

## **Kites Challenge based on *Wish: Wishing Traditions from Around the World***

By Roseanne Thong

### **Engineering Problem from the Text:**

To carry out their wishing tradition, people in Guatemala need a way to create kites that can flutter in the wind.

### **Wish Kites Design Challenge**

Using only the provided materials, create a miniature kite that flutters in the wind of a fan for at least 5 seconds before falling to the ground.

- The provided materials are paper, coffee filters, straws, string, and tape.
- You may use scissors to change the shape of and cut holes in the materials.
- Feel free to use the back of this page for brainstorming and sketching.

***Literacy Extension:*** Create a class book about a kite flying adventure.

### **Materials:**

- 10 straws
- 2 sheets tissue paper
- 10 coffee filters
- 6 ft streamers
- 2 sheets construction paper
- 2 paper bags
- tape
- scissors
- fan and extension cord



## **Dog's Colorful Day: A Messy Story About Colors and Counting**

By Emma Dodd

### **Engineering Problem from the Text:**

How do we fit all the dots on dog in special patterns?

### **Dog's Color Day Design Challenge**

Using only the provided materials, fit 9 dots on dog without any of the dots touching or touching the edges of his outline.

- Use the back of this page for brainstorming and sketching.
- Advanced Challenge: After you have fit all the dots, try to fit 9 dots of three (3) colors without any of the same color being next to each other.

<p><i><b>Literacy Extension:</b> Create a class book about of different dog patterns and numbers of dots.</i></p>
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### **Materials:**

- 1 dog outline
- Different color marker daubers
- Circular stickers of different colors (at least 3 different colors)
- Pencil
- Blank Paper
- Tactile dots for children who are blind or need more support or sensory input (outline dog with wikisticks/pipecleaners or soft velcro)

## **Where Is Baby's Beach Ball?: A Lift-the-Flap Book**

by Karen Katz

### **Engineering Problem from the Text:**

Where is the ball in the room?

### **Ball Engineering Challenge for Infants**

Using the provided materials, hide the different balls or other toys in the room and encourage the child to find them.

- Use both transparent and opaque coverings for the balls to support different children's levels
- Encourage children to crawl or walk around room to find the objects
- Describe their actions and support their language development by narrating the activity and giving them clues
- Scaffold the task to make it a little harder each time

After children have found the balls, explore how the balls move. Which bounce higher? Which ones roll farther? Does the same thing happen each time? Can we work together to make it go higher or farther or find the ball together? Can we try different ways or surfaces to bounce on (carpet and tile)?

***Literacy Extension:*** *Read the book on a regular basis and make your own book of hidden objects in the classroom.*

### **Materials:**

- Translucent scarfs and other pieces of fabric
- Balls and toys from infant classroom
- Ball book
- Camera