

Why is Block Play Important for Toddlers and Preschoolers? What are they learning?



Building with blocks provides one of the most valuable learning experiences available for young children. Block play stimulates learning in all domains of development, intellectual, physical, and social-emotional and language. The current research shows that block play is fundamental for later cognitive success for learning math and numbers. In a research study, "Block Play Performance among Preschoolers as a Predictor of Later School Achievement in Mathematics", published in the Journal of Research in Early Childhood Education, the researchers proved that children who play with blocks when they are three, four and five years of age will do better in math, especially Algebra in middle school.

The progression of block play and concepts learned



There is a natural progression of block play and introducing infants and toddlers to block play is invaluable.

Toddlers- When toddlers are first introduced to blocks they may learn how to hold on to them, how they feel, how heavy they are, they explore the bright colors, and begin to carry them around. They will experiment with how blocks may sound when they fall, or when they bang them together. Soon toddlers are learning cause and effect as they are filling and dumping, stacking, knocking down and laying blocks side by side on the floor. Concepts such as learning sizes, comparing objects by making exact matches and the order of objects are also being learned. Socially, block play contributes to their developing self confidence, for example as they learn how to stack blocks they are proud of their success and feel a sense of accomplishment. Through block play a young child's expressive and receptive language is being expanded by learning words such as "fill," "dump," "pick up," "stack," "balance," "tall", and "short."

Three year old- Three year olds block play will look different as they move into a simple constructive type of play. A three year old usually plays alone or near other children and are beginning to engage in pretend play. They are starting to build enclosures that resemble zoos, farm pens, roads and castles. They are learning concepts such as sorting, ordering, counting, one to one correspondence, size and shape.

Four and Five Year olds-At four and five children's block play is more experienced, developed, balanced coordinated and organized. Constructive play involves play that is more open- ended and exploratory. Children begin to combine structures to make more complex buildings. Socially, four and five year olds are beginning to share ideas and are starting to

cooperate and build with others. They may use block accessories such as people, transportation vehicles, and animals to engage in imaginary/ pretend play. They are learning more complex patterns, classifying, sequencing, counting, fractions and problem solving. According to article "Constructive Play" written by Walter Frew et.al, "Block play shows the opportunity for conceptual understanding in the area of structural engineering as children explore forces of gravity, compression, tension and the relationship between materials and successful design to achieve balance, stability, and even aesthetic sensibility."

Preschoolers are beginning to notice and explore more 3– dimensional objects such as cones, cylinders, cubes and prisms, (geometry). Science is also being learned through block play as children start making predictions, comparisons, experiment with cause and effect, stability and balance. Their vocabulary is also expanded by block play as they develop an understanding of spatial relations and words such as "under," "over," "off," "bottom," "top," "through," and "beside."

What type of environment and materials are needed to encourage block play?

Toddler Environment- Block play should be set up in an area that is free from other distractions and out of traffic. The type of blocks needed in meet the Environment Rating Scale for Infants and Toddlers – Revised Edition, should be non-interlocking and at least 2 inches by 2 inches. The ITERS-R tool suggests at least three sets of different types of blocks. Each set should contain at least 10 blocks to allow the children enough to properly explore. Accessories such as people, animals and transportation vehicles should also be available to expand play. Types of blocks recommended are:

- Light weight hollow brick blocks
- Cardboard blocks
- Fabric blocks
- Hard and soft plastic
- Homemade
- Wooden and foam blocks

Preschool Environment- The space in a classroom for block play is critical since preschoolers will be doing more constructive play where larger complex structures are made, with larger sized blocks, and many children working together. It is essential the block space is large enough to accommodate this type of play. The Early Childhood Environment Rating Scale – Revised Edition recommends the block play area should be big enough to allow at least three children to build sizable structures. Block play is more vigorous and louder than other areas in the classroom and should be located in a more active area of the classroom. Many teachers locate the block area next to the dramatic play area since both areas encourage cooperative imaginary play. The ECERS -R recommends the preschoolers have at least 2 different sets of blocks with 10-20 blocks in each set. Types of blocks suggested:

- Large hollow blocks, ramps, boards
- Unit blocks (as many shapes and sizes as possible, wooden or foam)
- Cardboard blocks
- Blocks made from boxes or milk cartons, covered with cloth or contact-paper
- Packing boxes Boards, sticks, logs, tree-stump rounds and stumps
- Cardboard, metal, or plastic tubes

Accessories are also essential to allow children more imaginary play. The blocks should be stored in low open labeled shelves. The unit blocks should be labeled by shape to encourage organization, shape matching, and easy clean up.

Block play is also strongly encouraged outside as there is often times more room for children to build even larger structures. The ECERS-R tool recommends a large flat surface, out of the way of traffic, with enough blocks and accessories for three children.

The teacher's Role?

In the article, "Constructive Play" the authors suggest the teachers receive "Professional development experiences that feature hands on constructive play with open-ended materials. Adults who engage in active inquiry and construct knowledge through creative exploration with materials are more positively disposed to encouraging children to do the same." The article goes on to say that teachers who play develop an understanding and appreciation of play!

Teachers who describe the children's action while they are engaged in block play are helping the children develop receptive and expressive language. Teachers who ask open ended questions encourage more conversation and opportunities to expand on the children's thought process. Encourage children to reason by asking "reasoning type" questions, "What will happen if you put that block on top?," "Which row is bigger, which one is smaller?," "How many blocks high is that structure?" "Is that taller than your friend?"

The lessons learned in block play are fundamental to the growth and development of children. It is an activity which should be a part of every child's experience throughout the early years.

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