#### Ten Minutes with Ten-Frames Presented by Sallie Havey (<u>sbhavey@henrico.k12.va.us</u>) 2014 NCTM Regional Conference Richmond, VA

Best Practices for Ten-Frame Routines (Grades PreK-2)

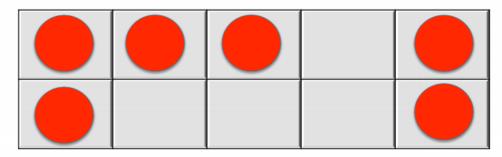
- should be daily
- should last 5-10 minutes
- can be built in to Calendar Routines
- can be used as independent stations/math tubs once students understand the routine

Differentiation Strategies:

- more accessible tasks: use five-frames for numbers 0-5
- more challenging tasks: use double ten-frames for numbers 0-20

### 1. Number Talks

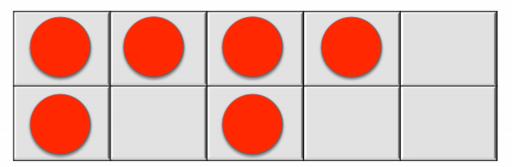
Materials Needed: ten-frame quick images



Routine: Hold up a quick image to students for 2-3 seconds. Students should hold up a silent thumb once they recognize the number. Ask students, "How many dots do you see?" and "How do you see them?" You may also ask, "How many more to get to 10?" Call on students to share different ways to "see" the number.

### 2. Building Sets

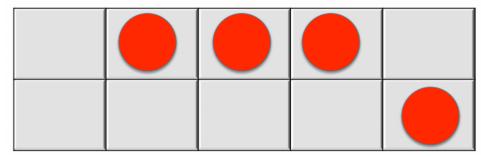
Materials Needed: blank ten-frame mats (one per student), two-sided counters (10 or more per student)



Routine: Call out a number from 1-10, and have students create that number on their ten-frame. Have the students turn to a partner and share an observation about their representation on the ten-frame. "How are they the same? How are they different?" Record observations on an anchor chart for that number as students share out during the class discussion.

# 3. Ten-Frame Flash

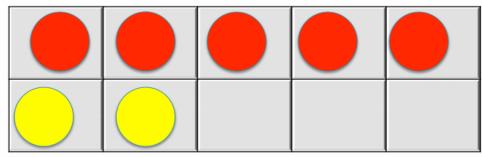
Materials Needed: quick images (ten-frames; paper or electronic example) blank ten-frame mats (one per student), two-sided counters (10 or more per student)



Routine: Hold up a ten-frame quick image (or display on the Promethean or Smart Board) for 2-3 seconds. Ask the students to build what they saw with the counters on their ten-frame. Do 3-4 examples in a session.

# 4. I Wish I Had

Materials Needed: ten-frame cards (0-10), blank ten-frame mats (one per student), two-sided counters (10 or more per student)



Routine: Hold up a ten-frame card (ex. 5), and say, "I have \_\_\_\_ (5). I wish I had \_\_ (ex. 7). How many more counters do I need?" Students should model 5 on the ten-frame using one side of their counters, and then model the missing part needed to get to 7 (In this case, 2) using the other side of their counters.

## Helpful Professional Development Resources:

Conklin, Melissa. It Makes Sense! Using Ten-Frames to Build Number Sense, Grades K-2. Sausalito, CA: Math Solutions

Parrish, Sherry D. 2010. Number Talks: Helping Children Build Mental Math and Computation Strategies. Sausalito, CA: Math Solutions