## It "Sort" of Matters Where Things Go

Summary
Students will spend several days observing differences, grouping differences, and noticing different attributes of similar items.

## Materials

Book: 3 Little Firefighters
One copy of the firefighter (pdf) printed on white cardstock for each student
Three copies of the same firefighter (pdf), but printed on 11"x17" paper
One large bowl of assorted buttons per table or group of students
Books:

- Sorting
, by Henry Pluckrose, Children's Press, Chicago, ISBN 0-516-45458-7
- Shapes, Shapes, Shapes
, by Tana Hoban, Mulberry Books, ISBN-13: 978-0-688-14700-2
- A Pair of Socks
, by Stuart J. Murphy, Scholastic Inc., ISBN 0-590-06259-X


## Background for Teachers

Kindergarten students are just beginning to notice the patterns and organizations of things around them. In this lesson, and the activities in "Additional Practice," students will spend several days observing differences, grouping differences, and noticing different attributes of similar items.
This lesson introduces grouping attributes of more than two items, with a brief introduction involving grouping two objects. Students may need to have more experience grouping two attributes before being introduced to this concept.
This lesson and activities are specifically written to allow free exploration of items, and then introduce students to grouping methods according to attributes. It would be contradictory to always tell the students how to sort. A large part of mastery is their ability to notice the attributes independently.

Instructional Procedures
Invitation to Learn:
Launch (Introduction): (20 minutes)
Students will be seated on the carpet. Have two large circles made of black yarn. Instruct the students that you are going to put some of the things you have into the circle, and they need to explain what your rule is.

Put one square shape in one circle and a round shape in another circle. Ask, "What's my rule?" Continue in this pattern until all students see that all squares are in one circle, and all round shapes are in another circle.
Continue in this fashion, you can do color, lines, circles, etc. The concept is to briefly introduce how you can sort by similar attributes.
Read the book 3 Little Firefighters by Stuart J. Murphy. As you read, stop and discuss the attributes of each of the ways the firefighters are sorting the buttons. After reading the book, discuss how the firefighters sorted their buttons (color, shape, and size).

For this activity, students will need to sit at the carpet in a small circle.
Have students sit around you and dump a large container of buttons in front of you.
Put three copies of the firemen (see attached blackline) on the floor in front of you.
Sort the buttons onto the firemen by size, shape, number of holes in the buttons, etc. Students
should see through your modeling and example that there are many different attributes and ways to group the buttons.
Have students come up with alternate ways to sort the buttons on the firemen.

## Explore (Individual and Small Group work): (10 minutes)

Students will go back to their tables, and each student will have a fireman and a bowl of buttons to share.
Students will then sort the buttons on the firemen according to some common attribute. The student should be able to sort in several different ways. After each sort, the student needs to show and explain to the other students at the table how he/she chose to sort the buttons. Discuss (Whole Group discussion): (5 minutes)

Gather students back together at the carpet.
Discuss how they were able to sort the buttons on the fireman by many different attributes.
As children tell you about the attributes, draw them on the whiteboard so those visual and language learners have additional learning resources.

## Solidify (Closure): (5 minutes)

Use questioning to solidify learning.
Is there more than one way to group the buttons?
Are the buttons different?
Are there things that are the same about each button?
Practice (Review): (5 minutes)
Have students look at the buttons they have on their clothes today.
Quickly sort students into groups consisting of students with buttons that have two button holes, four button holes, and "other."
Additional Lesson Activities:
Sorting Buttons in Different Ways:
Model making a large circle with black yarn. Each group can take up to four pieces of yarn and make a circle at their table with each piece of yarn. Students can then sort buttons into the various circles and identify to the teacher and each other their reasoning and justification.
ABC Sorts:
This is a perfect time for language integration. Sort letters into similar attributes. You can do the following letter sorts: Consonants/vowels, uppercase/lowercase, straight lines/slanted lines, tails/no tails, tunnels/no tunnels, dots/no dots, tall/short, long stick/short stick, circle/no circle.
Game: "What's the Same?"
Make copies of each of the sock pages on red, green, yellow and blue cardstock. Cut into cards. Note: you can make several sets so each table can have its own attribute set. Lay out any 12 sock cards on the ground (make sure you have a variety of colors). The students are gathered around in a circle. Say, "Find one thing that is the same." Students will look at the cards, and identify one attribute that is the same on two cards. When they find the attribute, they slap their hands on the carpet and say, "Same!" After all students have found a set with similar attributes, students will be allowed to explain to the class what they found. You can continue this game for several days, adding to the number of attributes (two, three, etc.) they should find between the cards. After the students understand the rules independently, this is a good, fast finisher and center game.

## Sorting Socks:

Students should sort socks (pdf) into different categories as designated by their chosen attribute. They may choose dots, stripes, zigzags, color, etc. The students should be able to identify what common attribute they used to link the socks together. For independent practice, you could hang a string with small clothespins on it. Students could hang the socks onto the clothesline by their chosen attribute.
Household Sort:

Copy the house (pdf) onto 11 "x17" white cardstock. Make a set of the household cards (pdf) on 8_"x11" white cardstock and cut the pictures into cards.
Students will sort the household items according to what room they belong in. (Note that some students will put things in different rooms than others because of how their own household sorts them.) Make connections with students about how a grocery and department store is organized. Sorting Common Classmate Attributes:

Make three large arrows on red, white and blue 11"x17" paper
Each student needs a red, a white and a blue unifix cube.
Place the arrows pointing in different directions in front of the children on the floor. (Note: There must be enough space at the end of the arrows for a group of children to come and sit.)
Students will sit at the carpet with their unifix cubes in hand. Call one student up, identify whether that student has a pull-on shirt, a shirt with buttons, or neither one of those attributes. Identify what each area represents (the white area is for pull-on shirts, the red area is for button shirts, and the blue area is for "other" types of clothes). As each student stands, the other students will identify by showing the correct color of unifix cube where that student should go. (You may need to keep reminding them which category the different colors represent.) Quickly regroup the students in this manner until your class is sorted. You can do this with different attributes such as hair color, hair length, types of shoes, and elastic waistbands or zippers.
Beastly Bug Attribute Game
Write each of the following attribute headings on a separate index card: one eye, two eyes, three eyes, one leg, two legs, three legs, one tooth, two teeth, three teeth, one lock of hair, two locks of hair, three locks of hair, one leg, two legs, three legs, red, blue, yellow, green.
For each bug page (pdf), make a red, blue, yellow, and green copy on cardstock and cut the bugs into separate cards.
Before you play the Game:
Have students sort the bugs informally at their tables by color and attribute. They may make circles with black yarn to help organize their sorts. Different attributes included are a combination of any of the following: Bugs with one eye, two eyes, or three eyes. Bugs with one leg, two legs, or three legs. Bugs with one tooth, two teeth, three teeth. Bugs with one lock of hair, two locks of hair, or three locks of hair.

## Whole Class Connection: Find the Beastly Bug

This activity is done best at the carpet, where you can easily check students' cards and their peers can also check each other's cards. Pass out bugs to each student (all bugs must be passed out). Have students carefully look at the cards. (Most students will at least have two cards; accelerated learners may have three.
Put your attribute index card headings in piles according to eyes, legs, teeth, hair, and color.
To find the Beastly Bug:
Pick a card from the "eye" heading. "This Beastly Bug has" (whatever is written on the attribute card -- maybe two eyes).
Students look at their card. If their bug has one or three eyes, they don't have the Beastly Bug card. They turn their cards over. They aren't the Beastly Bug.
Next pick a card from the teeth heading. "This Beastly Bug has" (whatever is written on the attribute card -- maybe three teeth). If you have one or two teeth -- you aren't the Beastly Bug! Remind students about attributes, "So we know our Beastly Bug has two eyes and three teeth!" Continue through the headings (you must do eyes, legs, teeth, hair and color). Do the color very last. The one with this attribute card is the Beastly Bug.
As you go through the attribute headings, make sure you refer to the heading cards so they can see the attributes you are looking for.

Advance learners can explore with graphic organizers. They can sort on Venn diagrams, t-charts, and pie organizers
For ELL students and those requiring adaptations, you could model individually and use explicit teacher talk as you think aloud.
For language integration, use the book to discuss the concept of first, next, and last. In text, connections can be made with the letter "f."
Family Connections:
Assignments to do with parents
Possible sorts and groupings at home: silverware, groceries, socks, books, toys. Students should see how a house is organized and grouped by attributes of things.
When shopping, notice how the grocery store or department store is grouped and organized.
Look at tools in a garage. How are they organized?

## Assessment Plan

Informally observe students as they sort the buttons on their firemen. Are they grouping similar characteristics together?
To formally assess students, make a copy of the button blackline (pdf) and have students color the buttons. Students will cut the shapes out and glue the shapes onto separate $81 / 2$ "x11" paper by size, buttonhole number, etc.
Pre-assess students before the lesson by showing two squares and two circles to the class. Discuss how they are different and how they are the same. Have students explain how they could group them according to their differences. Observe carefully to see if students understand the concept of "different."

Authors
PENNY MCENTIRE

