

# Mathematics Fluency for Grades K-2



### Agenda

- Admit Ticket
- Fluency Expectations
- Fluency vs. Knowing from Memory
- Fluency Conceptual, Procedural and Fact
- Strategies for Accomplishing Fluency
- Assessing Fluency
- Debrief and Discuss



### Subitizing

- Buttons
- Subitizing Cards
- Dominoes



https://www.youtube.com/watch?v=TZvITXVqwts



### Interviews

#### Protocols to quickly assess fluency:

#### Protocol A. Assess fluency

- 1. Write  $4 \times 5$  on a card [point at card]. What does  $4 \times 5$  mean?
- 2. What is the answer to  $4 \times 5$ ?
- 3. How did you find the answer to  $4 \times 5$ ? Could you find it another way?
- 4. If your friend was having trouble remembering this fact, what strategy might you suggest to him or her?

#### Protocol B. Assess flexibility and strategy selection

- 1. What is 8 + 5?
- 2. How can you use 8 + 2 to help you solve 8 + 5?

OR

1. How can you use  $3 \times 7$  to solve  $6 \times 7$ ?

Protocol C. Assess use of appropriate strategy (adapted from Henry and Brown 2008)

#### **Probes**

What is 7 + 8?

How did you figure it out? [Ask regardless of how quickly or accurately they solve the fact.]

#### Codes

R = Recall

A = Automatic (within 3 seconds)

M10 = Making 10 Strategy
ND = Near Doubles Strategy

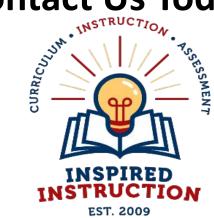
D = Some other derived fact strategy

CO = Counting on CA = Counting all

MCA = Modeling and counting all



## Want to Book This Workshop? Contact Us Today!



Inspired Instruction, LLC.
Standards Solution Holding

#### www.inspiredinstruction.com

196 Belvidere Avenue

Washington, NJ 07882

Phone: 908-223-7202

Michele.Regan@inspiredinstruction.com Jaclyn.Siano@inspiredinstruction.com