



# Elementary



The MAC Elementary experience empowers students to reach their own personal potential and develop the confidence and capabilities to positively impact their world. MAC's Elementary School offers an unparalleled opportunity for children to thrive by combining a progressive Montessori pedagogy, a dynamic experiential program, strong academics, social-emotional support, and a Spanish Language Program. Organized into two 3-year programs, Lower Elementary is 1st-3rd grade and Upper Elementary is 4th-6th grade. The mixed-age groups allow each child to find a variety of peers at their level of challenge and benefit from the experience of being a leader, follower, and observer.

***MAC couples the authentic, 100-year old Montessori pedagogy with research-based best practices to foster intellectual challenge within each student.***



## Innovative Academics

MAC's curriculum is Montessori based with a focus on a rigorous academic offering, including standards-aligned Montessori Mathematics, Language, Science, and History curriculum. Classrooms are filled with math and science materials that isolate specific concepts for the student and allow hands-on and didactic lessons that require further inquiry and investigation to solve the problem. Alongside rich Literacy curriculum, MAC incorporates a methodology called Orton-Gillingham (OG), a phonological approach to reading that is multi-sensory, systematic, structured, and success-oriented. MAC's Elementary teachers have received Orton-Gillingham training which focuses on improving reading, writing and spelling skills, giving students necessary tools to achieve greater success all around.



## Exploration of Character

In Elementary, our students begin to research and practice a growth mindset, an asset-based way of viewing challenges and setbacks. A growth mindset teaches critical skills such as open mindedness, preparedness, situational awareness and confidence when facing challenges. Social emotional learning is also a key component worked into the curriculum where students develop self-awareness, self-control, and interpersonal skills that are vital for school, work, and life success. MAC uses RULER, an evidence-based approach to social and emotional learning, developed at the Yale Center for Emotional Intelligence. RULER supports entire school communities in understanding the value of emotions, building the skills of emotional intelligence, and creating and maintaining a positive school climate.



## Fearless, Forward Mindset

Going Outs, where children learn outside the classroom, is an essential tenet of the Elementary classroom. At MAC, we expand on this notion of experiential explorations by integrating research, curriculum, service learning, and community awareness into our Going Outs with the understanding that children learn by doing. Experiential learning requires our students to function as a group through the collaboration and respectful decision-making processes, allowing for an entrepreneurial learning environment.

**The Montessori Academy of Colorado is a metropolitan school that engages each child through innovative academics, exploration of character, and a fearless, forward mindset.**

# Elementary Curriculum

**In addition to our curriculum, an intentional culture of compassion, conversation, and community is the foundation of MAC Elementary.**

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## MATHEMATICS

Montessori mathematics provides an unparalleled opportunity for children to not just memorize facts and formulas, but to also dive deeply into the way math actually works. Montessori alumni frequently credit the pedagogy with their impressive numerical literacy. Students begin by concretely using materials to fully understand all operations, the base ten system, fractions, decimals, and Geometry. They move to working without materials and memorization, generally excelling in all areas of Math as they grow older.

### Whole Numbers

- Whole number numeration and number theory/hierarchy of numbers
- Facts tables (+, -, x, ÷) and four operations with whole numbers
- Squaring and finding square roots
- Pre-Algebra
- Alternate bases, cubing, and cube roots
- Operations using signed numbers

### Fractions & Decimals

- Rounding and estimation, multiples and factors, rules of divisibility
- "Odd" and "even," "greater than" and "less than"
- Nomenclature: proper / improper fractions, mixed numbers numerator, denominator
- Numeration of value, equivalences, and fraction reduction
- Lowest Common Multiple and Greatest Common Factor
- Four operations of fractions
- Numeration, place value to the thousandths
- Conversion to and from fractions and decimals (equivalences)
- Four operations with decimals
- Calculating percentages and converting to decimals and fractions
- Ratio and proportions

### Geometry

- Lines, types of angles (including use of protractor)
- Triangles, regular polygons, and planar solids
- Perimeter and area of regular polygons, including circles
- Surface area and volume of regular planar solids, solids of rotation, and spheres
- Geometric constructions with compass and straight edge
- Measurement in English and Metric measurement systems

### Measurement, Graphs, and Real World Application

- Expanded, scientific, and exponential notation
- Measurement and temperature
- Bar, line, and pie graphs, introduced to other graphing forms
- Math in the real world, including mastering calendars and the clock
- Story problems



**"I love that my child is excelling academically; his progress has vastly exceeded our expectations."**

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**-MAC Parent**



# Elementary Curriculum (cont.)

## LANGUAGE

Children between the ages of 6-12 are innately inquisitive, questioning the “why” behind all aspects of our world. Montessori feeds their curiosity by teaching not just reading, writing, grammar, and spelling, but also by sharing the fascinating history of language from the distant past to the present. Students are directly instructed in areas of skill and apply those skills through meaningful work in all other subject areas. As independent thinkers, Montessori students naturally discover the power of words and language and how to employ them throughout their lives.

### Spelling

- Compound words, synonyms, and antonyms
- Seven syllable types with application to spelling
- Dictionary, thesaurus, and encyclopedia skills
- Etymology through study of words with Latin and Greek roots

### Writing

- Capitalization, punctuation, and sentence structure
- Paragraph structure: topic sentence, body, concluding/transition sentences
- Five-paragraph essay
- Mastery of research skills (table of contents, index, glossary, etc.)
- Expository paragraphs and bibliography
- Responsive journaling
- Formal research papers including note cards, outlines, drafts
- Outlines and mapping as pre-writing tools
- Persuasive and descriptive paragraphs
- Creative stories with character development, conflict, plot development, resolution
- Readers-Writers Workshop

### Grammar

- Parts of speech (article, adjective, noun, verb, adverb, pronoun, conjunction, preposition, interjection)
- Advanced grammar (types of nouns, types of adjectives, etc.)
- Intensive verb study (conjugations) and to verbals (infinitives, participles, and gerunds)
- Sentence diagramming: subject, predicate, indirect and direct objects, and adverbial modifiers
- Independent clauses, subordinate clauses, and various phrase types

### Reading

- Reading comprehension (assessed with Daily Reading Assessment)
- Experience working with multiple genres of literature, including summarizing, inferring, paraphrasing, interpreting, and citations
- Literature discussions



**“The one-on-one attention has met and exceeded my expectations; it is impossible to duplicate this in another school, and we have looked.”**

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**-MAC Parent**



# Elementary Curriculum (cont.)

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## CULTURAL WORK: GEOGRAPHY, HISTORY, AND SCIENCE

The Montessori cultural curriculum offers a rich and dynamic approach that provides meaning and context for students. The curriculum integrates all subject areas; it is exciting for students and adults! Lessons begin with theories on the origin of the Universe, in which principles of physical science are revealed, and then proceed to examine the forces that have acted over the ages to shape the world we inhabit. The relationships of earth, sun, seasons, and zones of climate are also studied, in addition to economic and political geography. There is emphasis on understanding plant and animal behavior and physiology. The basic needs of plants and animals (e.g. water, food, defense, reproduction) provide the framework for investigating the unique varieties from the point of view of adaptation, both to contemporary environments and throughout time.

### Chemistry

- Introduction of scientific method
- States of matter
- Basic circuits
- Mechanics – gears, classes of levers
- Element study, Bohr atomic model, Periodic table of elements
- Matter versus energy
- Astronomy, History of Space Exploration
- Light and sound

### Biology

- Organic/Inorganic classification
- Classification of the living world – plants, animals, and other
- Plant and animal identification stories
- External and internal parts of plants and animals
- Five Kingdoms studies (Prokaryotes, Protists, Fungi, Animal, Plant)
- Animal Kingdom including human biology study
- Plant Kingdom
- Cell study including plant and animal cells
- Biomes
- Ecology and the web of life

### Geology / Earth Science

- Types of rocks
- Rock cycle
- Weather and climate
- Water cycle
- Earth's interior, plate tectonics
- Earthquakes, volcanoes, rock cycle

### Geography

- Composition of the Earth and its atmosphere
- Continents and oceans
- Solar system
- Awareness of other cultures
- Needs of People
- Material needs: food, clothing, shelter, transportation, communication, defense
- Spiritual needs: art, religion, customs
- Basic map skills: political and physical geography, flag study
- Land and water forms

### History

- Understand the concept of time
- Origins of the Universe – creation stories
- Formation of the Earth
- BCE/CE Timeline, Clock of eras
- Origins of and types of calendars, days of the week, months of the year, seasons, holidays
- Timeline of Life
- Timeline of Early Humans
- Timeline of Technology/Ages of Humans
- Native Americans
- Archaeology
- Ancient civilizations
- U.S. History
- Colorado History
- Geography skills
- Mastery of atlas and map skills



# Uniquely MAC

## Fearless, Forward Learners

Research shows that children with advanced social-emotional skills excel in college and beyond. MAC is committed to fostering intellectual rigor, as well as character, within our students. A student:teacher ratio of 9:1 ensures every student is deeply known and loved as a whole being and that each student receives an unparalleled level of individualized attention. Our teachers intentionally cultivate a culture where all children belong and are valued for their individuality. We both nurture and challenge our students in all areas of development.

## Co-curriculars

MAC believes that Art, Music, Physical Education, and STEAM should be integrated fully into students' lives, not relegated to a weekly class. Thus, we provide specialized studio classes throughout the week in which students work in small groups with teachers who are experts in their content areas.

## Integrated Spanish

Learning a second language increases cognitive abilities and fosters an important skill in our ever changing world. A full-time Spanish teacher speaks Spanish to students throughout the day incorporating the language into conversation, content and academics.

## Going Outs

MAC empowers children to apply their learning while fostering independence and collaboration. Small groups of children go on field trips each week in which the students plan and execute all aspects of the trip. Our unique urban setting allows our children to fully be a part of our exciting city.

## Travel & Trips

We love to immerse students in the world around them. Overnight trips to places such as Washington D.C. and Mesa Verde result in students understanding that learning occurs everywhere and throughout their lifetimes.



**"The focus on kindness, community, global awareness, and fostering the love of learning is why we are here. I just love the culture up there."**

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- MAC Parent

