

Area of Focus Process: Example Worksheet

Rose – 7th Grade Math

1. SELF-ASSESS

A. Determine learning strengths and needs of your students

Step 1. List the strengths and needs you have assessed.

	Formative assessment data from now
Students' strengths	<ul style="list-style-type: none"> • Many students have computational fluency. • Students understand the meaning of unit rate. • Students have confidence in using one procedure.
Students' areas of need	<ul style="list-style-type: none"> • Students struggled to understand why they were using a particular procedure to solve a problem. • Students struggled to explain the procedure conceptually. • Students struggled to confidently explain their thinking to a classmate.

Step 2. Generate Questions.

What questions do you have about how your students developed these strengths?
<ul style="list-style-type: none"> • How did the students develop their confidence in their one preferred procedure? • To what extent do the students expect to apply their computational fluency to more advanced problems or concepts?

What aspects of your students' learning challenges are most puzzling to you?

- How will I shift students' thinking toward conceptual understanding?
- How do I build confidence in my students, so they see themselves as mathematicians?
- Will I find that my students go directly to a procedure they know on all content throughout the year? Or will they have some conceptual understanding for certain content?
- Do students know that there can be more than one procedure for solving a problem?

Have my students ever been asked to explain their thinking verbally? How much modeling will I need to do for them to see the benefit in discussing math with their classmates?

Step 3. Analyze Your Data.

What are 1-2 areas of strength for your students that you could build on during this inquiry cycle?

- Using students' computational fluency to build into more difficult concepts.
- Support them in conceptually understanding the one procedure they are confidently using.

What are 1-2 areas of student learning need that you are not sure how to support yet through your instruction?

- How to build relationships among students so that they are confident in sharing with partners.

1. SELF-ASSESS

B. Consider district/school goals and professional development offerings.

What are your school and district goals for the year?

- Supporting students in using the 8 Mathematical Practices as habits of mind.
- Supporting students' ability to talk about how they solved math problems and justify their thinking.

What support will you receive through professional development (PLCs, team time, workshops, coaching)?

- District-based professional development workshops quarterly on implementing the 8 Mathematical Practices through content.
- Math team professional development on using talk moves to promote student discussion through monthly sessions with our school's math coach.
- Possible classroom coaching on classroom discussion with the math coach.
- Weekly planning with the math coach, focusing on the conceptual understanding for the lesson and how the teacher will promote student-to-student discussions around that learning target.

How do these goals and support opportunities connect with your student learning needs?

- My students are struggling with conceptually understanding procedures. My work with the coach in planning a lesson centered on conceptual understanding will help the students see why a procedure works. The students are also struggling with sharing their ideas. The district professional development for mathematical practice 3 (Constructing Viable Arguments) will support me in developing students' ability to share their ideas and justify their thinking.

1. SELF-ASSESS

C. Self-assess using your district's instructional framework.

What are areas of strength in your instructional practice?

- Understanding the content and progressions of student learning in mathematics.
- Communicating learning targets to students.
- Establishing discussion norms and routines.

What are areas of growth in your instructional practice?

- Promoting math discussion that is focused around the learning target for the day.
- Creating/utilizing math tasks that promote conceptual understanding.

How does this connect to professional development offerings available to you?

- The math team professional development on talk moves will support my need to promote discussion in my classroom.
- The planning with my math coach will help me understand how to build a lesson focused on conceptual understanding. Hopefully I will then be able to think differently about planning my lessons on my own.

2. DETERMINE A FOCUS

A. Narrow to an area of focus.

Step 1. Make connections.

What commonalities do you see among your students' learning needs, your school/district focus, and your self-assessment on the instructional framework?

- My district is focused on students utilizing the Mathematical Practices and my students do not know how explain their thinking in mathematics. I need to work on helping them understand the mathematics conceptually so that they can explain procedures. This focus will help me build more student engagement in my classroom; students will not merely be compliant, but rather will be actively involved in discussions about mathematics.
- My district PD is on the Mathematical Practices. Mathematical Practice #3 is: Construct viable arguments and critique the reasoning of others. This work will support me in understanding how to support students in justifying their thinking.

Given your students' strengths and needs, your questions about your own practice, and the professional development offerings in your district, what might be a reasonable focus for your inquiry cycle?

- Students could get better at understanding math conceptually, so that they can explain their thinking.
- I need to learn more about how to plan for conceptual understanding to occur and focus my classroom discussions around my math goal for the lesson.

Step 2. Name your area of focus.

- **If I work on the following instructionally:**
 - Facilitating discussion around mathematical concepts and procedures by modeling student discussion through fishbowl demonstrations.
 - Utilizing talk moves that support and encourage student discussion.
 - Planning lessons that focus the instruction on the conceptual understanding of the big idea in mathematics, followed by a procedure that is built from that conceptual understanding.

- **Then, the result (in student learning) of this instructional focus will be:**
 - All students will be able to explain why they chose the strategy they used to solve a problem. Students will be able to explain their thinking because of the modeling that the teacher has provided.
 - Students will investigate the mathematics, build their own strategies and explain why the strategy works.
 - All students will increase their score by one level on the trimester assessment.

2. DETERMINE A FOCUS
B. Envision data and look fors.

Step 1. Determine student look fors.

What qualitative and quantitative sources of data might you collect from students?	What will you look for at the end of the cycle to show you met your goals?	What will you look for along the way?
<ul style="list-style-type: none"> • Student notebooks (weekly). • Exit tickets at least twice a week. • Anecdotal notes collected weekly from student discussion. • Benchmark math assessment on ratios and proportional relationships. 	<ul style="list-style-type: none"> • All students will be able to explain why they chose a particular strategy when solving a problem. • Students will show conceptual understanding of ratios and proportional relationships. • All students will increase by at least 1 level on their trimester assessment. 	<ul style="list-style-type: none"> • Student notebooks will include students solving problems in more than one way if applicable. Students will be able to explain their strategy conceptually • In student to student discussion, students will start to say: <ul style="list-style-type: none"> ○ I know my answer is correct because..... ○ I used this strategy instead of _____ strategy because..... ○ I used what I know about _____ to help me solve this problem. • In student work I will see students showing evidence of conceptual understanding when they explain their procedure.

Step 2. Determine your instructional practice look fors.

Within the content you teach, what will change in your instructional practice? What will this look and sound like?

- I will be facilitating student fishbowls to demonstrate productive math discussion.
- Specific talk moves I may be using:
 - “Turn and talk to your partner about _____’s way of solving the problem.”
 - “Who would like to add on?”
 - “Tell your partner whether you agree or disagree with the answer and why.”
 - I may revoice a student’s strategy or ask a student to repeat a particular strategy.
- I will be planning specifically for conceptual understanding and planning the math discussion around my learning target.
- I will be listening in to student-to-student discussion and making anecdotal notes on students’ understanding of the learning targets.