Mathematics Tasks: Empowering K–2 Teachers to Effectively Facilitate the Five Practices

Introductions

Erica Beckett

Twitter: @Erica_Beckett
Insta: @NumeracyPlayground

Kelly Halpin

Twitter: @KellyQHalpin

Wendy Wall

Twitter: @WendyWall_Math

Elementary Math Coaches, Fairfax County Public Schools FCPS

Outcomes

- Explore teacher and student artifacts that build on student strengths and promote rigorous mathematical opportunities
- Identify planning and facilitation moves that support effective rich task facilitation.
- Make connections to your work with students and identify potential next steps

Which picture connects to your experience using the 5 Practices to facilitate tasks?

TASK & SHARE

approx. 5-10 min.	**NUMBER SENSE ROUTINE/ SENSE MAKING ROUTINES**
approx. 30 min.	**MATH TASK** One task is given, students work in collaborative groups. The teacher moves to small groups and provokes thinking through asking good questions. This task typically has multiple entry points, allowing for all students to have access to this problem. This could be a parallel task or open-ended question, one that supports differentiation.
approx. 15 min.	**STUDENT SHARE** Students share about the various strategies that were used. Students ask questions, clarify their thinking, modify their work, and add to their collection of strategies in their tool box.
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SMALL GROUP WITH STATIONS OR TASK

approx. 5-10 min.	**NUMBER SENSE ROUTINE/ SENSE MAKING ROUTINES**	
approx. 45 min.	**GUIDED MATH** Teacher meets with groups of students in heterogeneous and/or homogeneous groups for small group instruction.	**STATIONS** Students are working on engaging activities that are mathematically purposeful. These activities could be in the form of a single, cognitively demanding question or a variety of stations in which student choice is a factor.
approx. 5-10 min.	**REFLECTION**	

The 5 Practices for Orchestrating Productive Mathematical Discussions

Practices that take place while planning for instruction	Practice 0: Setting goals and selecting tasks
	Practice 1: Anticipating student responses
Practices that take place during instruction but are considered during planning	Practice 2: Monitoring student work
	Practice 3: Selecting student solutions
	Practice 4: Sequencing student solutions
	Practice 5: Connecting student solutions

Student Facing Launch Slides

Diego and Joe are going to a pizza party.

Diego and Joe are going to a pizza party. Diego brought ___ slices of pizza for the party. Joe brought ___ slices of pizza.

Diego and Joe are going to a pizza party.
Diego brought 14 slices of pizza for the party. Joe brought 5 slices of pizza.

Practice 1: Anticipate Student Strategies

Diego brought 14 slices of pizza for the party. Joe brought 5 slices of pizza. How many more slices of pizza did Diego bring than Joe?

Form Trios

Practice 0: Setting Goals

Goals:

Mathematicians use what they know about the story to represent their thinking.

Mathematicians can flexibly solve problems using the relationship between addition and subtraction.

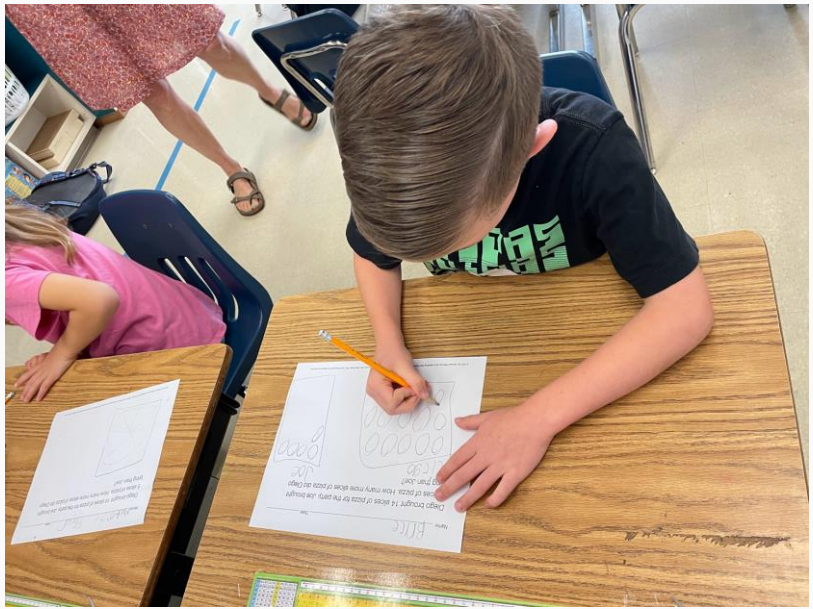
How might these goals surface in the strategies you anticipated?

Practice 2: Monitoring

What do you notice about the teacher's questions?

Practice 2: Explore the Monitoring Chart

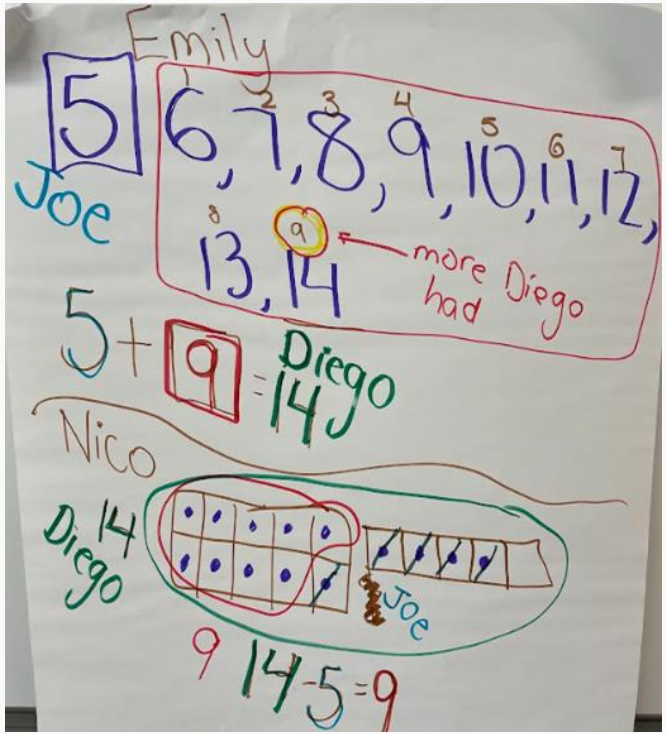
How might the assessing and advancing questions support students' understanding of the mathematics?



Practice 3 & 4: Selecting and Sequencing

What do you notice about the decisions that were made?

How does the selecting and sequencing support the mathematics goals?



Practice 5: Connecting

How do the questions connect student strategies to each other and the mathematical goal?

Reflection: Synthesizing the Learning

Considerations

1. Build from student strengths.
2. Collaborate to plan and facilitate the 5 Practices.
3. Respond to student thinking. Flexibly adjust mathematical goals as needed.

Reflect

- What connections are you making to your work with students?
- What big idea are you taking away from our time together?
- What might you try as a next step?

Thank you!

Erica Beckett

ebbeckett@fcps.edu
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Kelly Halpin

kqhalpin@fcps.edu
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Wendy Wall

wkwall@fcps.edu
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