The Three Shifts of the Common Core State Standards for Mathematics

Shift One: Focus strongly where the Standards focus.

In your groups, discuss ways to respond to the following question, "Why focus? There's so much math that students could be learning, why limit them to just a few things?"

Engaging with the shift: What do you think belongs in the major work of each grade?

Grade	Which of the following should *not* receive intense focus at the indicated grade?		
K	Compare numbers	Identify shapes	Understand meaning of addition and subtraction
1	Add and subtract within 20	Measure lengths indirectly and by iterating length units	Tell and write time
2	Work with equal groups of objects to gain foundations for multiplication	Understand place value	Represent and interpret data
3	Multiply and divide within 100	Use place value understanding and properties of operations to perform multi-digit arithmetic	Develop understanding of fractions as numbers
4	Generate and analyze patterns	Generalize place value understanding for multi-digit whole numbers	Extend understanding of fraction equivalence and ordering
5	Write and interpret numerical expressions	Understand the place value system	Apply and extend previous understandings of multiplication and division to multiply and divide fractions
6	Understand ratio concepts and use ratio reasoning to solve problems	Compute fluently with multi-digit numbers and find common factors and multiples	Apply and extend previous understandings of arithmetic to algebraic expressions
7	Apply and extend…add, subtract, multiply, and divide rational numbers	use properties of operations to generate equivalent expressions	Draw, construct, and describe geometrical figures and describe the relationships between them
8	Know that there are numbers that are not rational and approximate them by rational numbers	Define, evaluate, and compare functions	Understand and apply the Pythagorean Theorem

Shift Two: Coherence: Think across grades, link to major topics within grades

In your groups, discuss what coherence in the math curriculum means to you. Be sure to address both elements—coherence within the grade and coherence across grades. Cite specific examples.

Engaging with the shift: Investigate coherence in the standards with respect to fractions.

In the space below, copy all of the standards related to multiplication and division of fractions and note how coherence is evident in these standards. Note also standards that are outside of the Number and Operations—Fractions domain but are related to, or in support of, fractions.

Grade	Standard	Summary of the Standard (If the standard has sub-parts, summarize each sub-part.)

Shift Three: Rigor: Expect fluency, deep understanding, and application

In your groups, discuss ways to respond to the following comment: “These standards are expecting that we just teach rote memorization. Seems like a step backwards to me.” Or “I’m not going to spend time on fluency—it should just be a natural outcome of conceptual understanding.” or “You can’t assess understanding!” (we choose one of these, or another focus topic for discussion)

Engaging with the shift: Making a true statement: Rigor = _____ *+* _____ *+* _____

This shift requires a balance of three discrete components in math instruction. This is not a pedagogical option, but is required by the standards. Using grade 3 as a sample, find and copy in the space below standards which specifically set expectations for each component.

Grade 3 standards that require **fluency**:

Grade 3 standards that require **deep conceptual understanding**:

Grade 3 standards that require **application**: