

Introduction to Montessori Infant and Toddler Pedagogy

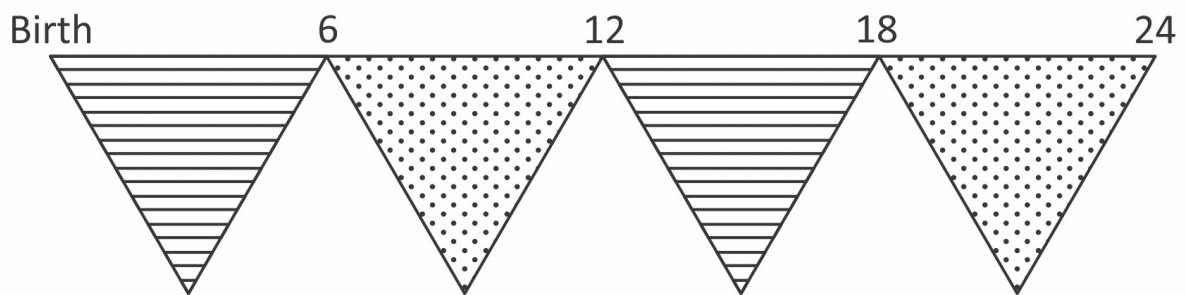
The Montessori Pedagogy, Health, & Safety Manual focuses on the appropriate environment, materials, routines and procedures for the birth to three-year old. In order to understand the “why” of what we do Montessori *Key Concepts* require explaining.

Montessori is unique in integrating an overarching framework for the design of the environment, for the introduction of materials, for the establishing of routines, and the development of procedures.

Montessori’s overarching framework is named her *Key Concepts*. *The Four Planes of Development* is a foundational *Key Concept*.

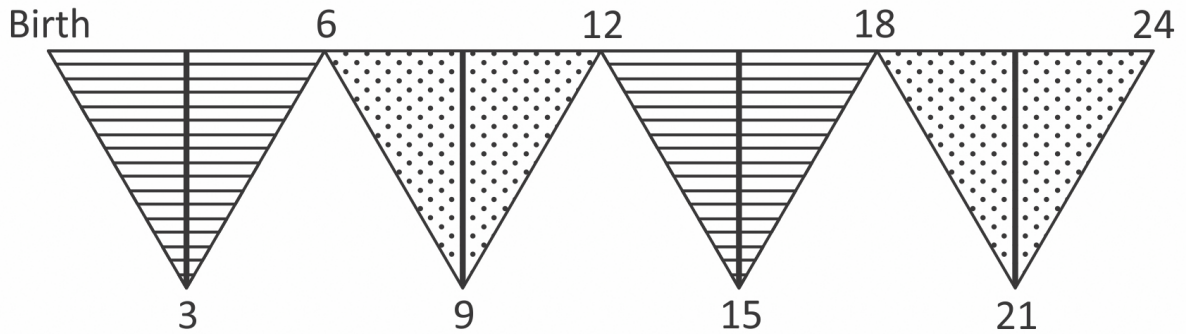
The Four Planes of Development

1. The graphic below is a popular and familiar representation of the six-year age span that lies within each of the four planes.



- First Plane: age birth to six years
- Second Plane: age six to twelve years
- Third Plane: age twelve to eighteen years
- Fourth Plane: age eighteen to twenty-four years

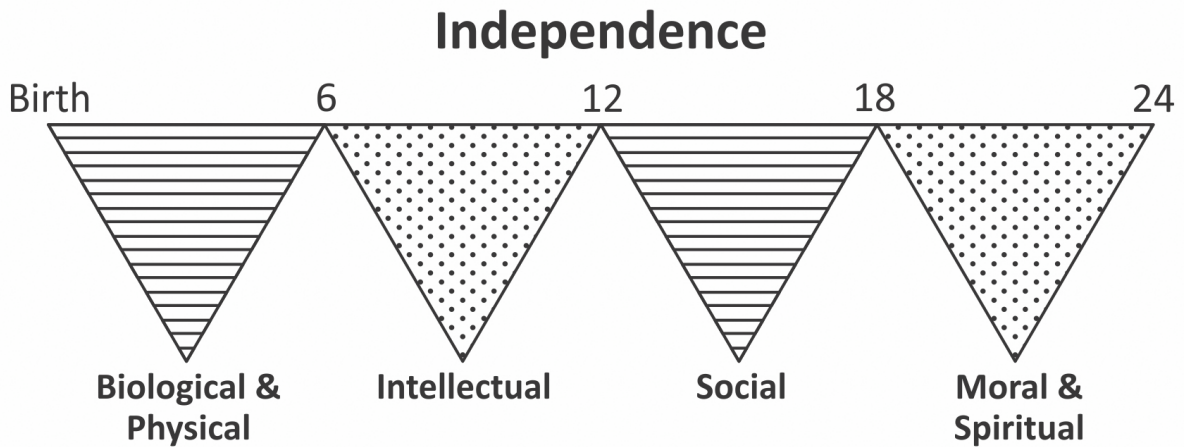
2. The triangular shape division within the larger triangle shapes denote the three-year development within each of the Four Planes of Development.



	First three years	Second three years
First Plane:	age birth to three	three to six
Second Plane:	age six to nine	nine to twelve
Third Plane:	age twelve to fifteen	fifteen to eighteen
Fourth Plane:	age eighteen to twenty-one	twenty-one to twenty-four years

Subdivision within each Plane of Development is by three-years. The first three years are characterized by an intensity of energy and purpose; the next three years are characterized by the consolidation of skills and energies. Successful navigation of each Plane of Development, aided by the adult guide, makes ready for the child's next Plane of Development.

3. Each Plane of Development support the child’s emerging independence and the skills to be developed at each Plane of Development.



- | | | |
|---------------|-------------------------------|--------------------------------------------------------------------------|
| First Plane: | Independence is physical: | <i>I can do it myself because...
I have the physical skills.</i> |
| Second Plane: | Independence is intellectual: | <i>I can learn myself because...
I have the intellectual habits.</i> |
| Third Plane: | Independence is social: | <i>I can socialize because...
I know how to be a good friend.</i> |
| Fourth Plane: | Independence is moral: | <i>I can act morally because...
I have developed my moral code.</i> |

Increasing independence is expressed differently through each *Plane of Development*.

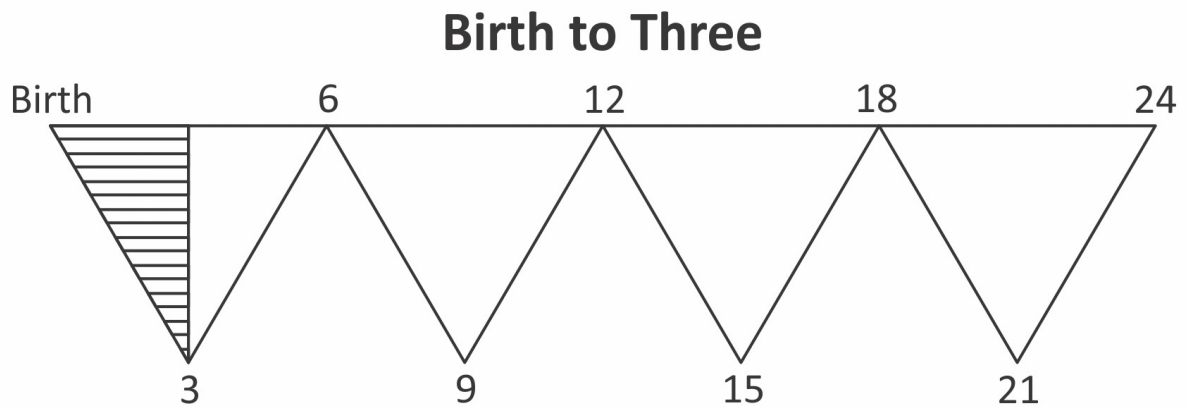
Implications for the classroom:

The Planes of Development and their three-year sub-divisions are the basis for the three-year age spans found in Montessori schools: ages birth to three, three to six; six to nine; nine to twelve; twelve to fifteen; and fifteen to eighteen.

Implications for the Teacher Training:

The Planes of Development and their three-year sub-divisions are the basis for the three-year age credentialing levels found in Montessori Teacher Education Programs: ages birth to three, three to six; six to nine; nine to twelve; twelve to fifteen; and fifteen to eighteen.

4. This Montessori Pedagogy, Health, & Safety Manual focus upon the first half of *The First Plane of Development*. Birth to three years old within the *First Plan of Development* birth to six years is the time frame.



Newborn:

Independence is *biological* as the newborn separates from the body of the mother.

Independence is *physical* as the newborn provides for its own body heat, its own nurturance through sucking, and its own elimination through urination and bowel movements.

Infant:

Independence is *biological* as the infant reflexes are suppressed and movement becomes increasingly willed and controlled as the neurological system integrates and refines.

Independence is *physical* as the infant takes increasing control of neck, arm, hand, fingers, torso, hips, legs and feet movements. Neurological integration and control of movement develops caudal (head) to distal (outer limbs).

Mobile Infant:

Independence is biologically supported by the full (nearly) suppression of reflexes, as the mobile infant responds to sensory stimulation from the environment: visual (color, size, shape), auditory, tactile (texture, temperature, weight), olfactory, gustatory stimuli to the senses.

Toddler:

Independence is physical as the upright and walking posture is assumed – an enormous human achievement positioning the head to observe the universe from a radically different perspective than from horizontal or prone position.

Mobile Infant – Weaning

Weaning is defined as the process of moving from milk as the sole nutritional source to other liquids from a cup, and solid foods as the major source of nutrition. The physical signs in the infant that indicate developmental readiness for weaning are the eruption of the lower front teeth, and the ability of the infant to sit upright unsupported. These observable physical characteristics are the exterior manifestations of the inner digestive system's readiness for solid foods.

Prior to weaning, there are pre-weaning activities which are neurologically important in the development of the gustatory sense. Additionally, pre-weaning activities are enjoyable activities to be shared between the infant and the adult.

While weaning may occur early for the young infant, the mobile infant stage (6 months) is most advised and common.

Pre-Weaning Routines

Pre-weaning activities serve the purpose of introducing the infant to various tastes with the intent of stimulating the gustatory pathways of the brain, identifying food allergies, and providing activities for the infant and adult to share.

The infant is cradled in the adult's arms or placed in an 'air' chair. Several drops of soy milk, coconut milk, other low sugar, low acid liquid drink is placed on the lower lip of the infant. The infant will find the drops with his tongue. If the infant's response is positive, more drops may be placed upon the lower lip. No more than one kind of liquid drink is introduced in any one day. If there is a food allergy, then it is readily identified. Avoid mixed liquid drinks where two or more flavors or main ingredients are combined. The single ingredient allows the infant to have a clear gustatory experience. Equally, avoid sugars, salts, flavors and additives that may be found in some liquid drinks. Read the label!

After the single drops on the lower lip, small infant-size spoons of soy milk, coconut milk, other low sugar, low acid liquid drink may be introduced. The cradle position is an effective position for this activity. Place the spoon on the lower lip of the infant. The infant will find the liquid with his tongue and sip the liquid. Introduce only one kind of liquid a day, and avoid sugar, salt, flavor and preservative additives, as before.

The infant cup is introduced with the adult holding the cup. The cup contains a very little milk or liquid drink. The cup is placed to the lower lip of the infant. The cup is gradually tilted as the infant engages in this activity. The infant will typically grasp the cup and this cooperation is encouraged with the adult continuing to guide the cup. The infant will taste the liquid with the tongue initially. The cup is held in a position to allow only for the tongue to lap the liquid into the mouth. Initially the infant is not drinking by swallows. Rather the infant is lapping in the liquid drink or milk from the cup.

Throughout the process of drinking from a cup, the adult is observing and responding appropriately as the infant assumes increasing responsibility for holding and controlling the cup, and for moving from lapping the liquid to swallowing the liquid in small gulps.

Health and Safety

Weaning begins when the mobile infant takes a sitting position unsupported, and the lower front teeth erupt which occurs between four and six months. Weaning occurs at the weaning table. The weaning table is a low table with a chair low enough for the feet to touch the floor, and with sides and back for safety, and for spatial orientation. The cube chair is one design.

High chairs are avoided because they are potentially unsafe due to their height. High chairs do not encourage independence, for the child must be lifted into the high chair. The weaning table is accessed independently by the child by crawling over to the table, and pulling up to the chair.

The mobile infant is directed to wash her hands.

The adult is positioned at the level of the mobile infant. The pure, natural food is a soft solid such as banana, cooked apple, soft pear, cooked carrots, cooked potatoes, cooked peas, cottage cheese, tofu, pureed meat, eggs, etc. The food is placed in a bowl and held by the adult. The utensil is an infant fork with blunt prongs. The adult spears one small piece of the food and presents the fork to the hand of the infant with the handle first. The infant's hand, which is holding the fork, is guided to the mouth. The adult offers an open hand to the infant to return the fork. The infant, with a little encouragement, will return the fork to the adult's hand. The process is repeated until the infant loses interest in eating.

The loss of interest is indicated by teasing with the fork in which the infant pretends to return the fork but then pulls the fork away, or throws the fork, or simply dawdles. The fork and bowl of food are removed, and eating time is over when these behaviors are exhibited.

Once the infant has mastered guiding the fork to the mouth, and has had at least a month or two of practice, a small plate may be placed on the weaning table. One of the pieces of food is placed on the plate. The empty fork is placed in the infant's hand. The infant's hand is guided to the piece of food and speared. The infant already knows how to move the fork to the mouth. When the child has eaten the piece of food, place another piece of food on the plate. Guide the infant's hand to the food to spear. Continue in this manner until the infant loses interest in eating.

The spoon is introduced in the same two-step process as the fork. The adult holds the bowl of food, and hands the spoon to the infant, and guides the infant's hand to the mouth. When the infant has mastered the spoon to the mouth, then the bowl is placed upon the weaning table for the infant to self-serve.

Note: Soft solid foods are made by placing any kind of hard food in a steamer to soften, or by placing runny foods in a gelatin base and refrigerating. Remove peels.

Environment

The weaning table is sixteen inches square at the top and twelve to fourteen inches high. The cube chair or stool is five to six inches high. The height of the stool or chair should allow for the mobile infant's feet to touch the floor when seated. The weaning table is located in the mobile infant's bedroom at home, or in a quiet area in the group care setting. The mobile infant requires a calm, quiet setting in order to focus on the eating process. When the mobile infant has mastered the practical life skill of eating with a fork and with a spoon, she joins the group setting for meals.

Bibs are useful.

