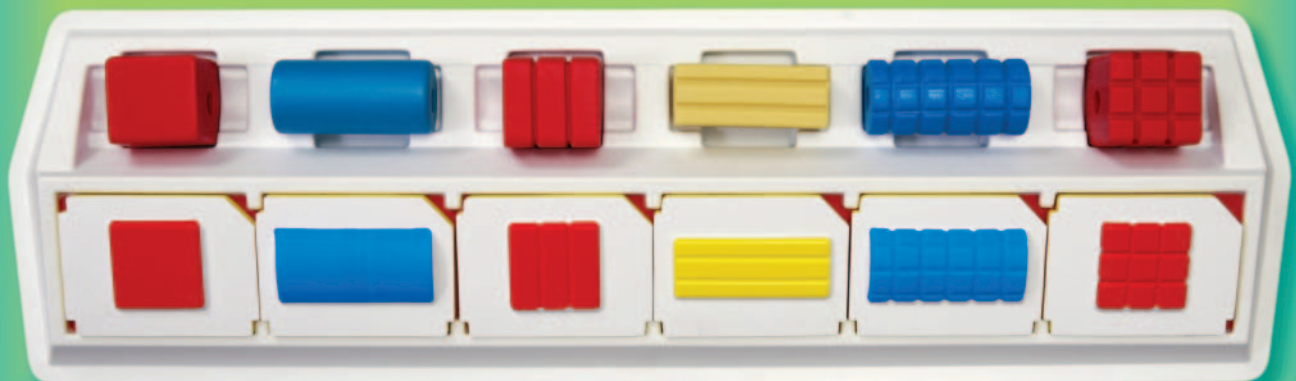


Giant Textured Beads with Pattern Matching Cards



Catalog No. 1-03778-00

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WARNING: Strangulation Hazard:

Adults should be aware of the strangulation hazards associated with cords and take precautions through supervision and instruction to ensure children do not become entangled.

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Wendy Drezek, Teacher of the Visually Impaired,
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Vermont Association for the Blind and Visually
Impaired, Brattleboro, Vermont

Karla West, Teacher of the Visually Impaired, Suffolk
Public Schools, Suffolk, Virginia

Special thanks, too, to the 46 students who were
involved in the field testing of this product.

OVERVIEW

Giant Textured Beads with Pattern Matching

Cards encourages the development of the following concepts and skills:

- Exploring and identifying shapes, textures, and colors
- Sorting and classifying by various attributes
- Recognizing, describing, repeating, extending, and creating patterns that are consistent with NCTM Standards for Grades K-3
- Fine motor skills such as stringing beads or inserting beads and matching cards into sorting trays
- Vocabulary expansion related to shapes, textures, colors, and spatial concepts
- Interpreting tactile displays within a purposeful context

The primary target audiences for this product are teachers and parents working with young students in preschool, kindergarten, and the early elementary grades who have visual impairments and blindness. However, because the Pattern Matching Cards reinforce the tactile continuum from real objects (most basic level) to raised-line graphics (most advanced level), students in higher grades will be challenged by the increasing difficulty posed by the “Platform” and “3-D View” matching cards. Therefore, the product

is intended to grow with the student. As one field evaluator explained:

"This kit offers a complete range of learning opportunities; all of my students, from the most cognitively impaired to those on an academic track, were able to learn something from one or more types of cards."

– Melinda Underwood, M.Ed., TVI

Instructors and parents are strongly encouraged to tailor the activities to the skill level of each individual student with the understanding that accurate interpretation and pairing of each type of pattern matching card with the Giant Textured Beads may not be fully reached or mastered.

Specific features of this product make it especially appropriate for students with multiple disabilities. For example, the matching cards have a thick, colorful backing for easier handling and manipulation and a non-skid backing is incorporated on the underside of the sorting trays. Be sure to position the sorting trays within a comfortable distance from the student, either end to end or one in front of the other. A sheet of Dycem® (common shelf-liner material) placed under the trays adds extra stability and a defined work area.

TYPES OF GIANT TEXTURED BEADS

The Giant Textured Beads are the same as those produced and sold by APH for many years. They vary by shape, color, and texture.

Shape

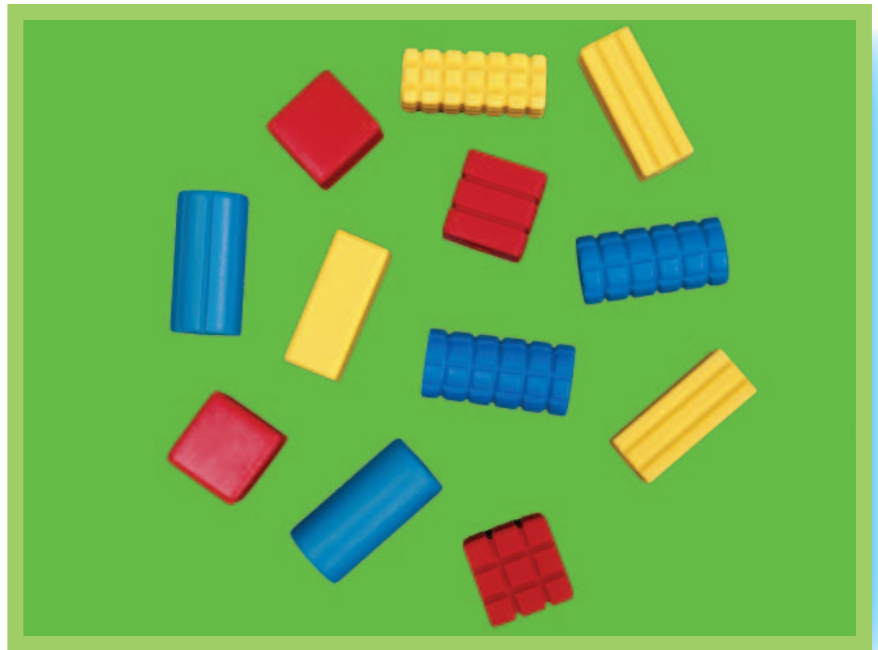
- Cube
- Rectangular Prism
- Cylinder

Color

- Red
- Yellow
- Blue

Texture

- Smooth
- Striped
- Checkered



Simplify the bead descriptions for younger children, if necessary. For example, a “cube” can be referred to as a “square,” and “checkered” can be referred to as “rough.”

Additional sets of the **Giant Textured Beads** [Catalog No. 1-03780-00] are available for separate purchase to facilitate extended pattern matching and sorting activities. Each set of 12 beads comes with a stringing cord in a drawstring bag.

TYPES OF PATTERN MATCHING CARDS

The Pattern Matching Cards include three different tactile representations of the Giant Textured Beads. These cards are intended to reinforce the tactile continuum from real objects (actual beads) to representative models (Duplicate Cards) to raised surface shapes (Platform Cards) and finally to abstract depictions (3-D View Cards). Each card type is shown and described below:

Duplicate Cards

These matching cards have the same texture and color as the Giant Textured Beads. The cards have a yellow foam backing and a straight-line diagonal cut at the top right corner. One corresponding matching card is provided for each bead.



Platform Cards

These matching cards lack both color and texture correspondence to the Giant Textured Beads; only the overall shape of each bead is shown.

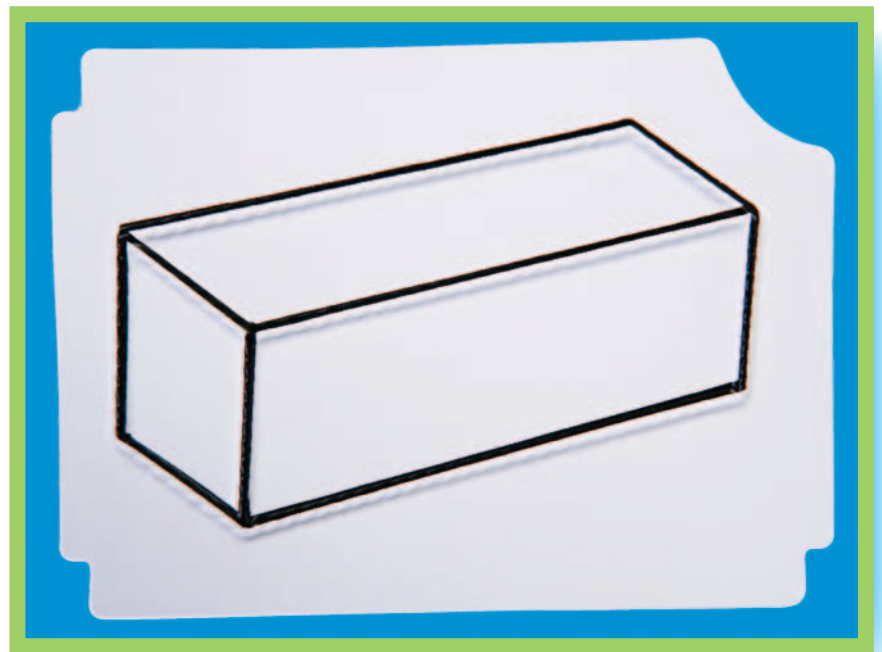
These cards have a red foam backing and a rounded top right corner. One corresponding matching card is provided for each bead.



3-D View Cards

These matching cards illustrate a three-dimensional view of the Giant Textured Beads, either with or without hidden lines (dashed or dotted). This assortment of cards exposes

students to several 3-D representations of the same object. These cards have a blue foam backing and a concave top right corner. One corresponding matching card is provided for each bead.



Additional sets of the **Pattern Matching Cards** [Catalog No. 1-03779-00] are available for separate purchase to facilitate extended pattern matching activities. All three types of matching cards are included (12 cards per card type).

SORTING TRAYS

Two identical sorting trays are included in the kit. Each



tray accommodates six beads and six matching cards arranged side by side. A soft red textured area within the tray provides a visual/tactile cue for the insertion of the Pattern Matching Cards. Place the slanted side of the tray closest to the student.

The compartments of the tray are designed to hold the Giant Textured Beads and Pattern Matching Cards securely as they are sorted. Use of a single tray minimizes the work area and number of parts presented to the student. Both trays used together (positioned either end to end or one in front of the other) facilitates more complex activities. In some cases, the two trays can be used simultaneously by two students working on separate activities.

The sorting trays have a non-skid backing but the use of shelf-liner material beneath the trays adds extra stability.

SUGGESTED ACTIVITIES

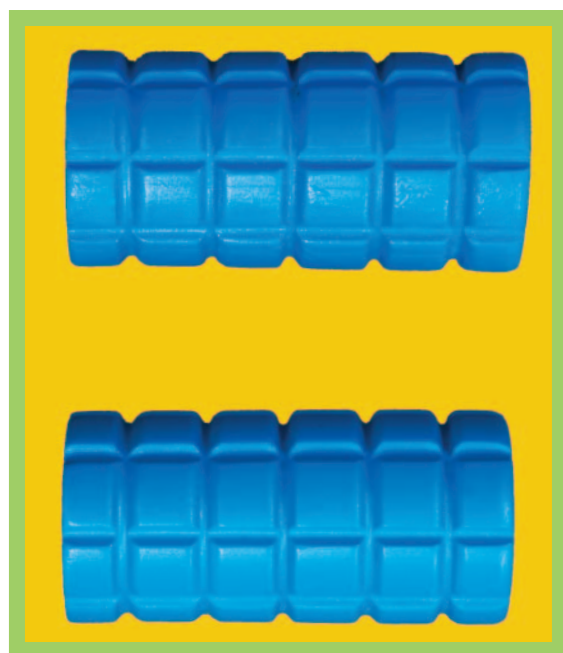
In this section, a variety of activities are suggested in order of most basic to most complex for the combined use of the Giant Textured Beads and Pattern Matching Cards. Select and create activities that are most appropriate for and meaningful to the individual student.

Identifying Shapes, Textures, and Colors

Before introducing bead stringing and sorting activities, encourage open-ended exploration and identification of bead shapes, textures, and colors. Model whole-hand exploration of the bead; feel the sides and locate the stringing holes. Compare the shapes of the beads to real objects in the student's environment— a rectangular table, a paper towel roll, a gift box, etc.

Finding Matching Beads

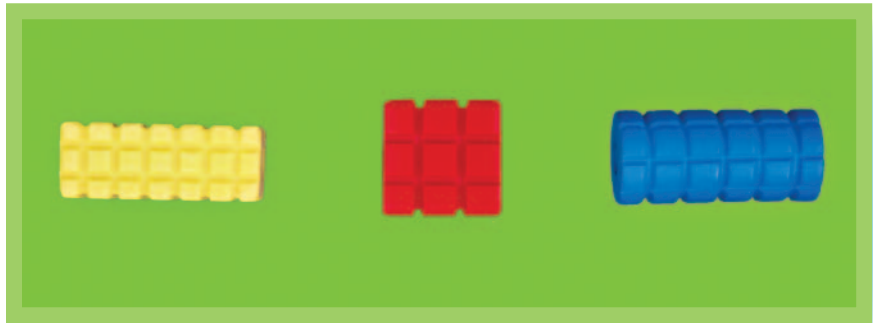
Ask the student to locate two beads that match with regard to shape, texture, and/or color. Initially limit the number



of beads to explore and compare. As a game, have the student pull out a single bead from the drawstring bag and then reach back into the bag to search for a bead that has the same texture and/or shape.

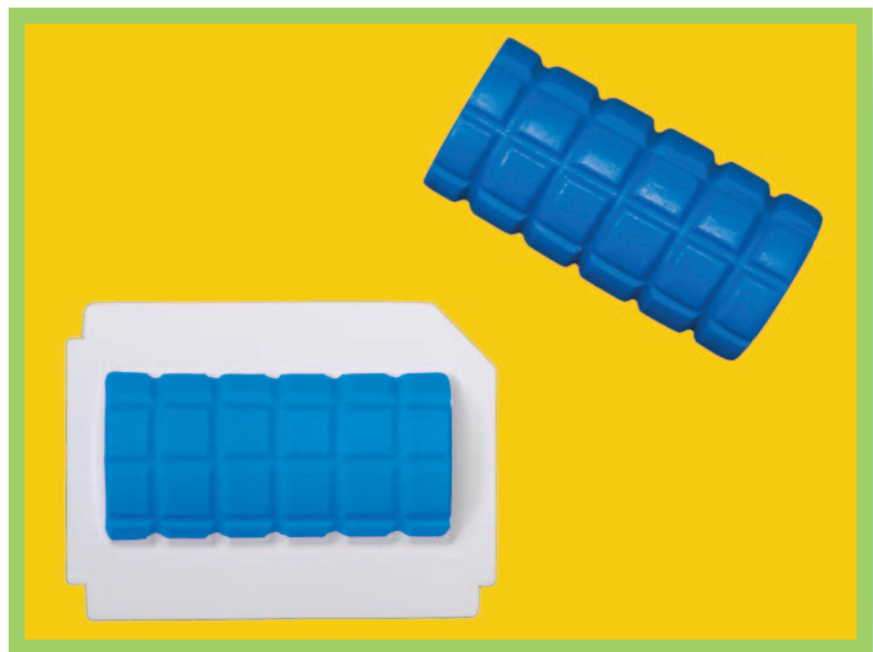
Sorting and Classifying

Present all twelve beads (or fewer, if necessary) and have the student sort them by color, texture, or shape.



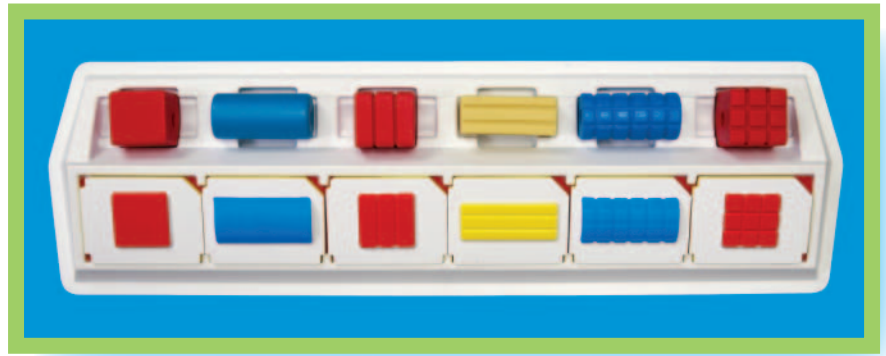
Exploration of Pattern Matching Cards

Acquaint the student with the Duplicate Cards. Because these cards have the same texture, color, size, and overall shape of the Giant



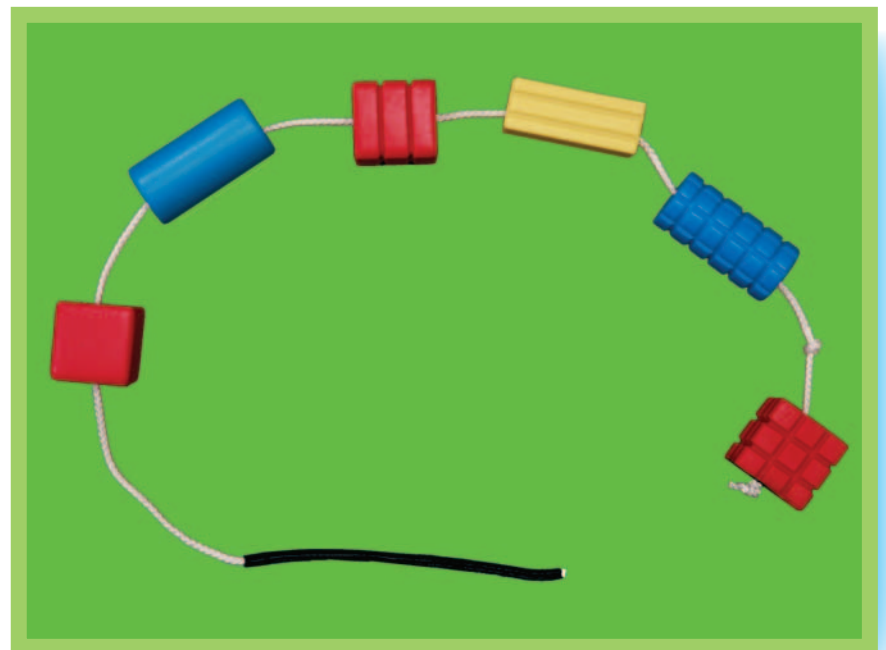
Textured Beads, they will likely be the easiest for the young child, or beginning tactile reader, to discriminate. Begin by using only one bead and its corresponding matching card to demonstrate how a real object can be represented by a raised tactile shape. Compare the two side by side and discuss their similarities and

differences.
For example,
whereas the
real bead can
be completely
grasped in one's
hand with all



sides available for exploration, the Duplicate Card shows only a partial view of the bead. However, most of the real bead's features—its size, texture, outer shape, and color—are the same as those shown on the tactile card.

Continue to
pair the Giant
Textured
Beads with the
Duplicate Cards
until the student
demonstrates
consistent
success matching
the beads with
the tactile cards.



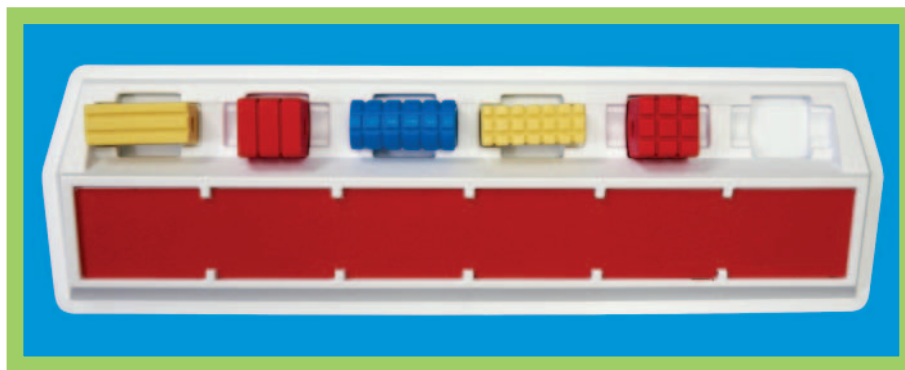
Use the tray(s)
to keep the
parts stationary. Have the student match the beads
to cards (or cards to beads) that are pre-positioned
by the instructor or parent. Encourage the student to
explore the beads and cards positioned on the tray
from left to right.

To practice stringing skills, have the student string the beads in the same order as the cards within the tray.

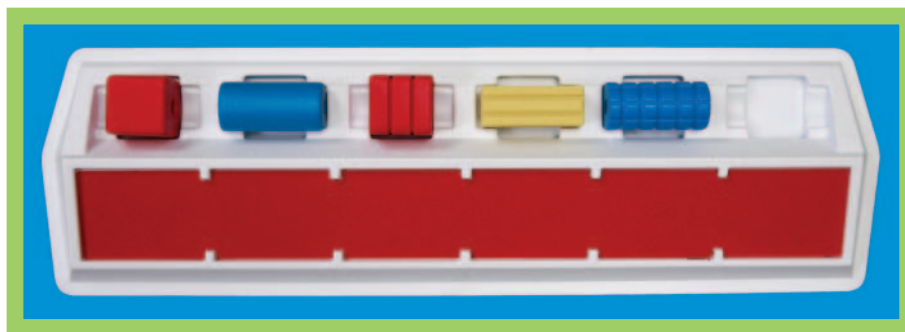
Pattern Making Activities

Use the Duplicate Cards in combination with the Giant Textured Beads to create patterns for the student to recognize, describe, repeat, and extend. Begin by using the beads to make a simple repeating pattern. For example, place the beads in the tray in one of the following orders and ask the student, "What comes next?"

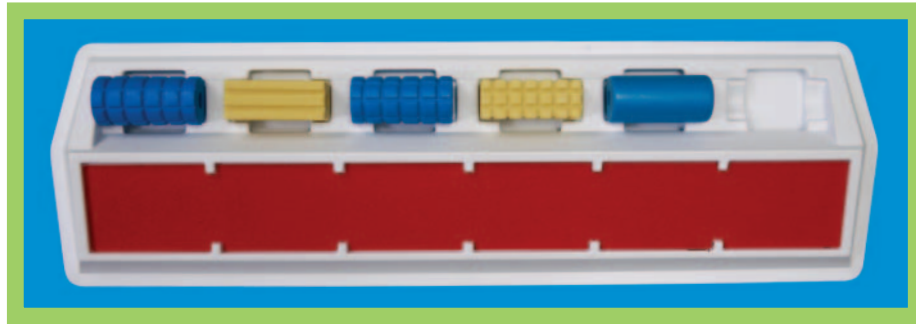
Rectangle, cube, cylinder, rectangle, cube, [?]



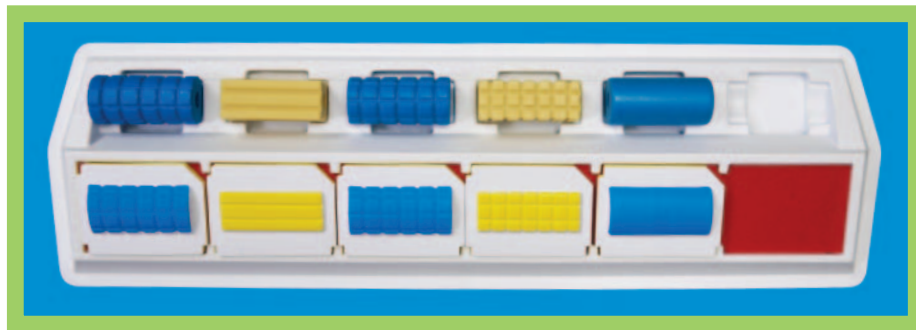
Smooth, smooth, striped, striped, checkered, [?]



Blue, yellow, blue, yellow, blue, [?]



Have the student repeat the patterns by placing the Duplicate Cards next to the beads already positioned on the tray so that both the beads and the matching cards are shown in a side-by-side fashion.

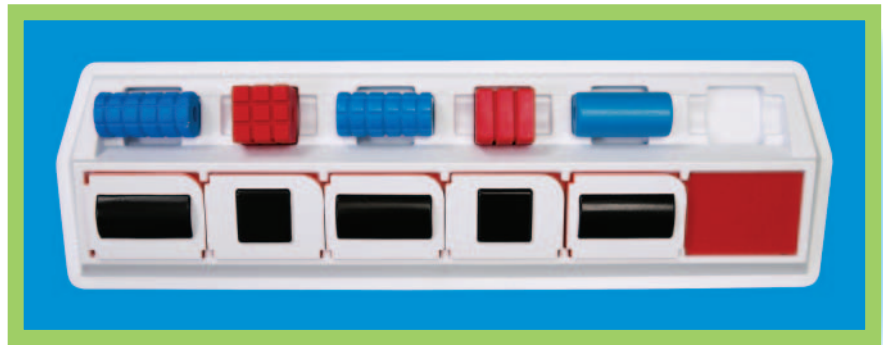
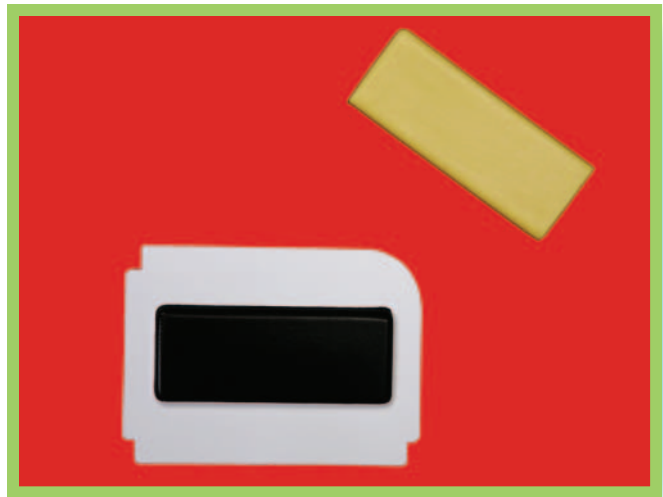


To practice stringing skills, have the student transfer the pattern of beads shown on the tray to the string.

Later encourage the student to create repeating patterns of her own using both the beads and the matching cards.

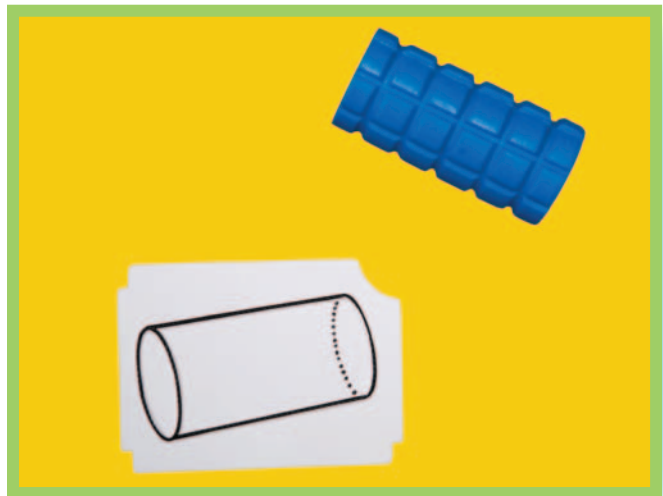
Platform Cards

The tactile and visual presentations of the Platform Cards are typically more difficult to match due to the absence of the bead color and texture cues. Only the silhouette of each bead is retained. Use the Platform Cards for similar matching, sorting, and patterning tasks as described for the Duplicate Cards.

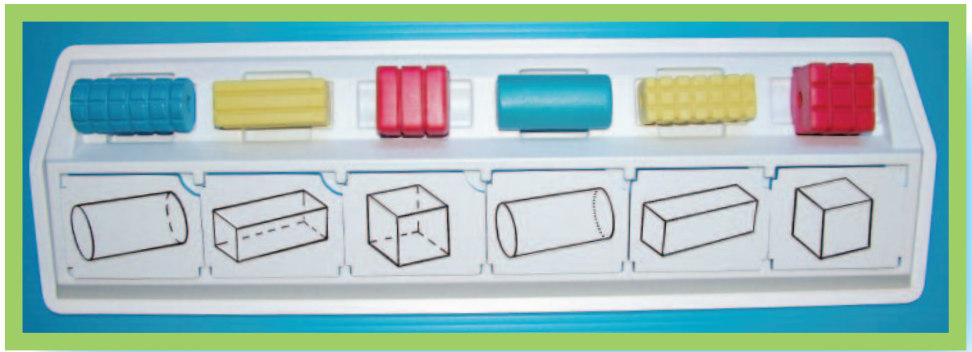


3-D View Cards

The tactile and visual presentation of the 3-D View Cards poses the most difficult interpretation task for the student with visual impairment and blindness, especially for the young child. However, early instruction and exposure to these types of graphics are strongly encouraged because they become more common as the student progresses through school.

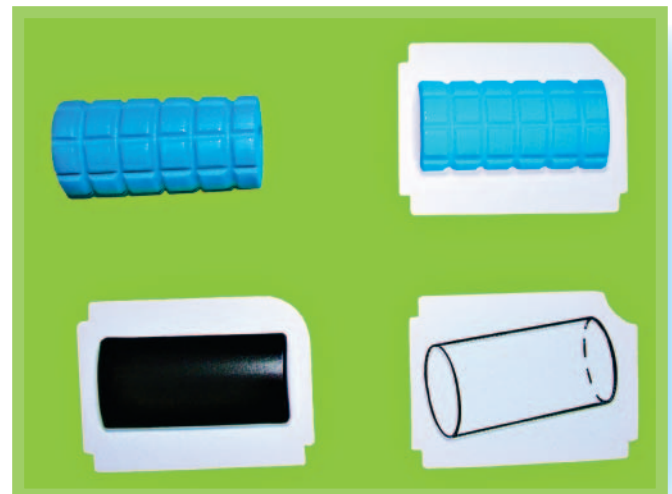
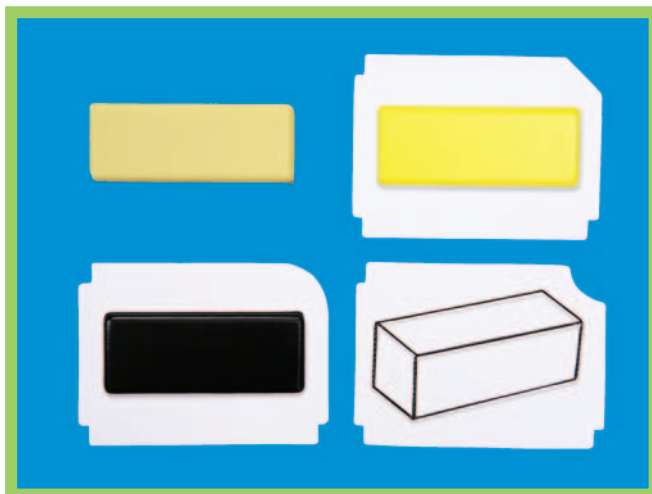
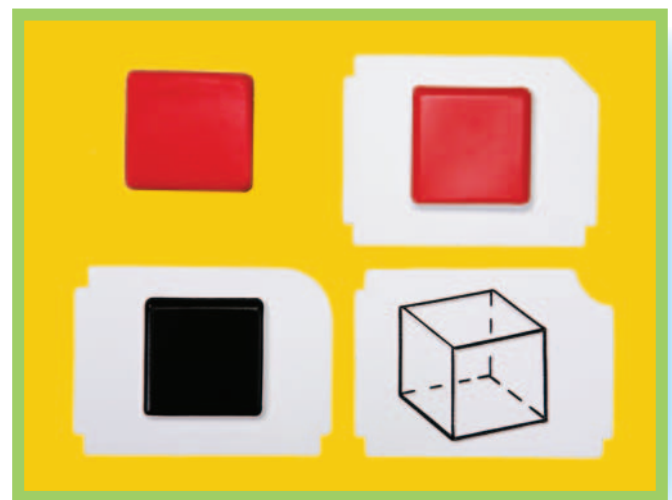


Use the 3-D View Cards for similar matching, sorting, and patterning tasks as described for the Duplicate Cards.



Grouping Related Cards

Reinforce the transition from real object to tactile representations by having the student locate all of the Pattern Matching Cards—that is, Duplicate, Platform, and 3-D View—that correspond to a specific bead.



Notes

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