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Introduction

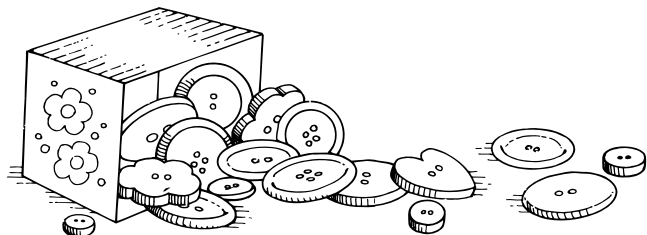
Buttons abound! Children have always been fascinated with buttons because they come in a variety of shapes, sizes, textures, and colors. What child doesn't enjoy scooping up buttons and letting them fall through his or her fingers while noticing their differences and similarities? Because this fascination sparks a genuine interest and motivates children, buttons are ideal math manipulatives. Using familiar objects like buttons creates a supportive learning environment in which children feel comfortable and have fun while mastering the skills presented during the activities.

Buttons is packed with a variety of activities that teach basic math skills. The National Council of Teachers of Mathematics standards covered in this resource include number and operation, patterns, spatial sense, measurement, data analysis, problem solving, reasoning and proof, communication, connections, and representations.

Each section of *Buttons* contains three to six activities for a specific math skill, ready-to-go reproducibles, and a "side trip" activity that you can use to extend the button theme into your literacy program. The activities in this book can be used at an independent center in your classroom or as a whole-class activity. Some activities are clearly written for one or the other; however, they can all be easily modified to meet your needs. Look for a variety of graphing activities and reproducibles on the back of the full-color pull-out chart.

Many of the activities integrate writing skills. Invite children who are less fluent writers to dictate their writing as needed. Or, pair children with partners who can assist them in the necessary writing. Again, any activity can be modified through dictation, the use of cloze sentences, or by having children verbalize their conclusions.

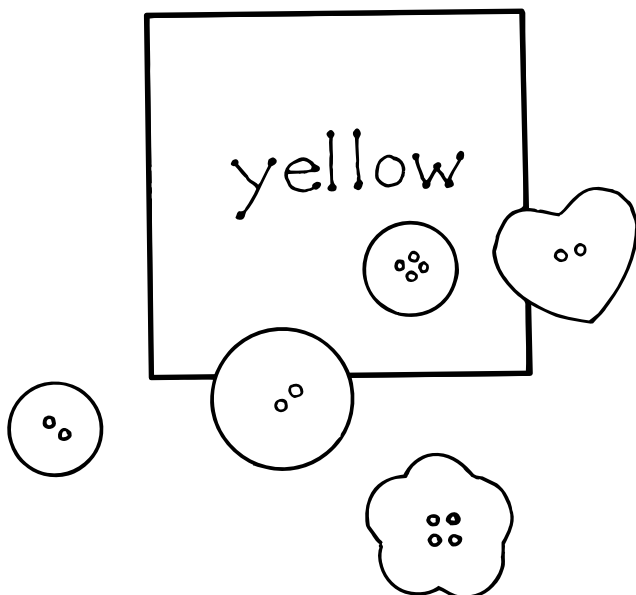
Invite children to add to your button collection. Tell them that you are keeping the buttons they bring in, although some buttons will be glued to projects and sent home. The more buttons that you have in the classroom collection, the greater choice children have in completing the activities. Start your activities when you have enough buttons to fill a shoe box-size plastic tub half full. Aim to have around 700 buttons in your collection. Want to create an instant collection? Check out the list of button resources on page 32.



Sorting and Classifying

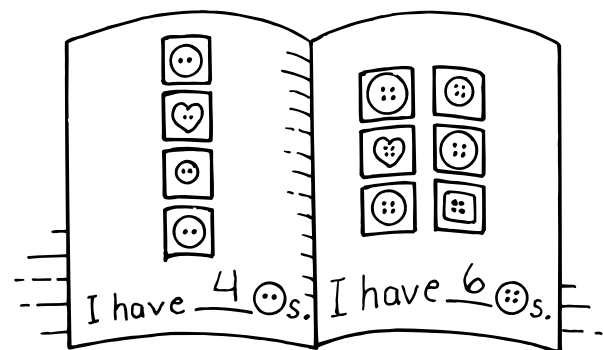
COLOR AND SIZE SORTS

Cut a large sheet of colored construction paper into 3" x 5" (7.5 cm x 12.5 cm) cards, and label each card with its color. Create for each pair of children a set of cards that includes a white, black, red, yellow, blue, orange, green, and purple card and eight blank index card halves. Give each pair a set of cards and a resealable plastic bag of buttons in assorted colors. Have children find buttons that match each color card. Then, have them count the buttons for each color and write each number on a blank card. For added fun, have each pair choose one color group to be photographed. Take a photo of that group of buttons, and tape or glue the photo on a matching sheet of construction paper with the sentence *I counted (number) (color) buttons.* Have the pair dictate to you the complete sentence. Display the labeled photos on a bulletin board titled *Rainbow of Buttons*, or bind them in a class book of the same title. As an extension, have children sort by size (e.g., small, medium, large) or order (i.e., smallest to biggest or biggest to smallest). Invite the class to do a Button Walk when they are done to view the sorts of their classmates.



CUT AND PASTE SORTING

Give each child a card stock copy of the Buttons, Buttons reproducible (page 6) and a 9" x 12" (23 cm x 30.5 cm) piece of construction paper. Have children cut out the buttons and sort them according to number of holes. Ask children to fold the construction paper in half and glue all the two-hole buttons on the left and the four-hole buttons on the right. Ask children to label each set. Invite children who are less fluent writers to dictate their labels to you. Or, use the cloze sentences *I have (number) s.* and *I have (number) s.* to discuss the results with the class. Use *more* or *less* to discuss the results. (Tip: Copy the reproducible on different colors of card stock to help children identify their own buttons.)

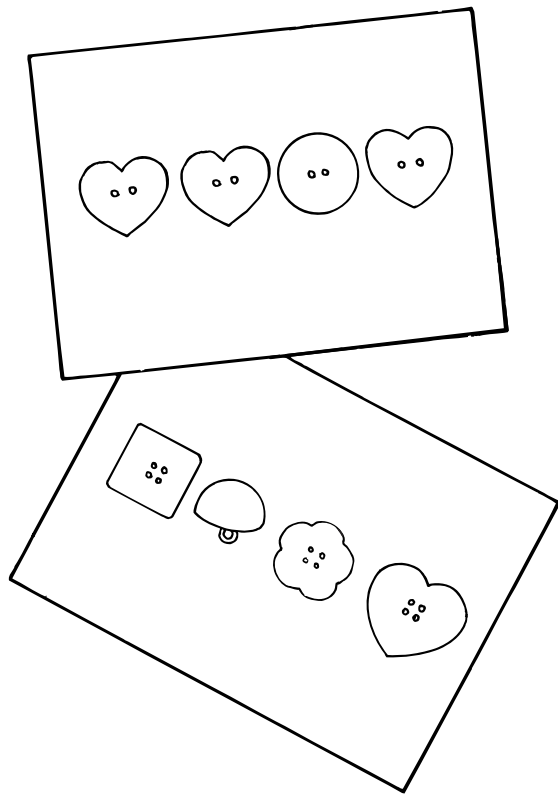


Draw a writing web on butcher paper, and invite children to brainstorm all they know about buttons. List new vocabulary on chart paper. Then, read aloud *The Button Book* by Diana Epstein (Runners Press). Encourage children to add to the chart new words or information they learned from the book. Later, have them return to the list of new vocabulary to find and underline the *Bb*'s in color.



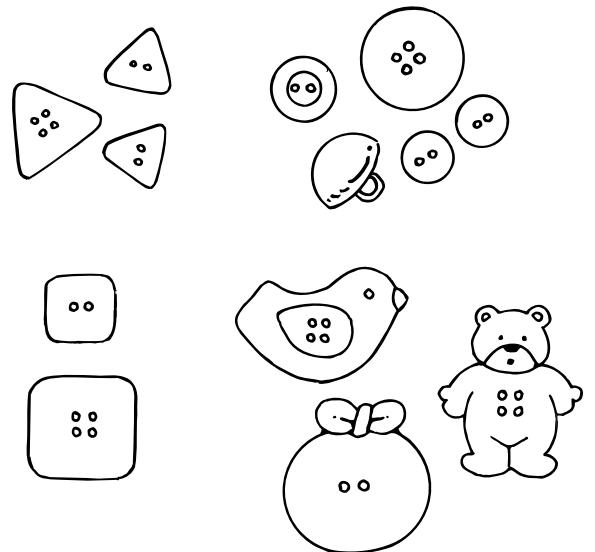
SAME AND DIFFERENT

Copy and cut apart a set of Same and Different Cards (pages 7–8). Laminate the cards for durability. Have children study each card and identify the button that does not belong in each group. Encourage them to explain their answer (verbally or in writing) and describe how the rest of the buttons are similar. To make the activity self-correcting, make two copies of the button cards, circle the different button on one set, pair a blank button set with an answer set, and laminate them, backs together.



FREE SORT

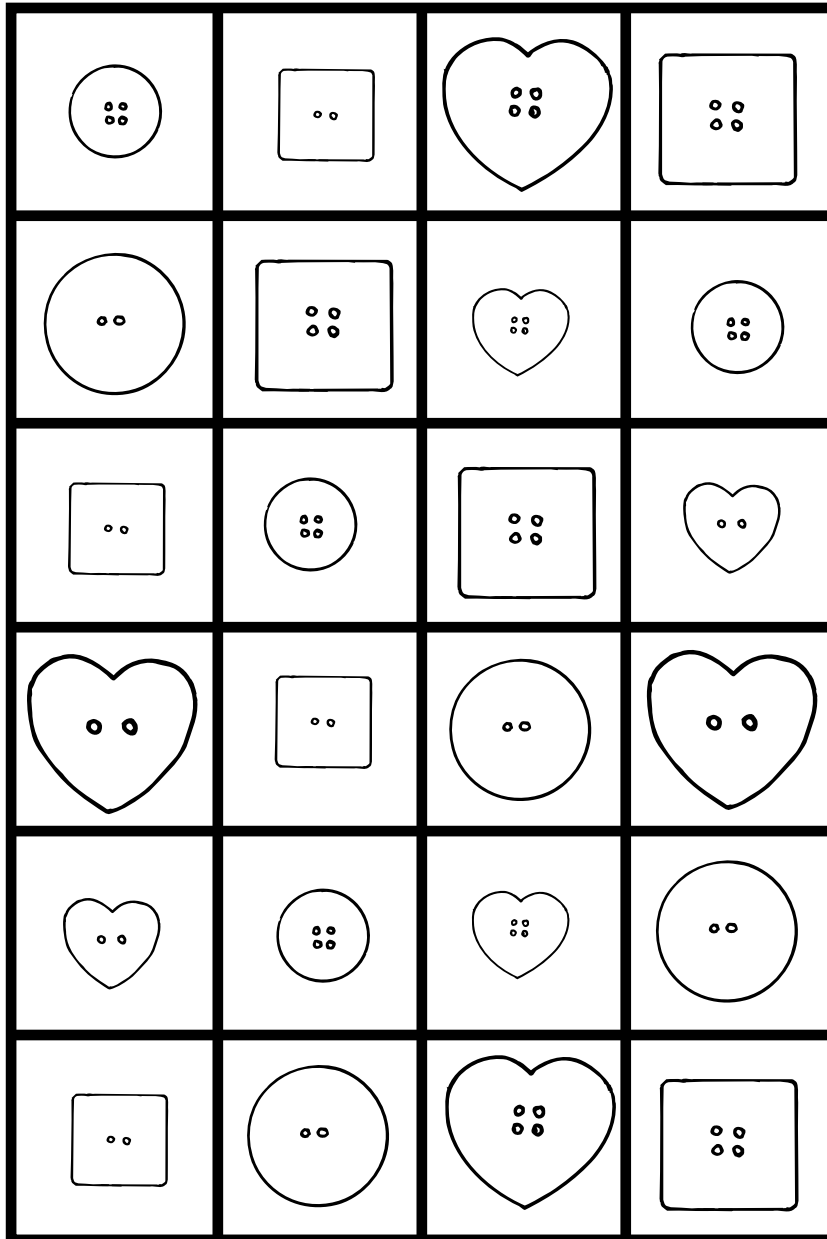
Give each child a small plastic tub of various buttons. Invite children to sort the buttons in any way that makes sense to them. Then, have them describe their groups to you, and check the groups for consistency (e.g., if they have sorted by shape, be sure that all the buttons in the circle group are circles). Finally, take a photo of their groups, and have them dictate or write a description of their groups, or invite the class to identify the rule. Post the photos with the descriptions on a bulletin board titled *What's My Rule?*



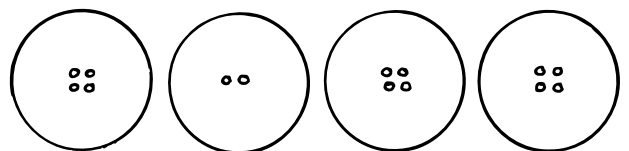
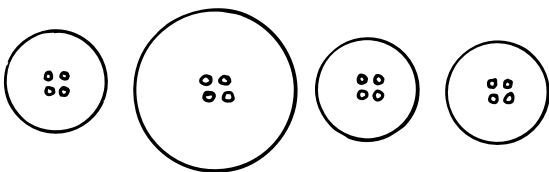
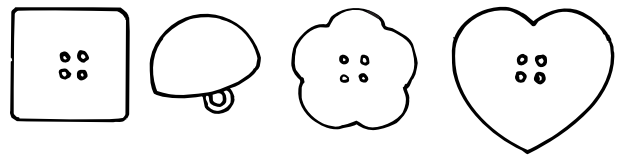
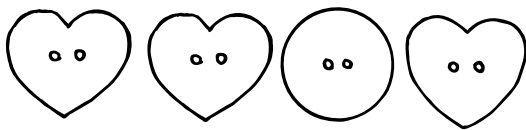
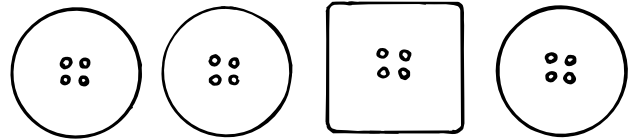
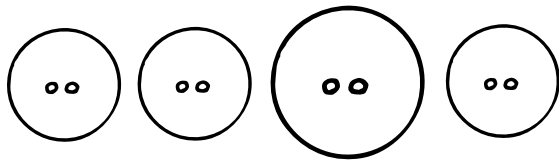
BUTTON ATTRIBUTES

Copy the Venn Diagram (page 9) on an overhead transparency, and make a copy for each pair of children. Give each pair a handful of buttons and a Venn Diagram. Display the transparency, and label each circle with an attribute. Model how to use the diagram by placing buttons that have each attribute in the appropriate circle. Place buttons that have both attributes in the intersection of the two circles. Then, have pairs take turns placing one of their buttons in the correct section of the diagram.

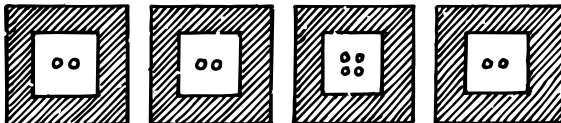
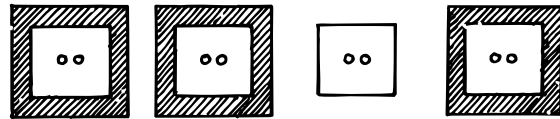
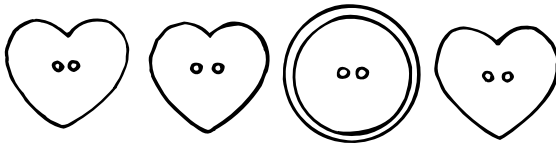
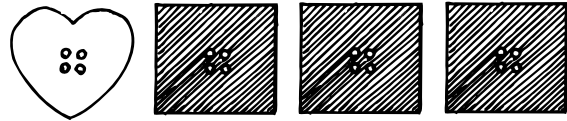
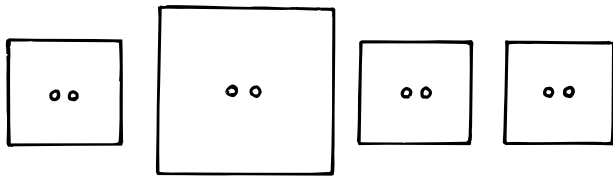
Buttons, Buttons



Same and Different Cards



Same and Different Cards



Venn Diagram

Names _____

Date _____

Attribute _____

Attribute _____

