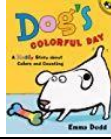


<p>Unit 4</p>  <p>Week 2</p>	<p>Small Groups: Help Dog Match his Spots Low to Medium Support</p>	<p>Math SG1</p>	<p>Standards: MELDS.M.MP.PS.5 MELDS.M.OAT.PS.3 MELDS.M.OAT.PS.4</p>
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Guiding Math Ideas:

- Math Enthusiasm- Playing Math Games
- Measurable Attributes- Matching and Sorting by Colors
- Rational Counting- Growing understanding of cardinality

Math Concepts from Unit Learning Progressions:

- Math ideas relate to games (comparisons, quantity and subitizing}
- Beginning to compare groups using counting strategies up to 10
- Using measurable attributes to organize materials

Materials:

- *Dog's Colorful Day*
- Dog's Day 10- Grid Game Board resource- 1 per child
- Stack of Color Cards matching the colors in Dog's Colorful Day (Use from Color and Shape Bingo, or old Candyland Game, or create)
- " Bath" cards resource -adjust number as needed
- glue sticks and construction paper (for making game cards)

Math Vocabulary:

- Add- put another color card on your board
- Subtract- take away a color card

Preparation:

The 10 colors in Dog's Colorful Day are: Black (this is Dog's own spot), red, blue, green, brown, yellow, pink, gray, orange, and purple. Find (from old games) or make color cards (a template is included). Be sure to have at least 10 cards of each color and cut out the *Bath* cards. Make enough copies of the Dog's 10 Frame Grid Game for each child to have one during the game.

Place materials and book on small group table. Cards need to be face down, with the color not showing.

Procedure:

Show the book, and ask children to name the colors as you turn the pages.

How many colors did Dog have all together, before his bath?

Count the colors (10) and place one of each color card in the middle of the table so that children will be able to compare their color boards and know which colors they still need to complete their boards.

We are going to play a color game about Dog and his many colors.

Place a 10 Frame Grid Game in front of each child. Show the color cards. Show the color cards, starting with the black ones.

What color is this? Children answer Black.

Yes, Black is the color of Dog's own Spot- Right here on his ear! [Point to the page with Dog's spot].

Since Dog already has a Black Spot, let's put the Black color on our game cards to start our game.

Help Dog Match His Spots.

Distribute one Black Card to each child.

Here are some special cards. Show a *Bath* Card.

*When you draw a **Bath** card, I wonder what this could mean?* Children guess.

Yes, that means that Dog took a bath and his color washed off! When you draw a *Bath* card, you take away one of your color cards and put it back into the pile.

Show the remaining color cards and shuffle them, placing them face down. Place the stack of color cards face down in the middle of the table.

Child draws a card, names the color and matches it to her grid and the turn passes to the next child. If she/he draws a card of a color she already has, her turn goes to the next child. When a child draws a **Bath** card, she takes the last color card on the board and puts it back.

The game continues until children have filled up their cards with the remaining 9 colors. Count the spots 1-10.

Use the language of math to help children decide how to add and subtract colors, judge how many more colors they need to fill their cards, compare with the book's color order, etc.

I see that you have some blank squares left. What colors are missing?

You subtracted (took away) one pink card. How many are left? See Strategies section for additional provocations/questions.

Adjust the difficulty of the game by reducing or removing **Bath** Cards, having children work together in teams, requiring that children place colors in the order found in the book, changing the number of cards that are removed when the **Bath** cards are drawn, or using a 20 grid card.

As children grow familiar with playing this game, step back and allow them to experiment with different methods, and create their own rules. Children can also play by themselves, matching and counting at their current level of understanding.

Strategies to Provoke Math Thinking:

- **Math in Games:** This game uses 10 Grids (also called 10-Frames). This is a classic way to assist children with counting strategies by displaying clear 1 square, 1 item correlation. This is an excellent tool to help children keep track of their counting and can also be used to reinforce number order when used for sequencing. See *Where's the Math* for additional information about math and games.

- Beginning number operations: This simple game encourages advanced mathematical thinking. Children will actually be adding (one more) and subtracting (taking away) as they complete their grid. Use accurate math words like subtraction and addition when describing the actions as the game progresses.
- Throughout the game, ask children questions about their cards: *How many more colors do you need to complete your board? How many do you have all together?*
- Children may become frustrated at having to take away a color. If so, adjust this part of the game by playing it without the Bath Cards.

Adaptations for Additional Learning:

- Making Sets: Make the cards into a memory game by turning the cards upside down. Start with pairs of 2 cards, but change difficulty to 3 or 4 of the same color as children get more sophisticated. Children must collect 2 (or 3 or 4) of a particular color for a “set”. Drawing a **Bath** card means starting over.
- Counting up to 20: Use the 20 Grid Game (Blank), dice and color cards. First a child draws a color card. Then the child rolls a dice and puts that many color cards to fill up his grid. If the child draws the same color next round, turn passes to the next child. Game ends when the grid is filled.
- Sequence: Add difficulty by having the children place colors in the order in which they appear in the book. Create a color chart to assist children, or have them compare with the book as they play. This adds algebraic thinking in recognizing patterns.

Documentation:

Observe these counting skills: 1:1, cardinality, ability to count on, or to quickly “see” how many colors are still needed and other steps in rational counting. Take pictures of game boards to share with families as you discuss the value of playing games together.

Provocation:

Many books and stories can be made into games. Look at the other books from this Unit and brainstorm with colleagues about how to create indoor and outdoor games using the characters in a book. Example: Use Mouse Shapes. Children pretend to be Mice and hunt for shapes around the room. Swan Harbor: Children use maps and locate areas in Maine where different animals and plants live.