



Developed by Dr. Maria Montessori,

Montessori is a child-centered educational approach based on scientific observations of children from birth to adolescence.

Unique Aspects of Montessori

Freedom Within Limits

The Montessori classroom balances freedom with responsibility.

The Prepared Environment

The Montessori classroom is warm, inviting, aesthetically pleasing and student-focused.

Multi-age Classrooms

The multi-aged groupings provide opportunities for broad social development and meaningful friendships which are often lifelong.

Intrinsically motivated learners

The Montessori teacher guides and empowers students with challenging, authentic, and meaningful work. As students begin to make independent choices they become actively engaged in an in-depth exploration of topics and skills, gain a deeper understanding of new concepts in an integrated fashion, and become better critical thinkers. There is no ceiling on what can be discovered and students are internally driven toward mastery.

Life-long learners

Each learning environment is organized to respect the diversity of learners and to support the natural developmental needs of the age-group it serves. The self-correcting materials facilitate self-directed learning and allow students to reflect on their own learning. This student-centered approach is enriched with real world experiences designed to provide conceptual context of how the natural and human-designed worlds are organized, interrelate, communicate and change.

Compassionate Global Citizens

A shared and profound respect for one another and the environment fosters a collaborative environment focused on shared values and peaceful discourse. The range of ages, abilities, and cultures builds acceptance and appreciation of individual differences as students form a diverse and cohesive community.



MATH

Math 7:

History of arithmetic
History of number systems
Fraction operations
Data displays
Percents, fractions & ratios
Integer operations
Substitution

Pre-Algebra:

History of algebra
Integer operations
Distributive property
Simplifying algebraic expressions
Solving multi-step equations
Solving one-step algebraic inequalities
Ratios & rates
Probability
Percents & fractions

*Algebra I:

History of algebra
Domain & range
Identifying functions
Solving multi-step equations
Solving compound inequalities
Coordinate plane
Function notation
Slope-intercept form
Linear regression
Solve linear systems
Exponent properties
Exponential growth & decay
Add, subtract & multiply
polynomials
Factor polynomials

*Geometry:

History of geometry
Geometric constructions
Angle pair relationships
Inductive & deductive reasoning
Logical fallacies
Formal proofs
Transversal relationships
Prove triangle congruence
Similar polygons
Pythagorean theorem
Trigonometric ratios
Properties of circles

SCIENCE

Life Sciences:

Ecology

Web of life, biomes & food chains
Human biology
Systems: skeletal, muscular, circulatory, digestive, nervous, immune
Genetics: mendelian & advanced

Cell organelles
Cell cycle (mitosis & meiosis)
Inheritance
Genetic diseases

Environmental Science

Population studies
Local farm studies
Global environmental issues

Physical Sciences:

Astronomy

Origins of the universe
Stellar nucleosynthesis
Celestial objects

Chemistry

Stoichiometry
Acids & bases
Atoms & bonding
Chemical reactions
Balancing chemical reaction equations
The periodic table
Energy & Forces
The nature of forces
Newton's laws
Air pressure
Bernoulli's principle
Renewable & nonrenewable energy sources
Mechanism behind energy sources

Earth Science

Plate tectonics
Natural disasters
Rocks & minerals
Weather & climate
Stellar nucleosynthesis

*LATIN

Verbs of all four conjugations & irregular verbs
Nouns of the first three declensions
Adjectives & adverbs
Indirect speech
Numbers & Roman numerals
Demonstrative pronouns & adjectives
Translation from Latin
Roman history from the founding of Rome through the republic & the early emperors
The spread of the Roman Empire

Cultural studies
Latin roots & English words derived from Latin
Latin phrases used in modern English

LANGUAGE ARTS

Reading - self selected books, class novels
Shakespeare - two plays over the course of the two year cycle
History of the English Language
Vocabulary - personal lists, Latin & Greek roots
Spelling - personal lists
Poetry - elements & styles
Writing - essays, short fiction, poetry, research papers, book reviews, memoirs, citizen profiles
Elements of fiction
Grammar - regular review, mini lessons, sentence analysis

HUMANITIES

Year A :

Government & civics
Model UN:
Global education simulation

Operations & role of the United Nations
Committee procedures & nomenclature
Delegate role-playing
Systems & governments in countries assigned by MMUN
Human Rights
Research
Position paper
Speech writing & public speaking
Critical thinking, problem solving, evaluative skills
Conflict resolution
Topics related to the countries we are assigned for Model UN which might include womens' rights, poverty, access to education, sustainability, land use, child labor, voting rights, racism, social unrest

Year B:

US Elections
World History using a "Big History" model
Examine trends, patterns, cause and effect, and humans in the context of the history of the universe
Study humans interactions with other humans, with the environment, and with ideas:
Patterns of population
Economic networks & exchange
Uses & abuses of power
Haves & have-nots
Expressing identity
Science, technology & the environment
Spiritual life & moral codes

*WORLD LANGUAGE —SPANISH

Two-Year Cycle Themes

Year A:

Healthy habits at home & school
Healthy choices with food
Family customs & traditions,
Entertainment though sports & hobbies
Family dwellings & interactions: house & home
Fashion & the environment
Personal experiences & community involvement
Travel in the community & abroad

Infinitives
Gustar
Indirect object pronouns
Telling time
Expressing dates
Definite & indefinite articles
Nouns: gender, plurals, possession of nouns
Adjectives: agreement & position
Possessive adjectives (short form)
Ordinal numbers
Cardinal numbers (0-100)
Question words
Subject pronouns

Present tense regular verbs
Ser vs. estar
Prepositions of location
Cardinal numbers (100-millions)
Adverbs: affirmation, negation, time, place
Stem-changing verbs
Present tense irregular yo
Form verbs
Present progressive
Present participles
Affirmative tú commands
Present tense irregular verbs
Direct object pronouns
Ir+a+infinitive
Saber vs. conocer
Prepositions
Conjunctions
Interjections
Personal "a"

ELECTIVES

Students are required to complete 1 visual arts and 1 performing arts elective over the course of the two-year cycle. Some examples of electives include:

Drawing & painting
Sculpture
Construction
Clay
Culinary arts
American sign language
World drumming
Ukulele
Songwriting
Music technology
Video game design

Financial Literacy:

Interactive classroom economy
Financial psychology
Maslow's hierarchy of needs
Budgeting
Paying rent/mortgage
Credit card vs. checking account
Jobs & careers
Good debt vs. bad debt
Investing
Risk management & insurance

Micro Economy:

Maintaining spirit wear website
Operating Montessori Market
Autonomy of inventory
Effective marketing
Ethical business practice
Determining prices

PRACTICAL LIFE/ LEADERSHIP

Effective & responsible communication
Problem-solving skills/strategies
Organization/time management
Independent/collaborative work
Personal responsibility
Community & corporate responsibility
Field studies
Public speaking
Care of environment

PHYSICAL EDUCATION/ HEALTH

Combination of skills for team and individual sports: (soccer, basketball, volleyball, field hockey and football)

Roles of individual/team sports

Offensive and defensive strategies in structured games
Physical & mental health & well-being

Cooperative & competitive activities

Sportsmanship

Age appropriate family life education

Healthy relationships (from peer pressure to conflict resolution)

Nutrition & food allergies

Bones, muscles & joints

Cardiovascular systems

Alcohol use

Stress, Depression & Sleep

Conflict resolution, peer pressure & bullying

CPR/first aid

INTEGRATED THROUGHOUT THE CURRICULUM

Research Skills:

Refine information literacy skills; research skills

Locate, evaluate and synthesize a broad range of print/digital sources for assignments and research projects

Follow approved copyright guidelines and bibliographic formats

Synthesize information to develop final product

Evaluate research process using a provided rubric

Technology Essentials:

Understand, use, and apply print/ electronic resources to acquire information

Select search strategies to acquire information in print/ electronic sources

Understand how to store, share, retrieve information on network

Understand application of Internet safety standards for personal, educational, future professional use

Develop knowledge, understanding and skills from different disciplines to design and create solutions to problems using the design cycle

Use and apply technology effectively as a means to access, process and communicate information, model and create solutions, and to solve problems

Develop an appreciation of the impact of design innovations for life, global society and environments

Appreciate past, present and emerging design within cultural, political, social, historical and environmental contexts

***High school credit courses**