

Attribute Blocks

INTRODUCTION

Learning About...® *Attribute Blocks* is a resource providing hands-on activities and ideas that allow you, the teacher, to lead students in an active exploration of the world of mathematics. The activities presented involve students in the process of exploring abstract concepts through the use of manipulatives. Students are encouraged to think critically, plan strategy, and share conclusions.

This *Learning About...*® *Attribute Blocks* activity guide emphasizes:

- communication
- exploration
- problem solving
- analysis

Each set of Attribute Blocks consists of 60 blocks in three colors (red, yellow, blue), five shapes (circle, square, rectangle, triangle, hexagon), two sizes (large, small), and two thicknesses (thick, thin). The Attribute Blocks are contained in a compartmentalized plastic storage box. The storage box lid can be used as a template or shape sorter.

Attribute Blocks can be used to:

- identify shapes, colors, and sizes
- sort and classify by size, color, shape, and thickness
- create and identify sets
- create and identify patterns
- develop logical thinking

Exploring with Attribute Blocks

Students at all grade levels should be allowed time to freely explore and experiment with the Attribute Blocks before guided activities begin.

SORTING AND CLASSIFYING (SIZE, COLOR, SHAPE, AND THICKNESS)

Group Size: Pairs or Small Groups

Procedure: Provide a set of Attribute Blocks for each group of students. Allow students a few minutes to freely explore and creatively manipulate the blocks.

Write the following words on the board:

**large, small
red, yellow, blue
square, circle, triangle, rectangle, hexagon
thick, thin**

As you read and identify each word, direct students to hold up a block displaying the particular attribute.

Instruct one student in each group to sort four blocks by one attribute (e.g., color). The rest of the students in the group must try to identify the attribute by which the example blocks are sorted and classified.

Have students alternate roles and continue sorting and classifying by one attribute. As you circulate among the student groups, encourage students to verbalize the sorting strategies they use.

Challenge Activity: Encourage students to sort and classify the blocks using more than one attribute.

Examples:

- All blocks are blue and large. (color and size)
- All blocks are blue, large, and thin. (color, size, and thickness)
- All blocks are square and thick. (shape and thickness)