

# Waterford Montessori Academy

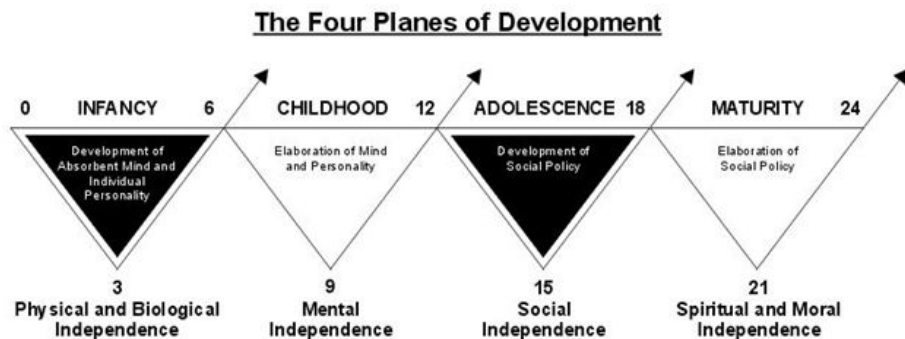
## 4<sup>th</sup> Grade Curriculum Guide

These courses in this guide may be offered in school, virtually or blended.

The Second Plane: Ages 6–12 (Childhood) “Conscious Imagination”

According to Maria Montessori, in the second plane of development, children begin to display the ability to reason and use abstract thinking. This period is characterized by a craving for mental or intellectual independence. Your child begins to search for a sense of moral order, in addition to physical order. Children begin to take charge of their learning, based on their interests and desires. Common sensitivities in this plane include:

- Abstraction and imagination
- Morality and justice
- Culture
- Peer/social interactions



## EXTRACURRICULAR

### Technology

- Demonstrate the proper care of technological systems and components.
- Interpret, analyze, and evaluate information with the assistance of technology.
- Use Google Apps for Education to produce products.
- Show examples of how technology affects and impacts one's current life.
- Use age appropriate vocabulary related to technology.

### Art

- Students explore a variety of techniques and media ranging from painting, drawing, printmaking, sculpting and mixed media.
- The art curriculum is designed to expose students to art history, visual arts vocabulary, art criticism, self-expression through artmaking and art-related careers.
- Students experience the art-making process through brainstorming, creating preliminary sketches, exchanging ideas with their peers, using and caring for art materials, producing final projects and evaluating artwork.
- Art exhibitions are mounted in each building throughout the school year.
- The skills and knowledge acquired by elementary art students will lay the foundation for their studies in art at the secondary level and beyond.

### Physical Education

- Demonstrate sport-specific skills in individual, and team sports, and recreational games.
- Perform and understand fitness activities that develop and maintain cardiorespiratory endurance, muscular strength, and endurance of large muscle groups, and flexibility of major joints.
- Identify physical activities that can be used to improve health related fitness components and contribute to feeling good.
- Demonstrate on a daily basis, good personal/social character traits at least 75% of the time.

## **MATHEMATICS**

### **Numeracy**

#### Operations and Algebraic Thinking

- Use the four operations with whole numbers to solve problems.
- Gain familiarity with factors and multiples.
- Generate and analyze patterns.

#### Number and Operations in Base Ten

- Generalize place value understanding for multi-digit whole numbers.
- Use place value understanding and properties of operations to perform multi-digit arithmetic.

#### Number and Operations—Fractions

- Extend understanding of fraction equivalence and ordering.
- Build fractions from unit fractions by applying and extending previous understandings of operations on whole numbers.
- Understand decimal notation for fractions, and compare decimal fractions.

### **Measurement and Data**

- Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit.
- Represent and interpret data.
- Geometric measurement: understand concepts of angle and measure angles.

### **Geometry**

- Draw and identify lines and angles, and classify shapes by properties of their lines and angles.

## **ENGLISH/LANGUAGE ARTS**

### **Writing**

Produce clear and coherent writing in which the development and organization are appropriate to task, purpose, and audience.

With guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach.

- Introduce a topic clearly and group related information in paragraphs and sections; include formatting (e.g., headings), illustrations, and multimedia when useful to aiding comprehension.
- Provide reasons that are supported by facts and details.
- Link ideas within categories of information using words and phrases (e.g., another, for example, also, because).
- Provide a concluding statement or section related to the information or explanation presented
- Develop the topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic.
- Orient the reader by establishing a situation and introducing a narrator and/or characters; organize an event sequence that unfolds naturally.
- Use narrative techniques, such as dialogue, description, and pacing, to develop experiences and events or show the responses of characters to situations.
- Use a variety of transitional words, phrases, and clauses to manage the sequence of events.
- Use concrete words and phrases and sensory details to convey experiences and events precisely.

Write opinion pieces on topics or texts, supporting a point of view with reasons and information.

Write informative/explanatory texts to examine a topic and convey ideas and information clearly.

Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences.

Conduct short research projects that build knowledge through investigation

### **Phonics and Word Recognition:**

- Know and apply grade-level phonics and word analysis skills in decoding words.
- Use combined knowledge of all letter-sound correspondences, syllabication patterns, and morphology (e.g., roots and affixes) to read accurately unfamiliar multisyllabic words in context and out of context.
- Use context to confirm or self-correct word recognition and understanding, rereading as necessary.

### **Reading: Literature**

- Refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text.
- Determine a theme of a story, drama, or poem from details in the text; summarize the text.
- Explain major differences between poems, drama, and prose, and refer to the structural elements of poems (e.g., verse, rhythm, meter) and drama (e.g., casts of characters, settings, descriptions, dialogue, stage directions) when writing or speaking about a text.
- Compare and contrast the point of view from which different stories are narrated, including the difference between first- and third-person narrations.

### **Reading: Informational Text**

- Refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text.
- Determine the main idea of a text and explain how it is supported by key details; summarize the text.
- Describe the overall structure (e.g., chronology, comparison, cause/effect, problem/solution) of events, ideas, concepts, or information in a text or part of a text.
- Compare and contrast a firsthand and secondhand account of the same event or topic; describe the differences in focus and the information provided.
- Integrate information from two texts on the same topic in order to write or speak about the subject knowledgeably.

### **Language**

Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.

- Use relative pronouns (who, whose, whom, which, that) and relative adverbs (where, when, why).
- Form and use the progressive (e.g., I was walking; I am walking; I will be walking) verb tenses.
- Order adjectives within sentences according to conventional patterns (e.g., a small red bag rather than a red small bag).
- Form and use prepositional phrases.
- Produce complete sentences, recognizing and correcting inappropriate fragments and run-ons.
- Correctly use frequently confused words (e.g., to, too, two; there, their).

Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.

- Use correct capitalization, commas and quotation marks.
- Spell grade-appropriate words correctly, consulting references as needed.

Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 4 reading and content, choosing flexibly from a range of strategies.

- Use context (e.g., definitions, examples, or restatements in text) as a clue to the meaning of a word or phrase.
- Use common, grade-appropriate Greek and Latin affixes and roots as clues to the meaning of a word (e.g., telegraph, photograph, autograph).
- Consult reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation and determine or clarify the precise meaning of key words and phrases.

Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases, including those that signal precise actions, emotions, or states of being (e.g., quizzed, whined, stammered) and that are basic to a particular topic (e.g., wildlife, conservation, and endangered when discussing animal preservation).

## Fluency

- Read grade level texts with sufficient accuracy and fluency to support comprehension with purpose and understanding.
- Read grade-level prose and poetry orally with accuracy, appropriate rate, and expression on successive readings.

## Speaking and Listening

- Engage effectively in a range of collaborative discussions on *grade 5 topics and texts*, building on others' ideas and expressing their own clearly.
- Follow agreed-upon rules for discussions and carry out assigned roles.
- Review the key ideas expressed and explain their own ideas and understandings in light of information from the discussion.
- Paraphrase portions of a text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally.
- Identify the reasons and evidence a speaker provides to support particular points.
- Report on a topic or text, tell a story, or recount an experience in an organized manner, using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace.
- Add audio recordings and visual displays to presentations when appropriate to enhance the development of main ideas or themes.
- Differentiate between contexts that call for formal English (e.g., presenting ideas) and situations where informal discourse is appropriate (e.g., small-group discussion); use formal English when appropriate to task and situation.

## SCIENCE

- Scientific Method – observe/predict/collect data/ analyze/draw conclusions/communicates findings

### Earth Science

- Relationship between Sun/Moon/Earth incl. distance
- Movement and Spin of Earth Day/Night – Seasons
- Moon and patterns
- Explain how fossils provide evidence of history

- Compare and contrast life forms found in fossils and organisms that exist today

### Physical Science- Energy

- Effects of heat and electricity on energy Describe how heat is produced (electricity, rubbing, burning)
- Demonstrate transfer and change through simple circuits
- Demonstrate magnetic effects in simple electric circuit

### Life Science

- Determine that plants require air, water, light, & a source of energy & building material for growth & repair
- Determine that animals require air, water, light, & a source of energy & building material for growth & repair.
- Identify organisms as part of the food chain or food web
- Explain how environmental changes can produce change in food web

## SOCIAL STUDIES

### Michigan History

- Use sources to explain how migration & immigration affected & continues to affect the growth of MI
- Describe how the relationship between the location of natural resources & the location of industries affect MI
- Describe past & current threats to MI's natural resources
- Create timelines to sequence & describe important events in MI history

### History – Civics/Government

- Identify questions political scientists ask re: US
- Explain probable challenges of an absence of govt/laws
- Purpose of Govt. – Preamble to Constitution
- How Constitution limits powers of Federal government
- Checks/Balances – How branches elected/selected
- Citizenship Rights and Responsibility

### Geography

- Use cardinal & intermediate directions to describe the relative location of significant places in the United States

- Use geographic tools & technologies, stories, songs, & pictures to answer geographic quests about the US.
- Use maps to describe elevation, climate, & patterns of population density in the United States.
- Describes ways in which the US can be divided by region

### **Continent and Cultural Units**

Each year, 1<sup>st</sup> – 5<sup>th</sup> grade students focus on a study of 2 continents throughout the school year. This includes a study of political and physical maps, identifying countries, cities, capitals, land and water features, using an atlas, and making maps as well as a study of the history and people of the countries. Research and a creation of a presentation for the class is included as well.