

SAMPLE TEMPLATE: CLASSROOM-FOCUSED IMPROVEMENT PROCESS (CFIP)

Grade 5 Mathematics, March 20__

DATA SOURCES: Common assessment developed by grade 5 teachers

ESSENTIAL SKILLS AND KNOWLEDGE ASSESSED:

5.NF.3: Interpret a fraction as division of the numerator by the denominator ($\frac{a}{b} = a \div b$).

Solve word problems involving division of whole numbers leading to answers in the form of fractions or mixed numbers, e.g., by using visual fraction models or equations to represent the problem.

5.NF.4: Apply and extend previous understandings of multiplication to multiply a fraction or whole number by a fraction.

5.NF.5: Interpret multiplication as scaling (resizing).

5.NF.6: Solve real world problems involving multiplication of fractions and mixed numbers, e.g., by using visual fraction models or equations to represent the problem.

Orientation Step 1: Identify the relevant assessments and define the terms used in the assessment data reports (as needed).

The assessment used was developed by the grade level math team based on PARCC prototypes. The same answer key was used by all teachers, and scoring was done as a team to increase consistency and so that difficult to categorize responses could be clarified.

Question Step 2: Identify the questions to answer in this data dialogue.

What can we do in the last few months of school to prepare our students to be more proficient in solving real-world problems, particularly those involving the multiplication of fractions and mixed numbers?

Patterns Step 3: Identify the major patterns of students' strengths and needs at the class level (if possible, by using more than one data source).

MAJOR PATTERNS OF CLASS STRENGTHS	MAJOR PATTERNS OF CLASS NEEDS
<ul style="list-style-type: none"> • 5.NF.3: Interpret a fraction as division of the numerator by the denominator ($\frac{a}{b} = a \div b$). • 5.NF.4: Multiply a fraction or whole number by a fraction. • 5.NF.5: Interpret multiplication as scaling (resizing). 	<ul style="list-style-type: none"> • 5.NF.6: Solve real world problems involving multiplication of fractions and mixed numbers.

Action Step 4: Use the Reflection Guide to help identify the instructional factors that might have contributed to the patterns of student needs. Identify the steps that team members will take to address the patterns of class-level needs and determine when and how re-assessment will occur.

SPECIFIC STEPS WE WILL TAKE TO ADDRESS THE PATTERNS OF CLASS NEEDS
<p><i>We decided that we needed to determine if the issue is multiplication computation or the interpretation involved in problem solving. So, we will gather more assessment data by including in future warm-ups both “naked” multiplication problems and multiplication problems in context. We will bring the data from these warm-ups to the next collaborative planning meeting.</i></p> <p><i>We suspect that the issue will be a lack of student understanding of math problems in context. If this is the case, we decided that we will need to stop and re-teach standard 5.NF.6 (solving word problems involving multiplication of fractions and mixed numbers) to the whole class. Students need to master this understanding to be successful with grade 6 division of fractions. We will gather possible new strategies to do this prior to our next planning meeting. After re-teaching, we will re-assess the class using an exit ticket with both a few multiplication problems presented out of context and a situation modeled after the PARCC assessment prototypes that are available.</i></p>

IF CLASS FOLLOW-UP IS NEEDED, SKIP TO STEP 6. COME BACK TO STEP 5 AFTER FOLLOW-UP AND RE-ASSESSMENT HAVE OCCURRED.

Differentiation Step 5: After follow-up and re-assessment (if necessary), identify the students who excelled and those who still need additional assistance. Identify and implement in-class enrichments and interventions for both groups of students.

STUDENTS WHO PERFORMED PARTICULARLY WELL	SPECIFIC STEPS WE WILL TAKE IN CLASS TO ENRICH THE LEARNING OF THESE STUDENTS	STUDENTS WHO STILL NEED WORK AFTER CLASS FOLLOW-UP	SPECIFIC STEPS WE WILL TAKE IN CLASS TO HELP MORE STUDENTS BECOME PROFICIENT
<p><i>Demetrius Heather R. Bansi</i></p>	<p><i>We will:</i></p> <ul style="list-style-type: none"> <i>To advance student thinking into the later topic of division, have students research foods which can easily be</i> 	<p><i>Brian W. Daquon Jesi Kenny Jill Sara</i></p>	<p><i>We will:</i></p> <ul style="list-style-type: none"> <i>Use a small group setting to present the same concepts using the procedures described on MSDE lesson seed for 5NF.6: Application of Multiplication and Division of Fractions at:</i>

	<p><i>divided (such as a Hershey bar or other candies that have the breakaway) vs. foods which cannot be easily divided, such as a bottle of soda. Challenge students to determine how they would divide up the soda. Ask students to write the division problem which represents their tool and to explain their thinking. Also, ask, "Why aren't the answers all the same?"</i></p>	<p><i>Parker</i></p>	<p>http://www.mdk12.org/instruction/academies/eeaMATH_elementary_ur.html <i>As proficiency is increasing among members of the small group, we will begin to model the mathematical processes and then stop and ask students to continue explaining the processes from where we leave off. Then, we will have students work in pairs, stop them midway in their explanations, and ask the other student to explain the math processes from where the first student stopped.</i></p>
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Future Planning Step 6: Identify a skill or concept to be taught in the next few weeks that students will probably find difficult. Collaboratively plan instructional strategies to teach the difficult concept in a new and innovative way. Reflect on the success of the CFIP session and plan for the next meeting. Implement the agreed-upon instructional improvements and be ready to report on their success at a future CFIP session.

SPECIFIC INSTRUCTIONAL ENHANCEMENTS TO A LATER TOPIC
<p><i>The next challenging standard will be 5.NF.7: "Apply and extend previous understandings of division to divide unit fractions by whole numbers and whole numbers by unit fractions."</i></p> <p><i>We will visit web sites such as the following to identify innovative resources that we might use to teach this standard successfully and report back at the next meeting:</i></p> <p>http://commoncoretools.files.wordpress.com/2012/02/ccss_progression_nf_35_2011_08_12.pdf.</p> <p><i><u>Next Meeting:</u> We will reconvene during our collaborative planning time in three days to share the resources that we found.</i></p>