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UNIT PLANNING TOOL

Planning Focus: Fractions: Extending fraction equivalence and ordering

Grade Level: 4th

Extend understanding of fraction equivalence and ordering.

CCSS.MATH.CONTENT.4.NF.A.1

Explain why a fraction a/b is equivalent to a fraction $(n \times a)/(n \times b)$ by using visual fraction models, with attention to how the number and size of the parts differ even though the two fractions themselves are the same size. Use this principle to recognize and generate equivalent fractions.

CCSS.MATH.CONTENT.4.NF.A.2

Compare two fractions with different numerators and different denominators, e.g., by creating common denominators or numerators, or by comparing to a benchmark fraction such as 1/2. Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of comparisons with symbols >, =, or <, and justify the conclusions, e.g., by using a visual fraction model.

Mathematical Practices being emphasized:

- 3. Construct viable arguments and critique the reasoning of others.
- 5. Use appropriate tools strategically

Essential Questions

How can a fraction model help us make sense of a problem? In what ways can we model equivalent fractions? How are benchmark fractions helpful when comparing fractions?

Key Concepts

- Benchmark fractions
- Plotting fractions on a number line
- Use visual models to compare and find equivalent fractions
- Factors and products

Pre and Post Assessments

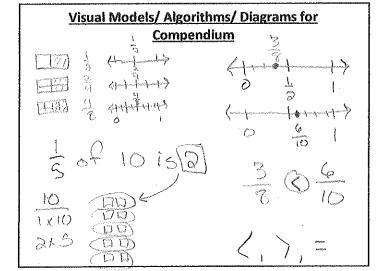
Pre and post assessments in unit.

Exit slips (teacher developed and from unit)

Preassessment for classroom demo – see attached. (Preassessment based on concepts that will help the teachers know students' current understanding of fractions.)

Other formative assessment opportunities:

- Simultaneous Numbered Heads
- Inquiry Chart
- Work on unit lessons
- Guided math group



Connections (Real World Applications)

- Dividing food (candy bars, cakes)
- Weight of food (2 ½ pounds of grapes X 1 ¼ times that weight in bananas)
- Bags of marbles, boxes of pencils, yards or feet of wrapping paper or ribbon
- Increasing or decreasing recipes, fraction of students on buses
- 2/3 of the class are boys. ½ are wearing tennis shoes. What fraction of the boys are wearing tennis shoes?

Describe	Language Functions/Structures
Describe	First we Then we Finally, we
Explain	We decided to because To solve the problem, we and then The factors of are and because
Analyze	is greater thanbecauseis less thanbecauseis equivalent tobecauseandare equivalent because, whereandare inequalities because
	Vocabulary
	nerator, denominator, operations, multiplication/multiply, factors, products, mixed numbers, product, rtition, equal parts, equivalent, factor, unit fraction, benchmark fraction, inequalities, greater than, less
	Focus and Motivation
Chants: Yes	Ma'am: Fractions, Decimals, Percents by Annette Maestas
Frac	tions Cadence by Evelyn Chávez
Video and q	uizzes on Brainpop for fractions
Literature: //	nchworm and a Half by Elinor J. Pinczes
	he Wishing Club by Donna Jo Napoli
Е	ngineering Marvels: Roller Coasters: Dividing Fractions by Ben Nussbaum
Activity with would b	pattern blocks or base ten blocks: If is, then what is? What would be one whole? What e?
YouTube - Fi	ractions in real life https://www.youtube.com/watch?v=5AVjBFP4MRg&t=36s (possible start for doing a to