



## ***Upper Elementary***

The Upper Elementary classroom is an extension of the students' own world. The emotional aspects of being an elementary aged student plays a fundamental role in the child's development, and in their day-to-day time in school. We help our students understand how to work, and how to be part of a community in a positive and productive way.

### ***UE Social-Emotional Learning***

As FWM Upper Elementary students transition into adolescence, they show striking contrast in their development.

They learn about respecting differences, resisting peer pressure, and standing up for others. As they come to understand their tendencies, we guide them in learning to leverage their strengths to meet their challenges.

### ***UE Language***

During the Upper Elementary years, students become capable of complex thought as they move into abstract reasoning. They learn to weigh options, examine contradictory evidence, tolerate differences of opinion, make connections between areas of learning, and between learning and personal experience. They love to work in groups, and also need to work individually. Communicating becomes integral as the peer culture increases in importance; making themselves understood, and getting to know others are high priorities.

The Upper Elementary Language Curriculum builds on these developmental changes by balancing rigorous skill development with constant opportunity for self-expression in informal conversation, and formal presentation. Weekly student-facilitated community meetings offer opportunities for debates, and problem solving. Individuals and groups give oral presentations across the curriculum, with formal oral presentations given to the UE student, and parent community every February.

Spelling is individualized, and students are expected to complete written work, applying spelling and mechanics conventions. Engaging Montessori materials enable students to

study such sophisticated grammar topics as sentence diagramming, compound and complex sentence formation, and verb conjugation.

Writing lessons give Upper Elementary authors coached experiences with different composition genres. Literature Circles provide opportunities for students to share their questions, connections, and opinions with a group. In each of these, students receive critical feedback from their peers and teachers.

### ***UE Math (Arithmetic and Geometry)***

Increasingly capable of abstract thought, Upper Elementary students begin to do their basic computations abstractly, leaving materials behind. They also extend the concrete work of their earlier years. They carry the coding systems from previous work into more challenging areas: expanding polynomials, and computing square roots.

Engaging Montessori manipulatives help them understand concepts and procedures for work with fractions and decimals, and enable them to derive formulas for calculating area. Students explore preliminary concepts of algebra.

The curriculum is organized around the following objectives:

- Acquisition of the concepts of number and quantity, including fractions, decimal fractions, improper fractions and mixed numbers, and squares and square roots
- Use of numeration symbols and mathematical notation including: reading decimal fractions; using a “radical” symbol; comparing numbers; using the associative and distributive properties with polynomials; and using positive and negative numbers
- Development of number theory including studies of multiples and factors, and understanding decimal fractions
- Using the concept of place value to express numbers in expanded and exponential notation
- Development of a vocabulary of mathematical terms, including keywords for operations, fractions; nomenclature of plane figures, solids, angles, and lines.
- Ability to perform abstract operations on whole numbers, fractions and decimal fractions; using order of operations
- Memorization of math facts
- Data collection and representation including use of line plots, bar graphs and line graphs; applying the basic concepts of probability
- Evaluation and use of a variety of problem solving strategies
- Understanding of measurement units: derivation and use of formulas for the calculation of perimeters, circumferences, areas of circles, and surface areas
- Use of nomenclature of geometric shapes and solids including plane figures; congruence/similarity/equivalence; solid geometric figures



## ***UE History and Geography***

By the Upper Elementary years, most children have acquired a basic historical understanding, connecting the effects of the natural world on the people who inhabit it, and the beginnings of critical thinking to identify, question, explore, and conclude.

Upper Elementary students continue the “cosmic curriculum” begun in Lower Elementary. Having used the Clock of Eons and Timeline of Life to explore the origins of our planet, and the evolution of life on Earth, students turn their attention to a search for their closest relatives. They place the human ape in the taxonomy of animals, and they explore the fossil record for prehistoric relatives. Students also compare and contrast world civilizations.

UE students progress through a comprehensive study of geography, including basic skills with topographic, relief, and road maps; latitude and longitude; map legends and scales; the history of mapmaking including various projections; and studies of the Work of Air and the Work of Water. Geography studies culminate with studies of regions of the Earth.

## ***UE Biology and Science***

Biology and Science studies in Upper Elementary offer a unique blend of conceptual overview and in-depth exploration. Biology studies include the Vital Functions of Animals; Vital Functions of Plants, and Advanced Zoology Classification. Students study the sciences within broadly focused thematic studies, including classifying matter, stars, particles of matter, and physical science.

By the Upper Elementary years, most children have acquired a basic understanding of the scientific method, an understanding of scientific classification, and a confidence in themselves as critical thinkers who identify, question, explore, and conclude. They have realized that perception is not always reality, and that scientific issues always bear further study. As they begin to be able to think abstractly, they become increasingly able to manipulate concepts, and create order from the phenomena of their world.

## ***UE Anti-Bias***

In Upper Elementary, we foster students’ ability to recognize bias and injustice, and cultivate their ability to stand up, individually and with others, against bias or injustice.



## ***UE Practical Life***

Practical life activities for Upper Elementary students are interwoven with basic skill development in executive functioning, and responsible membership in a community.

In the Upper Elementary years, children's interest in others, and in their world broadens and deepens. Students develop a sense of responsibility as the oldest members of the elementary community. Their feeling of connection to a broader world community begins to develop. Practical life activities at this level are interwoven with basic skill work.

UE students use digital tools to plan and monitor their academic progress. In meetings and in follow-through, they intentionally create the community they live in. They learn to support each other in and out of school. They organize their academic work at school. They research issues about which they care deeply. They learn about community service by performing important tasks in their classroom, and they give back to the larger community outside of school by participating in monthly sandwich making for the local shelter.

