At a recent in-service training workshop Peggy Kelly complained about her group of 3-year-olds. “They just won’t settle down. I feel like I spend all my time negotiating arguments, grabbing materials out of the closet, and managing transitions. Something has to change.”

Genny Rudy, the workshop leader, prodded gently, “Tell me about how you arrange your learning centers.”

Peggy answered, “Aren’t learning centers just the places I put out toys?”

Genny replied, “Not exactly....”

Learning centers are the environmental skeleton of early childhood programs. They are designed to actively engage children in their own cognitive, language, physical, social, and emotional development.

In a learning center—art, music, or dramatic play, for example—all children are invited to pursue their interests, learn to make meaningful choices, and build their skills. Equipment and materials are purposeful. They are designed and included to engage children in deliberate investigation and discovery.

Whether the children are following a typical path of development or have special developmental needs, learning centers assert that every child can learn, every child can develop skills, and every child can engage socially. Teachers play an important role in early childhood classrooms. Through careful planning for individual children and for the group, teachers help children gain independence, learn how to help themselves, and accept that they are capable.

Ages and stages
Learning centers make the most sense, and are most successful, when teachers understand the sequence of children’s play and learning.

Infants and younger toddlers learn through their senses. They gain understanding and control of their environments by touching, tasting, smelling, hearing, and seeing things and people. With experience, they gain the muscle control, balance, and mobility that lead to new explorations and investigations.

Older toddlers and preschoolers continue to rely on their senses for information but also begin to understand symbols—that one thing can stand for or represent another. Beginning symbolic play—holding a unit block like a telephone, for example—and role playing—“You be the daddy, I’m the baby”—are the gateways to later skills such as literacy, math, and artistic creativity.

Because every child develops at a unique pace, it’s difficult to determine a child’s developmental level with precision. What teachers regard as typical development actually covers a wide range of behaviors and skills.

Both genetic background and the environment impact development. Temperament, personality, and interest influence developmental domains as well. When teachers carefully observe children, developmental strengths and weaknesses become apparent. When a child lags behind others of roughly the same age, teachers are alert to potential developmental delays and the need for intervention.

But every child—including those with disabilities, delays, and special needs—deserves the educational
and socialization benefits that learning centers offer. And while some adaptation or modification of a center may be necessary, all children gain from practicing skills, interacting with other people, manipulating objects, solving problems, and investigating and making discoveries about people and things in the environment.

Managing the space
Arranging space in a child care center is always easier than in a home setting. While the basic needs and functions of learning centers are the same, in-home programs must carve out special spaces for children’s use. Some programs opt for space that’s used exclusively for child care; others create double-duty spaces that work for both family and child care functions.

However the space is arranged, children need routine, order, and a choice of activities. Teachers need ample storage options and a system for dividing large spaces into individual learning centers. As you plan the space, remember to provide quiet and active areas, hard and soft surfaces, and space for children to work in groups or alone.

Safety is a primary concern in all early care and education programs. To help ensure safety, follow these guidelines.

- Make sure equipment and materials are in good repair. Remove and repair or replace broken toys, equipment, and furniture.
- Arrange furniture and equipment to allow visual and auditory supervision.
- Store materials and equipment so children can choose, use, and return to storage independently.
- Cover unused electrical outlets and keep traffic areas clear of electrical cords.
- Choose materials and equipment with children’s safety in mind. Offer objects and equipment that are washable, nontoxic (including plants), and free of choking hazards. The Consumer Products Safety Commission Web site at www.cpsc.gov provides information on product recalls and general material safety. Dick Blick Art Materials provides an Online Material Safety Data Sheet for all art materials and equipment at www.dickblick.com/MSDS/.
- Store cleaning products and any hazardous materials in cabinets inaccessible to children.

Some teachers choose to limit the number of children who can play in a center at one time. Typically, children will sort themselves according to interests and avoid crowded areas. If it’s necessary to limit the number of children because of safety concerns or limited physical space, develop a plan for center selection and stick to it. Frequent changes in access rules will frustrate children and force you to spend too much time arbitrating disputes rather than supporting play.

Be careful to rotate materials and present them in attractive, inviting ways.

**Managing the learning**

The following list contains information on the most basic learning centers, centers that should be available to every child, every day.

Consider adding more specialized learning centers like woodworking, cooking, and technology as space, equipment, and children’s interests dictate. Each addition enriches and inspires children to grasp another important part of their complex world.

**Art.** Art experiences—painting, drawing, and creating sculpture—build skills in all developmental domains. Children’s experiments with line, color, space, shape, form, and symbol support cognitive skills. Experiences with tools like brushes, sponges, scissors, and clay refine fine and gross motor skills. Interactions with other children promote social, emotional, and language development. Art experiences also promote independent decision making and self-evaluation.

Children tend to move through stages of art exploration, refining techniques as skills build. Give children access to art materials and observe the progression
from random marks (as when children are first learning to hold a crayon) to scribbles, circles, lines, and ultimately representations of people and things.

Remember: Art and craft are not the same thing. **Art** encourages children to experiment and create, using their own skills and imaginations. **Craft** typically involves copying a model that someone with more skill and experience has built, a process almost guaranteed to make a child feel inadequate and inept.

Locate the art center near a water source. Messy art is good art! Consider protecting flat surfaces with an old shower curtain taped to the underside of a table.

Art center equipment includes table, chairs, easels, and storage shelves. Many teachers remove chairs from the art table to encourage children to move freely as they create. Make sure you have areas for drying artwork and prominent areas for display.

**Sand and water.** Sensory explorations are comforting to young children—and often to adults as well. Exploring textures, weight, solidity and liquidity, cause and effect, and consistency open the door to scientific inquiry and mathematical function.

Often a sand and water table serves as the sensory center. The best tables are big enough to allow four children to play together comfortably. Commercially available tables also have a drain for easy emptying of water and a cover to keep sand in place.

But programs don’t need to buy a sand and water table to make sensory play available to children. Dishpans, plastic storage tubs, and deep trays serve the same end. They are a bit harder to fill and clean, however.

Plain sand or water will engage children for long periods. But each can be embellished as children’s interest wanes. Water, for example, can be soapy or colored. Consider making these materials available for exploration:

- potting soil
- garden dirt
- clay
- colored aquarium gravel
- finger paint
- birdseed
- confetti
- ping-pong balls
- cotton balls
- dry leaves
- feathers
- foam peanuts
- plastic eggs
- ice cubes

Invite children to use cookie cutters, scoops, cups and bowls, sieves, funnels, whisks, and basters in their explorations.

Use plastic sheeting or an old shower curtain to protect floor and furniture surfaces, especially in water play. Ensure that children (and adults) wash their hands before and after water play. Provide smocks to protect children’s clothing and have extra sets of clothing on hand for accidents.

Encourage children to help with cleanup, mopping up liquid spills with a sponge or an absorbent towels and dry spills with a child-sized broom and dustpan. Remember to empty and sanitize water play areas.
containers at the end the day.

**Math and manipulatives.** In early childhood classrooms, *manipulatives* refers to small objects that children can handle—and associate—in meaningful ways. Manipulatives are important to fine motor control as well as to emerging math and number sense.

Puzzles, Lego® bricks, nesting boxes, sewing cards, colored cubes, counting bears, collections of keys or buttons, lotto games, and simple board games are standard center equipment. They give children opportunities to investigate number, shape, color, and size. Equipment like this also invites children to build their fine motor skills while gaining visual acuity, dexterity, and strength.

Place the manipulatives center out of traffic paths. Store materials in plastic bins on low shelves to allow children easy access and invite independent cleanup. Make a variety of manipulatives available every day and rotate materials regularly.

**Blocks.** Researchers and experienced caregivers have noted that children tend to move through four distinct phases of block play. Starting at about 18 months, children with access to blocks first simply carry them from place to place. Once children are familiar with blocks’ textures and shapes, the favored activity is to pile blocks and lay them flat on the floor—there is no structure. Again, with increasing familiarity, children connect blocks to create structures and eventually make elaborate constructions, often with additional props.

Educators have an array of block types to offer children. The standard types in early childhood classroom are unit blocks and hollow blocks. (See “Block play: Classroom essentials,” *Texas Child Care*, Summer 2009 or www.childcarequarterly.com/summer09_story2a.html).

A key to satisfying block play is having enough blocks—more is better. A classroom of 15 children, for example, should have around 300 unit blocks in a variety of shapes. Provide accessible props to enhance block play: human and animal figures, signs, vehicles, and materials that encourage children to construct their own props.

The block center demands a large space and a flat play area. While carpeting may reduce noise, its textured surface guarantees toppled structures and frustrated children. Locate the block center out of traffic paths. A corner of a room is ideal.

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**An adult learning center?**

Make teachers and families feel welcome and comfortable with a simply composed resource center for visits, conferences, and planning. Include

- a table and adult-sized chairs
- bookshelves and an easy-to-use lending library
- notice and display boards
- a lost-and-found box
- family cubbies for written communication
- first-aid supplies
- simple refreshments, such as coffee or tea, and an electric kettle

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Store blocks on low shelves for easy access and cleanup. Draw templates of each block shape and tape to the shelves so children can sort and store the blocks independently.

**Dramatic play.** Children need opportunities to explore social roles and interactions. A well-equipped dramatic play center invites children to try on aspects of a grown-up world with vocabulary, activity, and interaction. The center allows children to explore their emotions, solve problems, and practice the art of negotiation and compromise with friends. Importantly, it invites children to develop and use symbols, which are essential to cognitive and language development.

The dramatic play area best contains both standard equipment that supports self-help skill development and rotating props to facilitate a specific type of play. Basic equipment and materials should include the following:

- clothing (shirts, shoes, jackets, and skirts)
- cleaning supplies (broom, mop, and dustpan)
- home-living equipment (child-sized stove and refrigerator with pots, spoons, and plastic food)
- dolls
- table and chairs
- a mirror

Provide storage shelves and coat hooks so children can easily locate materials and return them to their proper places.

Assemble prop boxes that contain materials for specific kinds of dramatic play. These might include a restaurant, grocery store, doctor’s office, museum, camping trip, and pet store. Rotate these prop boxes as children’s interests dictate. Some may inspire children’s play for several weeks, while others will last only a couple of days.

**Reading and writing.** Books, books, and more books—and equipment to practice writing. Such a simple center, and so vital to children’s cognitive, social, and literacy development.

Place the reading and writing center in a quiet area of the classroom. Add comfortable reading chairs or soft floor cushions and a small table and chairs for writing.

Display books so that children can access them easily. Separate fiction from nonfiction by shelf or a color code. Rotate featured books often and try to associate books with other classroom activities.

Provide books about germs, hospitals, and medical learning centers are the environmental skeleton of early childhood programs.
checkups when the dramatic play area is dedicated to a doctor’s office, for example.

Choose books and magazines carefully to avoid stereotypes and bias, both gender and racial. Begin building a permanent library by developing a list of books you’d like to have. Ask the children’s librarian in the local library to guide you to the best children’s books on any topic. Then scour yard sales and used book stores to find books on the list. Invite families to celebrate children’s birthdays with a donation to the class library.

Equip the writing table with an assortment of papers, including self-stick notes, postcards, and envelopes. Make booklets by stapling sheets of paper together along one side. Include markers, pencils, and crayons.

Science. Theorists, researchers, and teachers agree: Children need hands-on interactions with the environment to construct their own knowledge. Rather than being told why or how, they learn best by investigating, manipulating, and exploring real and concrete objects. Workbooks, worksheets, and teacher-led experiments don’t give children the tools they need for meaningful learning.

A well-maintained science center helps children ask and answer questions like “What do you think would happen if…?” They can investigate physical properties of materials and compare size, shape, and function. They compare, classify, sort, and sequence. And they develop the basic skills of scientific inquiry: observation, description, measurement, prediction, hypothesis, analysis, interpretation, and communication of results.

The science center offers children experiences with the physical and biological world. They investigate physical phenomena such as space, weight, motion, and force. Equally important, they have opportunities to feed and care for pets, compare leaf shapes, and watch tadpoles grow. Both types of experiences engender respect for the environment and helps children deepen their appreciation for the natural world.

Because children need to explore and experiment, teachers need to provide materials and invite experiences. Position the science center in a quiet area of the classroom. Proximity to the book center encourages children to associate science with research. Natural light from a nearby window or a safely placed lamp provides lighting essential for activities like using a magnifying glass and reading a thermometer.

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A well-equipped science center contains items found in nature like rocks, empty nests, and leaves. It also includes purchased or donated items like magnifiers, a balance scale, prisms, flashlights, and thermometers.

Ask families to help you gather consumable materials like discarded pots and potting soil, plastic cups and bowls, measuring cups and spoons, sifters and colanders, locks and keys, pulleys, and appliances that children can safely dismantle. Add materials and props as children’s interests dictate, and rotate materials to sustain interest.

**Music and movement.** Too often creative expression is limited to the art area. A center for music and movement invites children to explore sound, rhythm, pattern, and emerging physical skills like balance, stamina, agility, stability, and fluid movement. Additionally, music is a mood enhancer. It can calm, energize, and relieve stress.

Teachers tend to use music in two distinct ways: (1) as a signal for transitions or to focus attention and (2) to invite creative expression. Both have value but come with the caution that constant background music, whether classical orchestrations or the AM radio, is distracting and impedes children’s ability to focus on tasks. Use music wisely—and purposefully.

The best music centers contain equipment that children can use independently. Recorded books and headphones invite focused concentration. Small MP3 players are easy to operate and can be set up to allow children a limited number of choices, such as music or the spoken word. Include recordings of folk, country, and classical music as well as action songs, nursery rhymes, and music from international cultures and ethnic groups.

Modify classroom space to accommodate large-and small-group music and movement activities in your daily routine. Introduce rhythm instruments—sand blocks, drums, bells, and triangles—to small groups of children. Play musical games with large groups both indoors and on the playground.

Provide props like scarves and streamers to enhance movement activities. And remember finger plays can be effective any time during the day, not just at large group circle time.

**Resources and references**

