

Unfinished Learning Series
Math Community of Practice

Session 3:
Plan & Take Action Part I
Planning & Delivering Acceleration Supports

Stop & Jot: Diagnosing Unfinished Learning Reflection

- What went well and what was challenging?
- What did you learn? What might you do the same or differently next time?

Access Accelerate Math Landing Page

[Accelerate Math](#)

Access Accelerate Math Resources

[Grade 4 Module 5 Lessons 12-15 Google Slides](#)

Planning for Action Case Study Part I

Using the evidence from student work on the Eureka Acceleration Tool diagnostic screener, Ms. Hutchins formed four flexible groups based on student learning needs.

Learning Need	Evidence or from Diagnostic & Classwork	Group
Develop conceptual understanding of fractions as numbers and magnitude of unit fractions	Misapplying whole number reasoning to compare fractions	Malayah Kamal Joseph
Develop conceptual understanding of fractions as numbers and magnitude of unit fractions	Confusing numerator and denominator Misapplying whole number reasoning to compare fractions	Jamir <i>*Meet with Mrs. Teal</i>
Develop conceptual understanding of fraction magnitudes	Using the number of parts to compare instead of the size of the parts	Bryce Richard
Develop accurate representations for visual fraction models	No models drawn or have not yet developed equipartitioning strategies	Neveah Edwin Anniyah

After assigning students to fluid tutoring groups, Ms. Hutchins determines she will begin the tutoring sessions with 3 of the 4 tutoring groups two weeks before starting the fraction comparison topic with the class, and with the fourth group the week prior to starting instruction on the grade level content.

Ms. Hutchins' school, Brightwood Academy, built a forty-five minute acceleration block into the daily schedule. Ms. Hutchins creates a schedule along with Mrs. Teal, a special education teacher with whom she often plans and co-teaches. They meet every Thursday during their common planning time to plan for tutoring sessions, reassess learning needs and adjust groups based on student work from tutoring sessions and class.

Week 1	Ms. Hutchins' Acceleration Block	Ms. Teals' Acceleration Block
Monday March 8th	Malayah, Kamal, Joseph	
Tuesday March 9th	Malayah, Kamal, Joseph	Jamir
Wednesday March 10th	Bryce, Richard	Jamir
Thursday March 11th	Bryce, Richard	Jamir
Friday, March 12th	Plan based on evidence from session 1 & classwork	
Week 2	Ms. Hutchins' Acceleration Block	Ms. Teals' Acceleration Block
Monday March 22nd	Neveah, Edwin Annyiah	Bryce, Richard (<i>if needed</i>)
Tuesday March 23rd	Neveah, Edwin Annyiah	Bryce, Richard (<i>if needed</i>)
Wednesday March 24th	Malayah, Kamal, Joseph	Jamir
Thursday March 25th	Malayah, Kamal, Joseph	Jamir
Friday, March 26th	Plan based on evidence from session 1-2 & classwork	

After planning for flexible groups and the timing of the tutoring sessions, Ms. Hutchins and Mrs. Teal turn their attention to planning for the content they will deliver in the tutoring sessions. They begin by going to the Louisiana Believes Accelerate Math landing page to identify acceleration support resources for the upcoming module lessons. Mrs. Teal has already been using the session 1 resources for Module 5 lessons 1-6 with Jamir. As she monitored Jamir's work in the previous week's tutoring session, she noted Jamir had an emerging understanding of fractions greater than 1. As a result, she'll focus on the additional practice problems from the Module 5 lessons 1- 6 session 2 resources that target fractions greater than 1 before starting the Module 5 Lesson 12-15 content. She also identifies the "Must-do" practice problems she will prioritize in the lesson 12-15 content based on Jamir's learning needs.

Ms. Hutchins plans to deliver the Module 5, Lessons 12-15 content to Malayah, Kamal, Joseph, Bryce, and Richard in the two weeks prior to starting the grade level lessons. She also

identifies the “Must-do” practice problems she will prioritize with each group based on their learning needs. During the second week, she plans to use some of the additional practice items the groups did not complete during the first week session if needed based on evidence in the student work, or engage students in the Module 5, Lessons 16-19 content if needed based on evidence from their current class module lesson 6 exit ticket. Because Neveah, Edwin, and Anniyah’s work on the diagnostic screener did demonstrate some understanding of comparing fractions with common numerators, but showed a need to develop equipartitioning skills to draw models, Ms. Hutchins anticipates they will need less tutoring time for the upcoming topic so she plans to meet with them twice during the second week of the accelerate cycle. She will also engage them in Module 5, Lessons 12-15 content if warranted by the evidence in their classwork. Ms. Hutchins and Mrs. Teal also decide Bryce and Richard will meet with Mrs. Teal for the session 2 content if needed based on their lesson 6 classwork and exit ticket.

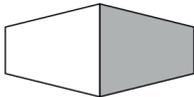
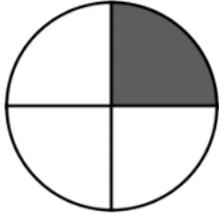
Group	Must-Do Problems
Malayah, Kamal, Joseph	Slides 10, 16, 19, 22, 23, 25, 26
Jeremiah	Slides 10, 11, 16, 19, 20, 25, 27
Bryce, Richard	Slides 10, 16, 17, 19, 24, 25, 26, 27
Neveah, Edwin Anniyah	Slides 11, 19, 20, 21, 24, 25

Finally, Ms. Hutchins and Ms. Teal make a plan for preparing the materials they will need for the Module 5, Lessons 12-15 sessions. They note they will need to cut 1 x 9 red paper strips for each student, and print copies of the notebook paper template. Ms. Franklin, the grades 3-6, mathematics content lead, coordinates a group of volunteers who help prepare instructional materials needed for acceleration sessions. Ms. Hutchins fills out the *Volunteer Instructional Materials Prep* form with the logistical information for the materials and attaches the template to be copied for the session. Before closing out their planning meeting, they discuss the student work they will need to bring to their next meeting so they can monitor student progress and adjust groups and plans for week 2.

Breakout Room Discussion Questions
<ul style="list-style-type: none"> ● What do you notice about how Ms. Hutchins planned for acceleration? ● How does the plan address the learning needs identified from the diagnostic screener student work?

Planning for Action Case Study Part II

In addition to the small group tutoring sessions, Ms. Hutchins and Mrs. Teal also planned to address a specific learning need they identified for the whole class based on the evidence from the diagnostic screener. Because most of the class missed item 7 on the diagnostic screener, they decided to incorporate warm up tasks to build understanding of the significance of the whole when comparing fractions that they would have students work on and discuss at the beginning of class next week. They identified four tasks to use for warm-ups from grade 3 Module 5, Lesson 11. At the end of the week, they planned to reassess student understanding of this concept using a variation of item 7 from the diagnostic screener.

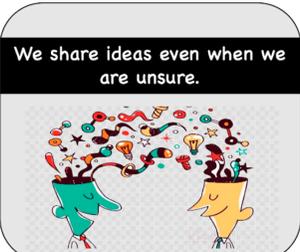
Day 1 Warm Up	Day 2 Warm Up
<p>Manny and Daniel each ate $\frac{1}{2}$ of his candy, as shown below. Manny said he ate more candy than Daniel because his half is longer. Is he right? Explain your answer.</p> <p>Manny's Candy Bar</p>  <p>Daniel's Candy Bar</p> 	<p>Robert ate $\frac{1}{2}$ of a small pizza. Elizabeth ate $\frac{1}{4}$ of a large pizza. Elizabeth says, "My piece was larger than yours, so that means $\frac{1}{4} > \frac{1}{2}$. Is Elizabeth correct? Explain your answer.</p>  
Day 3 Warm Up	Day 4 Warm Up
<p>Tatiana ate $\frac{1}{3}$ of a small carrot. Louis ate $\frac{1}{6}$ of a large carrot. Who ate more? Use words and pictures to explain your answer.</p>	<p>Debbie ate $\frac{1}{8}$ of a large brownie. Julian ate $\frac{1}{2}$ of a small brownie. Julian says, "I ate more than you because $\frac{1}{2} > \frac{1}{8}$"</p> <p>a. Use pictures and words to explain Julian's mistake.</p> <p>b. How could you change the problem so that Julian is correct? Use pictures and words to explain.</p>
Reassess	
<p>For the inequality $\frac{1}{3} > \frac{1}{6}$ to be valid, what must be true?</p>	

Delivering Acceleration Supports Case Study I

Ms. Hutchins begins the lesson by welcoming her students and having them share one thing that they are truly great at and one thing they are currently getting better at. She starts every tutoring session this way to learn more about her students and keep a pulse on how students are seeing themselves as learners. Ms. Hutchins then reminds students of their math norms and names that in today's session she wants the group to work on asking questions about other's ideas.

4B Community Math Norms

We share ideas even when we are unsure.



We listen and ask questions about others' ideas



We discuss and examine mistakes to help us learn.



We coach others when needed.



We know everyone gets stuck sometimes.

When we are stuck, we think of...

- a question we can ask
- a different idea to try
- who we can ask for help
- what has worked before when we were stuck

She shows the session 1 welcome slide to share the “I can” statement they will be working on today, and asks students to share something they think they already know about comparing fractions with the same numerators. After reading the application problem three times and having students visualize the application problem to set them up to work independently, Ms. Hutchins has students draw their models of the problem on their white boards. She then asks them to show their boards so she can see their thinking. She notes Kamal has drawn the two hot dogs referenced the problem side-by-side and the hot dogs are different lengths which lead him to an inaccurate conclusion. Malayah also drew a picture of the hot dogs, but aligned them to show they were the same length. Ms. Hutchins quickly redraws two of the student models on a whiteboard under her document camera and asks the group to discuss how the models are similar and different.

During the discussion, Kamal names he would revise his drawing by making his pictures of the hot dogs the same length because the hot dogs in the problem were equal-sized hot dogs. Joseph shares he noticed the size of the parts got smaller the more parts the hot dog was cut into. Ms. Hutchins asks Malayah to restate Joseph's observation in her own words. Malayah asks Joseph to repeat what he said one more time, and then rephrases, *“When the whole hot*

dog was only cut into three equal parts, the parts were bigger, but when it was cut into six equals parts, the parts were smaller. It's like the M&M division story. When we divided the M&Ms with more and more people, each person got less M&Ms." Ms. Hutchins acknowledges Malayah just made a really helpful connection between division and fractions.

After drawing models to compare $\frac{3}{4}$ and $\frac{3}{8}$, Ms. Hutchins explains the group is going to play a comparison game. Malayah will start by drawing a whole, partitioning it into equal parts, and shading a fraction of the whole. Joseph's challenge is to draw a fraction that is less than Malayah's using the same whole and same number of shaded parts. Kamal will then check both players' fraction models, and write a comparison sentence to compare the two fractions. For the first round, Malayah draws $\frac{2}{4}$ and Joseph draws $\frac{2}{3}$. Kamal confirms both fractions have the same shape whole, but Malayah's tape diagram is longer than Joseph's. Ms. Hutchins asks him if that matters. Kamal says he's not sure and Ms. Hutchins asks Malayah and Joseph what they think. Joseph says it doesn't as long as the whole is the same shape. Malayah isn't sure, but she thinks it might matter because it's like the hot dog problem and both hot dogs were the same size. Ms. Hutchins suggests having Joseph draw his model below Malayah's on the screen to make the tape diagrams the same length. After redrawing his tape diagram, Joseph realizes $\frac{2}{3}$ is actually more than $\frac{2}{4}$ because thirds are larger parts than fourths even though 3 is less than 4. He asks if he can revise his fraction model, and draws $\frac{2}{8}$ noting he just split each of Malayah's fourths in half.

As the students continue to draw models and work on the independent practice problems during the session, Ms. Hutchins continues to ask student probing questions like, "Why does it make sense $\frac{4}{6}$ is greater than $\frac{4}{12}$?" and "When two fractions have the same numerator, but different denominators, how do you know which fraction is the greater fraction?" She also asks students to share their responses and asks the other members of the group if they have any compliments or questions for the student who shared the response. Malayah compliments Joseph on labeling the whole unit, and asks how he made seven equal parts. Joseph shared he thought about what sixths would look like first, and knew the sevenths would be slightly smaller parts.

Ms. Hutchins closes the session by asking students to share something they learned about comparing fractions while listening to another classmate during today's session. After the session, Ms. Hutchins jots down some notes and questions she wants to be sure to focus on during tomorrow's session based on what she noticed in the students' work during the session.

- On slide 19 ask: How much water was left in each of the girls' bottles? How do you know? Which girl has more water left? How can you prove it?
- On slides 22-23 be sure to have students read the comparison sentences and complete the sentence frame ___ is less than/greater than ___ because.....

Delivering Acceleration Supports Case Study II

Ms. Fields begins her lesson by instructing students to read the session objective and get their materials ready. She tells students that they will be working on comparing fractions with the same numerators so they can catch up and be ready for fourth grade math. After reading the application problem that starts the session, Ms. Fields instructs students to draw two tape diagrams on their white boards like she just did on the paper under the document camera. She then thinks-aloud and models what she would do next to partition the two tape diagrams to match the hot dogs that are referenced in the problem. After partitioning the tape diagrams, she instructs students to shade $\frac{2}{3}$ of the first tape diagram and asks them how many pieces they need to shade in the second tape diagram to match the shaded amount in the first tape diagram. Jaleel answers correctly, 4 pieces, and she instructs the other two students to shade 4 pieces on their tape diagrams. Ms. Fields directs the group to erase their boards to move to the next problem. After having them draw two circles to represent pizzas on their boards, she reminds them to make sure the circles are the same size. She then shows them how to partition the first circle into fourths and the second circle into eighths.

Ms. Fields: Now shade in 3 pieces in each circle. Which fraction is greater, $\frac{3}{4}$ or $\frac{3}{8}$?

Brian: $\frac{3}{8}$ is more because that pizza has more slices in it.

Ms. Fields: Yes, that's true but the fourths are bigger slices than the eighths so $\frac{3}{4}$ is the greater fraction. Comparing fractions with the same numerator is actually very easy, because you just need to look at which fraction has the smaller number in the denominator. The fraction with the smaller number in the denominator will be the larger fraction.

She models two more of the independent practice problems and has the students copy her work on their boards. Then she has the students try one of the problems on their own. After working for 2 minutes independently, Jaleel tells Ms. Fields he doesn't know how to make fifths on a number line. Ms. Fields draws a number line under the document camera and tells Jaleel to make four lines like hers because that will make five parts. Below the first number line with fifths, she draws a second number line and partitions it into ninths.

Ms. Fields: So which fraction is greater, $\frac{3}{5}$ or $\frac{3}{9}$?

Jaleel: $\frac{3}{5}$ because it has the smaller number at the bottom.

Ms. Fields: Yes, very good. That's right.

Ms. Fields closes the lesson by asking students if they have any questions. None of the students respond. She tells them they are showing improvement and they will continue practicing tomorrow.

Access Effective Mathematics Teaching Practices

[Effective Mathematics Teaching Practices](#)

Access Ms. Hutchins' Monitoring Tool

[Monitoring Tool](#)

Pause Point

- To what extent is this work with planning and delivering acceleration supports currently happening at your school/in your classroom?
- What has been successful and/or what conditions are in place to support this work happening?
- What has been challenging?
- What potential barriers might you anticipate?

Access Feedback Survey

<https://tinyurl.com/SSICoPSession3Survey>