Excellerations

18+ months

Infant & Toddler

earlySTEM™ Engineered to Build for Toddlers

Here's What You Get!

- 4 Cubes
- 4 Cylinders
- 4 Spheres
- 4 Pyramids
- 5 Activity Cards

Introduction

Most children enjoy building with blocks – blocks are powerful learning tools! Stacking and arranging blocks stimulates toddlers' fine motor development and spatial reasoning. Open-ended block play is important for creative exploration and skills such as:

cognitive flexibility – easily shifting focus from one task to another

divergent thinking – discovering more than one way to solve a problem

language and social competence – building a structure together also builds vocabulary and teamwork

Research suggests that incorporating additional elements such as a template, pictures, or diagrams also helps develop early math and engineering skills.

Use the Engineered to Build for Toddlers block set to address these Head Start Early Childhood Learning Outcomes:

Goal IT-C 9 Child uses spatial awareness to understand objects and their movement in space.

Goal IT-C 10 Child uses matching and sorting of objects or people to understand similar and different characteristics.

Goal P-MATH 8 Child measures objects by their various attributes using standard and non-standard measurement. Uses differences in attributes to make comparisons.

Goal P-MATH 9 Child identifies, describes, compares, and composes shapes.

Goal P-MATH 10 Child explores the positions of objects in space.

Goal P-SCI 3 Child compares and categorizes observable phenomena.

Suggested Activities

Block Sorting

Display blocks in two different shapes such as the 3 Cubes and 3 Cylinders. Select one and invite the child to find a matching shape. Now choose the other shape and have the child find the match. As the child becomes successful in matching two different shapes, add 3 shapes, and finally all 4. To help the child build vocabulary, name each shape as it is selected.

Block Positions

Invite the child to place blocks in certain positions. For example, "Put a cube next to a pyramid," "Put a sphere on top of a cylinder," "Put a cylinder behind a cube." This simple game reinforces three-dimensional shape recognition, promotes spatial awareness, and builds vocabulary. If several children participate, encourage them to take turns placing the blocks. If the children have verbal skills, have them suggest where the blocks should be placed.

Engineered to Build for Toddlers (continued)

Building Towers

Building towers is a wonderful way to encourage hand-eye coordination and motor skills. Encourage the children to build towers in several different ways.

Build a small tower of 4 – 6 blocks alternating the shapes. Invite the child to replicate your tower. Switch roles – ask the child to build a tower which you will then replicate.

Build a small tower of 2 – 3 blocks and encourage a child to build a tower that is higher.

Build a tower of 4 – 6 blocks and ask the child to build a tower that is lower. Have him build a tower that is the same height as yours. This simple game helps the child build vocabulary, math, and measurement skills as well as towers!

Invite the child to carefully place the Cubes, Cylinders, Spheres, and Pyramids on top of each other to form a tall tower. How high can you build it before it topples down? Try this activity with a small group of children, encouraging them to take turns stacking the blocks.

Activity Cards

The double-sided Activity Cards provide an added element to block building. Matching a structure to pictures or diagrams helps develop emergent math and engineering skills through spatial reasoning. Activity Cards are leveled, ranging from very simple structures to more complex constructions. Encourage the children to progress at their own level and celebrate their successes.