Discovery Montessori School
PRE-PRIMARY CURRICULUM GUIDE

General
Discovery Montessori offers a prepared Pre-Primary Montessori and International Baccalaureate Primary Years Program (IB PYP) for children ages 3-6 years old. The purpose of a Pre-Primary Montessori and IB education is to allow each child to experience the excitement of learning by their own choice. The teacher is available to help the child perfect their natural skills for learning. The Montessori materials have a dual long range purpose in addition to their immediate purpose of giving specific information to the child.

While providing an authentic Montessori and IB curriculum we guide students through six units of study. These six units allow students the opportunity to explore topics of interest. Curriculum strands are woven into thematic units of study. The IB framework matches each of the six central ideas with a cross curriculum unit.

The six different units explore the following ideas:
• How The World Works
• Who We Are
• Where We Are In Place and Time
• Sharing The Planet
• How We Express Ourselves
• How We Organize Ourselves.

The mission of IB is grounded in the idea of international mindedness. We want our students to be true global citizens by having a rich appreciation for the world around them. Through our Montessori and IB framework students are truly becoming internationally minded citizens.

The use of the material is based on the child’s unique aptitude for learning. Dr. Montessori identified this as the “absorbent mind.” Children literally absorb information from their environment. Acquiring information in this way allows the child to employ all their senses.
Discovery Montessori School embraces Dr. Montessori’s ideal that the child’s learning experience should occur naturally and joyfully at the proper moment in the prepared environment. “It is true, we can not make a genius; we can only give each individual the chance to fulfill his potential possibilities to become an independent, secure, and balanced human being.” Maria Montessori

Components of the Pre-Primary environment at Discovery Montessori School vary with each child according to their developmental readiness. As with the Toddler and Elementary program objectives, the teacher’s role at this level is to “follow the child.” Our goal is to closely observe the individual interests and needs of each child.

**Full Day Program**
The DMS 3-6 Full-Day program is Monday thru Friday from 8:25am to 3:00 pm. This program is an extension of the class time for morning and afternoon, allowing children the opportunity to participate in special presentations and studies involving nature, geography, history, language, and art. The children eat lunch together, providing emphasis on social grace and courtesy. This program is designed for the children who are ready for additional time in the class and is especially useful for kindergarten students to solidify their 3-6 experience. Pre-Primary lays the groundwork for what is yet to come in Lower Elementary.

Children under the age of four participating in the 3-6 Full-Day program will have a rest/nap period for at least 45 minutes (four year old children will rest/nap as needed). After the rest/nap time, the children will engage in Montessori and IB activities in the classroom.

To help develop and educate the whole child, Discovery offers a Spanish instruction resource for 3 & 4 year old students, once a week for 30 minute sessions. To develop a sense of design and self expression, each Pre-Primary classroom provides art supplies to draw, paste, cut or build. Children are also able to explore color mixing with primary colors red, yellow and blue. The Montessori Color Box or Color Tablets introduce primary color, secondary colors, and a box with seven graded tablets of secondary colors light to dark. Children experience music with the use of rhythm sticks, classical music during morning arrival time, and an array of children’s songs during late morning line time.

Discovery offers five resources to the Kindergarten students in Pre-Primary: Spanish once a week for 30 minute sessions, PE once a week for 45 minutes, Art once a week for 60 minutes, Library once a week for 30 minutes and Music once a week for 30 minutes. These specialized resource classes enhance our children’s experience of learning. Nurturing an appreciation for Music, Foreign Language, Physical Activity, and Library Science is integral to our Pre-Primary daily curriculum.

Pre-Primary classrooms are designed to provide a nurturing, secure, and academically challenging prepared environment. Many classrooms have two credentialed lead teachers.
operating as a co-teaching team. Each Pre-Primary classroom has a minimum of one American Montessori Society trained Lead Teacher and one Associate teacher. The AMS Lead Teacher is also required to possess a minimum of a Bachelors Degree.

Program Description

Practical Life

In the Montessori Practical Life area, children are provided opportunities to develop independent skills. There are four main areas of Practical Life: care of the person, care of the environment, social relationships, and control of movement. If a child is able to carry out the activities by themselves, they become more able to choose what they most need to learn. While working in this area of the classroom, a child expands their knowledge and skill in basic, useful, and purposeful tasks. Practical Life exercises aid the growth and development of the child’s intellect and concentration while also helping the child develop an orderly way of thinking. They foster coordination and self-confidence. Practical Life exercises help provide a sense of security the child needs to become self directed.

The materials used in a Montessori classroom environment are familiar ones taken from their daily lives. Some of the more purposeful tasks in Practical Life include: pouring water, washing the top of a table, how to carry a chair, folding clothes, polishing metal, using eye droppers and using a screw driver. The child learns how care and maintenance help in everyday life.

An important part of the Montessori and IB approach is helping children learn how to get along with each other. Mutual respect for one another and cooperation in the classroom environment is essential. Modeling respectful movement through the classroom shows children the importance of respecting another’s work. The children learn to walk carefully around each mat and table. A Montessori classroom includes instruction in Grace and Courtesy such as how to interrupt; how to greet; and how to excuse oneself. These skills promote mutual respect in the classroom. In this way, children learn important social skills and manners.

In the Control of Movement Exercises, the child learns about his own movements and learns how to refine his coordination through such activities as walking on the line. A child is also provided opportunities to develop the power of being silent. Exercises in silence require self-control. During a silence lesson, the children in the class can choose to participate in the making of the silence. In order to “make silence,” the child must become aware of everything in their bodies that can move, and they must want to cooperate with those who are silent around them. They begin to learn how their actions can affect those around them.
Practical Life is a unique area of a Montessori classroom. When the child has a solid foundation in Practical Life they are ready to master lessons with imagination and purposefulness in other areas, inside and outside of the classroom.

Sensorial

In the Montessori Sensorial area, children are provided opportunities to acquire clear, conscious information and to make classifications in their environment. Sensorial materials are designed to aid in the development of sensory motor skills. They are a series of materials with physical qualities such as color, size, shape, sound, texture, and weight which, when introduced properly to the students, lead to knowledge. Each material is intended to train the five senses.

The Sensorial exercises are specifically designed materials that allow the child to refine their auditory sense, tactile sense, olfactory sense, gustatory sense, thermic sense, baric sense, stereognostic sense, and discrimination of form. The materials in the sensorial curriculum all share the same developmental or direct aims: refinement of the ability to observe, compare, discriminate, differentiate, reason, decide and solve problems. All the sensorial materials are sequential, for example: left to right, top to bottom, simple to complex.

After a child has had experience with the material, the Montessori teacher uses a three period lesson to teach the names of the objects and the names of the qualities of these materials. There is a Three Period Lesson for naming an object, and for grading an object positively, comparatively, and superlatively. The first step is to identify the object or quality. The second step is to challenge the child to recognize the object or quality by their name. The last step is to challenge the child to name the object or quality.

Math

The Math area of a Montessori classroom, allows students to embrace the concept of numbers through a hands on experience. The Montessori Math area provides an opportunity for children to explore math through concrete materials and move to more abstract ones. Students begin the preparation for math beginning in the Practical Life and Sensorial areas of the classroom. Children develop a mathematical mind from everyday activities, such as sorting, counting and seeing patterns. The Math area of the classroom, like the other areas, is set up in a manner that enables the children to progress sequentially and independently. The materials on the shelves are set up in a left to right manner, from simple to complex.
The Practical Life area of the classroom helps to teach children the skills they need to have to work in the Math area. The basic skills are: order, concentration, coordination and independence. A sense of order teaches the child to successfully accomplish a task, from the way the lesson is set up through the way the lesson is conducted. A sense of order is needed in most math activities. While the entire Montessori curriculum promotes independence, it begins in Practical Life. The child is given the opportunity to choose materials on his own and work with them until he feels he is finished. Concentration is essential to complete any task at hand. Gaining the skill of concentration in Practical Life, will help the child to sit through the longer lessons of math. Coordination is essential to many Montessori materials. This skill is learned in Practical Life, aids in the child’s ability to carry heavy things and use the three finger grasp. The lessons in Practical Life are all introduced in a left to right, top to bottom flow. This flow trains the eyes for the skill needed to read. In math this correlates to reading equations and large numbers. Many activities in Practical Life teach one to one correspondence. A good example of a Practical Life material that introduces a mathematical concept is pouring 1-2 or 1-3. The lesson is presented by pouring equal amounts of a substance (shells, pasta) from one pitcher into two or three smaller pitchers. The children are being introduced to division, at a very early age.

The Sensorial area of the classroom has many materials that help a child understand the concepts of similar and different before attaching it to numbers. Children are also introduced to the concepts of temporal and spatial relations. They are introduced and allowed to explore patterns, size, weight, and temperature differences. Comparing these differences prepares them for higher order mathematical materials. Though introduced separately, many of the materials in this area of the classroom can be combined together as extensions. For example, the broad stairs and tower of cubes can be combined and used together in different ways, due to the similar size of each stair and cube. Children can create patterns and designs when combining materials together; which prepares the brain for mathematical thinking.

Children in a Pre-Primary classroom are in a sensitive period. The Math area of the classroom stimulates the child’s interest of order, movement, language, beauty and detail. The math materials are organized in very specific ways. The shelves move from simple to most complex, beginning with the numbers 0-10 and moving from decimals to tens and teens and then to operations. Math also allows movement. The materials, many of which require more than one
trip to carry, are kept on a stationary shelf. This allows the children to move around carrying things often. Language in the Montessori classroom is very precise, as to not confuse or mislead the child. When speaking of a quantity, one says: “This is 10”, when speaking of a symbol “This says ten” is used. The presenter must be sure to present the concrete before the abstract. Language like this allows the child to understand what the lesson focuses on. Finally, the Math area of the classroom draws attention to its beauty and detail. The materials are welcoming, clean and complete, they are also sequenced and accessible to the child. Each material builds on the last one presented, to allow the child to anticipate what will come next.

As the child enters the Math area, the focus is on understanding numbers through ten. Once the child has grasped this concept, the decimal system is introduced. The focus here is the hierarchy of the decimal system and how it functions. The materials then progress to counting beyond ten (tens, teens, linear and skip counting). Children in a Montessori environment are drawn to hands on materials and objects. By combining, separating, sharing and counting these objects children are introduced to math operations through concrete materials rather than abstract ideas. Repetitive work in this area of the classroom allows the child to commit these math facts to memory, and gain an understanding of each operation. This allows for an easy and fluid transition to abstract math in later years.

Mathematics Goals
Students will develop number sense, use operations for computation with understanding, explain relationships between numbers and develop beginning concepts of place value using concrete materials.

Numeration/Operations:
i. Identify like/unlike objects to form sets up to twenty
ii. Identify equal/unequal set amounts (conservation)
iii. Rote counting to one hundred
iv. Skip counting by fives and tens
v. Associate numerical symbol and quantity to twenty
vi. Sequencing to one hundred (what comes before and after)
vii. Use of ordinal numbers
viii. Identify operations symbols '+', '-', and '='
ix. Simple addition
x. Simple subtraction
xi. Solve oral and written word problems
xii. Introduction to place values up to one thousand
Measurement:
   i. Linear comparison (long/short, thick/thin, tall/short)
   ii. Volume/mass comparison (more/less, full/empty)
   iii. Temperature comparison (hot/warm, cool/cold)
   iv. Time comparison (minutes/hour, days/week, months/year)
   v. Identify time to the hour
   vi. Name and order days of the week, months of the year
   vii. Use of the calendar

Geometry:
   i. Identify two dimensional and three dimensional shapes using materials
   ii. Demonstrate the relative position of objects (over, under, beside...)

Patterning:
   i. Recognize and repeat simple visual, oral and rhythmic patterns
   ii. Sort and classify objects by a single attribute

Science
Science is an integral element of the Montessori and IB blended curriculum. Among other things, it represents a way of life: a clear thinking approach to gathering information and problem solving. The scope of the science curriculum includes a sound introduction to botany, zoology, chemistry, physics, geology and astronomy. The Montessori and IB approach to science cultivates children's fascination with the universe and helps them develop a lifelong interest in observing nature and discovering more about the world in which we live. In following the IB framework, students are introduced to central ideas which invite them to ask questions about the world around them. Children begin to explore the natural world and start to make connections to their environments. From a young age the children begin to differentiate between living and non-living, which in turn prepares the child to have respect for different things in their environment. The child will also start to make classifications and categorize the environment around them. We also assist the child in exploring the biological aspects of their environment and develop an appreciation for the delicate balance of nature. The study of botany is child centered using live plants as an inviting catalyst for exploration. Children by their very nature are fascinated with animals. We learn about how to respect the animal’s needs, habits, and characteristics by caring for the animals in the environment. Students begin to classify between, mammals, reptiles, amphibians, fish, and
birds. They also learn the anatomy of each class of animals, and are able to label most parts of the animal by the time they leave Kindergarten.

**Science Learner Outcomes**
Students will use the process of scientific inquiry to develop their understanding of the natural world.

Typically, children in Kindergarten will work on the following:

i. Identify continents, bodies of water, political boundaries
ii. Discuss the plants and animals of countries studied
iii. Use Scientific Method (observe, predict, draw conclusions)
iv. Identify living/nonliving things
v. Identify plants/animals, adults/offspring
vi. Identify parts of plants, leaves, flower
vii. Identify external parts of fish, amphibian, reptile, bird, mammal, insect
viii. Identify various animal habitats of vertebrates
ix. Participate in experiments with water, air, magnets, sound, and electricity

**Geography**
Geography gives the child an understanding of the world and their place in it. The geography area in the classroom allows children to explore continents, countries, and states. The children begin to think outside of their own world and make the connections and realizations of diversity and culture. In following the mission of IB, we want to inspire our students to be caring and responsible world citizens, and this begins with building an understanding of geography.

Children learn about the world and it’s continents through the land and water globe, a sphere with sandpaper continents that allow the children to get a tactile sense of the difference of land and water. Children are exposed to the continents more in depth through continent maps (puzzles), which are made up of pieces that can be manipulated and put back together. Children categorize air, land and water, and the different systems that live in each through hands on experiences. Landforms are displayed in the classroom as actual molds that the child can explore by filling each with water. Children are introduced to the flags of the world through matching cards, flag booklets and models of flags. A strong knowledge of flags of different countries act as a catalyst to explore other countries and cultures. Children and families are encouraged to talk about and share items from their cultures or travels. This area of the classroom acts as a basis to spin off in depth lessons about many aspects of our world.
Cultural Studies Goals

Students will develop an understanding of the diversity of human culture and the unique nature of places. Students will develop an understanding of chronological concepts in analyzing historical events.

Typically, children in Kindergarten will work on the following:

i. Identify the year and its parts (seasons)
ii. Name the parts of a calendar
iii. With assistance, develop a personal time line
iv. Label basic land and water forms
v. Identify continents, bodies of water, political boundaries
vi. Compare and contrast cultures and cultural traditions around the world
vii. Discuss the plants and animals of countries studied

Language

The language area of a Montessori environment encompasses oral language, pre-reading skills, reading and writing skills. The initial lessons in the area of language are presented individually and in small groups. After the initial lessons are presented the child is given the opportunity to work with the material until mastery. The materials and concepts in the area of language covers a three year span of development.

The material/lessons in the area of early language concentrates on the development of oral language. The early language material leads to an enriched vocabulary, clarity of speech and an overall enjoyment of the spoken language. The emphasis is placed on speaking, not reading or writing. The child is learning new words through classifying and sorting objects/pictures that are related and relevant to real life.

The material/lessons in the pre-reading Montessori language sequence focus on print awareness, auditory discrimination, letter recognition/phonetic association of letters, narrative skills, and print motivation. One of the goals of the pre-reading language area is for the child to understand the link between the words in a book and relationship between illustration and text. It is with lessons in this area that the students are learning to recall and describe things, characters and the sequence of events in a book. Bob Books, Primary Phonics, Steck-Vaughn and Modern Curriculum Press are the reading books being used in the 3-6 Pre-Primary environments.
Quarterly assessments of phonetic association and letter recognition of lower case and capital letters for the Pre-Primary students allows the teacher to properly place each student within the language sequence. The DIBELS and DRA are administered to the Kindergarten students’ quarterly. The DIBELS (Dynamic Indicators of Basic Early Literacy Skills) assesses the 5 critical reading skills of phonemic awareness, alphabetic principle, accuracy, fluency and comprehension. The DRA (Development Reading Assessment) aids the teacher in identifying a student’s reading level through the assessment of reading accuracy, fluency, and comprehension. The results of the DRA are utilized to place students in authentic texts, utilizing a Guided Reading rubric.

Handwriting
Beginning at the age of three, the children are learning to control and strengthen their hand with specially designed lessons that naturally promotes the prehensile grasp. As a prelude to writing, the students trace sandpaper letters to gain muscular memory of the shape of letters. To help develop the lightness of touch needed to use pencils, the children will trace metal insets and write on chalkboards. The students begin writing on unlined paper and gradually move to wide lined to narrow lined paper. To reinforce the Montessori handwriting curriculum, all students work with the Handwriting Without Tears program. The program incorporates developmentally appropriate tasks that are specifically designed to help develop the control of the hand. The lessons include formation of upper and lower case letter and numbers 0-10. Handwriting Without Tears begins at the age of three up to Kindergarten.

Language Learner Outcomes

Use appropriate decoding and word recognition strategies; develop an increasingly extensive vocabulary:

i. Identify upper and lower case letters
ii. Understand concepts of print (letter, word, sentence, left to right directionality, top to bottom return sweep of print)
iii. Understand concept of rhyme
iv. Understand concept of beginning sounds
v. Sound/letter symbol associations for consonants and some vowels
vi. Identify 5-10 familiar words, including their name, number and direction words

Assimilate information from prior knowledge and experiences to understand text:

i. Use picture clues to determine meaning of unknown words
ii. Recognize environmental print
iii. Ask and answer questions related to a story
iv. Make and revise predictions related to a story with teacher assistance
v. Begin to differentiate between real and make-believe
vi. Identify fiction/nonfiction

Develop an understanding of the literary elements used in creating stories:
i. Identify title, author and illustrator with teacher assistance
ii. Identify character and setting with teacher assistance
iii. Retell familiar stories using beginning, middle and end

Respond to text in a variety of ways (Speaking, writing, art):
i. Begin to express opinions
ii. Respond to literary texts from various cultures
iii. Begin to relate ideas from literature to situations involving self and society
iv. Discuss stories and ideas from fiction and non-fiction sources

Use a variety of resources (print, audio-visual, technology) to gather and evaluate information to share with others:
i. Identify different resources available to gather information
ii. Identify different ways to organize and share information

**Technology**

As a 21st Century School, we implement technology with our students according to their developmental level and interests. Our children need to enter today’s world with a strong foundation in how to use technology. At Discovery Montessori, we have invested in preparing children for the use of technology. Our classrooms are equipped with iPads as well as access to a MacLab. Not only do these iPads support the administrative needs of the classroom, they also have Montessori educational apps available for children to use. As with all technology available for our students, programs and apps support and extend the use of the concrete materials.

**PRE-PRIMARY MORAL AND ETHICAL DEVELOPMENT**

At Discovery Montessori School the children learn grace, courtesy, respect for others, and peace education at a very young age. In Practical Life the children learn how to function in a micro society by waiting ones turn, pushing in their chairs, saying please and thank you, looking peers and adults in the eyes, and becoming aware of their space and their bodies. Character education is facilitated through the prepared environment and guided by the teachers. It is one of the natural development processes manifested by a child through sensitive periods. We observe that children exhibit empathy and have sensitive periods for orderliness, Grace and Courtesy, and fairness. These character traits are nurtured from a child's youngest years; as the child interacts socially, the character traits of friendliness, helpfulness, and sharing are cultivated. Our Montessori and IB community consists of the partnership of the faculty and administration of the school, with the parents, and community members who actively support the development of the
school and curriculum for the benefit of the children. We hold many events such as; Fall Festival, Lesson Showcase, Parent Education events, talks on our Youth Philanthropy work, and many other community events. Moral leadership occurs through community meetings at all levels. When faculty and parents unite to develop and implement long-range planning, a commitment to moral education and achieving the aims of the School are met.

Students participate in moral leadership at all levels according to their developmental readiness. Our involvement with the White Oak Conservation Center is one of many community outreach programs we are involved in. Each year Discovery adopts an endangered species from a particular region of the world and the students begin to learn about that animal to develop an understanding of how one can help preserve our natural environment for many generations to come. We also have a community garden which parents, teachers, and children are encouraged to care for and maintain vegetables for our Edible Schoolyard. It has also been a showcase for other community gardens in the Jacksonville Beach area. Individually, children learn to take responsibility for their actions and learn social skills that contribute to a peaceful environment where individual needs are respected. Collectively, students share moral leadership through class meetings where social issues and problems are addressed, multiple perspectives are actively sought, and resolutions are agreed upon. The long-range support of character education is maintained at local levels as well as through professional development at national levels where peace education is fostered through conferences and Montessori teacher training institutions.

**PRE-PRIMARY CONFERENCE AND PROGRESS REPORTS**

Pre-Primary progress reports are completed four times per year and Parent Teacher conferences are held twice per year (in conjunction with the first and third progress reports). Additional conferences may be held as needed. Assessments are based on lesson tracking, anecdotal record keeping and close observation by teachers throughout the year.

**PRE-PRIMARY EDUCATIONAL BEST PRACTICES**

Teachers use anecdotal observations to monitor student progress. Language assessments include DIBELS, DRA, and phonetic and letter name recognition. Teachers use a Montessori tracking system (MRX) for each area of the classroom to mark each lesson presented to every child and also the child’s progress (Presented, Working on, Mastered). Based on these observations and assessments, decisions regarding materials and individualized curriculum needs are made.
PRE-PRIMARY INSTRUCTIONAL AIDS

Like the Toddler and Elementary classrooms, the Montessori Pre-Primary classroom is a prepared environment. It is organized to promote independence, concentration, and a sense of order. The environment is a room with child size furniture, low shelves, and low hanging art so the child can view without assistance. The environment allows freedom of movement and of choice. It is safe for the child to explore. The environment is set up in such a way that it is beautiful and an inviting place to work.