

# Montessori Zimbabwe

## Lower Elementary Curriculum Frame

*The Montessori curriculum is taught from large scope to small, moving from big-picture understanding to a focus on details. The children continue to work with concrete materials to explore academic areas, quickly discovering abstract methods to utilise.*

*Dr. Montessori referred to the elementary stage as the Intellectual Period. The child, entering a period of uniform growth, focuses on mental explorations. Given an open and rich environment, there are no limits to what the child may learn and explore. Dr. Montessori saw this time as a critical time for expansive education, giving the children lessons and questions to guide their explorations of culture, science, mathematics, language and social rules and morals.*

### **Language**

*Language is the foundation upon which we build all other elementary studies. We present the child with the practical tools for encoding and decoding words, sentences, and paragraphs, yet it is never seen as an isolated exercise.*

- Phonics
- Word study
- Grammar
- Language mechanics
- Handwriting and fine motor skills
- Writing
- Research skills
- Reading and literature for understanding
- Elements of literature
- Major genres
- Prose, poetry, plays
- Folktales, legends, myths
- Newspapers and current events
- Sayings, phrases, idioms
- Oral reading
- Oral language

### **Mathematics**

*Students use materials to work toward the abstraction of math concepts, naturally formulating rules and formulas themselves. Traditionally, the study of mathematics starts with the rules and the drills follow. According to the Montessori method, the rules are points of arrival, not departure. Through the student's own effort, internalisation of abstract concepts is achieved.*

*As students transition from Lower to Upper Elementary, they will experience a sense of familiarity with most of the manipulatives, and be introduced to new ones. Once they internalise a specific math concept, they can then move on to abstract problem-solving. In addition to the manipulatives, we use a sequential set of*

worksheets that cover the elementary math curriculum, along with various textbooks and workbooks that compliment specific concepts and skills.

#### Number Sense

- Number sequencing

- Place value

#### Math Operations

- Addition

- Multiplication

- Subtraction

- Division

#### Measurement

- Length

- Weight

- Area

- Volume

#### Telling Time

- Hours, minutes

- Passage of time

#### Fractions

- Families

- Equivalent

- Adding same denominators

- Adding different

#### Money

- Identify coins

- Coin value

- Adding money

#### Math Facts

- Memorisation

- Factors

#### Word Problems

#### Problem-Solving

#### Geometry

- Geometric solids

- Lines

- Triangles

- Quadrilaterals

- Polygons

- Angles

- Perimeter

- Area

*Traditionally, the study of Geometry is undertaken in later years as an abstract series of rules, theorems and propositions. Maria Montessori saw Geometry as firmly rooted in reality, and built a curriculum for Lower Elementary students that uses concrete, sensorial experimentation, leading students to concepts through their own creative research. Although sophisticated in content, Geometry at the Upper Elementary level continues to be well grounded in concrete experiences with manipulative materials. In this way, etymology is discovered, relationships and concepts are explored and researched, and the child's conclusions serve as a basis for theorems, proofs and formulas.*

## Science

*The Lower Elementary science curriculum is deeply integrated with the cultural studies curriculum and the presentation of the five Great Lessons which centre around themes of progress and interdependency. The stories present not only the changes the earth has undergone since its beginning, but also the ways in which each new animal or plant affects all others. Maria Montessori wrote, "Let us give [the elementary children] a vision of the whole universe...all things are part of the universe and are connected with each other to form one whole unity."*

### Life Science

- Biology (kingdoms of life, systems of the human body)
- Botany (classification of plants, form and function of plants, parts of plants, interdependencies of animals and plants)
- Zoology (classification of animals, form and function of animals, parts of the animal, interdependencies of animals and plants)

### Physical Science

- The process of scientific inquiry
- Composition of the earth
- Three states of matter
- Laws of attraction and gravity
- Balance and motion

### Earth Science

- Ecosystems
- Sun and earth
- Air and weather
- Land and water forms
- Map skills (puzzle maps, pin maps)

Scientific Reasoning and Technology  
Observation skills

## Ndebele and French

*All Lower Elementary students take Ndebele and French. The French program is designed to enable students to speak and write their basic thoughts and questions in French. The curriculum utilises a combination of speaking, writing, and activities that are often based on music, art or Total Physical Response. Students learn to express themselves in a second language environment that promotes confidence and creativity.*

Lower Elementary French curriculum covers:

- Use of existing classroom materials
- Routine activities are carried out in French
- Greetings, numbers 1-100, day/month, food
- Cultural topics
- Pronunciation

*The Ndebele curriculum follows that outlined in the Zimbabwe Ministry of Education covering all language and cultural topics to ensure a good basic understanding of Ndebele.*

## **Cultural Studies**

*At the Lower Elementary level, students study the Great Lessons as well as the school-wide Cultural Studies themes.*

*The Great Lessons, developed by Maria Montessori, offer the child a panoramic view of the universe and a sense of humanity across time. The great questions that arise from this view then serve as a blueprint for further study in all cultural areas.*

The Great Lessons include:

- Story of the universe
- Coming of life
- Coming of humans
- Story of communication
- Story of numbers

Montessori Zimbabwe presents a school-wide curriculum of Cultural Studies content—covering Ancient, African and World Civilizations. Special events such as cultural festivals, assemblies, field trips and reading lists are planned around these themes.

## **Geography**

- Physical geography
- Political geography

## **Practical Life**

### **Physical skills**

- Coordination of fine motor and gross movements
- Balance and exactness of movement
- Sensory awareness

### **Respect and care of environment**

- Indoor environment
  - Caring for plants and animals
  - Caring for the classroom and coat areas
  - Food preparation
  - Recycling
- Outdoor environment
  - Ecology
  - Planting

### **Grace, courtesy and etiquette**

- Extending kindness and empathy to others
- Sharing and taking turns

### **Independence**

- Care of self
- Health and safety
- Nutrition and food preparation
- Time management skills

- Organizational skills
- Problem solving
- Time management

*Students practice these life skills by coming to lessons prepared and keeping track of both class and homework assignments.*

### **Community Service**

We believe that service beyond the classroom promotes respect and awareness beyond our global community. All elementary students participate in school-wide projects.

### **Visual Arts**

*The Montessori Zimbabwe Visual Arts program seeks to foster creativity, problem-solving and self-expression as it relates to each child's level of development from Toddler to Grade 7. Art lessons use a variety of auditory, kinesthetic and visual components. Students are encouraged to experience the art process. Each concept is presented utilising a variety of 2-D and 3-D materials to help them truly absorb and understand the lesson's objectives. Lessons include drawing, painting, sculpture, collage-making and print-making. Lower Elementary students are taught to recognise and understand the following:*

#### **Concepts of line/shape/form**

- how a connection of point becomes a line
- how a 2-D shape becomes a 3-D shape—as in sculpture
- how a closed line of points becomes a line—showing movement, edges
- expressing feelings

#### **Concepts of colour**

- colour terms and definitions: hue, value, shade, chroma, primary, secondary and intermediate colours
- monochromatic/complementary colours
- colour wheel: the colours and sequences

#### **Concepts of texture**

- surface variations—implied or actual markings
- sense varying texture by touch and sight
- describe textures with words
- create a variety of textures

#### **Basic patterns of organisation**

- repetition/pattern
- sequence
- universal basic structures: radial, spiral, dendritic/branching, orbital, gradient, mosaic, modular chain, grid, waves closure, symmetry and rhythm

#### **Whole-to-part relationships**

- process of reduction of whole to parts
- process of construction of parts to a whole
- grouping by similarities and differences
- spatial awareness—positive and negative space

#### **Processes of change**

- sequential process
- abstraction
- relationships between objects and symbols before and after change occurs
- transformation
- cycles of nature and time

### **Music**

*The music curriculum combines individual and group work with work designed to appeal to a variety of learning styles. This directly relates to our philosophy of enhancing the Montessori philosophy with other innovative methods. The music curriculum also offers significant opportunities to build community through our numerous performances, field trips, and assemblies.*

Elements of music

- Theory
- Melody
- Harmony
- Tempo
- Rhythm
- Dynamics

Introduction of two-part rounds, harmony, memorisation of longer form songs.

Recognition of notes on the staff and reading and writing note values.

Students learn to play:

- piano,
- recorder,
- tone bars,
- boomwhackers and
- percussion instruments.

### **Movement Arts (P.E.)**

*The ultimate goal of the Montessori Zimbabwe Movement Arts program is to assist all children along the path to lifetime physical fitness, which aligns with our holistic mission. The benefits of this journey are many: health, longevity, positive body image, improved overall self-esteem, and increased energy and concentration in all areas. All students from toddler to Grade 7 participate regularly in Movement Arts classes and activities.*

*Our Movement Arts program embraces the philosophy of the school as a whole. At each level, the program is responsive to the needs and interests of the children. The ultimate goal is the joyful discovery of movement and its benefits, both physical and psychological.*

*Montessori Zimbabwe Movement Arts seeks to benefit all children, not just those with particular interest or talent in this area. Volumes have been written about the connection between body image and overall self-esteem, as well as the dangers of*

*introducing children to competitive sports at an early age. Care is taken to keep the emphasis on fitness and fun, as opposed to individual superiority of skills.*

Lower Elementary

- Combined locomotor and axial movement skills
- Increased ability in manipulative skills
- Creative self-expression through dance and movement
- Exploration of space, time, force and body mechanics
- Awareness and control of movement

### **Sports**

*All Montessori Zimbabwe sports curriculum units include stretching, running, basic movements, and games. Students participate in skill building games focusing on developing team building, learning individual strengths and areas for development, self-discipline, coordination, balance, endurance, sportsmanship, overall fitness and skill building for specific sports.*

Students are introduced to a variety of games and exercise, throwing and catching, relay races, obstacle courses, and drills. They also learn the fundamentals of as many sports as possible, including:

- tennis
- swimming
- soccer
- baseball
- cricket
- hockey
- rugby
- netball

*Students learn the skills of the sport and build to the ability to play short games.*

### **Library and Technology**

*In the Lower Elementary years, we stress library skills and include a basic instruction to technology as it relates to classroom work.*

Library visits begin in Level 1. Students develop the following skills:

- Understand the Montessori Zimbabwe library operation and how it is organised
- Be able to define fiction, non-fiction, and biography
- Locate picture books
- Identify the basic parts of a book: author, title, illustrator
- Understand why some books are considered "classics"
- Ability to identify and use chapter headings, table of contents, and index
- Use the collection of folk tales and fairy tales
- Understand the organization of the reference shelf
- Introduction to the Dewey decimal system
- Be able to use encyclopaedias, dictionaries, and atlases
- Use the library for simple classroom initiated research

In computer studies, student learn the following:

- Use correct terminology for basic components of the computer system
- Start and quit programs

- Know how to open, click, and double click
- Be able to execute simple text entry and editing
- Print a document
- Use the internet with teacher as guide
- Basic use of software