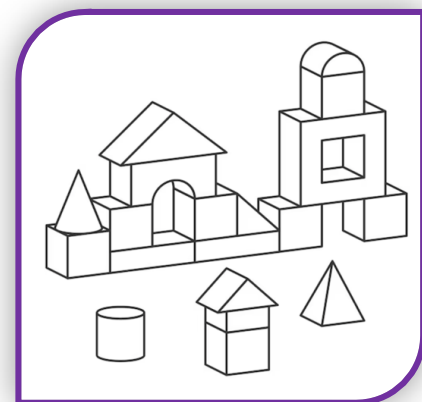


Block Play: Foundations for learning

Blocks, puzzles, and shape games teach ways of seeing the world that are foundational to success in science, mathematics, and engineering.



“Play is the highest form of research.”

~Albert Einstein

Block play teaches:

★ How things are made of parts



★ How a series of steps in order can make complicated things (LEGOs, algorithms)

★ Transformations: a cone is a hat or the bottom of an ice cream cone



How to play:

★ Free play, finding missing pieces, comparing and categorizing pieces, and copying a construction all teach important skills

★ Parent talk that labels relations “on,” “in,” “beside,” “next to,” increase spatial reasoning skills and readiness for school

Block play changes with development:

Early:

Comparing objects by banging & holding
Putting objects into containers
Stacking

Later:

Making enclosures
Making bridges
Making structures for pretend play

Remember:

There is no need to teach, no right or wrong, just jointly play, create, and talk about the spatial relations and shapes as you make wonderful things!

Websites:

[National Association for the Education of Young Children](#)

- <https://www.naeyc.org/resources/blog/what-research-tells-us-about-block-play-and-stem-learning>

[First Things First](#)

- <https://www.firstthingsfirst.org/first-things/block-play-builds-stem-skills-in-early-childhood/>

Scholarly references:

Verdine, B. N., Golinkoff, R. M., Hirsh-Pasek, K., & Newcombe, N. S. (2014). Finding the missing piece: Blocks, puzzles, and shapes fuel school readiness. *Trends in Neuroscience and Education*, 3(1), 7-13.

Weisberg, D. S., Zosh, J. M., Hirsh-Pasek, K., & Golinkoff, R. M. (2013). Talking it up: play, language development, and the role of adult support. *American Journal of Play*, 6(1), 39-54.

To learn more about the Cognitive Development Lab and learn how you can sign your child up to be a “Child Scientist,” visit <https://cogdev.lab.indiana.edu> or scan the QR code.

