



Upper Elementary Curriculum
Grade 4 and 5

History

- Fundamental needs of humans
- Study of civilizations and culture
 - Early humans
 - First farmers
 - Emerging culture
- Ancient civilization

Geography

- Physical geography
- Political geography
- Work of water
- Work of air

Sciences

Physical Sciences

- Process of scientific inquiry
- Process of light
- Motion, force and energy
- Heat, sound and light
- Rocks and their properties

Botany and Zoology

- The Five Kingdoms of Life
- Plant phyla
- Structural functions of plants
- Internal functions of plants
- Animal phyla
- Body functions of animals
- Internal functions animals
- Structural functions of plants

Math

Numeration

- Numerical quantities
- Numerical symbols
- Place value thru millions
 - Concept of 0

- Use of comma
- Prime numbers
- Rounding
- Integers: knowledge of number line

Computation

- (+ x - & ÷) concepts
- (+ x - & ÷) operations
- Factors/multiples
- Divisibility
- Ratio/proportion
- Exponents

Fractions

- Concept
- Naming/vocabulary
- Equivalency study
- Simplifying and reducing

Pre-algebra

- Solving for the unknown
- Variables
- Squaring / cubing

Cooperative Problem Solving

- Word problems and critical thinking
- Estimating
- Graphing: bar, line
- Patterns and relationships

Measurement

- Linear: standard & metric
- Time
- Temperature: Fahrenheit and Celsius
- Weight

Geometry: Spatial Sense

- Lines
 - Types of lines
 - Parts of lines
 - Relationships between lines
 - Constructing lines
- Angles
 - Types of angles
 - Parts of angles
 - Congruency, similarity, equivalence
- Plane figures
 - Classification of simple polygons
 - Study of triangles
 - Types of triangles
 - Parts of triangles
 - Vocabulary
 - Congruency, similarity, equivalence

Language

Reading

- Sight words and contextual clues (reading fluency)
- Comprehension
- Vocabulary and spelling
- Research
- Poetry study
- Use of reference, multimedia
- Fiction

Composition

- Writing process with Writing By Heart
- Language skills: word study and grammar

Enrichment

French

The curriculum for Fourth Year students is to review and solidify their knowledge of the previous years. The usage of language is still quite simple, however, verbs and conjugations are introduced. Children practice their pronunciation at their own rhythm. Small texts are presented and students can expect to read, translate, and write dialogues.

The Fifth Year students begin a new textbook that provides a new set of multicultural activities covering reading, listening, speaking, and writing in the French language. Grammar, verbs, and conjugation are quite important at this point.

Music

The Orff-Schulwerk philosophy is the foundation for elementary music classes. Students build on the musical skills and experience musical concepts through singing, movement, speech, chanting rhymes and playing a wide variety of percussive instruments using Orff orchestrated musical pieces. The use of the Orff instrumentarium helps to develop the student's skill, musicianship, and growing sense of musical aesthetics. All children are encouraged to respect each other's efforts and learn to listen, observe, and evaluate their own efforts and musical growth. The study of music is vital to the appreciation and understanding of our culture and the cultures of the world. Through listening, performing, and composing, we create opportunities for our students to have a deeper understanding of music.

Our music lessons follow the 9 guidelines of *National Standards for Music Education*.

Physical Education

The Upper Elementary students meet twice a week for 45 minutes. The curriculum for the Upper EI has an emphasis on developing an awareness of team sports, rules, spatial and positional awareness. At this level the students are introduced to a mildly competitive after-school sports program in which they play against other small private schools in the area. The sports include soccer, basketball and softball.

The focus of class is to encourage and develop respect and awareness of others during individual and group cooperative activities. All students are encouraged to develop leadership skills through the cooperative games and team-building activities. Good sportsmanship and the development of a healthy approach to competition are stressed throughout the curriculum.

Students participate in annual physical fitness tests which measure flexibility, strength and endurance. Through these tests they learn how to improve their physique and overall fitness through proper diet and regular exercise.

Makerspace

Makerspace is a hands-on, cross-curricular classroom that encourages our students to be creators and innovators. Our Makerspace curriculum integrates seamlessly with our Montessori classroom academics and builds lifelong skills that will prepare our students for success in their future endeavors. Our Makerspace is the center of discovery and collaboration within our school, where students are encouraged to create, experiment, imagine, fail and learn by doing.

The space features mobile work tables, robotics, 3D printers, tablets, laptops, green screen technologies, movie making, stop motion animation tools, circuitry, graphic design, and more. The tools and materials encourage our students to be creators, rather than consumers, of technology. Most importantly, the items found in our classroom are kid-sourced (our students influence each and every purchase we make!)

Elementary students are also introduced to the Design Thinking Process to guide them through our inquiry based classes. Students participate in weekly design challenges and a myriad of opportunities that support personalized learning.

Visual Arts

Students make weekly visits to the art studio and experience the works of master and contemporary artists, as well as lesser-known artists from other cultures. Visual Arts students learn about techniques and styles in art through examples or reproductions. They are then encouraged to use the inspiration to create their own unique projects. This develops a true appreciation for the elements of art as well as the artists studied.

Students have countless opportunities in our art studio to explore materials, including the clay wheel, in both traditional and non-traditional ways. Students are encouraged to experiment, encounter the concepts of balance, texture, form, color and line.

The [Montessori](#) philosophy allows for individual exploration in learning. Our art classes are set up to provide experiences that follow this philosophy. We also are mindful to follow the six National Standards for the Visual Arts.

Cultural Program

Students stage their own production—an activity many consider to be the highlight of the school year. For the annual performance, students participate in all aspects of production. Roles range from actors/singers/dancers to set/costume/lighting designers to performance directors. To help foster independence, students are encouraged to work out their own solutions as a group.