Topic A

Attributes of Two Related Objects

K.MD.3

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<th>Classify objects into given categories; count the numbers of objects in each category and sort the categories by count. (Limit category counts to be less than or equal to 10.)</th>
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The first day of kindergarten is long anticipated by parents and young students. In Topic A, Lesson 1, students reason about matching pairs of objects. Some of the pairs are exactly the same and some are similar but differ by color, size, position, etc. In Lesson 2, this concept is deepened by asking the students to identify attributes of the matching pairs that either make them exactly the same or similar but different because they are a different color or in a different position. Topic A culminates with Lesson 3 by guiding the students to reason about pairing two objects according to their visual pattern, color, or use (K.MD.3).

A Teaching Sequence Towards Mastery of Attributes of Two Related Objects

Objective 1: Analyze to find two objects that are exactly the same or not exactly the same. (Lesson 1)

Objective 2: Analyze to find two similar objects – these are the same but.... (Lesson 2)

Objective 3: Classify to find two objects that share a visual pattern, color, and use. (Lesson 3)
Lesson 1

Objective: Analyze to find two objects that are exactly the same or not exactly the same.

Suggested Lesson Structure

- Fluency Practice (11 minutes)
- Application Problems (6 minutes)
- Concept Development (26 minutes)
- Student Debrief (7 minutes)
- Total Time (50 minutes)

Fluency Practice (11 minutes)

- Counting Beans and Fingers to 3  K.CC.4a  (5 minutes)
- Show Me Beans  K.CC.4a  (3 minutes)
- Counting with the Number Glove to 3  K.CC.5  (3 minutes)

Counting Beans and Fingers to 3  (5 minutes)

Materials:  (S) Left hand mat, bag of beans (painted red on one side)

Note: This fluency was selected in anticipation of future lessons. Although students will not be working with numbers in this lesson, they will need to develop fluency for upcoming lessons in which students will work with numbers in depth.

T: Take 1 bean out of your bag and put it on your mat. Count how many beans are on your mat.
S: 1.
T: Take another bean out of your bag and put it on your mat. Count how many beans are on your mat now.
S: 1, 2.
T: Yes. Take another bean out of your bag and put it on your mat. Count how many beans are on your mat now.
S: 1, 2, 3.
T: Yes. Let’s touch and count them one at a time like this,

Notes on Multiple Means of Engagement:

Any time a new manipulative is introduced, provide children an opportunity to freely explore (play) with it for a few moments before asking them to do anything constructive with it. Students at this age are very excited to use new materials. Allowing them to satisfy their curiosity will ensure that you have their full attention when it comes time to complete the academic task.

Notes on Fluency Practice:

Think of fluency as having three goals:
1. Maintenance (staying sharp on previously learned skills).
2. Preparation (targeted practice for the current lesson).
3. Anticipation (skills that ensure that students will be ready for the in-depth work of upcoming lessons).

Example of anticipatory fluency: Students must be secure in counting to 5 long before they can be expected to decompose 5.
1, 2, 3.
S: 1, 2, 3 (as they touch each bean).
T: Move 1 bean to the pinky fingernail. How many fingers have a bean?
S: 1.
T: How many fingernails are under the bean?
S: 1.
T: Is that exactly the same number?
S: Yes!

Continue to 3 in this manner. Give time for students to touch and count, but take notice of which students must recount each time.

Show Me Beans (3 minutes)

Materials: (S) Left hand mat, bag of lima beans (painted red on one side)

Note: This fluency was selected in anticipation of future lessons. Although students will not be working with numbers in this lesson, they will need to develop fluency for upcoming lessons in which students will work with numbers in depth.

T: You’re getting very good at counting beans and fingers. Now we’ll play a game called Show Me Beans. I’ll say a number, and you put that many beans on the fingernails. Remember to start on the pinky, and don’t skip any fingers! Ready? Show me 1!
S: (Place 1 bean on the pinky finger.)
T: Quick...show me 2!
S: (Place another bean on the ring finger.)
T: Show me 1!
S: (Remove a bean from the ring finger.)
T: Show me 2!
S: (Place another bean on the ring finger.)
T: Show me 3!
S: (Place another bean on the middle finger.)

Continue changing the number by 1 within 5, as students demonstrate mastery, taking note of which students need to recount.
Lesson 1

Lesson 1: Analyze to find two objects that are *exactly the same* or *not exactly the same*.

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### Counting with the Number Glove to 3 (3 minutes)

Materials: (T) Right (left for students) hand glove with the numbers written on the fingertips from 1 on the pinky finger to 5 on the thumb.

Note: This fluency was selected in anticipation of future lessons. Although students will not be working with numbers in this lesson, they will need to develop fluency for upcoming lessons in which students will work with numbers in depth.

T: Watch my number glove and count with me. Ready? (Begin with closed fist, then show the pinky finger, followed by ring finger, and then middle finger.)

S: 1, 2, 3.

T: Stay here at 3. Let’s count back down to 1. Ready? (Put down the middle finger, then ring finger.)

S: 3, 2, 1.

Continue counting up and down a few more times.

T: You’re ready for something harder! This time we’ll count up and down, like a wave. Watch my glove and you’ll know just what to do.

S: 1, 2, 3, 2, 1, 2, 1, 2, 1, 2, 3, 2, 3, 2, 3…..

Listen for hesitation as students count, rather than count along with them.

### Application Problems (6 minutes)

Materials: (T) Blue sock

Hold up a blue sock.

T: Students, please draw a picture of this sock.

Note: In the Debrief the students will look at all the socks drawn. There might be some that are *exactly the same* (or very, very close), and there will be many that are *not exactly the same*... Using the socks that they drew in the Debrief will help to engage all students.
Concept Development (26 minutes)

Materials: (T) Pairs of socks (or any other pairs of items available) in a variety of patterns, colors, sizes, and lengths in a laundry bag

Call students to the rug, display the socks, and allow them to look, touch, and talk about them.

T: I just came back from the Laundromat and now I have to match up all of these pairs of socks. Look at these two. (Hold up two blue socks.) These two are exactly the same because they are both? (Signal to elicit the response.)

S: Blue!

T: So, they are both exactly the same color.

T: (Holds up a red knee sock and a red ankle sock.) What color are these two?

S: Red.

T: These two are both red, but they are not exactly the same. One is big and the other one is? (Signal.)

S: Small!

T: So, they are not exactly the same.

T: (Hold up two socks that are similar.) Who can explain why these are not exactly the same?

S: They both have kitties on them, but the kitties on this one are orange, and the kitties on this sock are black.

Continue to talk about the attributes of the different socks, guiding students to use the new terms, exactly the same and not exactly the same.

T: Let’s play the Exactly the Same Game. When I call you, pick up one sock. (Call students until everyone has a sock).

T: When the music begins, I want you to slowly, calmly, walk around the room until you find a sock that is exactly the same. When you find the sock, link arms with the person who has it, like this (demonstrate) and say, “Our socks are exactly the same!” See if you can get together before the music stops! (Start the music—stop—check—clarify.)

T: Very good. Let’s play again. (Have students trade so that they get a new sock.)

Problem Set (5 minutes)

Distribute Problem Set to students.

Have the students draw a line connecting similar objects using a ruler. Demonstrate the use of a ruler as a straight edge. Walk around the room to support those students that need help with the ruler.
Student Debrief (7 minutes)

Lesson Objective: Analyze to find two objects that are exactly the same or not exactly the same.

The Student Debrief is intended to invite reflection and active processing of the total lesson experience.

Invite students to review their solutions for the Problem Set. They should check work by comparing answers with a partner before going over answers as a class. Look for misconceptions or misunderstandings that can be addressed in the Debrief. Guide students in a conversation to debrief the worksheet and process the lesson. You may choose to use any combination of the questions below to lead the discussion.

- Are your shoes exactly the same?
- Does the left look exactly the same as the right?
- Let’s look at our pictures of the sock. Is this picture the same as this one?
- The sock was exactly the same, why are our pictures not exactly the same?
- How can you tell if two things are exactly the same or not exactly the same?

Exit Ticket (3 minutes)

After the Student Debrief, instruct students to complete the Exit Ticket. A review of their work will help you assess the students’ understanding of the concepts that were presented in the lesson today and plan more effectively for future lessons. You may read the questions aloud to the students.
Name __________________________ Date __________

Find animals that are “exactly the same.” Then find animals that look like each other but are “not exactly the same.” Use a ruler to draw a line connecting the animals.
Name ___________________________ Date ____________

Tell a partner why these are exactly the same or not exactly the same.

Note: Teacher circulates to make an informal assessment of the day’s objective.
Color the things that are the same. Color them so they look like each other.
Lesson 1: Analyze to find two objects that are exactly the same or not exactly the same.

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