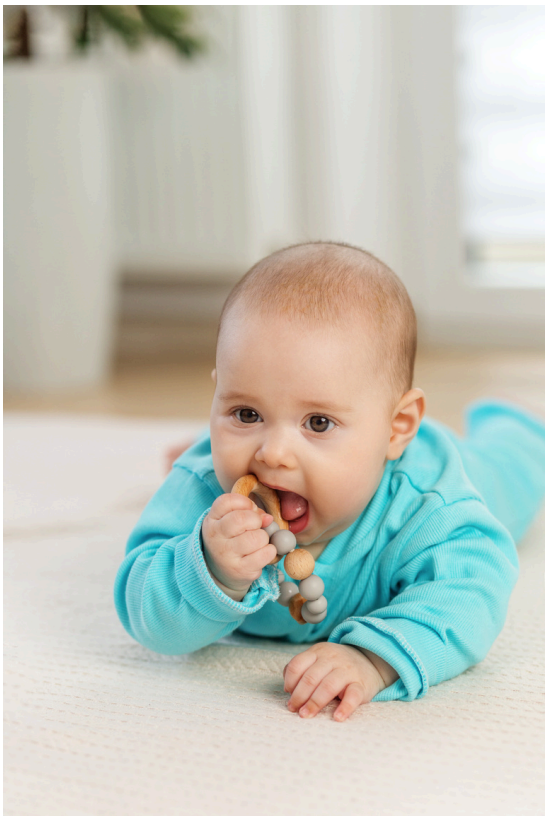
Multi-sensory approaches to learning

Babies and young children naturally explore and learn about the world through their senses. They develop physical coordination by crawling, feeding themselves, and balancing during tummy time or as they begin to stand. We often see them putting objects in their mouths, banging toys together, or being comforted by a caregiver's voice or cuddles. During this stage, their brains form countless connections about how things work. For example, learning how much force to use to lift a toy or how to balance while reaching for it. Each time they repeat these experiences, the brain strengthens these connections, building the foundation for future learning and movement.



The Sensory System

In addition to the five traditional senses, children also use **proprioception**, which is the sense of body position and movement, helping them know where their limbs are and how much force to use. The **Vestibular** sense detects balance and motion, while **interoception** provides awareness of internal body signals, such as hunger, thirst, or the need to use the toilet.

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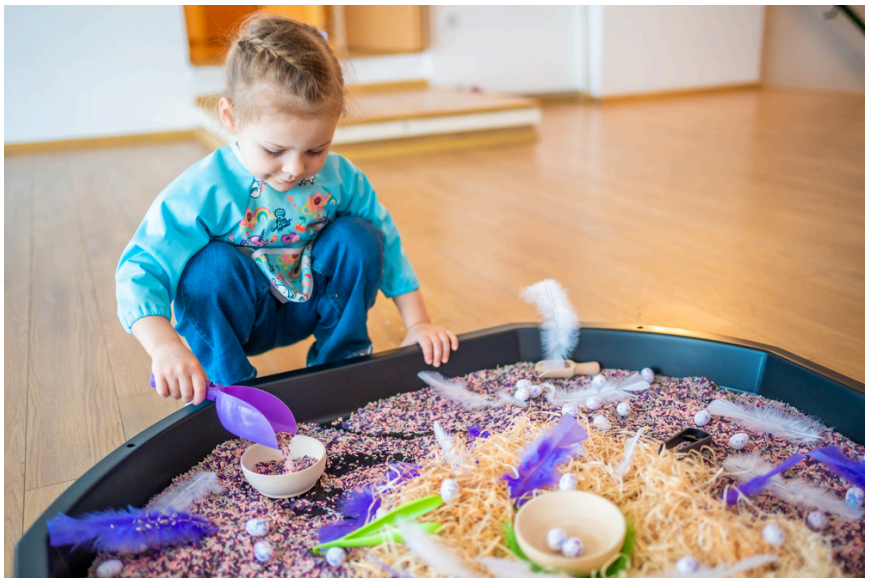
What is Multi-sensory learning?

Multisensory learning, often referred to as whole-brain learning, involves engaging more than one sense at a time such as hearing, sight, and touch. When learning experiences stimulate multiple sensory systems, different areas of the brain work together to receive, process, and make sense of the information. This creates more neural connections than when using a single sense, such as listening alone. Repeated opportunities for multisensory learning help strengthen these connections, improving recall and understanding.

For example, when learning letter sounds, children might see the letter, hear the sound it makes, and use a matching action (such as saying “j, j, jump!” while doing a small jump). This combination helps them link the sight of the letter ‘j’ with its sound and movement, deepening their learning.



If children are given alternative ways to explore a concep, such as writing or drawing it in sand with their finger, they reinforce existing connections and form links with other areas of the brain. Multi-sensory learning therefore helps children remember what they have already learned while building connections with new ideas.

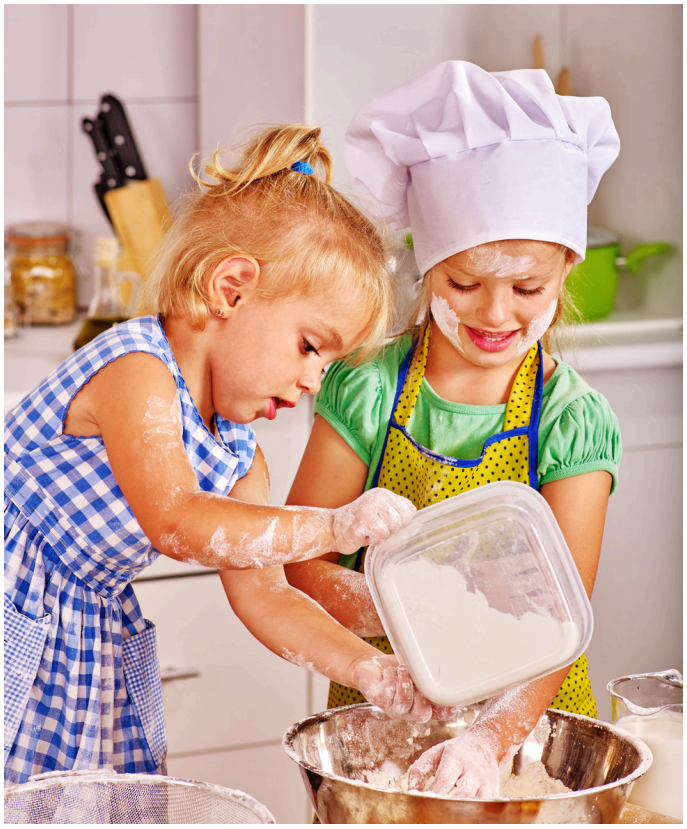
How multisensory learning supports attention and engagement:

Research suggests that a child's attention span typically lasts about 2–3 minutes for each year of their age. For instance, at the start of the reception year, when most children are around four years old, they may be able to concentrate for approximately 8–12 minutes. Of course, many factors can influence how well and for how long a child can focus.

One effective way to support children's concentration is through multisensory learning. When children use several senses at once, more areas of their brain are activated to receive and process information, helping them stay engaged for longer.

For example, during a baking activity:

- Children might listen as the teacher explains each step
- Watch the ingredients being measured and mixed, and take turns stirring the mixture themselves.
- They can smell the ingredients, like vanilla or cocoa, and feel the texture of the dough with their hands.
- When the treats are baked, they can even taste the final result.



Later, when talking about measurement, sequencing, or changes in materials, these rich sensory experiences help them recall and understand what they learned more effectively.

Multisensory learning naturally encourages active participation, and movement plays a vital role in helping children sustain attention and develop strong concentration skills.

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How does a multisensory approach make learning more accessible?

Multisensory learning makes learning more accessible by engaging several senses at once, giving children multiple ways to understand and remember new information. This approach supports different learning styles and needs, helping all children, especially those with additional learning or attention difficulties connect with ideas more easily. By using sight, sound, touch, and movement, learning becomes more inclusive, engaging, and memorable.

Key Points to Remember:

- Using lots of senses helps children's brains make plenty of connections. The more they use these connections, by repeating and building on experiences, the stronger their learning becomes.

- Active learning that includes movement helps the brain release dopamine, a chemical that supports focus, motivation, and communication between brain cells. It also helps children block out distractions.

- Multisensory learning means using several senses together- seeing, hearing, smelling, tasting, touching, and moving! The more senses involved, the more engaging and memorable the experience.

- This approach makes learning more inclusive and fun, giving every child different ways to understand, remember, and enjoy what they're learning.