

Engineered to Build

Here's What You Get!

- 1 Arch
- 1 Triangular Prism
- 1 Square-Based Pyramid
- 3 Cubes
- 3 Rectangular Prisms
- 3 Flattened Spheres
- 3, 1" Cylinders
- 3, 3" Cylinders
- 10 Double-Sided Photo Cards
- 1 Storage Bag
- 1 Teacher Guide

Introduction:

Observing, sorting, categorizing and drawing conclusions are key process skills in all curriculum areas. Identifying, comparing and contrasting objects by attributes, such as shape, size, and color, help children develop a rich vocabulary, mathematical reasoning and logical thinking skills.

The Engineered to Build set may be used with individual children or small groups invite exploration and discussion. The leveled photo cards provide opportunities for children to construct simple (or more-challenging) 3-dimensional representations of 2-dimensional photographs.

Use these blocks to address the following State and National Standards:

- Classifies and sorts by attributes
- Creates patterns by extending and comparing
- Understands ordering
- Recognizes and manipulates basic shapes
- Displays observation skills
- Collects, describes and records information
- Describe objects in the environment using names of shapes, and describe the relative positions of these objects using terms such as above, below, beside, in front of, behind, and next to
- Identify shapes as two-dimensional or three-dimensional
- Model shapes in the world by building shapes from components and drawing shapes
- Compose simple shapes to form larger shapes
- Develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem

Suggested Activities:

- Allow the children to explore with the blocks in the set. Children always learn more when they are allowed to explore with the materials before being asked to create specific patterns or shapes.



Engineered to Build (continued)

- Place the blocks on a table. Have the children choose a card. Create the shape that is illustrated on the card. Allow the students to display their shapes to the rest of the class and discuss the illustrations. How are they different? How are they alike?
- Challenge the children to work in small groups to build a structure from one of the cards. Remember, preschool and kindergarten children do not usually display a natural ability to work together to create ONE project or item. However, simple instructions and support can encourage this type of cooperative play.
- Place blocks and cards in the math center. Allow students to practice building the shapes that the Photo Cards depict.
- After the children become familiar with how the shapes work, have them draw a 2-D structure on a piece of paper using the shapes represented in the set. After the drawing is complete, have them build their creations with the actual blocks.
- Most classrooms have shape pictures as visual aids for teaching the students about basic shapes. After the children become familiar with the 3-dimensional shapes in the set, ask them to match the shape pictures to the shape blocks.
- Allow the children to use the blocks from the set with other blocks in the block center.