



## Curriculum Outline: A Parent's Guide Upper Elementary Level (9-12 Year Olds)



*Our Mission:  
At MCHD we nurture our children's natural desire to learn and empower them to become self-directed by providing a dynamic environment responsive to their individual needs and gifts.*



*"In Upper Elementary you had to plan your own time and really focus in order to get things done when due while other people were working around you. The difficulty of the work we were assigned also definitely helped. The fact that we could move at our own pace ensured a thorough understanding of the material."*

*Former MCHD 5th grader*

MCHD offers your child an exceptional curriculum for grades 4 through 6.

Advanced work in mathematics, history, geography, biology, writing and literature studies flow naturally from the Lower Elementary years. Our Upper Elementary students are empowered, competent individuals who continue to pursue learning with joy and self-initiative.

At the same time, a lot of attention is given now to social development. With emphasis on art, drama, class meetings and community service, our students develop a good sense of community responsibility balanced by personal choice.

We hope you will stay with MCHD through the sixth grade to receive the most benefit from our nine-year curriculum. Our sixth graders are eagerly received by public and private area schools. They carry us with them, coming back to visit years later, with fond memories of their happy school years spent at MCHD.



Jim Coleman, Senior Associate Dean for Academic Affairs and Professor of the Practice of Law, Duke Law School, says:

"The academic foundation our two children have gotten here at MCHD has been extraordinary: Among other things, our five year old--who is completing MCHD's first three-year cycle--is reading, doing multiplication, and is engrossed in the natural sciences. Our nine year old--who has progressed through MCHD's first two cycles and has just begun the third--is doing triple digit division, fractions, and factoring, and is reading J.R.R. Tolkien and Brian Jacques. Most wonderful is that they are both thoroughly engaged and enthusiastic about all of their work!

We credit this to MCHD's special and unfailing commitment throughout the curriculum and nine-year program to Maria Montessori's developmental philosophy, teaching methodology, and materials, all of which combine to assure within a formal structure that children learn and absorb all that their potential allows, and conversely, that they are not disabled from reaching that potential by standard expectations.

While this foundation is itself invaluable, undoubtedly we are also committed to the fact that MCHD envelops them throughout their development in a warm and loving community, which reinforces daily the essential values of care and respect for each other, the natural environment, and the world at large."

### **Practical Life**

The use of the hand is involved in all aspects of the school day. Skills are refined in cooking, sewing and other handwork, and classroom and personal care. Students work with increasing independence on social events, projects for class, and making gifts and creative items. Many projects are closely linked to the cultural curriculum.

### **Art**

Students build on the strong foundation in art they have received in Lower Elementary, continuing with an extended weekly class in the art room. They study advanced aspects of shape, line, form, color, texture, and art history, and enjoy advanced studies in 3-dimensional work. Upper Elementary students may also participate in a weekly Art Camp after school which is run by our art teacher for in-depth art study.

After six exceptional years of study, our students leave our school competent and confident artists.

### **Music**

Students participate in a weekly music theory class, developing their sight-reading capabilities with the study of the recorder. Students who are strong sight-readers on the recorder can audition to join the Recorder Ensemble, which meets weekly under the instruction of the Administrator. A keyboard is in active use in the classroom, and students may take private lessons on the guitar or piano at the Little House.

### **Physical Education**

Upper Elementary students enjoy a weekly off-site P.E. class that rotates through the following units over the course of the year: Bowling, Competitive Sports (soccer, kickball, wiffleball), Ice Skating, Yoga, Fitness for Life, and Hiking. A three-day adventure trip at a mountain lodge is an important part of the P.E. program for Upper Elementary students. All students enjoy a daily 45-minute outdoor recess period.

### **Spanish**

All students participate in Spanish lessons in small groups by ability level. Lessons are given through a structured video program supported by written assignments and teacher oversight in a natural continuum from Lower Elementary. Teachers support vocabulary and conversation through daily use, and several cultural experiences are enjoyed during the year.

### **The Role of Computers**

At this level, computers are in active use in the adjoining library. Students progress individually in the Mavis Beacon touch-typing program. They may use the computers for Internet research with access limits and parent agreement and often use word processors for reports and stories.

### **Sixth Grade: A Special Year**

We hope that every student can remain at MCHD through grade six. Sixth graders enjoy a special status here, in recognition of their maturity and leadership. They participate in a year-long research project with the Administrator, take a leadership role in fundraising and service projects, and enjoy the annual Sixth Grade Trip to a distant and exciting location near the end of the year. The sixth-graders plan this trip in detail, raise the funds to cover expenses, and report back on their experience to the community. Our students leave MCHD at the end of their nine-year experience confident, strong, self-determined individuals who know how to learn, who understand their strengths and weaknesses, and who are fine and admirable citizens of the world.



## Geography

Students enter Upper Elementary with knowledge of the names of the seas, the continents and many of their countries, and recognition of 38 land and water forms. We review and then build on that knowledge in Upper Elementary as students are introduced to:

*Shifting Continents and Plate Tectonics*  
*Advanced Land and Water Forms*  
*Latitude and Longitude Extensions*  
*Creating an Atlas* in coordination with cultural studies: World Civilizations, United States and North Carolina

Students are expected to learn the names of all of the states in the United States and their capitals over the course of their studies. They gain a solid understanding of North Carolina history and geography. Their work with land and water forms is brought to use in the advanced Imaginary Island Project where, in an independent study, they "discover" an island with all of its biodiversity, civilization, and topography.

## History

Upper Elementary history studies are a logical progression from the "big picture" history studies of the Lower Elementary level. There, students learned of the timeline of life on Earth from its creation to the appearance of humans. At the Upper Elementary level, students now expand the human presence on the timeline into the advanced study of early humans, their significance and characteristics, and their timelines of development. They study the beginnings of civilizations on Earth and the contributions of these civilizations to history, as well as their migrations and growth. They partner these studies with the study of the fundamental needs of humans.



Finally, a concentrated study of American History is done, beginning with migrations and ending with westward expansion. North Carolina history is studied during this year as well.

The history curriculum is on a three-year rotation in which all students take part each year, with varying levels of assignments by ability level.

## Sciences

Our science curriculum at this level is built on the foundations of the Lower Elementary level in the timeline of the development of life on Earth. Biological Sciences is the focus for one year. In the other two years, the focus is on Chemistry and Physical Science. An overview of science studies includes:

Biology:

*Cells*  
*Five Kingdoms*  
*Vital Functions of Animals*  
*Advanced Classification of Animals*  
*The Great River: Human Biology*  
*First Classification of Plants*  
*Vital Functions of Plants*  
*Advanced Classification of Plants*

Chemistry:

*Periodic Table of Elements*  
*States of Matter*  
*Compounds*

Physical Science

*Simple Machines*  
*Magnetism*  
*Electricity*  
Geology  
Weather



The child of nine-to twelve is in a period of relative calm in his or her development. Social concerns begin to really emerge. It is a time of high interest in cultures and in the mores and rituals that accompany them. Tremendous physical growth occurs during this period, with accompanying sensitivities and finding one's independence from adults.

The Montessori curriculum meets this emerging adolescent with a strong focus on world cultural studies, the establishment of classroom rituals and group endeavors, and the beginning of real community service that acknowledges social interdependence.

## The School Day

At this age, consistency of the day is less important than in previous years. We preserve the morning circle time, with songs, but add group discussion, presentations or Brain Food exercises. Each day contains an extended work period, but the daily schedules will vary. Students work at individual desks most of the time, keeping all of their papers together in a large binder and their assignments and due dates in a Time Tracker. Field trips and outings are more common now, and students move more independently around the campus.

## Student Choice/Teacher Direction

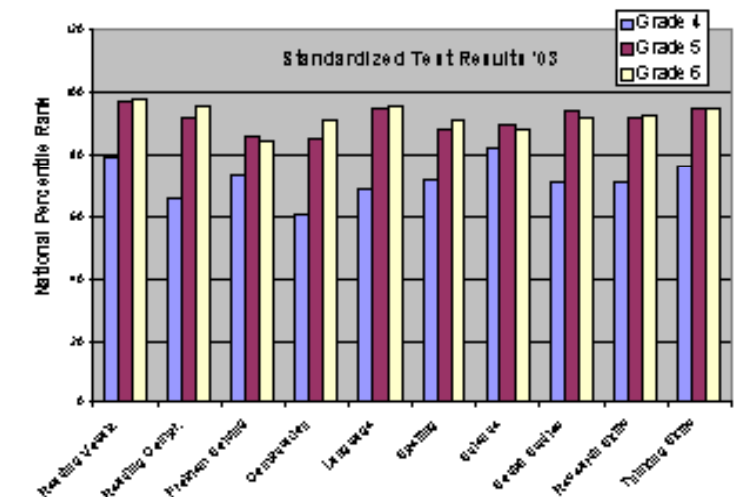
Many assignments that accompany lessons are straightforward, but the teacher at this level will often give an assignment with a range of creative possibilities from which to choose. Students are then responsible for making an appropriate choice and carrying through with little teacher intervention. There are daily and weekly expectations for classroom work, but students may still budget their own time and move freely from one choice to the next. Teachers check most work and require corrections in most cases. Homework is given regularly now, and a study hall after school is offered once a week for additional support.

## Evaluation, Testing and Grades

Students at this level receive percentage scores for math computation and selected assignments. They take end-of-unit tests, which are percentage graded, and spelling tests are scored weekly.

At the end of each 8-week unit, students and teachers complete a written evaluation of work habits, and the teacher summarizes the student's performance in the academic areas on this report. Parents are invited to come into the classroom at the end of each 8-week unit to review the students' collected work and projects.

A nationally-normed achievement test (Metropolitan Achievement Test) is given to all Upper Elementary



Students also take a writing test annually, after working on the skills of effective writing in various styles over the course of the year. This test is scored by outside evaluators for clarity, effectiveness, composition and style.

## Curriculum Overview

Upper Elementary studies are built around a three-year cultural explorations cycle of Early Humans, Early Civilizations, and American History (including North Carolina history). Literature selections, field trips, projects and writing assignments are integrated with these subjects each year. The science curriculum is also in a concentrated, three-year cycle of Biology, Chemistry, and Physical Science. Most of the Geography sequence is studied as a whole class, with varying assignments by ability or interest level. All other subjects are either individualized or taught in small groups by level.

The curriculum is diverse and extensive. Lessons are still interactive with concrete applications, but extension into abstract thinking is more common, and written product is abundant.

### Spelling

Fourth year students complete a structured semester project of learning the basic spelling rules and applying them in writing. They then work with the *Spellwell* program, a workbook sequence, through grade six, accompanied by the study of Greek and Latin roots. Correct spelling is expected in all work that is handed in.

### Grammar

The strong foundation in grammar laid down in the Lower Elementary level allows the Upper Elementary student to do very advanced work. The Advanced Functions of Words Study involves the functions and names of *kinds* of nouns, verbals, adjectives, pronouns, conjunctions and prepositions. Students learn to conjugate verbs in the Advanced Verb Study, and to diagram sentences in more detail in Advanced Sentence Analysis.

Students practice parsing sentences using excerpts from literature, including poetry. Understanding the functions of words and their varied uses improves the strength of student writing and gives them a better appreciation of the beauty of the written word. Our students have received an exceptionally strong foundation in grammar that is well ahead of standard curricula in other school systems.

### Writing

Working in parallel with lessons on mechanics of writing, the 9-12 year olds focus on three types



of writing: expository, narrative, and creative writing. Students keep personal journals, from which they may take ideas for creative writing assignments.

The cultural studies in history require research and essays in most cases, and students pair their literature assignments with written reports, dialogues, biographies, and dramatic pieces.

Students use a peer editing process for refining rough drafts of their creative pieces. Teachers expect correct spelling, punctuation, syntax and logical construction in all published pieces. Students at this level may choose to type final drafts on the computer.

Sixth year students participate in a year-long research project in an area of interest, working in a seminar setting with the school's administrator. Their final papers are quite stunning and stand as fine examples of the breadth of study experienced throughout their time at MCHD.

### Reading

Students at this level participate in Literature Circles. In this program, small groups work together to study a book, with each student taking a specific role in the discussion.

In addition, Literature Studies are done in units of home-based assignments. Students choose books from selections in various genres over the year and complete major projects at home to represent their knowledge of the books they have read. They present their projects to the class at the end of each unit.

Upper Elementary students act as reading partners with Lower Elementary students during the year, helping them with their reading skills and enjoying the pleasure of reading together.



### Mathematics

The study of mathematics continues to be the most individualized part of our curriculum at the Upper Elementary level. It is still based on the Montessori concrete materials, but far more abstract pencil-to-paper work is done now. Students have weekly assignments in the areas of computation, problem-solving, word problems, and new concepts. They are responsible for practicing math every day, and correct answers are required for a completion grade.

Homework is assigned twice a week to practice new concepts. While some math work is self-checked and corrected, most is checked by a teacher. Students receive lessons individually or in small groups by ability, and progress at individual rates. Over the three year period, the math sequence includes numerous activities in the following areas:

*Divisibility*  
*Least Common Multiple*  
*Greatest Common Divisor*  
*Multiples and Factors*  
*Fraction and Decimal Operations*  
*Binomial and Trinomials (last passage)*  
*Algebraic Decanomial*  
*Cross Multiplication*  
*Square Root*  
*Cubing*  
*Cube Root*  
*Signed Numbers*  
*Ratios/Percentages*  
*Proportions*  
*Coordinate Systems*  
*Different Number Bases*  
*Weights and Measures*

Much of this work is based on hands-on, concrete experience with Montessori materials that are familiar from previous years, assuring that new concepts will have visual proof and relevance.

### Fractions and Geometry

Fraction studies include ways to reduce fractions, find common denominators, perform operations on fractions, and determine equivalency. In some school environments, this can be a confusing process, but in the Montessori 9-12 class the work is carefully sequenced and reinforced with concrete material to avoid the common fraction phobia of students of this age.

In geometry, students progress through the following studies:

*Special Angles*  
*Circles*  
*Study of Area*  
*Advanced Equivalencies*  
*Theorem of Pythagoras*  
*Lateral and Total Surface Area*  
*Solid Geometry: congruency, similarity, equivalency, volume*