



## The Upper Elementary Program: Curiosity, Abstraction, Independence

The Upper Elementary at the Montessori School of Evergreen is a two-year program meeting the needs of children ages 9-11. Children this age are capable of tremendous curiosity, creativity, and imagination. Reflecting the brain growth for this age, they are able to move from concrete materials to abstract concepts. They no longer want to know just the “what” and “why” of the universe, but also the “how.” Socially, they are enjoying their peers and refining their concept of themselves.

The students are with a teacher for two years and this minimizes transitions, allows the child to work in a multi-age setting, the older children have chance to reinforce their knowledge by teaching the younger children, and the younger children watch and anticipate lessons. The teacher knows the students well and can accommodate their differentiated learning requirements. Students are encouraged to have a love of learning and are supported to work at their own level.

### Math:

#### Whole numbers

Mastery of facts tables (+, -, x, ÷) and four operations with whole numbers

Mastery of whole number numeration and Number theory / hierarchy of numbers

Accomplished with rounding and estimation, multiples and factors, rules of divisibility

#### Fractions and mixed numbers

Mastery of nomenclature: proper / improper fractions, mixed numbers numerator, denominator

Mastery of numeration of value, equivalences and fraction reduction

Accomplished with finding LCM and GCF of numbers

Accomplished with four operations of fractions

Practicing ratio and proportions

#### Decimals

Mastery of numeration, place value to the thousandths

Accomplished with conversion to and from fractions (equivalencies)

Accomplished with four operations with decimals

#### Miscellaneous

Accomplished with calculating percentages converting to decimals and fractions

Practicing expanded, scientific, and exponential notation

Practicing pre-algebra

Exposure to squaring and finding square roots

Accomplished with story problems

Some students gain exposure to alternate bases, cubing, and cube roots.

#### Geometry

Mastery of lines, types of angles (including use of protractor)

Mastery of nomenclature of triangles, regular polygons, and planar solids

Mastery of calculating perimeter and area of regular polygons, including circles

Accomplished with calculating surface area and volume of regular planar solids, solids of rotation, and spheres

Practicing geometric constructions with compass and straight edge

Practicing measurement in English and Metric measurement systems

### Language:

#### Word Study / Spelling

Mastery of compound words, age-appropriate synonyms and antonyms

Accomplished with identifying seven syllable types with application to spelling

Mastery of dictionary skills

Some students practice etymology through study of words with Latin and Greek roots

## Writing skills

- Mastery of rules for capitalization, punctuation, and sentence structure
- Accomplished with paragraph structure: topic sentence, body, concluding/transition sentences
- Exposure to the five-paragraph essay
- Mastery of research skills (table of contents, index, glossary etc.)
- Accomplished with writing expository paragraphs
- Accomplished with aspects of writing formal research papers including note cards, outlines, drafts, and bibliography
- Accomplished with responsive journaling
- Practicing outlines and mapping as pre-writing tools
- Practicing writing persuasive and descriptive paragraphs
- Practicing writing creative stories with character development, conflict, plot development, resolution

## Grammar

- Mastery of 9 basic parts of speech (article, adjective, noun, verb, adverb, pronoun, conjunction, preposition, interjection)
- Practicing advanced grammar (types of nouns, types of adjectives, etc.)
- Some students gain exposure to intensive verb study (conjugations) and to verbals (infinitives, participles, and gerunds)

## Sentence Analysis

- Practicing sentence diagramming: subject, predicate, indirect and direct objects and adverbial modifiers
- Some students gain exposure to identifying independent clauses, subordinate clauses, and various phrase types

## Reading

- Mastery of reading comprehension (tested with DIBELS)
- Accomplished in extracting factual data from current events news magazines
- Accomplished in reading and discussion literature

## Cultural:

History - The following topics are rotated over a two-year period:

- Time Line of Life
- Time Line of Early Humans
- Time Line of Technology / Ages of Man
- Native Americans
- Archaeology
- Ancient China
- Ancient Mesopotamia
- Ancient Egypt
- Ancient Greece
- U.S. History
- Colorado History

## Geography skills

- Mastery of atlas and map skills
- Mastery of reading graphs with emphasis on Social Studies
- Accomplished with U.S. geography: states and capitals

## Independent Research

- Children pursue topics of their own choosing in addition to those presented by teachers.
- They present their learning to their peers orally, in a written format, or using visual media.

Biology - The following topics are rotated over a two-year period:

- Five Kingdoms studies (Prokaryotes, Protists, Fungi, Animal, Plant)
- Plant Kingdom
- Cell study including plant and animal cells
- Animal Kingdom including human biology study

Physical and Earth Science - The following topics are rotated over a two-year period:

- Matter versus Energy
- Astronomy, History of Space Exploration
- Light, Sound

Solar Energy  
Earth's interior, plate tectonics  
Earthquakes, Volcanoes, Rock Cycle  
Chemistry  
Electricity, Magnetism  
Weather

#### Enrichment

Art appreciation, art history, and art production  
Crafts, sewing  
Music appreciation, vocal music production including annual program  
Physical Education  
Spanish - oral, written, cultural appreciation

### Nurturing Great People:

Meaningfully identify MSE's core values: (Compassion, Attitude, Respect, and Excellence)  
Confidence in own abilities  
Concentrate for reasonable periods of time  
Plan work up to a week ahead and meet due dates  
Motivation in academic areas  
Demonstrate age appropriate self-reliance  
Accept and follow directions  
Question directions in a respectful and appropriate manner  
Choose and complete tasks independently  
Think independently  
Willing and able to problem solve  
Demonstrate social cognition  
Engage in positive social interactions  
Contribute through concrete events to opportunities that better their local and global communities

### Beyond the Walls:

Overnight trip with an emphasis on team building (3 days in the fall, 2 days in spring)  
Frequent outings and guest speakers that compliment the curriculum

