

Sensorial Development

Senses: Avenues to the Intellect



The senses, being
explorers of the world,
open the way
to knowledge.

Maria Montessori



"Akira, are you not hungry my dear? Why do you keep playing with the food? It is your favourite food! Dal and warm rice with ghee poured over it and boiled carrots on the side. Oh, you don't want to use the spoon? You want to eat with your hands. Is it?"

"Look at this. Akira usually finishes her bowl as soon as I put it in front of her. What do you think has happened now? She keeps smashing the soft carrot pieces between her fingers and looks more interested in touching that orange coloured pulp than eating it. Even the grapes she ate in the morning. She kept squishing them and one went flying!"

"What, Akira? You want the peas from my plate now? You like the colour, do you? Don't roll it on the table. Ha ha, look at her smile when the pea rolls away. It's as if her hunger is for other things now; not food!"



A baby's sensorial initiation starts *in utero*. Inside you, at 8 weeks old, she has already developed the sense of touch. At 32 weeks she can feel the heat, cold, pressure and even pain. She can listen to sounds, especially the mother's voice from as early as 16 weeks of pregnancy. Your baby's eyes are closed till 25-26 weeks, but she can detect light shone at the mother's tummy when she is 32 weeks old. The senses of taste and smell develop around 11-15 weeks into pregnancy and your baby can taste the cheese from the cheesecake you had for dessert and smell the vanilla overtones. This also explains why the baby likes certain foods that the mother showed a fondness for during her pregnancy. The doctor checks the senses of the baby as soon as she is born. These dominant sensorial attributes also explain why 'Kangaroo Mother Care' has many takers today. Kangaroo Mother Care refers to the concept of providing a new born baby with continuous skin contact, breast feeding and encouraging mother-baby bonding right after delivery.

A baby's world is inundated with new sounds, smells, touch, sights and tastes as soon as she is born. If your baby could talk as soon as she was born, these could be her first few thoughts:

"Everything is new around me; and all I can do is cry. After the pain of being born, your soft cuddle and the soothing feel of your skin keeps me warm. I cannot see beyond a distance; but I can see you, mama. The first time I taste your milk, I feel I have come home. When the voices and noises increase suddenly, it is the sound of your familiar heartbeat that calms me. It is your unique smell that assures me that I am in safe hands. I felt the snip of the umbilical cord and panicked. But now I can touch, see, smell, taste and hear, and be close to you. I do love this new sensorial umbilical cord growing between us."



To make your new born baby feel comfortable and secure, notice how she uses her senses and how you can respond to them. Studies show the importance of the first feed; the first time your baby will use her mouth to suck and swallow and taste. Her first sight of you, her recognition of your smell and your voice, all make the first encounter after birth, a rather momentous sensorial event for her and for you too. Baby's first bath can be in tepid water, that reminds her of the amniotic fluid she was swimming in for the last nine months.

While the father has a vested emotional attachment, physically and in the sensorial sense, this is probably his first hands on attempt. Now is the father's chance to get close to the new born baby and build the sensorial umbilical cord, so to say! Massage and bath time are the best times for a father to bond with baby and gain a foothold in the special relationship, bestowed on the mother and baby by nature. Use of different oils, the warmth of the oil, the soothing nature and the slippery feel of the massage, all add layers to your baby's sensory experience. Babies realise the extent of their body and where it ends with massage or bath time. Bath time, owing to your baby's pre-natal experience of swimming in fluid, is a deeply sensorial activity. Warm water, the smell and texture of the traditionally used scrubs, like gram flour, the feel of your hands on her body, all add to your baby's indulgent experience of her new world. Your baby is unused to clothes and using natural fabrics makes sense as they will be the closest to her delicate skin; still new to the various textures. The baby's room can be brightly lit or dimly lit to match her sleep patterns and decorated to stimulate her senses.

There is nothing in the intellect which was not first in the senses.

Aristotle

By nature, children are sensorial explorers, especially in the first six years. Your baby's body and senses are fully involved in the creation of her thoughts, intellect, emotions, and experiences. Your growing baby will build her future personality by absorbing the various elements in her environment. Beginning

inside the womb this experience continues during the first few impressionable years. Apart from the five sense organs of sight, smell, touch, taste and sound, that we are aware of, there are five more senses that your little sensorial explorer will experience.

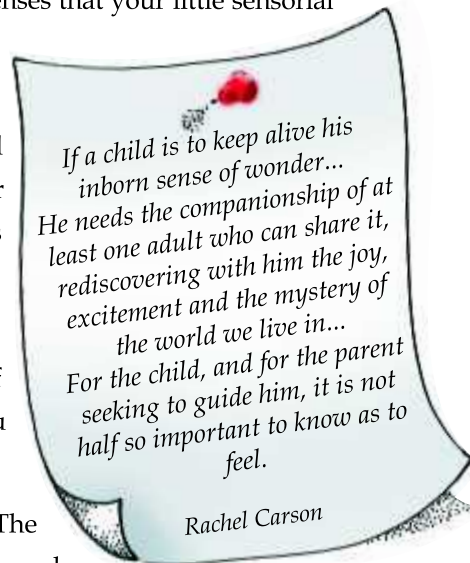
■ **Muscular sense** (Sense of shape and dimension): Your baby will love putting the round ball in her mouth and feel the smoothness with her tongue or try to hook all her fingers around your bangle.

■ **Chromatic sense** (Sense of colour): Baby loves looking at you when you wear bright colours.

■ **Baric sense** (Sense of weight): The way an apple sits in her little palm and exerts weight is extremely fascinating to her.

■ **Thermic sense** (Sense of heat/temperature): The feel of the cool breeze from the fan, on her cheeks, intrigues her.

■ **Sense of pain:** In the course of birth, baby has already experienced pain.



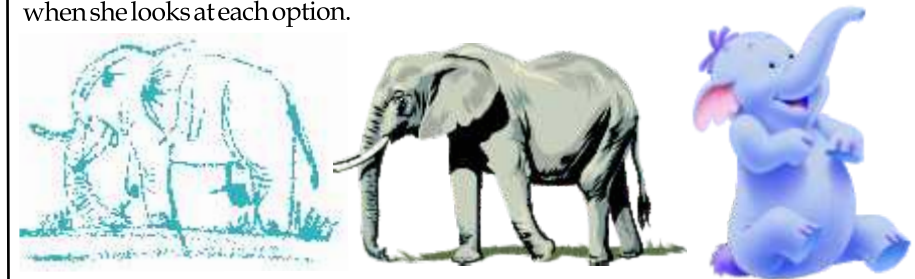
You may have noticed that babies take everything and anything into their mouth. We read earlier that new born babies can move only their neck and limbs, and can only cry, suck and swallow. This limits their exploration of the environment to the use of hands and mouth. Anything that their little hands can hold goes into their mouth, their own feet, the clothes they are wearing, and even shoes. It is not just taste that they are exploring with their mouth, they are sensing the dimension, the texture and the weight of the objects.

This phase of using the mouth to explore lasts until after your baby turns one year old. With her improved movement and abilities she will now use her

hands and senses to explore the world around her. Put yourself in your one-year old child's shoes and think the way she does. Remember that she believes everything she sees and feels. Basically, everything that is gathered by way of senses is categorised as real in your child's brain. If she can feel its texture and weight, smell it, see its shape and colour, hear the noise its making and can taste it, that makes it a reality for her. So, go ahead and give her safe things she can put in her mouth to start off her sensorial adventure. Bangles without any serrations, carrot sticks and teethers (from the fridge, when she starts teething) are some options. Her food could include different textures, consistencies and temperatures (We'll read more about that in the chapter on food).

Let us go on a sensorial journey through a simple exercise. But think of it from the perspective of a one year old, and not an adult.

Which one of these experiences would you offer to your baby first? The beautifully coloured cartoon elephant with adorable eyes, the glossy picture book with high resolution pictures of elephants, or would you take your baby on her first trip to the zoo to see a real elephant? Let's try to understand what happens in your baby's brain when she looks at each option.



When your baby looks at the picture of the endearing cartoon drawing of the elephant, she makes a mental note that elephants are smooth skinned and of a pastel shade! If the picture book is baby's first experience of an elephant, then she misses out on understanding how enormous an elephant is. But when she sees an elephant in reality, she takes in how big it is, how its coat is a dusty grey colour, how rough its skin feels and how the elephant smells. The idea here is to emphasise how much your baby's senses feed the brain. Hence, when accuracy and reality is maintained, it will not confuse the baby.

“Fantasy is very interesting to the older child, but only confusing to the very young. A rich foundation of stories about the real world is the best preparation for a creative imagination.”

Dr Sylvana Montanaro, MD, author and Montessori teacher

Imagination is built on a bedrock of sensorial exploration; richer the sensorial stimulation in the younger child, greater will be the imagination as the child grows older. Reality is a valuable ingredient in the hot pot of imagination. We read about the refinement of senses in the first chapter.

The innumerable sensorial impressions received by the child during the absorbent mind phase are segmented and categorised during the sensitive period for refinement of senses. Think of your baby as a bank and the different currencies as her absorbed impressions. If the value of each currency is not known then its utility is lost. But when each currency is categorised and its value understood, then the benefits are myriad. Baby can use the currency of experience to profit her intellect.



After your child turns two, she starts refining her senses. Now that she is walking, she is able to grab, squeeze, clap, stroke, roll, etc. Each of these actions are adding to her sensorial understanding. She will refuse to be carried by adults and shun the pram. This is when the vessels in the kitchen, the grains and cereals, the fruits and vegetables, the sand pit, the water gushing from the tap, and other such experiences will attract her. It is a good time to include her in activities like cleaning fruits with water, wiping, shelling peas, pouring, folding clothes, watering plants and such chores that can be done under your



Children involved in pairing, sorting and grading.

supervision and are safe. And, if your little one is refusing to step out of the bath tub or the sand pit, for that matter, it is because she feels this insatiable urge to learn through the feel of water or sand. The graininess of sand, the way it slips through her fingers and the infinite possibilities of building things with sand make it the most interesting play for her. Water too, with the mysterious quality of not being contained, its fluidity, its transparency, the way it splashes and makes noise when she slaps it with her palm, all are engaging her budding senses and building her concentration levels. Deepti's story feels like a corroboration of how significant sensorial experiences are to a young child.

Deepti, the mother of two year old Nayna, tells us what happened when her husband decided to grow a beard.

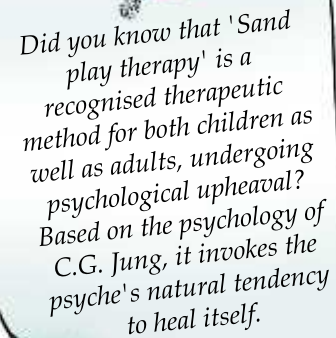
“Ketan had been away on an office trip and was coming back home with a stubble. He had decided to grow a beard and was anxious to see what Nayna's reaction would be. The minute he walked in the door, she ran towards him and jumped up into his arms. But when his stubble rubbed against her cheeks, she was stunned for a second. Then she tried brushing it off, but when it didn't work, she started crying, saying, “There is sand on his face and it's not falling off! I don't want this Papa.” She wouldn't go to him until the next day morning when he conceded defeat and shaved his day-old beard off.”

Nature and Senses

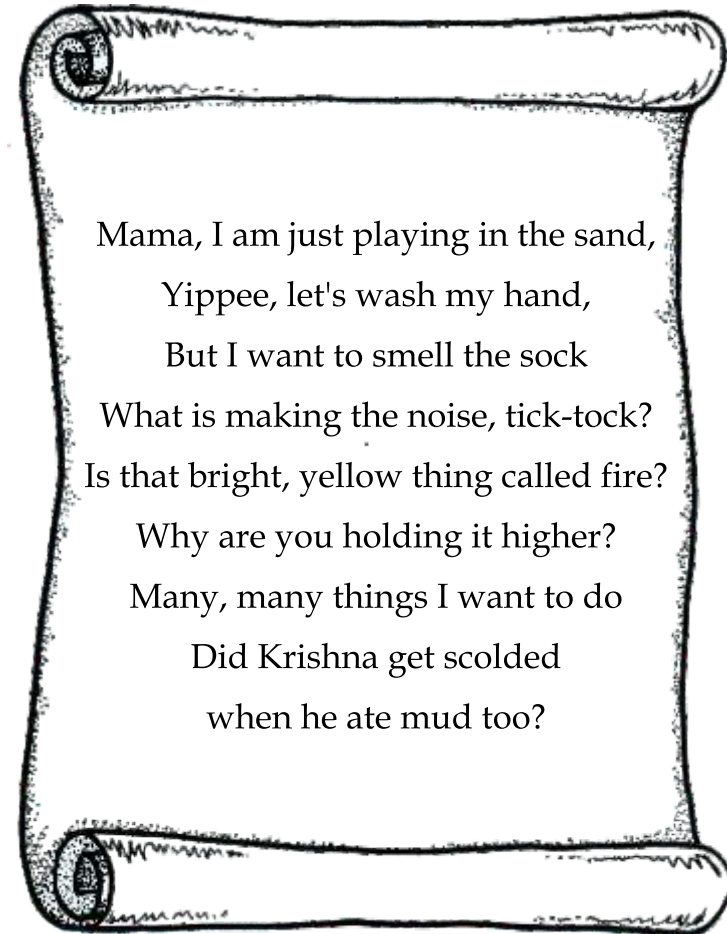
"Passion is lifted from the earth itself by the muddy hands of the young; it travels along grass-stained sleeves to the heart. If we are going to save environmentalism and the environment, we must also save an endangered indicator species: the child in nature."

Richard Louv, *Last Child in the Woods*

Today, play time is very different from the play time that children enjoyed a few decades back, in the midst of nature. It would not be wrong to say that the elements of nature are slowly getting eroded from the environs of child development. In Hinduism, it is believed that the *Panchabhoothams* or the five elements of nature—Fire, Earth, Water, Air and Space, make up the human body. Children are meant to grow up in harmony with these vital elements. The importance of allowing our little sensorial explorers to connect with nature cannot be overstated.



Did you know that 'Sand play therapy' is a recognised therapeutic method for both children as well as adults, undergoing psychological upheaval? Based on the psychology of C.G. Jung, it invokes the psyche's natural tendency to heal itself.



Record Your Memories

- Does your child like any foods or flavours that you binged on while you were pregnant? Do you notice a distinct fondness?
- Mum's fingers, the sleeves of the clothes they are wearing, their own toes, even dad's bristly cheek...the list of things baby would chew upon is endless. What was your baby's favourite teething object?
- Is your little one an outdoorsy baby? On an average, how many hours in a week does she get in the lap of Mother Nature?
