

# CASTLE ISLAND

## BILINGUAL MONTESSORI

INNOVATIVE. INTERCULTURAL. INCLUSIVE.

- A JOYFUL LEARNING COMMUNITY SINCE 2012 -

Dual Language Immersion: English & Spanish | Nonprofit Independent School | Growing to educate children ages 3 through 13

## UPPER ELEMENTARY CURRICULUM

### Curriculum Overview: Grades 4 - 6

The curriculum for children ages 9 to 12 includes:

- English and Spanish Language Arts
- Mathematics
- Practical Life, including Computer and Library Skills
- Culturals: Geography and History
- Sciences: Life, Physical and Earth
- Visual Arts
- Movement (Physical Education), including Music with Dance and Sports Skills

We call this program the *Upper Elementary Level*.

All materials and activities increase in difficulty and form the foundation needed for the next level.

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 utilize.

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.

## **English/Spanish Immersion**

For each area of study described in our curriculum overview, a lead teacher who is proficient in English provides the lesson presentations and guides the students' practice with new knowledge and skills. In addition to these lessons and practice, an assistant teacher who is proficient in Spanish also offers these same lessons to the students in Spanish. In this way, our curriculum meets and exceeds the NYS Learning Standards in Languages Other Than English and meets our own goals for students learning in that they become bi-literate and proficient speakers of two languages

## **Language Arts**

Our curriculum meets and exceeds the standards described by the Common Core described below by introducing and practicing language concepts and skills using dynamic presentations and hands-on materials.

Our Language Arts Curriculum interconnects with the other academic disciplines in the different areas of study described in the Common Core. Language Arts are 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. Instead lessons in language are integrated into all other areas of study: math, science, social studies and, in addition, health, physical education, family and consumer sciences, technology and occupational education. Besides work with literature and writing workshop, language presentations, skills practice and student publishing are conducted throughout all other parts of the curriculum while students find interdisciplinary connections.

- 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

# CASTLE ISLAND

## BILINGUAL MONTESSORI

INNOVATIVE. INTERCULTURAL. INCLUSIVE.

- A JOYFUL LEARNING COMMUNITY SINCE 2012 -

Dual Language Immersion: English & Spanish | Nonprofit Independent School | Growing to educate children ages 3 through 13

### **Mathematics**

Our curriculum meets and exceeds the standards described by the Common Core described below by introducing and practicing mathematics concepts and skills using dynamic presentations and hands-on materials.

Our Math Curriculum follows a sequential order in the different areas of study described in the Common Core. The materials help the child learn and understand mathematical concepts by working with materials hands on. This work provides the child with a solid foundation for traditional mathematical principles, providing a structured scope for abstract reasoning.

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, internalization 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 internalize a specific math concept, they can then move on to abstract problem solving. In addition to the manipulatives, we use Montessori Made Manageable, which is a sequential set of worksheets that cover the elementary program math curriculum. They are used for both classwork and homework in a supplementary nature, along with various textbooks and workbooks that compliment specific concepts and skills.

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 Upper 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.

- 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
  - Memorization
  - factors
- Word Problems
- Problem Solving
- Geometry
  - Geometric solids
  - Lines
  - Triangles
  - Quadralaterals
  - Polygons
  - Angles
  - Perimeter
  - Area

### **Foundations and Extensions for Language Arts and Math**

The following three curriculum areas are presented coordination with Language Arts and Mathematics. Through introduction and practice with work in these areas of study: Science, Practical Life Skills, and Cultural of Geography and History, students develop concentration skills in self-direction and interdisciplinary connections. Lessons in these areas of study both prepare students for continued work in language and math studies; as well as provide a deeper study of the basic skills in language (reading, writing, listening and speaking) and math concepts as they are applied to science, social studies, the arts, occupational and technological studies, health, physical education, and family and consumer sciences.

# CASTLE ISLAND

## BILINGUAL MONTESSORI

INNOVATIVE. INTERCULTURAL. INCLUSIVE.

- A JOYFUL LEARNING COMMUNITY SINCE 2012 -

Dual Language Immersion: English & Spanish | Nonprofit Independent School | Growing to educate children ages 3 through 13

### **Science**

The Upper Elementary science curriculum is deeply integrated with the cultural studies curriculum and the presentation of the five Great Lessons which center 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."

- Scientific Reasoning and Technology
- Observation skills

### **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)

## **Practical Life Skills**

Practical Life exercises instill care for self, for others, and for the environment. Activities include many of the tasks children see as part of the daily routine in their home, such as preparing food and washing dishes, along with exercises of grace and courtesy. Through these and other activities, children develop muscular coordination, enabling movement and the exploration of their surroundings. They learn to work at a task from beginning to the end, and develop their will (defined by Dr. Montessori as the intelligent direction of movement), their self-discipline and their capacity for total concentration.

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

## **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

# CASTLE ISLAND

## BILINGUAL MONTESSORI

INNOVATIVE. INTERCULTURAL. INCLUSIVE.

- A JOYFUL LEARNING COMMUNITY SINCE 2012 -

Dual Language Immersion: English & Spanish | Nonprofit Independent School | Growing to educate children ages 3 through 13

### **Computer Skills**

- Word processing
- Spreadsheet development
- Online research
- Slide presentation development
- Video conferencing

### **Library Skills**

- Answer specific inquiries found in a book
- Narrow or broaden an inquiry
- Learn to determine validity of source materials
- Take useful notes and summarize
- Restate information in own words from reference sources
- Make a bibliography, or source page

### **Service Learning & 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 which involve student initiated choice, design, implementation and evaluation.

### **Culturals: Geography and History**

Cultural studies in the Lower Elementary classroom flows from themes developed in what Dr. Maria Montessori called the Great Lessons. These lessons, presented with highly impressionistic stories and materials, 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

The use of hands-on materials, coupled with developing reading, writing, and research skills allow the elementary student to ask and attempt to answer questions no less profound than "How did the world begin?" "Where did we come from?" and "Why...?" The hands-on experience at this age prepares the child for future abstract thinking in upper elementary, where he gets to understand that which is not directly contacted by the senses.

## **History**

Castle Island Bilingual Montessori presents a school-wide, three-year rotation of content so special events such as cultural festivals, assemblies, field trips, and reading lists can be thematically planned for the whole school. Each year, a central question is posed and each level has its own sub-questions that focus the lessons and studies. Each level delves into the year's subject according to its appropriate developmental capabilities.

### **Ancient Civilizations**

The school-wide question is:

- "How and why were ancient civilizations created?"

The Upper Elementary focus is:

- "What do we learn from creation stories?"
- "What is an ancient civilization?"
- "What stories do artifacts tell?"
- "What inventions helped ancient civilizations develop?"

### **American Civilization**

The school-wide central question is:

- "How and why has American civilization changed?"

# CASTLE ISLAND

## BILINGUAL MONTESSORI

INNOVATIVE. INTERCULTURAL. INCLUSIVE.

- A JOYFUL LEARNING COMMUNITY SINCE 2012 -

Dual Language Immersion: English & Spanish | Nonprofit Independent School | Growing to educate children ages 3 through 13

The Upper Elementary focus is:

- "What is immigration?"
- "Who are the immigrants in America?"
- "Why do people immigrate?"
- "What events and people caused change in America?"
- "What is a hero?"

### **World Civilizations**

The school-wide central question is:

- "How and why do world civilizations connect?"

The Lower Elementary focus is:

- "What causes people around the world to live differently and the same?"
- "What traditional ceremonies are practiced throughout the world?"

### **Geography**

- Physical geography
- Political geography
- Economic geography

### **English/Spanish Immersion**

For each area of study described in our curriculum overview, a lead teacher who is proficient in English provides the lesson presentations and guides the students' practice with new knowledge and skills. In addition to these lessons and practice, an assistant teacher who is proficient in Spanish also offers these same lessons to the students in Spanish. In this way, our curriculum meets and exceeds the NYS Learning Standards in Languages Other Than English and meets our own goals for students learning in that they become bi-literate and proficient speakers of two languages.

## Visual Arts

The Castle Island Bilingual Montessori 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 middle school. Art lessons use a variety of auditory, kinesthetic, and visual components. Students are encouraged to experience the art process as each concept is presented utilizing 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.

Upper Elementary students will recognize and understand 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, and
- expressing feelings.

Students will recognize and understand concepts of color:

- color terms and definitions: hue, value, shade, chroma, primary, secondary, and intermediate colors,
- monochromatic/complementary colors, and
- color wheel: the colors and sequences.

Students will recognize and understand concepts of texture:

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

Students will recognize and understand basic patterns of organization:

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

Students will recognize whole-to-part relationships:

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

# CASTLE ISLAND

## BILINGUAL MONTESSORI

INNOVATIVE. INTERCULTURAL. INCLUSIVE.

- A JOYFUL LEARNING COMMUNITY SINCE 2012 -

Dual Language Immersion: English & Spanish | Nonprofit Independent School | Growing to educate children ages 3 through 13

Students will recognize and understand the processes of change:

- sequential process,
- abstraction,
- relationships between objects and symbols before and after change occurs,
- transformation, and
- 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
- Dynamics
- Introduction of two-part rounds, harmony, memorization of longer form songs
- Recognition of notes on the staff and reading and writing note values

### **Physical Education: Movement with Sports**

The ultimate goal of the Castle Island Bilingual Montessori Physical Education and 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 middle school participate regularly in Movement Arts classes and activities.

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

Castle Island Bilingual Montessori 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.

- 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

Our 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 soccer, basketball, etc. building to the ability to scrimmage and play games.