Learning
A Guide to Teaching Strategies, Activities, and Ideas A

## Attribute Blocks

## INTRODUCTION

Learning About... ${ }^{\circledR}$ 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... ${ }^{\circledR}$ 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.

## PATTERNS

## Group Size: Pairs or Small Groups

Procedure: Provide a set of Attribute Blocks for each group of students. Review the attributes of color, shape, size, and thickness.

Write the word pattern on the board. Elicit student definitions of the word pattern. [possible answersomething that repeats]

Direct students to provide examples of patterns. [rhythm patterns, designs on wallpaper or clothing, etc.]

Display the following blocks:
large thick blue square small thick blue square large thick red square small thick red square

Ask:

- What blocks would come next in the pattern? [large thick yellow square; small thick yellow square]
- How would you identify the pattern? [size-large/ small; thickness-thick; color-blue/red; shape-square]

Display the following blocks:

> large thick red triangle large thick red square large thick red circle large thick red rectangle

Ask:
What block would come next in the pattern? [large thick red hexagon]

■ How would you identify the pattern? [size-large; thickness-thick; color-red; shape-all shapes]

Direct students to work in groups to create and identify patterns. One student in each group will create a pattern, and the other members of the group will continue the pattern. After each pattern is created and continued, students will exchange roles.

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