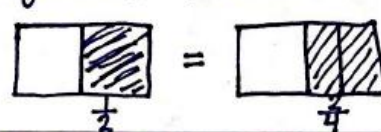


Breaking Down a Mathematics Standard *Note: Grade 4 expectations in this domain KAS: KY.4.NF.1 are limited to fractions w/ denominators 2, 3, 4, 5, 6, 8, 10, 12, 100

What is the domain/conceptual category/big idea? Numbers & Operations - Fractions

Standards for Mathematical Practice	
MP.1. Make sense of problems and persevere in solving them.	MP.5. Use appropriate tools strategically.
MP.2. Reason abstractly and quantitatively.	MP.6. Attend to precision.
MP.3. Construct viable arguments and critique the reasoning of others.	MP.7. Look for and make use of structure.
MP.4. Model with mathematics.	MP.8. Look for and express regularity in repeated reasoning.

Cluster: What is the broader understanding that the standard plays a role in building? Extend understanding of fraction equivalencies

Standards	Clarifications
<ul style="list-style-type: none"> Identify the target of the standard: <ul style="list-style-type: none"> ✓ conceptual understanding o procedural skill/fluency o application <p>Consider how the target of the standard will have an impact on instruction and assessment. (For more information, refer to p. 7, 10 and 15 of KAS for Mathematics.) <u>Students should be able to make sense of why a mathematical idea is important and the kinds of contexts in which it is useful. Students are also able to connect prior knowledge to new ideas & concepts.</u></p> <ul style="list-style-type: none"> What key mathematics should students know and be able to do? <ul style="list-style-type: none"> • equivalent fractions 	<ul style="list-style-type: none"> What are the specific representations/strategies that will need to be considered when planning instruction? <ul style="list-style-type: none"> • <u>Students draw visual fraction models to subdivide the pieces into smaller equal sized pieces.</u> What are the possible misconceptions that will need to be addressed during instruction? <u>If students are taught a trick like the butterfly method they will not understand the why & how equivalent fractions work.</u> <p>Coherence: Previous Grade → Current Standard → Upcoming Grade</p> <ul style="list-style-type: none"> How does this standard build off of prior learning? <u>Grade 3 KY.3.NF.3 equivalent fractions</u> How does this standard support future learning? <u>Grade 5 KY.5.NF.1 adding & subtracting fractions w/ unlike denominators.</u> How does this standard connect to other standards (or even other clusters or domains)? <u>Same cluster: KY.4.NF.2 Compare fractions. Connect to KY.4.MD.2 solve problems involving fractions.</u>

Attending to the Standards for Mathematical Practice

- How are students engaging in the mathematical practices as they learn this content? (For more information, refer to p. 12-15 of KAS for Mathematics.)
 - MP.4 - Students have the opportunity to draw their own visual fraction model to show fraction equivalencies
 - MP.7 Look for and make use of structure, students can explain how 1/2 is equivalent to 2/4.
 - MP.8 Look for repeated reasoning, students are able to show the relationship between the numerator and denominator.