Core Academic Curriculum Overview Elementary



Montessori Preschool (3-4 years old)

The MIA Montessori Preschool curriculum has been developed to foster a child's love of learning and promote respect for self, others, the community, and the world. Maria Montessori believed that once the child's basic needs of security, love, food, and shelter were met, learning was an organic, inherent, and spontaneous activity. The educational process depends on the child, the prepared environment, the teacher/facilitator, and the parent. Students learn in different ways and at different rates. Learning is enhanced through direct hands-on experiences rather than from a textbook. Exploration is vital to sustain curiosity, choice is necessary for self-motivation, and discovery requires trial and error. The education process encourages a child to be responsible for themselves and the world, and consequently, education is dramatically more than simply learning facts.

In our Preschool Montessori program, each child learns to work and play with others in a peaceful, caring community. Tolerance, acceptance, and encouragement are embodied within all activities. Students develop and identify a clear sense of values and a social conscience. Everyone is treated with dignity and respect.

The Preschool Montessori curriculum is organized to present concepts and ideas appropriate to the child. Initially, lessons are introduced simply and concretely and are reinvestigated throughout future school years with increasing depth, breadth, and complexity. Maria Montessori believed that there are "sensitive periods" in a child's development, and it is the teacher's responsibility to facilitate these learning opportunities. The curriculum also takes natural advantage of this and has the child make choices regarding the day's lessons.

AREAS OF STUDY

Preschool Montessori students at MIA study practical life skills, sensory skills, language skills (both English and Arabic), math, and culture (science, geography, and history).

Core Academic Curriculum Overview Elementary



Kindergarten

MONTESSORI COMPONENT: A Montessori (ages 5-6) component is maintained for Kindergarten. This is used to build practical life skills, sensory skills, motor skills, and social-emotional learning. It is also used to enhance the other areas of learning, ensuring that a hands-on, differentiated approach is available to promote student achievement in the core classes.

MATH: This Singapore Math course is a comprehensive, activity—based program that uses the pedagogical principles foundational to the Singapore Math, Common Core Edition curriculum: (1) Concrete Pictorial Abstract, (2) Spiral Progression, and (3) Metacognition. This curriculum is continuous with the subsequent Elementary grades.

At this grade level, students learn balanced mathematics skills rich in real-world problem-solving opportunities. Students develop their number sense through counting, reading, writing, and comparing numbers. They solve story problems and read and write number sentences. The learner participates in creating class-constructed tally charts, tables, and bar graphs and learns to describe probability terms. Students compare length and weight, learn time to the hour, recognize coins and values, and describe temperature. They learn symmetry and distinguish between two and three-dimensional geometric shapes. Last but not least, students identify patterns and use rules to sort and classify them.

ENGLISH LANGUAGE ARTS: *MyView Literacy* (Savvas) integrates lessons on phonics, grammar and mechanics, vocabulary, reading fluency, reading comprehension, and handwriting for a comprehensive approach. This allows the curriculum to encompass the six components of literacy: oral language, phonics, vocabulary, fluency, and comprehension in reading and writing. This curriculum is continuous with the subsequent Elementary grades.

Core Academic Curriculum Overview Elementary



The course provides a precise sequence of lessons that cover the full range of foundational skills, as identified in national and state standards, that are critical to reading success. This course also provides reading workshop lessons that teach many text genres and academic vocabulary. Additionally, there are writing workshop lessons that teach the essential skills of good writers and language and conventions. Students learn that letters represent sounds, and sounds join to form words that carry meaning. Phonemic awareness for beginning, middle, and ending sounds, consonant digraphs, and blends are covered. Students learn to read the first 200 Dolch Sight Words, read straightforward narrative and informative texts, and become familiar with multicultural classics and contemporary literature. Students apply soft skills such as self-check comprehension using pictures and context clues. They practice basic handwriting skills, brainstorm ideas and gather information, consider audience reaction to their writing, re-read and revise their writing with guidance, and practice and are tested on six weekly spelling words. The learner writes group stories, short personal narratives, and short informational pieces. Students also present simple reports and explore poetry with guidance. Exposure to a series of authors and their various works is incorporated into the curriculum.

Leveled Reading is a supplementary, homework-based curriculum that supports literacy development through consistent practice at home and school. Through this program, students aim to strengthen all six components of literacy. Students are given weekly reading and corresponding worksheet assignments according to their level in the Reading A-Z program. Using the online portion (RazKids), parents may also access additional resources for practice, and they supervise reading activities according to their child's level. The following week, students will be assessed through a comprehension-based test; after scoring 90% and above on two fiction and two nonfiction books, they may move up a level. This curriculum is continuous with the subsequent Elementary grades.

Handwriting supplementary workbooks (Zaner-Bloser) are also used to practice motor skills concerning letter formation. Proper pencil grip and print writing skills are emphasized. In 2022, a Library was added for Elementary. One Media period a week was added for Kindergarten to improve gaps in the ELA program, with the specific objective of increasing student interaction

Core Academic Curriculum Overview Elementary



and literature application. Media is also used to enhance cross-curricular connections between ELA, Science, Social Studies, and even Math.

SCIENCE: The *Inspire Science* (McGraw-Hill) course provides four comprehensive science units that include lessons, informational texts, and hands-on activities: Living Things, Our Changing World, Weather and the Sun, and Physical Science. Resources provide opportunities for students to work independently and collaboratively. They are available in computer-based and mobile formats that students access through an interactive eLearning environment at school and home. The course is aligned with the Michigan Standards, which incorporate the Next Generation Science Standards to help prepare students to satisfy the expectations outlined in the required learning benchmarks. The course allows students to develop experience with the practices of science and engineering while exploring the core ideas of each science unit and learning how concepts from the different domains of science are related.

Weekly Media (library) periods may enhance exposure to and interaction with non-fiction scientific exploration. For example, gardening is done according to the seasons, and students manage year-long microscope stations. Mystery Science — an eLearning resource with hands-on activities correlated with our curriculum — enhances lessons with further explanations, applied technology, and more hands-on demonstrations or experiment opportunities. This curriculum is continuous with the subsequent Elementary grades.

SOCIAL STUDIES: Using familiar community contexts for five and six-year-olds, *myWorld Interactive* (Savvas) guides kindergartners to learn about the social studies disciplines of history, geography, civics and government, and economics through the lens of "Myself and Others." Each discipline focuses on developing basic understandings through an integrated approach to the field. The course overview is based mainly on the Michigan and National Standards for Kindergarten Social Studies.

In history, students begin to develop a sense of time and chronology, while in geography, they develop geographic awareness by practicing spatial perspective and simple map reading. For the civics portion, values and principles are explored, as well as symbols and their relation to a

Core Academic Curriculum Overview Elementary



government's values. Economics is introduced through practical examples that help students distinguish between wants and needs, goods and services, and exchanges in which they participate. How the environment fulfills human needs and wants is also explored. Lastly, public discourse, decision-making, and citizen involvement is taught using hands-on, real-life application in the classroom. Students are allowed to examine their and others' differences in opinions, discuss compromises, and finally vote on standard class issues. This curriculum is continuous with the subsequent Elementary grades.

Core Academic Curriculum Overview Elementary



Grades 1 & 2

MATH: Using the complete and highly successful program series Primary Mathematics Common Core Edition (Singapore Math), Grades 1 and 2 are designed to equip students with a strong foundation in mathematics. Topics are covered in depth and taught to achieve mastery. By focusing on mathematical understanding, the program aims to help students develop critical thinking and lifelong problem-solving skills. This curriculum is continuous with the subsequent Elementary grades.

The Primary Mathematics program calls for direct instruction and focuses on mathematical thinking with the immediate application of new skills to problem-solving. By encouraging students to solve problems in various ways, this program stretches the mind and promotes an understanding of how mathematical processes work. Students are expected to master various concepts and skills over time, as the curriculum frequently revisits topics to promote retention and application of skills in multiple paradigms.

In particular, there is a focus on building foundational skills for numeracy and number sense, addition, subtraction, multiplication, division, place value, geometry, graphing, measurements, money, and time. Computational strategies are emphasized, such as using place value mats for more complex addition and subtraction, branching with increasingly large numbers, working on vertical addition, and using model drawing. These and other strategies improve instruction differentiation, as well as arming students with versatile ways of solving problems.

ENGLISH LANGUAGE ARTS: *MyView Literacy* (Savvas) integrates lessons on phonics, grammar and mechanics, vocabulary, reading fluency, reading comprehension, and handwriting for a comprehensive approach. This allows the curriculum to encompass the six components of literacy: oral language, phonics, vocabulary, fluency, and comprehension in reading and writing. Word study, genre study, and planning, drafting, and publishing written works are developed in first and second grade. Practical and academic vocabulary and spelling skills, in particular, are emphasized through word study and phonetic application. Literary components are taught

Core Academic Curriculum Overview Elementary



through strategies such as large and small group instructions, guided reading, read-aloud, writing workshops, group/partner reading, weekly reading logs, and independent/silent reading. This curriculum is continuous with the subsequent Elementary grades.

Leveled Reading is a supplement curriculum that supports literacy development through an online RazKids program. Through this program, students will strengthen all six components of literacy. It serves as enforced reading practice at home, as it is a homework-based program in which students will take a book and packet of worksheets every week to work on outside of school. The following week, they will be assessed through a comprehension-based test and fluency test; after scoring 90% and above on two fiction and two nonfiction books, they may move up a level. Throughout the year, parents will have access to the online student portal, and they should supervise reading activities according to their child's level. This curriculum is continuous with the subsequent Elementary grades.

Handwriting supplementary workbooks (Zaner-Bloser) are also used to practice fine motor skills with letter formation. Proper pencil grip and print writing skills are emphasized. In 2022, a Library was added for Elementary. One Media period a week was added to improve gaps in the ELA program, with the specific objective of increasing student interaction and literature application. Media is also used to enhance cross-curricular connections between ELA, Science, Social Studies, and even Math.

SCIENCE: The four-unit *Inspire Science* (McGraw-Hill) curriculum revolves around the 5E Instructional Model, which allows students to understand a concept over time through established phases: Engage, Explore, Explain, Elaborate, and Evaluate. This curriculum fulfills the Next Generation Science Standards (NGSS) and continues with the subsequent Elementary grades.

Bioscience, physical sciences, life sciences, and earth sciences are taught separately and about each other. Students learn science concepts through critical thinking, effective communication, collaboration, and creativity. They experience scientific phenomena through real-life scenarios, peer-to-peer teaching, hands-on activities, labs, projects, and field research.

Core Academic Curriculum Overview Elementary



RazKids A-Z Science Leveled Reading is used as a supplement, both to improve understanding of scientific concepts and to enhance reading comprehension and fluency for non-fiction works of research. Weekly Media (library) periods are also frequently used for non-fiction scientific exploration. For example, gardening is done according to the seasons, and students manage year-long microscope stations. Last, Mystery Science, an online program with lesson resources that closely align with the *Inspire Science* curriculum, is also used to enhance lesson presentation, suggest hands-on activities, and expand student knowledge by showing critical analysis of scientific concepts applied in real-life situations.

SOCIAL STUDIES: *MyWorld Interactive* (Savvas) is a K-5 Social Studies curriculum that establishes a foundation for civics, geography, economics, and history. Taught in a culturally sensitive way, students will be aware of current events by actively participating in open-ended discussions, reading relevant books, viewing multimedia presentations, and completing hands-on projects. Major historical events and their impact on society, even into present times, are explored, with the significance of changes discussed from personal, community, and global perspectives. Some Social Studies standards are also integrated into the daily classroom routine so that students may learn how a practical community functions in real-time, such as students having "community jobs" in the class and voting on common concerns. Cross-curricular connections with ELA, Science, and the weekly Media periods further broaden students' perspectives and applications of concepts learned. This curriculum is continuous with the subsequent Elementary grades.

Core Academic Curriculum Overview Elementary



Upper Elementary (Grades 3 through 5)

MATH: *Primary Mathematics Common Core Edition* (2014 Marshall Cavendish International; two-volume textbooks and workbook sets) uses the Singapore Math system to guide students in developing robust mental math strategies and critical problem-solving abilities. This curriculum is continuous with the preceding Elementary grades.

The focus in Upper Elementary is skill development with ever more significant numbers and the introduction of new problem-solving strategies. While students continue practicing methods for mental math and multi-digit addition and subtraction, more advanced strategies are also taught. Multiplication facts through 10 and long division and division with remainders are first taught in third grade (though often not introduced until fourth grade in other curriculums). Decimals are introduced in fourth grade. In addition, students move through Upper Elementary on progressively more advanced rounding, presentations, calculations, and analysis of data, measurement, time, money, ratios, probability, and fractions. They continue the study of geometry and calculate perimeter/circumference, area, and volume. This learning culminates in fifth grade, with more advanced operational and algebraic thinking applied to solve problems critically. As students grow in maturity and academic level, such math skills aid them in recognizing immediately relevant life skills, making for hands-on and cross-curricular math applications that allow students to appreciate the importance of math more fully.

ENGLISH LANGUAGE ARTS: *MyView Literacy* (Savvas) integrates lessons on phonics, grammar and mechanics, vocabulary, reading fluency, reading comprehension, and handwriting for a comprehensive approach. This allows the curriculum to encompass the six components of literacy: oral language, phonics, vocabulary, fluency, and comprehension in reading and writing. In addition, there is a significant focus in Upper Elementary *MyView Literacy* on integrating science and social studies subject-related informational readings. At the same time, fictional narratives and poetry introduce students to a wide range of literature. Students focus on different themes and questions each week while building an understanding of text structures, main ideas and details, textual evidence, and literary elements, including character, plot,

Core Academic Curriculum Overview Elementary



setting, theme, and figurative language. Word study and new vocabulary are introduced throughout the course. Challenging spelling words teaches students how to apply word analysis and decoding skills. During the year, students will produce samples of personal narratives, informational essays, opinion writing, fictional narratives, and poetry. Students will demonstrate command of the conventions of standard English capitalization, punctuation, grammar, and spelling when writing. These literary components are taught through strategies such as large and small group instruction, guided reading, read-aloud, writing workshops, group/partner reading, weekly reading logs, and independent/silent reading. This curriculum is continuous with the preceding Elementary grades.

For third and fourth grades, Leveled Reading is a supplementary curriculum designed to support literacy development through an online RazKids program. Through this program, students will strengthen all six components of literacy. The program reinforces reading practice at home, as it is homework-based in which students will take a book and packet of worksheets weekly to work on at home. The following week, they will be assessed through a comprehension-based test and fluency test; after scoring 90% and above on two fiction and two nonfiction books, they may move up a level. Additionally, parents and students will get access to the student portal at the beginning of the year, and parents may supervise additional reading practice activities according to their child's level. This curriculum is continuous with the proceeding Elementary grades.

Additional supplements to the curriculum for third through fifth grade include the following:

- Handwriting workbooks (Zaner-Bloser) introduce cursive starting in third grade and continuing through fourth and fifth grade.
- Grammar Supplement: Language Fundamentals (Evanmore) is used to enhance the MyView Literacy (Savvas) curriculum, furthering student familiarity and practical use of English grammar and mechanics
- Vocab Supplement (used as needed to differentiate): Vocabulary Fundamentals
 (Evanmore) has been found effective in catering to the needs of students performing at average to advanced levels in vocabulary acquisition and word study.
- In 2022, a Library was added for Elementary. One Media period a week was added to improve gaps in the ELA program, with the specific objective of increasing student

Core Academic Curriculum Overview Elementary



interaction and literature application. Media is also used to enhance cross-curricular connections between ELA, Science, Social Studies, and even Math.

SCIENCE: Inspire Science (Macmillan/McGraw-Hill, 2020) is the primary curriculum for Upper Elementary science, continuous from preceding grades. Students understand that science is an evidence-based process, as well as learning the main ideas of science. In science, inquiry involves generating questions, conducting investigations, and developing problem-solving solutions through reasoning and observation. It includes an analysis and presentation of findings that lead to future questions, research, and investigations. Reflecting on knowledge is the application of scientific knowledge to new and different situations. It requires careful analysis of evidence that guides decision-making and the application of science throughout history and within society. In Third Grade, the focus will be motion and forces, electric and magnetic forces, weather and climate, parents and offspring, survival, ecosystem changes, and learning from the past. Fourth Grade builds upon these, relating the transfer and use of energy to previously introduced scientific concepts. Fifth Grade shifts to increasingly less tangible concepts: matter, matter's flow through Earth's systems (geosphere, biosphere, hydrosphere, and atmosphere), and matter and space systems. Integrated throughout all lessons, obtaining, evaluating, and communicating data is emphasized, along with engineering design.

Various cross-curricular connections enhance the science curriculum and help students fully understand science's real-world application. Cross-curricular projects with ELA and Social Studies — such as research into inventions and discoveries that have impacted our world — are conducted. Weekly Media (library) periods are frequently used for non-fiction scientific exploration. Mystery Science — an eLearning resource with hands-on activities correlated with our curriculum — enhances lessons with further explanations, applied technology, and more hands-on demonstrations or experiment opportunities. Field trips that enhance the science curriculum are scheduled yearly for each grade.

SOCIAL STUDIES: *MyWorld Interactive* (Savvas) is a K-5 Social Studies curriculum that encourages active inquiry while introducing civics, economics, geography, and history concepts. Students develop critical thinking, problem-solving, and communication skills for engaged civic

Core Academic Curriculum Overview Elementary



life. The program includes intense ELA instruction to support social studies inquiry and new literacy standards. Students will apply these concepts to inquiry at the state, regional, and national levels. Throughout upper elementary, cross-curricular instruction is encouraged to enhance students' understanding of the world around them and their place in it.

In the Third and Fourth Grades, the *myWorld Interactive* curriculum will be taught in conjunction with *Meet Michigan* (Hillside Educational Publishers), thus fulfilling current Michigan State Standards and introducing broad concepts through the lens of Michigan. In these two grades, Michigan history is covered, starting from the first peoples and the natural resources of the land, through significant state and national historical events, and ending with modern economy and current events. Local field trips enhance this learning area and provide practical examples of history in action.

In Fifth Grade, the curriculum takes a broader historical view, moving from a state to a national focus. Students will learn about the causes and events of American History, from the first humans to cross over the land bridge from Asia into North America to the founding of the United States Government. The rich cultural heritage in the US is explored, starting from the American Indians through the Spanish, French, Dutch, and English Explorers, and finally followed by colonization and the introduction of slavery. Finally, the American Revolution and the formation of the United States Government are examined, with an emphasis on comparing the intentions of our founding fathers with what the US has grown into today.

Cross-curricular connections with ELA, Science, and the weekly Media periods further broaden students' perspectives and applications of concepts learned. This curriculum aligns with that taught in preceding Elementary grades.