, narratives, and plays. Older children may study Egyptian hieroglyphics or American Indian picture writing.

THE STORY OF NUMBERS emphasizes how human beings needed a language for their inventions to convey measurement and how things were made. The story describes how the Sumerians and Babylonians had a number system based on 60, which is the reason for our 60-second minute and 60-minute hour. Greek, Roman, and Chinese numbers are introduced, and how Arabic numerals are similar to numbers found in a cave in India from 2,000 years ago. The Indian numerals had something that no other number system had, the zero. This is the basis for learning mathematics, which is integrated into all studies. For example, large numbers are needed when measuring time and space in astronomy, negative numbers are needed when measuring temperature changes, and triangulation was needed to reestablish property boundaries after the Nile flooded Ancient Egypt.

Developmental Characteristics

0-3

6-36 months
First Plane of Development

During this stage of development, children have a unique ability to absorb knowledge quickly and effortlessly. Maria Montessori referred to this as the “absorbent mind.”

These children are sensorial explorers and learn through the senses; therefore all experiences within the classroom are hands-on. This concrete experience of learning by doing is essential to the child’s development as it enriches his understanding of new concepts.

Also during this stage, the child has a natural passion to want to be engaged in activity that will be meaningful and purposeful. The child wants to be an active participant within his community of family and classmates.

3-6

3-6 year-old
First Plane of Development

In the 3-6 classroom, the ultimate goal for each individual is to achieve concentration, self-regulated behavior, independence, confidence, and an interest in learning about his/her world.

During this time of development, children continue to be in the stage of the “absorbent mind,” what Maria Montessori referred to as a child’s unique ability to absorb knowledge quickly and effortlessly. Children take great joy and pride in real and purposeful work, and in their ability to contribute to their community as active and helpful participants.

These children continue to learn through the senses. All experiences within the classroom engage use of the hands, are purposeful and are accompanied by mental concentration.

Social development is fostered in the Montessori environment with children of at least three ages (3-6 year olds), allowing them to develop helping, caring, and sympathetic relationships with others in natural, real-life situations.

6-9

6-9 year-old
Second Plane of Development

During this stage of development, we see the development of the “reasoning mind” where the 6-9 child has an unusual desire to know the reasons of things. Because there is a great thirst for knowledge, we offer the second plane child many seeds of knowledge and use of the power of imagination to captivate his interest and do further research to allow these seeds to germinate.

The 6-9 student is also very interested in morality and what society (the child’s own group) considers to be right and wrong. Students explore the wider society outside of family by learning and experimenting with social order among their peer groups. This allows for opportunities to practice grace and courtesy and develop resilience.

Students in this plane of development enjoy working with others so collaborative projects and group work is encouraged in the classroom. This provides students with the opportunity to learn to listen and respect the ideas and thoughts of others in their group.

9-12

9-12 year-old
Second Plane of Development

During this stage of development, children are interested in the exploration of a wider society. The 9-12 year-old begins an attitude of detachment from the home environment and a continued interest in morality.

Students in this stage move from concrete representation to abstract thinking. They bring order to various disconnected facts and are able to think hypothetically. No longer focused on right and wrong, good and bad, the Montessori student now seeks to understand the motivation behind behavior, and when confronted with moral issues, the student seeks to imagine and develop possible solutions.

12-14

12-14 year-old
Third Plane of Development

During the third plane of development, adolescents experience significant cognitive, physical, emotional, social, and moral growth. The adolescent is a study in contradictions: energetic yet slothful, concerned about others yet egocentric, desiring autonomy yet seeking adult help. Adolescents spend significant time finding their identity and searching for who they are and who they want to become.

The three most significant areas of intellectual development at this time are:

- metacognition (the ability to think about one's thinking)
- hypothetical reasoning (the ability to consider the "what ifs?")
- abstract reasoning (the ability to grapple with enormous complex concepts such as democracy, revolution, and integrity)

Practical Life

0-3

Practical life activities link the home environment to the school environment and develop everyday life skills through real and purposeful work. Practical life lessons are interesting to the child, who takes pride in meaningful work, contributing to the development of meeting her own needs and the needs of the community. These lessons are designed to meet developmental goals for the child such as refining fine motor skills, helping gain greater control over movements, fostering a sense of order, building concentration, and promoting independence.

Practical life exercises include learning:

HOW TO CARE FOR ONESELF
- Dressing / undressing
- Preparing a snack
- Pouring water
- Practicing with utensils
- Practicing independent use of the toilet

HOW TO CARE FOR THE ENVIRONMENT
- Sweeping
- Mopping
- Setting a table
- Flower arranging
- Folding fabric

HOW TO PRACTICE POLITE SOCIAL INTERACTIONS, KNOWN AS GRACE AND COURTESY LESSONS
- How to appropriately get someone's attention
- How to let someone know how you are feeling
- How to ask for help

3-6

Practical life activities continue to build on the home-school continuum, as the child develops everyday life skills through real and purposeful work. These activities form the foundation for all other work in the environment. The goals of practical life lessons are to promote the development of a child's concentration, coordination, independence, and sense of order.

Practical life activities further aid in a child's development of logical thought, ability to sequence and explore spatial relationships, and promote cultural awareness and adaptation. Practical life exercises are indirectly preparing children for later exercises in reading and writing.

Practical life exercises include learning:

HOW TO CARE FOR ONESELF
- Dressing / undressing
- Hand washing
- Food preparation
- Sewing

HOW TO CARE FOR THE ENVIRONMENT
- Table scrubbing
- Polishing
- Dusting
- Flower arranging
- Dish washing

HOW TO PRACTICE POLITE SOCIAL INTERACTIONS, KNOWN AS GRACE AND COURTESY LESSONS
- How to greet someone
- How to ask for help
- How to ask to join in a game
- How to problem-solve and form positive social interactions

6-9

Practical life activities in this plane help the child to navigate the physical and social world he is entering. Activities now include learning the social norms of a group, planning work and managing short-term projects.

Practical life exercises include learning:
- Conflict resolution skills
- Organizational skills
- Gardening
- Cooking
- Baking
- Science experiments
- Care of the environment
- Care of self
- Grace and courtesy
- Movement
- Silence (reflection)

9-12

Practical life activities in 9-12 focus on care of self, care of environment and living things, cooperation, and continued practice of grace and courtesy. Students feel a greater sensitivity to their surroundings, so activities begin to take the children outside of the classroom through community service projects.

Practical life activities teach:
- A means to an end
- Cultural awareness
- A sense of success
- Organizational skills to plan and run fundraisers, to coordinate school-wide events and programs, food drives, involvement in local and global charities and organizations
- Gardening skills to plant and harvest produce
- School outreach, role modeling and mentoring
- Building projects such as sets, greenhouses, indoor and outdoor environments
- Cottage enterprises such as salad bars, lemonade stands, dances, and holiday stores
- Planning functions

12-14

Purposeful work and real-life learning takes place within the classroom environment as well as beyond the walls of the school building. Practical life is extremely important to the adolescents' work, as they continue to acquire real-life skills that will help them develop into independent young adults.

Practical life exercises include:
- Grace and courtesy
- Daily community jobs
- Farmessori work
- Weekly council meetings
- Standardized testing
- Eighth grade jobs
- Seventh grade internships
- Public speaking
- Self care
- Leadership
- Public speaking
- Teamwork
- Budgeting and cooking
- Time management and executive functioning
- Conflict resolution
- Utilizing public transportation and weekly trips into the city (Flex Fridays)
- Woodshop and use of tools

MICROECONOMIES
- Sandwich Shoppe, a student-owned and student-run business
- Market Stand
- Community Exchange
- Community service

Sensorial

0-3

The sensorial materials are hands-on activities that allow the child to explore the world in a concrete way through the various senses. The sensorial materials help develop a child's hand-eye coordination, fine/large motor skills, spatial awareness, object permanence, and classification skills.

The materials help to refine a child's senses so that he can better clarify, classify, and define the materials and experiences within his various environments. These sensorial experiences deepen a child's understanding of his world.

Sensorial exercises include:
- Puzzles
- Block manipulatives (pink tower, brown stairs, cylinder blocks)
- Gardening
- Color exploration
- Sound exploration
- Sorting exercises

3-6

The sensorial curriculum engages a child's natural tendency to explore the physical world around him through the involvement of all his senses. The sensorial materials are puzzle-like materials that allow the child to refine the many sensorial impressions that they have experienced.

These impressions are classified and organized in the mind. The goal of the sensorial area is to aid in the refinement of the five senses through manipulation and exploration of concrete materials, so the child will have a better understanding of his world.

Sensorial activities focus on and include:
- Visual sense: visual discrimination of dimension, form and color through block manipulatives, color tablets, geometric shapes
- Tactile sense: discrimination of texture, temperature and weight through sorting, matching, and measuring activities
- Auditory sense: discrimination of volume and pitch through sound cylinders
- Sense of taste: discrimination of tastes such as sour, sweet, bitter, and salty through food preparation and specific lessons on taste
- Sense of smell: discrimination of smell through natural elements such as herbs, food, and flowers through food preparation, Farmessori visits, and specific lessons on smell

Many of the 0-6 sensorial materials lay a foundation for later work in Geometry, a subset of Mathematics, which is presented at the 6-9, 9-12, and 12-14 levels.

Mathematics & Geometry

0-3

Math is learned indirectly at this level through one to one correspondence activities, such as counting out place settings for snack. Some children may work with additional activities that build a greater understanding of quantity and symbol (1-10).

3-6

The Montessori math curriculum is presented to children first through concrete materials that allow for hands-on exploration of a concept. The goals of the math curriculum are quite extensive, beginning with an understanding of quantity and symbol, progressing to place value and experiences with the four operations of mathematics (addition, subtraction, multiplication, and division). When children at this level demonstrate a concrete understanding of these math concepts, they may be ready to move on to the more advanced exercises in memorization, abstraction, and fraction work.

NUMBERS 1-10
One to one correspondence, quantity, symbol and sequence of numbers one through ten are taught through the use of materials such as rods, spindles, and cards/counters (numeration with objects).

DECIMAL SYSTEM
Categories of unit, ten, hundred, and thousand are introduced with bead materials. The processes of addition, subtraction, multiplication, and division are experienced with the manipulation of the materials, giving the impression of the four operations in math.

TEENS AND TENS
The teens are introduced through the manipulation of gold beads, colored beads, and cards to represent quantities and symbols of numbers 11 through 19. Numbers in the tens are explored with the emphasis on the change from nine to the next ten (e.g., 39-40) by building the numbers with beads and cards. Bead chains provide concrete practice in counting and recognizing numbers and patterns. Exercises using the chains include the introduction to multiples of numbers and the concept of squaring and cubing.

MEMORIZATION WORK
The exploration of math facts occurs through a series of beads and boards work, offering repetition.

3-6 (continued)

Further understanding of math facts occurs as children memorize math facts in addition, subtraction, multiplication, and division.

PASSAGE TO ABSTRACTION
Some children move to abstraction in math through the use of an abacus-like bead frame, enabling the child to perform math operations with very large numbers.

FRACTIONS
Students may begin manipulation and exploration of fraction inset materials through introduction to the language and writing of fractions and their relationships to each other.

6-9

The mathematics curriculum introduces mathematics concepts, number theory, and computation through the use of Montessori materials (sometimes referred to as manipulatives), which allow the children to practice in order to gain understanding.

GREAT LESSON
- The Story of Numbers

NUMERATION
- Formation of numbers
- Attach quantity to symbol
- Place value to millions
- Reading numbers
- Study of other number systems

OPERATIONS
- Static and dynamic addition with and without materials
- Static and dynamic subtraction with and without materials
- Static and dynamic multiplication with and without materials
- Static and dynamic division with and without materials
- Memorization of math facts for each operation
- Introduction to commutative, associative, and distributive laws of mathematics with materials

MULTIPLES
- Introduction, concept, and practice with materials
- Skip counting with and without materials

SQUARING / CUBING
- Introduction, concept, and practice with materials

MEASUREMENT
- History/introduction, concept, practice of linear measurement
- Money - coin identification, adding coins, making change
- Metric measurement
- Customary measurement
- Measuring circles, cylinders and time

FRACTIONS
- Introduction and identification using materials
- Equivalence of fractions
- Operations with fractions with like denominators

GRAPHS
- Introduction to bar, line, and picture graphs

6-9 (continued)

PROBLEM-SOLVING SKILLS
- Word problems using the operations

COORDINATING GRAPHING
- Solving equations using addition or subtraction
- Solving equations using multiplication and division

Montessori exposes the children to concepts of geometry with manipulatives that allow children to visualize and interact manually with concepts.

GREAT LESSON
- The Story of Geometry

CONCEPTS
- Point, line, surface, solid
- Similarity, congruency, equivalence

LINES
- Definition, position, and types of lines using the nomenclature booklets and materials

ANGLES
- Definition, types, and measurement of angles

POLYGONS
- Definition and types of polygons using the nomenclature booklets materials
- Further study of triangles

9-12

At 9-12, mathematics instruction continues to use Montessori materials, but the goal is abstract understanding.

INTRODUCTION
- The Story of the History of Numbers and Numeration (including the history of measurements)

WHOLE NUMBERS AND NUMERATION
- Complete all whole number operations, (including long multiplication and division abstractly)
- Review hierarchical values, expanded notation, comparison, rounding, and estimating

MULTIPLES
- Greatest common factor, least common multiple, prime, and composite numbers
- Using prime factorization

PROBLEM SOLVING SKILLS
- Commutative, associative, and distributive operations
- Rules of divisibility
- Review odd and even numbers

FRACTIONS
- Review concept, equivalence
- Types of fractions, including proper, improper, and mixed
- Operations using and reducing fractions

DECIMALS
- Equivalency, comparing, ordering, and renaming fractions as decimals; learning all four operations abstractly

MEASUREMENT
- Liquid capacity
- Measuring length
- Perimeter
- Area
- Area of parallelogram, triangle, and prism
- Volume of a rectangle and triangular prism
- Measuring circles, cylinders, and time metric measurement

RATIOS AND PERCENTS
- Ratios as fractions, decimals, and percentages
- Percentages as fractions, as decimals, percent of number

9-12 (continued)

STATISTICS AND PROBABILITY
- Construct, read, and interpret tables, and graphs of all types, Understand mean, median, range, mode, frequency, and tree diagrams

GRAPHS
- Reading and constructing pictographs
- Bar graphs and line graphs

ALGEBRA READINESS
- Powers of numbers
- Squares and cubes
- Exploration of other number bases, squaring of binomials and trinomials, cubing of binomials and trinomials, pre-algebra
- Square roots
- Concept, concrete exploration, writing through to abstraction
- Order of operations, basic equations
- Working with integers, scientific notation, rational numbers
- Problem-solving and logical reasoning
- Translations, slides, reflections, symmetry, tessellations, graphs and other displays, coordination of graphs and equations
- Patterns leading to division, integer division, division of fractions
- Division with negative numbers

Geometry continues to be taught with Montessori manipulatives and tactile demonstrations. Emphasis is placed on connecting the physical experience with understanding of the abstract concept.

POINTS, LINES AND ANGLES
- Parallel lines
- Intersecting lines
- Measure angles
- Name triangles by looking at angles and sides
- Name solid figures by faces, vertices, and edges

12-14

The 12-14 mathematics curriculum is closely aligned with the University of Chicago math curriculum. It is a logical continuation of the students' work and studies in the Montessori 6-9 and 9-12 programs. Students take what they have learned concretely in prior levels and apply that information abstractly, consolidating all of their mathematical knowledge and experiences.

Geometry is a subset of the math curriculum. It provides excellent opportunities for practicing logic, reasoning, and proofs.

PREPARATION FOR ALGEBRA
- Problem-solving techniques
- Order of operations
- Squares, cubes, roots
- Estimation
- Probability and statistics
- Range, median, mean, average
- Fractions, decimals, percents: equivalency and conversion
- Negative numbers, zero, and absolute value
- Ratio and proportions
- Factors and multiples
- Graphs and other displays
- Powers, exponents
- Logic
- Measurement and scale
- Commutative and distributive properties
- Number lines

ALGEBRA
- Describing patterns with variables
- Translating words into algebraic expressions and vice versa
- Variables and equations
- Solving equations
- Equations with negative numbers
- Equations with a negative variable
- Single step equations
- Multi-step equations
- Coordinate graphs and equations
- Quadratic equations
- Functions and lines
- Slope, x-intercept, y-intercept
- Algebra through geometry

APPLICATIONS OF MATHEMATICS
- Micro-economies and economics
- Research and data analysis
- Cooking
- Technology

12-14 (continued)

- Timeline work and time management
- Word problems

GEOMETRY
- Lines: nomenclature and classification
- Angles: identifying, measuring, bisecting
- Triangles: nomenclature, classification according to sides and angles, equivalence proof
- Quadrilaterals: nomenclature, classification, equivalence proof
- Circles: nomenclature, relationships, circumference, diameter, area
- Spheres: volume
- Pythagorean Theorem
- Polynomials
- Perimeter and area, volume
- Translations, slides, reflections, symmetry-tessellations
- Algebra through geometry

Language

0-3

In the parent/infant and toddler communities, we focus on receptive and expressive language. Receptive language refers to what the child can understand, such as following directions. Expressive language refers to what the child is able to communicate with words and/or gestures. Language is found in all areas of the environment; however, we have a specific language area that focuses on several goals to aid in the child's development.

The curriculum is designed to enrich a child's vocabulary and bring awareness to the structure of language. The language materials aid in independence, helping students learn how to use language appropriately and have their needs and thoughts understood. Language is also enriched through music, stories, and poems.

Language Exercises Include:
- Reading books
- Singing songs
- Naming language objects and picture cards
- Matching objects to corresponding pictures
- Daily conversations
- In toddler community: initial sound recognition, practice with sandpaper letters, awareness to the relationship between sound and symbol

3-6

The language curriculum supports a child's development in three aspects: spoken, written, and reading. The language curriculum is quite extensive, with various goals in each of these subsets. Spoken language curriculum helps the child perfect his ability to communicate and express himself appropriately with others. Written language curriculum goals are to develop a child's ability to analyze sounds, recall their associated symbol, and formulate words. Cursive writing is taught at the 3-6 level, and cursive letters are presented to students through various language materials. The goals of the reading curriculum are to break down the symbols into sounds, and find meaning and context through deciphering words, sentences and eventually short stories.

Spoken Language Lessons Include:
- Enrichment of vocabulary: learn new names of objects and classify them through tangible objects and picture cards
- Lessons to practice and simulate social situations dramatically
- Stories, songs, and poems to give the child opportunity to appreciate literature
- Oral sound games: initial sounds, ending sounds, middle sounds, words with objects

Written Language Lessons Include:
- Sandpaper letters: beginning with consonants and vowels then progressing to phonograms
- Written sound games: initial sounds, ending sounds, middle sounds with the moveable alphabet
- Constructing words with letters, then phrases and sentences, and finally paragraphs and stories
- Preparation of the hand through progression of materials: metal insets, chalkboards, unlined word-paper, lined word-paper, lined sentence-paper, lined story-paper

3-6 (continued)

Reading Lessons Include:
- Phonetic reading through matching object games, command games, and reading various materials (i.e., cards, sentences, books)
- Phonograms: writing, reading, and spelling
- Puzzle words (sight words)
- Grammar and parts of speech through the use of concrete objects and games
- Word study: antonyms, synonyms, homonyms, singular and plural
- Sentence analysis: exploring how the order and placement of phrases affects the meaning

6-9

Language is integrated into all areas of the curriculum. It is primarily focused on reading fluency, writing, and oral expression.

THE GREAT LESSON
- The Story of Language

GRAMMAR AND SYNTAX
- Parts of speech with grammar boxes: noun, article, adjective, verb, preposition, adverb, pronoun, conjunction, and interjection
- Extensions with parts of speech
- Beginning sentence analysis: subject, predicate, and direct object
- Word study: root words, prefixes, suffixes, compound words, word families, synonyms, antonyms, homophones, and singular/plural nouns
- Dictionary skills

WRITING PRACTICE
- Cursive handwriting lower and upper case
- Punctuation rules: period, question mark, exclamation point, beginning comma work
- Capitalization rules: sentence, proper name, titles, "I," holidays, months, and days
- Beginning paragraph skills
- Sentence construction
- Spelling rules: contractions, phonograms, and puzzle words
- Editing and rewriting a final composition

6-9 (continued)

WRITTEN COMPOSITION
- Research writing
- Creative writing
- Story writing
- Poetry writing
- Letter writing
- Journal writing

BEGINNING READING SKILLS
- Continued phonics, letter to sound relationships
- Basic sight / word recognition
- Additional reading support with an emphasis on first-year readers

READING COMPREHENSION
- Reading for meaning and content
- Story elements
- Literature discussions including Junior Great Books
- Daily individual reading for practice and enjoyment
- Reading aloud to children

SPELLING
- Short vowel sounds
- Long vowel sounds
- Consonant blends
- Words ending in -ed or -ing
- Unstressed vowels
- Silent letters

SPOKEN LANGUAGE
- Presenting oral reports
- Sharing poetry and stories

9-12

Language builds on reading fluency and foundational writing skills to focus on comprehension of texts. Written expression is emphasized.

READING APPLICATIONS
- Compare details, examine cause and effect, use text features, charts and graphs to glean the author's purpose.
- Characters, setting, plot sequence, speaker, theme, dialects, literary form, and vocabulary use are examined.

ORAL INTERPRETATION
Public speaking, drama sessions, debates, seminars, plays, skits, and oral presentations.

GRAMMAR
- Advanced Function of Words (all parts of speech including Verb Conjugations)
- Sentence Analysis: adverbial

9-12 (continued)

extensions, attributives, predicate nouns, predicate adjectives, prepositional phrases

SPELLING
- Dependable spelling patterns
- Contractions, phonograms, puzzle words
- Commonly misspelled words
- Spelling strategies

GRAMMAR
Mechanics: colon, semicolon, punctuation rules, contraction, run-on sentences, note taking, paraphrasing, summarizing, topic sentences, sentences structure, paragraph construction, and editing

EDITING
Reports, journals, letters, diary, invitations, letter writing, proposals, book reports, myths, fables, descriptive writing, short stories, poetry, plays, biographies, and summaries

READING
- All literary genres including historical fiction, biographies, fantasy, poetry, Newberry Award Winners, adventure, classics, myths, mysteries
- Junior Great Books (interpretive reading and discussion)
- Novel study

THE WRITING PROCESS
Process writing with several drafts of a single work edited and evaluated until a publishable product is constructed (prewriting, drafting, editing, revising, publishing).

12-14

Language in the 12-14 level is about finding one's voice and making that voice heard. Students find their voice by exploring many types of reading and writing. They make their voice heard by perfecting how they communicate their thoughts.

READING
Literature is chosen to best complement the curriculum unit at hand. Books include, but are not limited to: *Lord of the Flies, Of Mice and Men, A Tree Grows in Brooklyn, A Raisin in the Sun, 1984, A Farewell to Manzanar,*

12-14 (continued)

The Grapes of Wrath, Persepolis

- Previewing and comprehending
- Finding context clues and inferences
- Determining the author's main purpose and big idea
- Determining saliency
- Summarizing and predicting
- Character motivation
- Drawing conclusions
- Comparing two or more pieces

LITERARY TECHNIQUES
- Fiction: poetry, novels, short stories, graphic novel, science fiction, classics, historical fiction, mythology, folk tales, mystery/suspense, drama/plays
- Non-fiction: editorials, advertising, periodicals, auto/biography, news sources, blogs, science texts, biased writing

GRAMMAR AND LANGUAGE ARTS
- Parts of speech
- Punctuation
- Proofreading and editing
- Usage
- Spelling rules
- Vocabulary

WRITING
- Writers' Workshop
- Figurative language: metaphor, simile, personification, etc.
- Active vs. passive voice
- Point of view, narration
- Paragraphs and transitions
- Writing formats
- Pre-writing or brainstorming techniques
- Elements of storytelling: characters, setting, dialogue, conflict, resolution, and descriptive detail
- Fiction: stories, plays, comics
- Non-fiction: autobiography, letters, articles, speeches, interviews, travelogues, resumes, children's books, how-to manuals, thank you notes
- Expository
- Summarizing
- Five-paragraph essay
- Letters to the editor
- Persuasive essay
- Demonstrative essay
- Research, thesis, and supporting points

ORAL LANGUAGE
- Presentation skills
- Listening skills

History

0-3

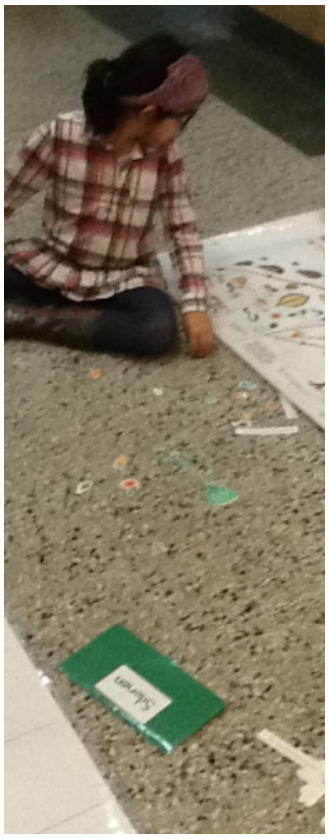
History is introduced indirectly through books and by learning the daily schedule.

Children are very much in the present moment at this age and flourish with predictable schedules and routines.

3-6

For the young child, the focus is on developing awareness and understanding of the concept of the "passing of time."

Activities include:
- Introduction to calendar
- Awareness of seasonal changes
- Beginning of clock study: o'clock, half-past, quarter till, quarter past
- Introduction to the three fundamental tenses: past/present/future
- Experience of personal history via birthday celebrations/ personal timelines



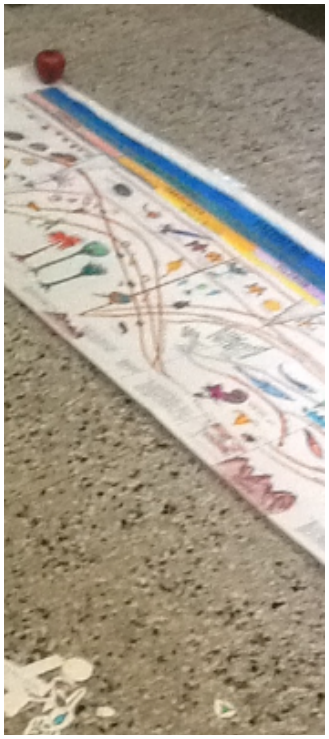
6-9

History is shared through stories based on the contributions of all of humanity.

GREAT LESSON
- The Story of Human Beings

TIME
- Timeline of life
- Earth history with the clock of eras and the black strip
- BC/AD timeline
- Calendar – study of year, month, week, day including personal timelines
- Clock study: o'clock, half-past, quarter to, quarter past

HUMAN STUDIES
- Fundamental needs of humans
- Introduction to various civilizations and cultures
- Appreciation for human contributions



9-12

History is shared by stories but explored in greater depth through inquiry-based research.

REVIEW OF TIMELINE OF LIFE
- Paleozoic, Mesozoic, Cenozoic, and Neozoic eras
- Timeline of early humans
- Significance and characteristics of early humans, beginning with Australopithecus
- Timeline of lower Paleolithic Age
- Timeline of upper Paleolithic Age
- Introduction to early civilizations
- History timelines
- Fundamental needs of humankind
- Chart

AMERICAN HISTORY
- American History Timelines
- Three Branches of Government
- U.S. Presidents
- Pledge of Allegiance
- Illinois History
- Chicago History

STUDY OF CIVILIZATIONS
- What are the characteristics of a civilization?
- History of question charts
- Study of a civilization (research)
- Archaeology/anthropology
- Growth of culture, migration, exploration

COSMIC AUTOBIOGRAPHY
An in-depth research project done by 6th grade students that begins with the Big Bang and ends with their own life story.

12-14

The 12-14 curriculum is a two-year integrated program incorporating literature, history, cultural and social studies, current events, research projects, and Flex Fridays.

Throughout the two-year cycle, students explore a variety of historical topics under the broad umbrellas of government/constitution, revolution, movement of people, Chicago history, and economics.

GOVERNMENT AND CONSTITUTION
- Systems of government
- The early United States
- The Constitution and founding documents
- Federalism and the balance between states and nation
- The branches of government; checks and balances
- How laws are made
- Political parties, elections, voting
- Important Supreme Court decisions

REVOLUTION
- Causes and effects (intended and unintended)
- Topics include: United States, France, Chinese Cultural, Cuba, Haiti, Iran, industrial, social movements
- Commonalities of revolutions

MOVEMENT OF PEOPLE
- Types of migration
- Causes and effects
- Topics include: age of exploration, westward expansion in the US, urbanization and the growth of cities, suburbanization and gentrification, the immigrant experience on Ellis Island, forced migration, Trail of Tears, Japanese internment, the Great Migration of African-Americans, Chicago immigration, recent issues of immigration, social movements

CHICAGO HISTORY
- Important people
- Important events
- Chicago neighborhoods
- Art and architecture

12-14 (continued)

ECONOMICS
- Types of economic systems
- The Stock Market
- The role of government
- Banking
- Consumerism: political and ecological footprints
- The global economy
- Poverty, unemployment, and hunger

CURRENT EVENTS
- Reliability and accuracy of sources
- Determining salient parts and summarizing

Geography

0-3

Geography is introduced indirectly at this level through activities such as exploring a globe ball, singing cultural songs, reading books, and making cultural snacks or celebrating cultural traditions of classmates.

3-6

The goal of the geography curriculum at this level is to bring an awareness to children of the physical features of the earth, through presentations of land/water formations and concrete exploration of maps. Also, the curriculum brings an awareness of other cultures around the world through pictures, objects, and stories.

PHYSICAL GEOGRAPHY
- Study of land and water forms, such as lakes, islands, peninsulas, gulfs, isthmus', and straits

EXPLORATION OF GLOBES, MAPS, AND FLAGS
- Naming and distinguishing shapes and placement of continents, countries, states, and oceans
- Making of maps and books of flags to encourage repetition and familiarization with the geography materials

CULTURAL GEOGRAPHY
- Children/families of the classroom are encouraged to share their own cultural stories and/or experiences with their classmates
- Connections between physical and cultural geography are made through pictures, objects, and stories of other people, places, products, plants, animals, homes, clothing, transportation, arts, and crafts

6-9

Geography is introduced through oral lessons with tactile materials to allow repetition.

GREAT LESSON
- The Story of our Universe

SOLAR SYSTEM
- Planets, stars, constellations
- Relationship between the sun and earth

COMPOSITION OF THE EARTH
- Layers of the earth
- Land and water forms
- Formation of mountains and volcanoes
- Types of rocks

STATES OF MATTER
- Solid, liquid, gas
- Further extensions with experiments

PHYSICAL GEOGRAPHY
- Identifying countries, cities, capitals, land and water features with pin map materials
- Making maps
- Using an atlas
- Researching and presenting information

SCIENCE EXPERIMENTS
- Introducing the scientific method by observing, writing, and evaluating

9-12

Geography is tied into both the history and science curricula.

POLITICAL GEOGRAPHY
- Map skills: imaginary lines, equator, latitude, longitude, political, physical, road maps

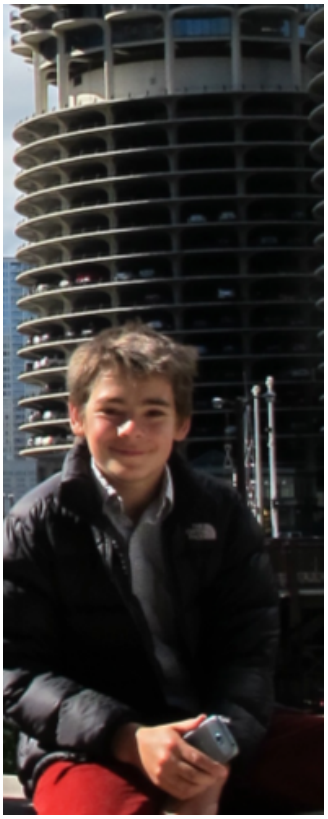
INTRODUCTORY LESSON: THE STORY OF THE UNIVERSE
- Imaginary island
- Functional geography
- Astronomy: black holes, galaxies, life cycle of a star (sun)
- Composition of the earth
- Further studies of the lithosphere including continental drift
- Mountain building, faults, plate tectonics
- Work of wind: winds, winds and seasons, rain caused by winds, ocean currents, erosion, energy
- Work of water: work of rivers, rain, work of oceans, glaciers, water cycle

12-14

Students engage in geography through its five themes: location, place, movement, human-environment interactions, and region. Students study political and physical geography within the context of all curricular areas. Geography is closely connected to history, science, and the Farmessori. It helps students find their place in the world, as well as understand all of its interdependencies.

Activities and lessons include:
- Preparation for canoe trips, the DC/NY trip, and the 7th grade trip
- Current events: relating geography to topics under discussion
- World religions: tracing the geographical spread of religious groups and the relationship of geography to the conflicts among religious groups
- Movement of people: tracing the path of various national and ethnic groups as well as patterns of settlement
- Chicago neighborhoods: exploring the history and current status of Chicago's communities.
- Flex Friday trips into the city, including map reading

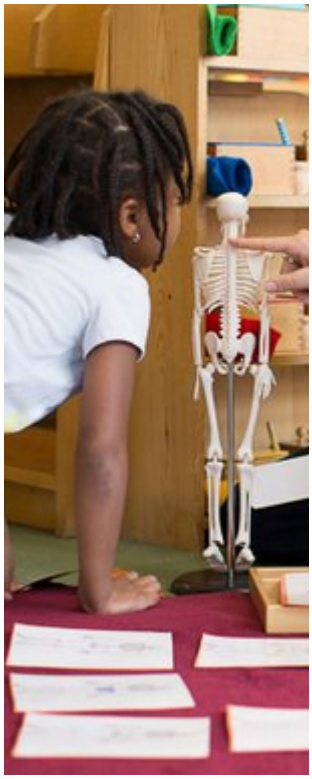
Within the context of the science curriculum, geography includes:
- Earth science
- Climate and weather
- Environmentalism and sustainability
- Farmessori



Science

0-3

Science is introduced indirectly at this level through activities such as cooking, books, picture cards, exploring living/non-living, magnetic works, and weather.



3-6

The goals of the science curriculum are to offer concrete exploration of the physical and life sciences to further classify the child's understanding of his world.

PHYSICAL SCIENCE LESSONS INCLUDE
- Magnetism
- Buoyancy
- Weather

LIFE SCIENCE LESSONS
- Scientific classification: living/non-living, plant/animal, vertebrate/invertebrate
- Introduction to invertebrates and the animal kingdom: mammal, reptile, amphibian, fish, bird
- Observation and care of classroom pets
- Botany: naming and experiences with leaf shapes, plants, trees, and flowers
- Observations and care of classroom plants

6-9

6-9 students explore science with hands-on demonstrations and experiments.

GREAT LESSON
- The story of the coming of life

ZOOLOGY
- The five kingdoms
- Animal kingdom with animal story material and reference books
- Vertebrate/invertebrate
- Classification by phylum and class
- Research
- Observation and care of animals, pet visits
- Nature walks and field trips

BOTANY
- Story of plants
- Needs of plants
- Parts and functions: leaf, root, stem, flower, fruit, and seed
- Research
- Observation and care of plants
- Outdoor/indoor gardening
- Nature walks and field trips

SCIENCE EXPERIMENTS
- Introduction to the scientific method by observing, writing, and evaluating

9-12

Science is based on hands-on inquiry with a focus on scientific language and principles.

CHEMISTRY
- Atoms, molecules, compounds, bonding, experimentation
- Matter and Energy
- Conservation of matter, conservation of energy, properties of matter, experimentation

LIFE SCIENCES
- Five kingdom classification
- Review of five kingdom classification followed by research of kingdoms

ZOOLOGY
- Vital functions, comparative study: nervous system, reproduction, circulation, respiration, nutrition, skeletal
- Animals (chordates vs. nonchordates)
- Tracing the genealogy of an animal
- Adaptations/biomes/food chains
- Predator/prey

HUMAN ANATOMY
- Introduction to the cell, genetics, and systems of the human body: skeletal, muscular, respiratory, circulatory, digestive, reproductive, excretory, nervous, endocrine

BOTANY
- Classification of kingdom plantae, vital functions of the plant (second level), research of 'classes' in kingdom planate, research the genealogy of a plant, nature walks, observations of animals in their natural habitats, field trips

TREE OF LIFE
- Taxonomy of all living organisms

RESEARCH
- Science experiments: writing, performing, evaluating
- Nature Walks/ observations/ field trips

GEOLOGY
- Properties of rocks and minerals
- Land forms

ELECTRICITY
- Static and current electricity

12-14

The two-year cycle in the 12-14 science classroom is primarily a laboratory-centered science course, with links to geography, sustainability, and the Farmessori.

CHEMISTRY
- The Periodic Table
- States of matter
- Atomic structure
- Chemical and physical change
- Volume, mass, density
- Equations for chemical reactions

ENERGY, MACHINES, AND PHYSICS
- Magnets, electromagnets, compasses
- Parallel circuits
- Electricity and static electricity
- The six basic simple machines
- Bridges

SOUND AND LIGHT
- The nature of waves
- Sound waves
- Methods of sound production
- Electromagnetic spectrum
- Analysis of color
- Reflection and refraction of light
- Human vision

HEALTH AND BIOLOGY
- Cells and their functions
- DNA
- Heredity investigations
- Evolution
- Body systems
- The human brain
- Diseases
- Diet and nutrition
- Reproduction and human sexuality
- Ecosystem and the interaction between organisms

EARTH SCIENCE
- Climate
- Weather patterns
- Land and water forms
- The water cycle and erosion
- The rock cycle
- The human impact on the environment
- The layers of the earth
- Tectonic plates

ASTRONOMY
- The planets, galaxies, and universe
- The sun and moon

12-14 (continued)

- The life cycle of a star

SCIENCE FAIR
- The scientific method

ONGOING
- Student work in the Farmessori
- Mathematical analysis as a part of each science topic
- Field trip experiences to the Museum of Science and Industry with special classes relating to science topics under study
- Application of technology in data analysis and research
- Discussion of ethical, political, and historical issues surrounding science topics
- Current events in science: discussion of journal articles on science topics in the news

Spanish

0-3

Spanish is spoken by the assistant teacher throughout the morning through informal, everyday language, books, and songs.

3-6

Spanish is spoken by at least one Spanish-speaking adult in the classroom throughout the day in a natural manner. Small group Spanish lessons are offered spontaneously in the mornings to all children. Third-year students have a half-hour of dedicated Spanish lessons 3-4 times a week in the afternoons.

Cultural Knowledge Exercises Include:
- Celebrate special events (i.e., Cinco de Mayo, Dia de los Muertos)
- Listen and respond through vocabulary
- Creative expression through songs and stories
- Learn about Spanish-speaking countries, flags, and geography

Linguistic Knowledge Exercises Include:
- Follow simple directions
- Oral and hands-on practice with general vocabulary: colors, feelings, articles of clothing, and foods

6-9

Spanish is taught three times a week for 30 minutes. The emphasis is on speaking. Students continue to build on the basics of the Spanish language using visual materials so the younger students can touch and manipulate them as they learn to make complete sentences. Throughout the 6-9 years, students learn vocabulary, pronunciation, grammar, and sentence structure. Our lessons also help students develop listening comprehension, speaking, reading, and writing skills.

First level:

VOCABULARY TOPICS
- Clothes
- Places
- Time expressions
- Nuclear family
- School
- Animals
- Numbers up to 50
- Alphabet

SPEAKING
- Use longer sentences
- Dialogues using yes or no questions
- Express likes or dislikes

GRAMMAR
- Introduction to reflexive verbs, double verb sentences with gustar and querer
- Mastery of negative, introduction to subject pronoun omission

READING AND WRITING
- Recognition of Spanish sounds, beginning writing, spelling
- Basic reading

Second level:

VOCABULARY TOPICS
- Sports and recreation
- Accessories
- Means of transportation
- People
- Weather
- Geography
- Spanish-speaking countries
- Movies
- Music

SPEAKING
- Engage in dialogues by using questions
- Provide descriptive and argumentative statements

6-9 (continued)

- Compare and contrast

GRAMMAR
- Noun/adjective agreement
- Possession, interrogatives
- Practice of basic conjugation with regular verbs
- Introduction to near future tense, ir
- Expressions with hacer
- Conjugations, pero and porque

READING AND WRITING
- Reading more complex sentences
- Answering questions in written form

Third level:

VOCABULARY
- Days of week
- Body parts
- Physical description of the classroom
- Detailed weather forecast
- Shopping
- Expressions of feeling
- Health
- Numbers up to 100

SPEAKING
- Detailed descriptions of day-to-day situations
- Begin to express needs
- Demonstrate comprehension of simple auditory cues such as intonation and gestures

GRAMMAR
- Introduction to singular personal pronoun usted and plural personal pronouns
- Expressions of feeling with tener and estar
- Learning of infinitives

READING AND WRITING
- Begin writing in paragraphs
- Complete transition to reading without visual symbols
- Emphasize spelling and accurate pronunciation

9-12

Spanish is taught two to three times a week for seventy-five minutes each. Lessons include speaking, listening, reading, and writing. Students learn the language through games, songs, chants, books, conversations, and skits.

Fourth Level:

VOCABULARY
- Spatial prepositions
- Professions
- Schedules
- Size and quantity
- Time

SPEAKING
- Engage in discussions with more than two students
- Colloquialisms
- Expanded ability to compare and contrast
- Identify, state, and understand feelings and emotions

GRAMMAR
- Formal presentation of conjugation of plural forms
- Further practice of reflexive forms
- Indirect speech
- Polite form of querer
- Idioms with tener, estar, and hacer
- Relative pronouns quien(es) and que

READING AND WRITING
- Reading and writing without the support of visuals
- Writing imagined stories
- Reading Spanish books
- Compose lists, postcards, menus, and short letters
- Comprehend main idea in various media such as announcements, posters, advertisements

Fifth – Sixth Levels

VOCABULARY
- Art
- Clothing
- Extended family
- Food and drinks
- Eating habits
- Money
- Household places and objects
- Print and media
- School
- Seasons
- Detailed time

9-12 (continued)

- Tourism
- Topography

SPEAKING
- Emphasis on conjugation of irregular verbs
- Infinitives as verb complements
- Polite commands
- Possessive adjectives
- Object pronouns
- Formal presentation of articles and gender
- Comparisons of inequality and possession

READING AND WRITING
- Dictation
- Identifying phonemes through spelling
- Perform written narratives
- Translating texts
- Writing guided compositions
- Interpret media such as tickets and brochures

12-14

The Spanish curriculum emphasizes language not only as a tool for communication, but as a means of developing awareness of appreciation for people of other cultures, as well as for the community of humankind.12-14 Spanish classes meet two to three times a week for forty-five minutes each. Classes are conducted in Spanish and students have the opportunity to speak, listen, read, and write in each class. The 12-14 Spanish students use textbooks that include conversation, vocabulary specifics, grammar, and cultural information. In addition, the students memorize and perform skits, sing songs, celebrate holidays from Latin America, cook popular dishes, and go out in the city of Chicago.

TOPICS
- Physical and personality
- Characteristics
- Family
- Feelings
- Likes and dislikes
- Daily routines
- Shopping
- Making plans
- Interests and hobbies

SPEAKING SKILLS
- Talk about why and when something happens
- Describe physical and personality characteristics
- Make phone calls
- Describe past events
- Talk about future plans

READING/WRITING SKILLS
- Read, analyze and write increasingly complex short stories
- Interpret real life content within context (movie posters, letters, menus, public information signs)

GRAMMAR
- Conjugate ser versus estar
- Conjugate in the simple past
- Basic reflexive verbs
- Possessive pronouns

OPTIONAL
SERVICE/IMMERSION TRIP
12-14 students and parents have an opportunity to travel to Honduras during spring break to volunteer at an orphanage, while being immersed in Spanish language and Honduran culture.

Technology

0-3, 3-6, 6-9

While technology was not a part of Dr. Montessori's curriculum when it was developed over 100 years ago, today it has become an important tool in the lives of our students today. Our goal is to educate children so that they reach their inherent potential and prepare our students for life; therefore, it is incumbent upon us to review technology as a tool in the Montessori classroom.

Students at the 0-3, 3-6 and 6-9 levels are developing skills critical to healthy brain function, such as eye-hand coordination, motor planning, memory, and understanding the nuances of non-verbal cues. All of these skills are best mastered through real and concrete learning experiences. In addition, the young child learns best when all senses are engaged in learning and experiences are both real and reciprocal in nature. For these reasons, use of technology is limited in the classroom until students reach the 9-12 level when technology is fully embraced as an effective teaching, research, and presentation tool.

9-12

At this level students develop and master terminology and identification of key hardware components. Teachers and children use technology as an extension of classroom resources and an avenue to practice and present skills learned in all areas of the curriculum.

KEYBOARDING
- Use of finger positioning in all letter rows
- Refinement of skills with technology, punctuation, numbers, and symbols
- Use of shortcut keys
- Use of Mavis Beacon software

WORD PROCESSING
- Introduction of basic word processing skills using iWork Pages and Google documents
- Page and text formatting
- Use of spell check software
- Insertion of clip art
- Copy and paste functions
- Introduction to graphic effects and page layout
- Formatting an outline

SPREADSHEET SKILLS
- Introduction to basic spreadsheet skills using iWork Pages and Google documents
- Generate and format line, circle, and bar graphs representing real data

PRESENTATIONS SKILLS
- Introduction to presentation skills using iWork Keynote and Google Presentations
- Creation of basic slideshows using themes and layout options
- Slideshow customization using colors, effects, text formatting and clip art
- Create kiosk style presentations in Microsoft Excel with button and page transitions

NETWORKING
- Introduction to network, including logging-on, saving, and opening existing files from personal and shared drives
- Sixth graders get Google.doc accounts and use Google apps to be prepared for 12-14

INTERNET
- Review of browser and internet vocabulary
- Addition of websites to favorites list

9-12 (continued)

- Use of various search engines in research

PROGRAMMING
- Design and implement a variety of LOGO language programs using MicroWorlds EX
- Introduction to basic animation principles using MicroWorlds EX
- Introduction to game design
- Introduction to MIT's Scratch programming language
- Introduction to Alice scripting

GRAPHICS
- Creating graphics using tools, palettes, and effects in TuxPaint
- Manipulate and edit photos and graphics in Pixlr online photo editor
- Introduction to 3D modeling using Google Sketch Up

MEDIA
- Introduction to video production using iMovie
- Introduction to animation principles using Anime Studio
- Introduction to audio creation and production using Garageband and Audacity

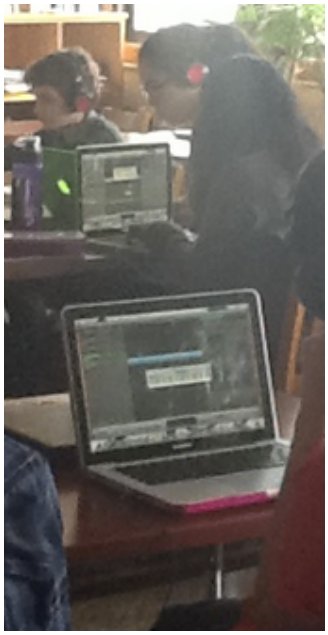
INTERNET SAFETY AND MEDIA LITERACY
- Introduction to Digital Literacy and Citizenship using the Cybersmart curriculum
- Privacy and security
- Cyberbullying
- Creative credit and copyright
- Self-image and identity
- Digital footprint and reputation
- Introduction to the language and principles of media analysis using resources from the Action Coalition for Media Education

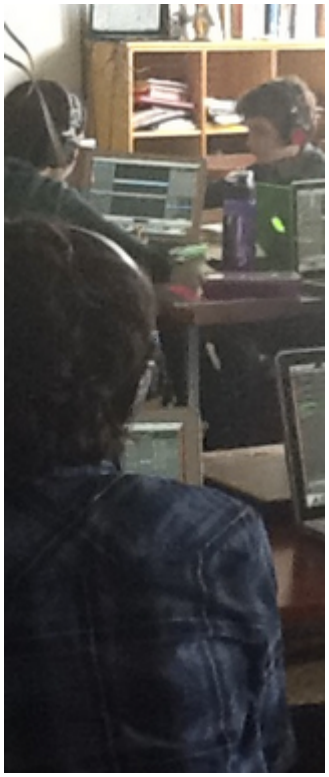
12-14

Technology enhances the 12-14 curriculum by allowing teachers to present material in a more dynamic way and students to give back that information in a more engaging way. It allows students to gain a broader, deeper and clearer understanding of curriculum. After learning the basics of technology in 9-12, the 12-14 students put these skills to use. Students are permitted to use privately-owned notebook computers and each classroom has several laptops and iPads for students to check out.

Much of the work started in 9-12 continues in 12-14: lessons on internet safety, media literacy, graphics, and a wide variety of presentation skills.

In addition, students learn:
- Use of search engines
- Online safety and etiquette
- Google docs
- Prezi
- Powerpoint presentations
- Electronic portfolios
- Blogs
- Robotics
- iWork and iLife software and Google Apps for Education
- iMovie
- Smartboard
- Flipped classrooms





Fine Arts

0-3

Art and Music are introduced at this level in stimulating and creative ways, both in small groups with music and individual lessons with art. The goals of the art and music curriculum foster self expression, concentration, development of gross/fine motor skills, and refinement of the senses.

Music activities include:
- Singing songs
- Listening to music
- Exploration with musical instruments

Art exercises include:
- Painting: watercolor (fine motor) and easel (large motor)
- Drawing
- Gluing
- Cutting
- Clay work
- Sewing
- Weaving

3-6

Art and Music appreciation continues at the 3-6 level through both creative opportunities and through formal lessons. Music is offered through singing songs, listening to a variety of music, and more formal lessons are introduced through the bells and other rhythm instruments. The art materials offered allow students to explore and work at their own pace, using a variety of media to stimulate choice and innovation.

Music activities include:
- Bells: use of the Montessori bells in the classroom environment for tone matching and composition.
- Rhythm: introduction to beat of music through instruments and/or composed music; children work with rhythm sticks or simple instruments.

Art exercises include:

EXPLORING AND CREATING
- Exploration and creative expression are fostered through various media available in the classroom: coloring, drawing, painting at an easel, watercolor painting, clay/sculpture, collage, sewing, and weaving.

APPRECIATION
- Children are encouraged to look at their own work and appreciate the art works of known artists as well.

6-9

The fine arts are incorporated in many other areas of the classroom. Children are encouraged to express themselves creatively through the arts. Dr. Montessori recognized the importance of the hand-brain connection and its positive impact on learning. Our students have access to an open studio for ceramics, music classes, and classroom instruction and materials.

MUSIC

RHYTHM
- Perform, identify, and create rhythmic phrases
- Using rhythmic cards to show note values and rests.
- Rhythmic games

INSTRUMENTAL
- Accompaniment with barred and non-barred instruments
- Frame drums
- Recorders in 3rd year

VOCAL
- Melodic development of vocals
- Simple sight-reading
- American folk songs
- International music and movement

PERCUSSION
- Body percussion
- Introduction of ostinati

MOVEMENT
- Composed movement
- Folk dance
- Improvisation

IMPROVISATION
- Orff instruments for vocal improvisation
- Movement improvisation

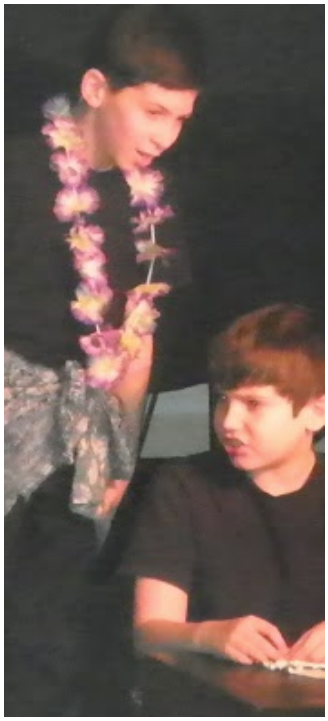
MUSIC APPRECIATION
- Listening examples from American artists
- Music from Africa, Brazil, Cuba, Puerto Rico, India, and Europe

ART
In 6-9, the curriculum builds upon the three areas of art: Aesthetics, Creative Expression, and Art History, previously introduced in 3-6.

6-9 (continued)

AESTHETICS
- Identification of visual elements
- Observations in the environment

CREATIVE EXPRESSION
- Acquisition of basic skills using art media for drawing, painting, collage, printmaking, and sculpture
- Artistic interpretation based on imagination and personal interpretations
- Intentional choices of lines, colors, and other visual elements
- Creation of two- and three-dimensional art



9-12

The upper elementary-aged student is developmentally ready delve deeper into the fine arts curriculum. Children develop greater fine motor skills which enable them to learn and apply a variety of art and music techniques. The students use a variety of art media to broaden their learning and share their finished work. The fine arts aid in the development of self-esteem through increased skill and means of self-expression.

MUSIC

RHYTHM
- Perform, identify, and create rhythmic phrases
- Continue using rhythmic cards in more complex variations

INSTRUMENTAL
- Introduce accompaniment using barred instruments, beginning with pentatonic scale, introduction of modes

VOCAL
- Greater melodic development of vocals, use of solfege to increase musical literacy, and simple sight-reading
- Folk background as springboard for Motown and contemporary American styles

PERCUSSION
- Begin with rhythmic pieces using body percussion to start moving and add instruments such as drums and non-pitched percussion
- Introduction of ostinati, drum circles, bucket drumming, and creating an ABA song form

MOVEMENT
- Sequences to music, composed movement, folk dance

IMPROVISATION
- On Orff instruments, begin with limited pitch, building to more complex vocal improvisation and movement improvisation

MUSIC APPRECIATION
- Listening examples: Chicago Orchestra concerts

9-12 (continued)

ART
Students in the 9-12 level continue to explore art concepts and techniques studied in 6-9 but in greater depth.

AESTHETICS
- Increased awareness of subtle visual qualities in the natural and constructed environment and art
- Application and refinement of perceptual skills developed in earlier grades
- Identification and analysis of more subtle and complex visual relationships, including light, color, texture, form, proportion, space, distance, and balance

CREATIVE EXPRESSION
- Creation of more complex works with greater attention to expressive intentions
- Use of design concepts for specific purposes

ART HISTORY
- Study of select styles, historical eras, and specific artists

ART CRITICISM
- Perception and description of the subject matter, including visual elements and mood
- Expression of opinions about art with thoughtful response to others' opinions
- Students see and discuss styles and types of artwork from varied cultures and periods

12-14

12-14 students further develop the skills and techniques learned in their elementary experience. They are introduced to more advanced techniques and more sophisticated approaches to fine arts. The fine arts are often used within all other areas of the curriculum for students' projects.

MUSIC
- Band
- Electives

MUSIC APPRECIATION AND FIELD TRIPS
- Local theaters and productions
- Symphony Hall
- Lyric Opera

MOVEMENT
- Dance and choreography
- May Mayhem
- Folk dances, composed and improvised movement

AESTHETICS
- Application of skills and concepts acquired at previous levels
- Color, line, shape, and other visual elements
- Proportion, visual rhythm, and balance

CREATIVE EXPRESSION
- Sketching
- Two- and three- dimensional art
- 'Zines
- Cartooning and graphic novels
- Collage
- Mixed media
- Videos and photos
- Painting
- Screen printing
- Pottery
- Charcoal drawing

ART APPRECIATION AND FIELD TRIPS
- Outdoor art and sculpture
- Art Institute of Chicago
- Museum of Contemporary Art
- The Chicago Architecture tour

ART CRITICISM
- Examination of art with additional focus on critical analysis based on perception of the subject, visual design, artist's use of materials, historical periods, and art from different cultures.

Physical Education & Movement

0-3

Children at this age need many opportunities to learn how to move their bodies and work towards refinement of large muscle control and small muscle control, with the goal of attaining more coordinated movements, independence, and confidence.

LARGE MOVEMENT EXERCISES
- Dance
- Walking across a balance beam
- Carrying heavy objects
- Walking carefully around the classroom and work spaces

FINE MOTOR MOVEMENTS
- Various activities exercising pincer grasp
- Squeezing works exercising whole hand

DEVELOPMENTAL GYM
- Occasionally, toddler children may visit this program for large motor, and circuit exercises

3-6

At the 3-6 level, children continue to be given numerous opportunities for movement throughout the day. They are given the experiences to develop and refine their movements in the classroom and also through our Developmental Gym program on a daily basis.

Weekly, third year children attend a Brain Dance class to foster mind-body exercises. Through these various experiences, children's self-image, personal, and social development are fostered. Also, children are building an awareness of their body in space through parallel play and group play, building self-control to regulate their behavior appropriately for success in community life: taking turns, following directions, sharing, listening, and safety of self and others.

CLASSROOM ACTIVITIES TO REFINE CONTROL OF MOVEMENT
- "The line" in the classroom allows children to practice control of various movements such as: hopping, balancing, galloping, marching/walking in different directions, starting/stopping on command.
- In small or large group gatherings, children may explore rhythm in relation to physical education through clapping and moving to a specific beat.
- Children develop hand-eye coordination and fine motor skills through various curricular areas in the classroom.

DEVELOPMENTAL GYM ACTIVITIES TO REFINE CONTROL OF MOVEMENT
- Through a circuit of activities, children are refining hand-eye coordination and large motor skills. Such exercises include: stretching, ball work (throwing, catching, tossing, kicking), and cross-lateral movement exercises.

BRAIN DANCE
- Third year students take part once a week in a 45-minute class of dance and movement, focusing on cross-lateral coordination, motor refinement, and body control.

6-9

Classes in physical development at the 6-9 level are offered twice a week and focus on learning how to move through space in a coordinated manner. Students participate in co-operative group play to develop team-building skills, learn rules of games, and improve confidence in their motor skills.

MOVEMENT SKILLS & MOVEMENT KNOWLEDGE
- Move in different directions at varying speed; locomotor skills such as hop and gallop on nonpreferred foot, slide, travel in relationship to various objects (over, under, behind, through)
- Demonstrate body movement at different levels, balancing and dodging while moving, roll, toss and catch, stationary kick skills, strike with hand
- Combine basic skills into sequential actions: combine ball handling with walk/jog for basketball, baseball, soccer, and other games
- Skills to develop strength, endurance, and flexibility leading up to physical fitness test and mile run
- Dancing and rhythms

SELF-IMAGE, PERSONAL, AND SOCIAL DEVELOPMENT
- Appreciate importance of aerobic exercise and its effect on heart fitness, and learning the basics for a healthy lifestyle, developing a sense of teamwork, helping and supporting peers

Beginning in 6-9, children have one long rotation in the pool during gym class.

SURVEY SWIM I
- Safety topics
- Swim skills

SWIM ACTIVITY DAYS
- Basic life saving
- Water polo
- Snorkel

9-12

Students at the 9-12 level participate in gym class twice a week with an additional class every other week. Through team sports, students develop accuracy and speed, teamwork, and camaraderie. The goal is for each student to see themselves as an athlete in some aspect of physical education and develop positive self-esteem and respect for their healthy bodies.

MOVEMENT SKILLS & MOVEMENT KNOWLEDGE
- Throw and catch with increasing accuracy, strive to master previously learned skills such as dodge, roll, catch, kick, engage in cooperative group activities as well as competitive organized games
- Develop knowledge of sport specific skills and game rules; know the importance of teamwork and cooperation; play fair with peers; recognize the value of sports in understanding other cultures; participate in warm-up activities
- Sports: kickball, soccer, flag football, ultimate frisbee, floor hockey, cooperative games, and battleball, relays, basketball skills including drills and lead-up games, volleyball, tumbling, rope climbing
- Physical fitness test and distance running
- Square dancing

SELF-IMAGE, PERSONAL, AND SOCIAL DEVELOPMENT
- Learning to understand self-control, health, and wellness for oneself
- Teamwork and camaraderie: helping and supporting one another
- Activities that help students to have fun
- Feel good and gain self-confidence

COMPETITIVE SPORTS
- Basketball for 6th grade (boys and girls)
- Feel good and gain self-confidence

SURVEY SWIM II
- Safety topics
- Swim skills

SWIM ACTIVITY DAYS
- Water polo
- Snorkel

12-14

Special attention is given to the physiological condition of adolescence. Previously learned skills are further developed including movement skills, team sports, self-image, basic first aid, core strength, coordination, persistence, personal and social development. Students have physical education class four times per week.

INTERSCHOLASTIC SPORTS
Near North Montessori School has the following sports teams: co-ed track; boys flag football; boys and girls volleyball, basketball and soccer; a swim team; and water polo. Emphasis is on sportsmanship, skill development, and learning to put forth one's best effort within the context of a team endeavor.

Outdoor Education

6-9

Children travel to Wisconsin during the last week of school to participate in an overnight camp experience.

The students develop skills in independence and collaborative learning. Children build a meaningful connection with the natural world and have hands-on experiences that deepen their interest and knowledge of subject areas presented throughout the year.

BENEFITS
- Develop confidence
- Deepen interpersonal skills through communal living
- Greater exposure to children outside their classroom
- Social bonding through shared experience

ACTIVITIES
- Nature study
- Fishing
- Cooperative games
- Canoeing
- Archery
- Arts and crafts
- Theater games
- Free play

9-12

Children travel to the Nature's Classroom Institute in East Troy, Wisconsin to spend five days in an immersive environmental education program.

The students work with experts in the areas of sustainability and environmental science to develop a deeper understanding of the natural world and its interdependencies.

BENEFITS
- Instruction from specialized experts
- Holistic approach to environmental learning
- Increased need to work collaboratively
- Opportunity to relate to peers in a unique setting

ACTIVITIES
- Team building challenges
- Historical simulations
- Analysis of food consumption/waste
- Interaction with small farm including animals

12-14

Students spend a significant amount of time outdoors at this level. These outings include canoe trips, rock climbing trips, Flex Fridays, community service, Chicago neighborhoods visits, and the 8th grade trip to Washington, DC and New York City.

BENEFITS
- Resilience and perseverance
- Team work
- Self-confidence
- Community building
- Leadership

ACTIVITIES
- Map reading
- Use of public transit
- Canoeing and kayaking
- Menu planning and budgeting
- Campfire cooking
- Outdoor games
- Care of self
- Grace and courtesy on public transit, on city sidewalks, and in restaurants

Farmessori & Sustainability

0-3

Students are introduced to sustainable practices through their daily routines in the classroom environment, instilling early stewardship to the care of our earth.

GREEN ACTIVITIES
- Students recycle materials such as paper and plastic.
- Teachers plant seeds with the students.
- Students see the cycle of organic material from consumption to seeds to plants and back again to food.
- Through snack time, students learn about compostable materials and compost foods.
- Consistent observing and tending to plants' needs for watering are part of the children's daily experiences.

3-6

Students adhere to sustainable practices in the everyday life of the classroom, broadening their awareness and sense of responsibility and relationship to the earth. The ultimate goal is for students to become active stewards of the earth and to gain a greater understanding and appreciation for our relationship to the larger ecological environment.

GREEN ACTIVITIES
- Maintaining a vermiculture box / worm bin
- Contributing snack and lunch refuse to compost bins
- Recycling
- Conservation of water and raw materials
- Bird feeders
- Consistent observing and tending to plants' needs for watering are part of the students' daily experiences.

FARMESSORI
- Compost from classrooms used in Farmessori planting projects.
- Third year 3-6 students visit the Farmessori twice a month and receive guided lessons from our Urban Farm Coordinator.
- Vegetable seeds are planted and grown for use during the school year.
- Bulbs planted by the children in the fall at school are used for enjoyment and education in the spring.

6-9

Children at the 6-9 level are exposed to the needs and functions of plants in their classrooms. Having the opportunity to apply lessons learned in the classroom to a real life context of raising food from the seed to the table is a powerful learning experience. Hands-on learning promotes interest and retention of key concepts. Understanding the fundamental need for food is a goal for the 6-9 child.

THE FUNDAMENTAL NEEDS OF HUMANS CHART
- Augmented with a section on energy
- Illustrates that energy can come from many sources
- Energy sources need to be tapped in different ways
- Significant differences between renewable and non-renewable sources
- Booklets on energy are designed to parallel the other Fundamental Needs booklets
- All Fundamental Needs of Humans Chart booklets are moved to reusable, washable cloth folders

SUSTAINABILITY ACTIVITIES
- Composting
- No waste lunches
- Energy conservation
- Recycling
- Gardening

COMMITMENT TO
- Renewable resources
- Benefits of local farming
- Farm-to-table
- Food cycle

9-12

The 9-12 students understand the functions and classifications of plant life and the interconnectedness of the living world. The students explore the practical lessons of food production. Awareness is raised in areas of sustainable growing and consumption habits. The students gain practical lessons in botany as well as an understanding of how to make responsible and considered choices as consumers.

SUSTAINABILITY ACTIVITIES
- Students envision and draw possible extensions of the Ecozoic Era, imagining what a sustainable life may be like in the next 50 years.
- Students expand on the needs of the Time Line of Life: food, clothing, transportation, shelter, defense, and technology, especially regarding communication
- Composting
- Gardening
- Recycling
- Food deserts
- Healthy neighborhoods
- Farm as a community-organizing tool
- Systems and interdependencies

12-14

The 12-14 students learn about sustainability through hands-on work at the Farmessori. A combination of intellectual thought and physical labor help them better understand the delicate interconnectedness between humans and the environment. The Farmessori is closely connected to the 12-14 science curriculum, including earth science, interdependencies, and botany.

SUSTAINABILITY ACTIVITIES
- Micro-economy with an eco-friendly focus on self-sustaining projects
- Ongoing composting and recycling projects
- Rain barrel workshops
- Greenhouse work
- Gardening and Farmessori work
- Maintenance of the Farmessori chickens and bees
- Honey harvesting and production
- Use of Google docs and technology to reduce paper usage
- Use of public transportation or walking on Flex Fridays
- Food cycles
- Connecting Sandwich Shoppe and the Farmessori
- Construction of the outdoor classroom
- Construction of the brick oven

Diversity & Inclusion

Diversity, in its most simple form, means difference. At NNMS, diversity includes race, ethnicity, religion, family composition, family traditions, sexual identity, ability, and socioeconomic status.

While we seek to respect all differences that community members find meaningful, we ultimately believe that our diversity at NNMS is possible because of a key similarity: shared values. All students of different religions, race, and ability experience equity in education because of a shared respect for learning and an environment in which ideas are freely exchanged.

At NNMS we seek to understand diversity through the eyes of a child. We offer each child "windows" and "mirrors." Windows are those moments that allow us to understand and acknowledge the realities of others' experiences. An environment of windows allows community members to interact with and form deep bonds with people who are different from themselves, allowing them to explore beyond their own experiences. Mirrors are those moments in which we see our own lives, experiences, preferences, and culture reflected back to us. An environment of mirrors, in which all members of our community experience the validation and security of interacting with others who are similar to them, is part of what creates the relaxed environment so important to learning and building community.

Windows and mirrors support the Montessori practice of educating through experience, exploration and collaboration, and further the Montessori ideal of education as a path to global justice and peace. We also work with the idea of being allies to one another in the classroom and in the school. This can take many forms, such as speaking up when anti-social remarks are made or resolving conflicts in thoughtful ways. Students as allies demonstrate and value diversity and inclusion.

Working with each age group according to their developmental readiness, topics of diversity and anti-bias curriculum are introduced. Topics also arise spontaneously from the students' own interactions and independent studies. Teachers build on these opportunities, supporting the children's development of cross-cultural competence.

What is important about diversity is that it offers a way to affirm the self and a way to understand others. The following goals were developed by Louise Derman-Sparks in her book, *Anti-Bias Curriculum*. They are a starting point for the toddler, 3-6, and 6-9 classrooms.

GOALS OF ANTI-BIAS CURRICULUM

GOAL 1
Each child will demonstrate awareness, confidence, family pride, and positive social identities.

GOAL 2
Each child will express comfort and joy with human diversity; accurate language for human differences; and deep, caring human connections.

GOAL 3
Each child will increasingly recognize unfairness, have language to describe unfairness, and understand that unfairness hurts.

GOAL 4
Each child will demonstrate empowerment and the skills to act as an ally, with others or alone, against prejudice and/or discriminatory actions.

As the students get older and move through the 9-12 and 12-14, the curriculum includes projects that focus on the history and causes of oppression and of social justice movements. Such work for this age group can be formative in their growing identity as members of the wider society.