



## Setting Up a Sensory Environment for Infants and Toddlers

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Because very young children grow and change rapidly and individually, they need a dynamic environment with people, materials, and equipment that provide the challenges they seek when they are ready for them. At the same time they need enough consistency in their environment to allow them to return again and again to familiar things and experiences. As caregivers assess, set up, and modify their setting based on these characteristics of infants and toddlers, it is important to consider the following environmental elements that support children's sensory-motor development.

Providing infants and toddlers with a variety of open-ended materials allows them to explore and manipulate the materials in ways that are meaningful to them and suited to their developmental level.

### Appealing to Children's Senses

To support very young children's natural desire for sensory exploration, caregivers should include the following kinds of experiences and materials for exploration and play: aromatic materials and experiences; sound-producing materials and experiences; and materials to touch, mouth, taste, and look at, including a wide variety of found and natural materials so children experience more than plastic playthings (which have limited sensory appeal). The environment should also include open-ended

materials; furnishings, flooring, and items with textural variety; and a variety of vistas for children's exploration and play.

### Open-Ended Materials

Open-ended materials are objects or playthings whose use is not predetermined or narrowly limited in action or purpose; rather, children can use them in many different ways. A set of blocks, for example, is open ended because growing children can see and use them in different ways: Infants reach for, grasp, mouth, drop, and bang blocks; toddlers carry, stack, and make simple structures with blocks; preschoolers pretend and build with blocks, making increasingly complex structures, and use blocks for pretend-play props; elementary school children build elaborate designs, structures, and cityscapes of blocks and use them for tools.

A basket of large wooden beads is another example of an open-ended plaything. Infants and toddlers can do many things with the beads

— handle them, hold them, mouth them, drop them, roll them, dump them out of the basket and put them back in, hide them under the basket, offer them to another child, bang them against the floor, and carry them in their hands or in a bucket or purse. A bead maze, by contrast, is less open ended. A young child can sit next to this toy and slide some attached wooden beads along a series of winding wire tracks. This device calls for a limited set of actions (sliding one or more beads along a track or spinning beads) and therefore engages a child's creativity less than the basket of beads does.

Providing infants and toddlers with a variety of open-ended materials like the set of blocks or basket of beads enables them to explore and manipulate the materials in ways that are personally meaningful and suited to their individual levels of development. It also allows them to discover and gain knowledge about the multiple properties and uses of the objects they explore. In these ways, open-ended materials are both more emotionally and intellectually satisfying to children for longer periods of time than single-purpose toys.

### A Many-Textured Environment

Another way to support infants' and toddlers' direct sensory-motor method of learning is to include in their environment a lot of different textures for tactile exploration. Caregivers

*The outdoor environment is a rich source of exploration for young children, offering many sights, sounds, textures, and other sensory experiences.*



can consider the following opportunities to incorporate or make use of textural variety in and around their setting:

- *Varied floor surfaces*, such as carpet, vinyl tile, and wood; outdoor walkways with small mirrors, ceramic tiles, or smooth stones embedded in them
- *Various types of movable surfaces to sit on, lie on, crawl on, play on*, such as tatami (straw) mats, blankets, pillows, comforters, fleeces, mattresses, and futons; a plastic wading pool containing sand or filled with crumpled newsprint
- *A variety of outdoor surfaces*, such as grass, fine ground covers, wooden decks and pathways, flat stone pathways, areas of sand, areas of soil, and leaf-covered areas

**Caregivers might locate the diapering and dressing area next to an adult-level window so that children can talk about what they see outside during bodily care routines.**

- *A variety of low-level wall surfaces/coverings*, such as metal mirrors, cork, wood, butcher paper, foil, cardboard egg cartons, pegboard, glass brick, fabric, Con-Tact paper with the sticky side out
- *Various types of outdoor barriers or fences* made of such materials as board, stone, brick, chain link, rubber tile, straw bales, and tree stumps
- *A variety of fabrics used for drapery, upholstery, and pillow/mattress coverings*, such as corduroy, chenille, polished cotton, seersucker, ribbon, felt, silk, velveteen, leather, vinyl, suede, and knitted or crocheted pieces

#### Interesting Vistas

Vision continues to develop over the first two years, as children's ability to focus and coordinate their eyes improves (Kellman & Arterberry, 2006). Visual acuity — 20/20 vision — is generally reached by age two. During this period, infants and toddlers initially look at things close-up but become increasingly able to see things at a distance (e.g., up to six feet away by the age of two months). It is there-

fore important to provide interesting visual experiences at a wide range of viewing distances for the rapidly changing visual abilities of infants and toddlers.

Child care settings should include lots of windows that are accessible to children for peeks into the outside world, which they usually find captivating. Infants and toddlers like to crawl or toddle over to a window or climb up to a window to see who is going by; to watch the rain come down and the trees tossing in the wind; to observe the activities of birds, butterflies, squirrels, and other local animals; and to check out passing people, trucks, cars, and buses.

To provide very young children with interesting things to see, the types of windows in the design of an infant-toddler setting may include skylights, floor-to-ceiling windows or sliding glass doors, low-level windows in walls and doors, and a sun room or sun porch (good for plants and people). Staff of child care centers can also think about including child-level windows that look into other children's indoor and outdoor play spaces, allowing children to watch their peers at play. These kinds of windows "can function as an additional learning center," according to Torelli (1992, p. 40).

Even an adult-level window can be accessible to mobile infants and toddlers if a broad, sturdy platform, loft, window seat, or climber is placed in front of the window to allow children to safely climb up to stand or sit at window level. In addition, caregivers might consider locating the diapering and dressing area next to or near an adult-level window so, during washing and diapering, children can choose to look outside and perhaps talk about what's going on outside.

Caregivers should also think about what they might place or plant outside the windows for children's viewing and observing over time. They can, for example, add a window box planted with flowers or establish a flower bed, some flowering trees and shrubs, a meadow with grasses and flowers, or a rock garden with ferns and a small waterfall. To build some action into the scene, staff can add a windsock, wind chime, colorful and patterned flag or banner, birdbath, or bird or squirrel feeder.

An aquarium with a secure top with low-maintenance fish, aquatic frogs, aquatic plants, stones, and pebbles makes for an interesting and soothing indoor vista. Children are fascinated and soothed by the colors and motions of the fish and the plants, and caregivers find them calming too. ■



*One way to support infants' and toddlers' sensory-motor learning is to provide a variety of textures in the environment for tactile exploration.*

#### References

- Kellman, P. J., & Arterberry, M. E. (2006). Infant visual perception. In W. Damon et al. (Eds.), *Handbook of child psychology* (6th ed., Vol. 2, pp. 109-160). New York: John Wiley & Sons.
- Torelli, L. (1992). The developmentally designed group care setting: A supportive environment for infants, toddlers, and caregivers. In E. Fenichel (Ed.), *Zero to Three child care classics: 7 articles on infant/toddler development* (pp. 37-40). Arlington, VA: Zero to Three/National Center for Clinical Infant Programs.

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