
BACK TO BASICS

Blocks

Blocks—in all their forms—are among the most useful teaching tools in an early care and education classroom. In block play, children learn math concepts like size, shape, proportion, weight, and counting. They discover scientific facts related to gravity, friction, spatial relationship, and the operation of simple machines. Block play enhances physical skills including hand-eye coordination, hand and arm strength, agility, balance, and stability. Further, block play offers opportunities for social and emotional growth through problem solving, creativity, cooperative play, and discovery.

Use these guidelines for building and maintaining lively, learning-rich, and safe block activities.

- Learn about and support block play for all children. See www.childcarequarterly.com/pdf/summer09_blocks.pdf for more on the developmental stages of block play.
- Blocks require lots of space. Plan your classroom environment and learning center areas accordingly.
- Make sure the block center is positioned away from major traffic paths so structures aren't accidentally knocked over.
- Position the center so children's movement and noise don't interrupt other play.
- Consider placing the block center near the dramatic play center to foster social interactions and prop sharing between the two. Imagine children constructing stools and beds with blocks for babies borrowed from the home center.
- Designate the building area with a low-nap rug on the floor. The rug will help minimize noise and make floor play more comfortable. The low pile will make a sturdy base for block constructions.
- Provide sturdy shelves for unit block storage. Consider marking silhouettes on the shelves to guide children in proper block storage at clean-up time. Show children how to match the block shape to its outline on the shelf. A hodge-podge of blocks



PHOTO BY SUSAN GAETZ

in a bin is dangerous, uninviting, and a barrier to creative thinking.

- Store large hollow blocks on the floor against a wall.
- Store smaller blocks (cubes and Lego bricks, for example) in labeled bins on low, accessible shelves.
- Buy high-quality unit blocks made of hardwood. While this is a large financial investment for a program, these blocks can serve generations of children across developmental stages.
 - Shop for blocks that are made of maple, sanded smooth, and left unembellished.
 - Make sure the blocks are cut to specific mathematical proportions: A base unit is 5 ½-inches long, 3 ¾-inches wide, and 1 ⅜-inches thick. A half unit is exactly one-half the length of the unit, and a double unit is twice as long as the base. Other blocks in the set are proportionate, enabling children to create structures that stack evenly and don't topple.
- Always consider safety. Make sure materials are smooth, splinter-free, nontoxic, nonflammable, washable, and not choking hazards.
- Consider making block play available on the playground as well as in the indoor classroom. Outdoor play invites children to use unusual props like rocks, logs, and other loose parts that aren't found indoors.
- Talk with children about their block structures. Remember to use open-ended questions, avoiding making assumptions about the children's intentions and results. Actively listen to what children share, and respond in ways that encourage further creativity and discovery.
- Work with children to make rules for building structures. When children help you make rules—about size of constructions, procedures for taking down structures, and clean-up procedures, for example—they are more likely to self-regulate their behaviors.

Block center basics

Build your collection of blocks and props to maximize developmental opportunities through block play.

Toddler groups. Let block play support toddlers' physical development—both large muscle like moving across a space, and small muscle like holding an object, using a pincer grip, and manipulating

objects. Consider these block and construction materials:

- Soft stacking blocks. Standard size is about 4-inches square for these cloth-covered foam cubes.
- Texture blocks. These cubes feature different textures on each side.
- Stacking cups. Encourage toddlers to build towers or nest this set of 5 to 10 cups.
- Stacking rings. Graduated plastic rings fit over a form while inviting exploration of size, gradation, and the hole in the center of each ring.
- Soft unit blocks. These dense-foam blocks float for water table play and are manufactured in the same mathematical proportion as wooden unit blocks but are lightweight for easy portability.
- Duplo bricks. Size makes these bricks easy for toddlers to grasp, stack, and pull apart.
- Cardboard bricks. Buy a set of these lightweight, easy-to-stack, and crush-resistant blocks or make your own from cardboard milk containers.
Preschool classrooms. Build on toddler skills with these construction materials and play props.
- Unit blocks. The number of blocks in a classroom depends on children's prior construction experience. A typical classroom of 15 preschooler will have from 100 to 300 blocks in a variety of shapes. Remember: mis-measured or poorly cut blocks will keep children from creating sturdy buildings.
- Hollow blocks. A set of 15 to 30 wooden hollow blocks is a welcomed addition to preschool classrooms. Hollow blocks are heavy and generally require 4 hands for moving and carrying—a reliable opportunity for cooperative building experiences.
- Measuring tools. Offer tape measures and rulers as well as lengths of paper, adding machine tape, string, and cutouts of hands or feet. Show children how to estimate and measure their constructions.
- Photographs and posters. Mount pictures of actual buildings—both those under construction and completed structures. Integrate art with block play by encouraging children to plan (make a blueprint of future construction) or represent (make a picture of what is already constructed) structures with markers and paper.
- Small props including vehicles, human and animal figures, and signs. Rotate props to correspond to children's interests and study topics.
- Complementary construction materials like Lego

bricks and accessories, stacking cubes, architectural blocks (like spires, domes, and arches), and PVC pipe construction sets.

- Books and writing materials. These invite children to make signs, dictate or write stories about their structures, and explore what adult authors say about buildings. Examples of books are *What It Feels Like to Be a Building* by Forrest Wilson and *How a House is Built* and *Up Goes the Skyscraper!* by Gail Gibbons. ■