Areas in a Montessori Primary Community

The Montessori Primary Program provides a thoughtfully prepared environment designed to foster independent learning, personal responsibility, and a love of discovery. Children in the primary years (typically ages 3 to 6) are given the freedom to explore a wide variety of learning materials, each specifically designed to promote development across multiple areas.

At the heart of the Montessori philosophy is the belief in the child's innate ability to learn and grow at their own pace. The environment is organized to support this self-directed learning, with materials carefully arranged on low shelves so that children can easily access them. This setup encourages autonomy and gives the child a sense of ownership over their learning.

Key tenets of the Montessori approach include:

- **Path to Abstraction:** Montessori materials are designed to move from concrete to abstract learning. Children begin with hands-on, sensorial experiences and gradually progress to more abstract concepts as their understanding deepens. This progression allows children to internalize concepts before applying them in more complex ways.

- **Order and Structure:** The Montessori classroom environment is meticulously organized to support independent work. Materials are arranged in a logical sequence of difficulty, allowing children to naturally build upon previous lessons and skills. This structure not only promotes academic growth but also helps children develop a sense of discipline, organization, and confidence.

- **Personalized Learning and Goal Setting:** One of the most distinctive aspects of a Montessori program is the ability for children to set personal academic goals. As children work with the materials, they are encouraged to track their progress and move forward at their own pace. This promotes intrinsic motivation, as children take ownership of their learning journey.

The core areas of the Montessori Primary Program are:

- **Practical Life**
- **Sensorial**
- **Language**
- **Mathematics**
- **Cultural Studies** (including Geography, History, and Science)

Each area is designed to nurture a child's development, allowing them to explore both academic subjects and essential life skills. Through this environment of freedom within structure, children in a Montessori Primary Community gain the confidence, independence, and intellectual curiosity that will serve as a foundation for lifelong learning.

Practical Life

Practical life exercises are the cornerstone of a Montessori program. Children learn to care for themselves and their environment through activities such as flower arranging, baking, and polishing. Real-life experiences are provided so that children can find purpose and meaning in their work. More importantly, it is through the practical life area that children build essential work habits that will carry them through the rest of their academic career.

Children develop a strong sense of order by repeating multi-step exercises. They develop independence by completing activities without assistance. Practical life lessons require refinement of gross and fine motor movements, many of which prepare the hand for later writing. Additionally, the exercises in practical life allow for the development of deep concentration as children learn to focus on their work while other things are happening around them. Some activities your child may be doing at school include:

- **Dressing Frames:** In this care-of-self activity, children use a variety of frames to practice buttoning, snapping, zipping, and tying bows. They then translate this skill by dressing themselves and helping others.

- **Brass Polishing:** In this activity, children follow a sequence of steps to polish an object (decorative figurine, bowl, tray). As the child applies the polish from left to right using small circular wrist movements, their hand is prepared for writing and their eye is prepared for reading. Children build independence as they can complete this task without assistance from adults and develop their sense of order by completing all steps in a sequence. Once the child completes the work and sees the shiny object as the product of their efforts, they gain a sense of self-satisfaction and feel pride in contributing to the larger community.

- **Table Washing:** Larger care-of-the-environment activities such as table washing are instrumental in the development of concentration. The full sequence of table washing contains over 70 steps, from the initial setup, filling the pitcher with water, and emptying into the basin, to wetting the table with the sponge, scrubbing, drying, and cleaning up. Similar to polishing, this work includes indirect preparation for reading and writing through hand and wrist movements. Even the youngest children are capable of prolonged periods of deep concentration as they become engrossed in their work. This provides a strong foundation for focusing on later large works in language, math, and sensorial.

- **Grace and Courtesy:** The Montessori philosophy is unique in its focus on the development of the whole child. The development of social skills is a critical part of the primary program, and children are given grace and courtesy lessons throughout the day. Sample grace and courtesy lessons your child may be practicing in school include introducing oneself to someone new, conflict resolution, inviting a friend to join a lesson, asking for space, pushing in a chair, and many other social graces.

Sensorial

The Sensorial materials help the child develop and refine their five senses (visual, auditory, olfactory, gustatory, tactile) and make sense of the world around them. Materials isolate a sensory experience to facilitate the child's ability to classify sensorial impressions.
Children refine their senses by matching and grading smells, fabrics, sounds, etc. They also gain language through the work by learning the names of colors, shapes, different smells, etc. These experiences provide a strong foundation for later mathematical and scientific discovery. Some sample activities your child may be working on in this area include:

- **Color Boxes:** There are three color boxes in the Primary classroom, each progressively getting harder. In the first box, children match the primary color tablets, with more colors added in the second box. In the third box, children grade different shades of color tablets from darkest to lightest. Different extensions provide the child with the opportunity to match and grade from a distance or to match other items in the environment.

- **Constructive Triangles:** This material consists of a sequence of boxes containing different shaped triangles. Children use the various triangles to form new shapes such as a parallelogram, rhombus, hexagon, square, etc. Not only does this provide a solid foundation for geometry, but children also learn the appropriate corresponding names for the shapes. They also use this material for sensorial exploration as they experiment with what different shapes and patterns they can create.

- **Trinomial Cube:** This work consists of a box containing different colored blocks to represent the trinomial expansion $(a+b+c)^3$. The different colored blocks each represent a piece of the equation (e.g., 1 a^3, 3 ab^2 pieces, etc.). The children utilize this material on a sensorial level at this stage, putting the puzzle together while building a deep impression of the mathematical relationships between the different shapes. Later on, this same material is used on a higher level to teach the actual mathematical equation.

- **Maps:** Puzzle maps provide an introduction to geography and inspire further cultural work. Children build the maps while learning the names of the countries and states, and also use the pieces to create their own maps by drawing or pin-punching.

Language

One of the largest areas in the Montessori Primary classroom is language. Oral language experiences are given daily with each lesson and through group songs, books, conversations, etc. As children work through the sequence of language materials, they have lessons in the following areas:

- **Oral Language:** Maria Montessori recognized the unique ability of children under the age of 6 to absorb new language effortlessly. Therefore, higher-level vocabulary is built into all parts of the day, with additional materials used to support vocabulary development.

- **Phonemic Awareness:** Though seemingly common sense to an adult, the concept that language is made up of words that can be broken down into individual sounds is a complex idea for the young child. Lessons in this area help the child understand what a sound is and practice orally breaking down words into their individual components.

- **Writing:** Once the child has a firm basis in phonemic awareness, they begin to recognize the different letters and associate them with the corresponding sounds. In the Montessori approach, writing with the Movable Alphabet comes before reading, as this manipulative allows children to form words before they have the hand strength and control to manipulate a pencil. Children begin writing words, then phrases, sentences, and stories/poems. Handwriting materials are also introduced at this time.

- **Reading:** Repetition with the Movable Alphabet and other language materials often leads to a moment of epiphany in which a child explodes into reading. Materials in this area follow a sequence from simple phonetic words and books to phonograms, sight words, and higher-level materials and books.

- **Function of Words:** After building a strong foundation in language, children begin to study the different parts of speech and grammatical rules that make up our language.

Phonemic Awareness

Phonemic awareness is the ability to hear sounds in spoken language and understand that words are made up of different sounds. We play sound games in the classroom to teach children this skill. The sound game is the bridge between spoken language and written language.
A sample activity your child is practicing at school is the Sound Game box. This work consists of a box of 6-8 objects with differing sounds. The teacher or another child can play "I spy" with the children: "I spy something that starts with the sound /m/. Yes! I spied the mop." There are three levels of difficulty: 1) A few objects, 2) Many objects, and 3) No objects (people and objects in the classroom). Difficulty also increases by finding the sounds in the middle and end of the word.

At Home: Sound game ideas:

- Play "I spy" at home while eating dinner or even when driving in the car. For example, "I spy something on your dinner plate that starts with /s/… Yes! The spaghetti!"
- "I'm thinking of an animal that starts with the sound /z/… Yes! A zebra!"
- "Let's see how many foods we can think of that start with the sound /p/… Papaya, pear, pea, popsicle, pineapple, potato, pizza, pancake…"

Rhyming:

Rhyming is a critical piece of phonemic awareness, as children learn that changing the beginning sound of words can create a whole new word. Singing songs, reading poetry, and rhyming words (even nonsense words!) with your child is a great way to develop phonemic awareness.

Reading:

Point to each word as you read aloud to your child. Practice echo reading in which the child gets to repeat sentences back. Look for objects in the illustrations that begin with a certain sound.

Writing

Once the child understands that spoken words are made up of separate sounds and demonstrates some ability to break a word down into its individual components, they are ready to move on to lessons in the writing area of language. Sample activities your child will be working on at this stage include:

- **Sandpaper Letters:** Children learn to associate the written symbols with their corresponding sounds. We teach the sounds of all the letters in the alphabet as well as 16 key phonograms.

- **Movable Alphabet:** This work consists of a large box with several cut-out letters with which the child can build words.

- **Metal Insets:** A pre-handwriting exercise, where the child masters the hand while tracing shapes and practicing various handwriting strokes.

- **Handwriting exercises:** After much preparatory work in all areas of the classroom, the child begins exercises in manipulating a pencil and practices reproducing letters and words.

At Home:

Point out letters you see all around you! Help your child write their name on artwork or cards. Allow plenty of opportunity for artwork and self-expression, helping your child learn to hold pencils or markers correctly to build hand strength for writing.

Reading

Reading

Continued repetition with the writing materials leads to an explosion into reading in the Montessori approach. In this stage, your child is mastering decoding words and working toward complete reading fluency. Lessons in this area are broken up into the following sub-areas:

- **Phonetic Reading**:
  Children begin sounding out simple phonetic words such as "cat" or "jump" through a variety of materials, including phonetic word cards, phonetic labels and commands, and simple phonetic books.

- **Phonogram Reading**:
  In this next stage, children use a variety of materials to decode words with common blends, such as "ch" and "ee."

- **Puzzle Words**:
  Some words in our language follow no rules at all. Children practice memorizing these frequently used sight words.

At Home:

Your child may occasionally bring home copies of the reading materials they use at school for practice at home. Once the child has mastered the isolated skills involved in the mechanics of reading, they are ready to be introduced to the whole world of written language! Librarians can be great resources for helping your child find books to read at the right level.

Function of Words

The function of words exercises are not grammar lessons but are designed to help the child think abstractly about words. The child is given an impression of the most common parts of speech, each with a corresponding symbol. The key material for this work is the **Farm**, where children learn about various parts of speech by manipulating farm animals. After mastering the individual parts of speech, children are then given lessons in reading analysis. These materials aid the child in their journey toward complete reading by offering the opportunity to interpret meaning.

Lessons include:

- Articles
- Nouns
- Adjectives
- Conjunctions
- Prepositions
- Verbs
- Adverbs
- Pronouns
- Reading Analysis

Math

The Montessori math curriculum follows a specific sequence from concrete to abstract. Children use hands-on manipulatives to build a strong foundation for more abstract mathematical concepts. These materials build upon each other, becoming less hands-on as the child progresses. Many of these materials are also used in Montessori elementary classrooms at higher levels.

- **Numeration**:
  The first stage of the mathematical materials focuses on the concept of numeration. Children practice counting and build a foundational understanding that numbers represent specific quantities.

- **Number Recognition**:
  Math is another language with its own vocabulary and written system. Once children become conscious of the concept of quantity, they begin learning the abstract symbols (numbers) and matching them to their corresponding quantities.

- **Decimal System**:
  After building a strong foundation in the numbers 1-10, the child is introduced to higher quantities. The function of zero and its role in changing the weight of a number is presented as children use manipulatives to physically experience the difference between 1, 10, 100, and 1,000.

- **Memorization of Facts**:
  Having been introduced to the four operations (addition, subtraction, multiplication, and division) through the decimal work, children use a variety of manipulatives to support their memorization of mathematical facts.

- **Path to Abstraction**:
  The mathematical materials become increasingly more abstract as children learn to rely less on manipulatives.

Numeration

Numeration involves the ability to count, compute, and assign a number to something. Early mathematical concepts (longer and shorter, bigger and smaller) are introduced through the sensorial materials, and children develop an interest in counting and exploring the concept of quantity.

A sample activity your child is practicing at school is **Number Rods**. This material consists of ten red and blue rods of increasing size. Children can feel and see the increasing quantity as they practice counting from 1-10.

At Home:

- **Counting**:
  Count everything! Count the stairs, the number of peas on your plate, the number of houses you pass on your walk. Sing counting songs and practice rote counting together.

- **Exploring Quantity**:
  Help your child connect their concepts of more and less or big and small to numbers. For example, you might say, "Let's see who has more carrots on their plate. I have four, and you have two. I have more carrots than you. Four is more than two."

- **Everyday Math**:
  Numbers are everywhere, and math is a huge part of our daily life! You can help your child count how many apples you need at the store, talk about the scores of games, prices, ages, dates, and anything else you can imagine.

Number Recognition

Having built a strong foundation in numeration, children are then ready to start learning to recognize and name numbers. These materials begin with recognizing numbers 1-10 and then progress into higher quantities. Sample activities your child will be working on at this stage include:

- **Sandpaper Numbers**:
  Children learn to associate the written symbols with their corresponding quantities. They trace the sandpaper numbers to prepare the hand for writing.

- **Cards and Counters**:
  This work consists of 10 cards printed with the numbers 1-10 and a set of 55 wooden counters. Children first set up the numbers in order and then count out the corresponding quantity of counters below each card.

- **Teens and Tens Boards**:
  These boards introduce the numbers 11-100. Children count progressively higher numbers using colored beads and match them to the corresponding written numbers.

At Home:

- **Numbers Everywhere**:
  There are many opportunities every day for your child to practice number recognition. Point out elevator buttons, address numbers, clothing labels, price tags, and signs, and help your child practice identifying numbers.

Decimal System

Through continued work with numeration and number recognition materials, children develop a solid foundation in numbers 1-10. The decimal work introduces how adding a zero to the end of a number gives it a greater value. The quintessential Montessori materials for this stage include multiple lessons with the **Golden Beads**. Sample lessons your child will be working on at this stage include:

- **Introduction to the Golden Beads**:
  Children are introduced to this work with a tray containing a single unit bead, a bar of ten beads, a square of 100, and a cube of 1,000. They can see and feel the change in quantity from 1 to 1,000. Number cards are used to match the corresponding symbols.

- **Collective Exercises**:
  Small groups of children use the golden beads to gain a sensorial impression of addition, multiplication, subtraction, and division. Children also learn how to exchange (10 units for 1 ten, etc.) and develop an understanding of the relationship between the operations.

- **Stamp Game**:
  A compact, more abstract version of the Golden Beads, the Stamp Game contains several tiles labeled 1, 10, 100, and 1,000. Children can use this manipulative to complete four-digit addition, subtraction, multiplication, and division problems.

At Home:
You can practice simple math anytime! For example, "I have 3 apple slices, and you have 2. Let's see how many we have all together: 1...2...3...4...5. We have 5 apples!" Or, "There are 8 slices of pizza, and you took 2. Now let's count how many we have left… Six! 8 minus 2 is 6!"

Memorization of Facts

After working on the four operations with the Golden Beads, children begin taking an interest in memorizing their mathematical facts. A variety of materials provide endless opportunities for repetition with built-in controls of error. Some sample activities your child is using at this stage include:

- **Addition Strip Board**:
  This material consists of a board with a grid and the numbers 1-18 printed across the top, along with red and blue number strips from 1-9. Children can put the strips together to quickly add numbers, then check their work with the corresponding control charts. A similar **Subtraction Strip Board** is used for memorizing subtraction facts.

- **Finger Charts**:
  There are several different finger charts to help children practice addition, subtraction, multiplication, and division facts. Each board is progressively more difficult as children move their fingers across to find the solution.

At Home:
Children at this stage love to be tested and challenged with new math facts. You can play simple games in the car, at the table, or on a walk, asking, "Do you know what 2+2 equals?" and progressing in difficulty as your child demonstrates mastery.