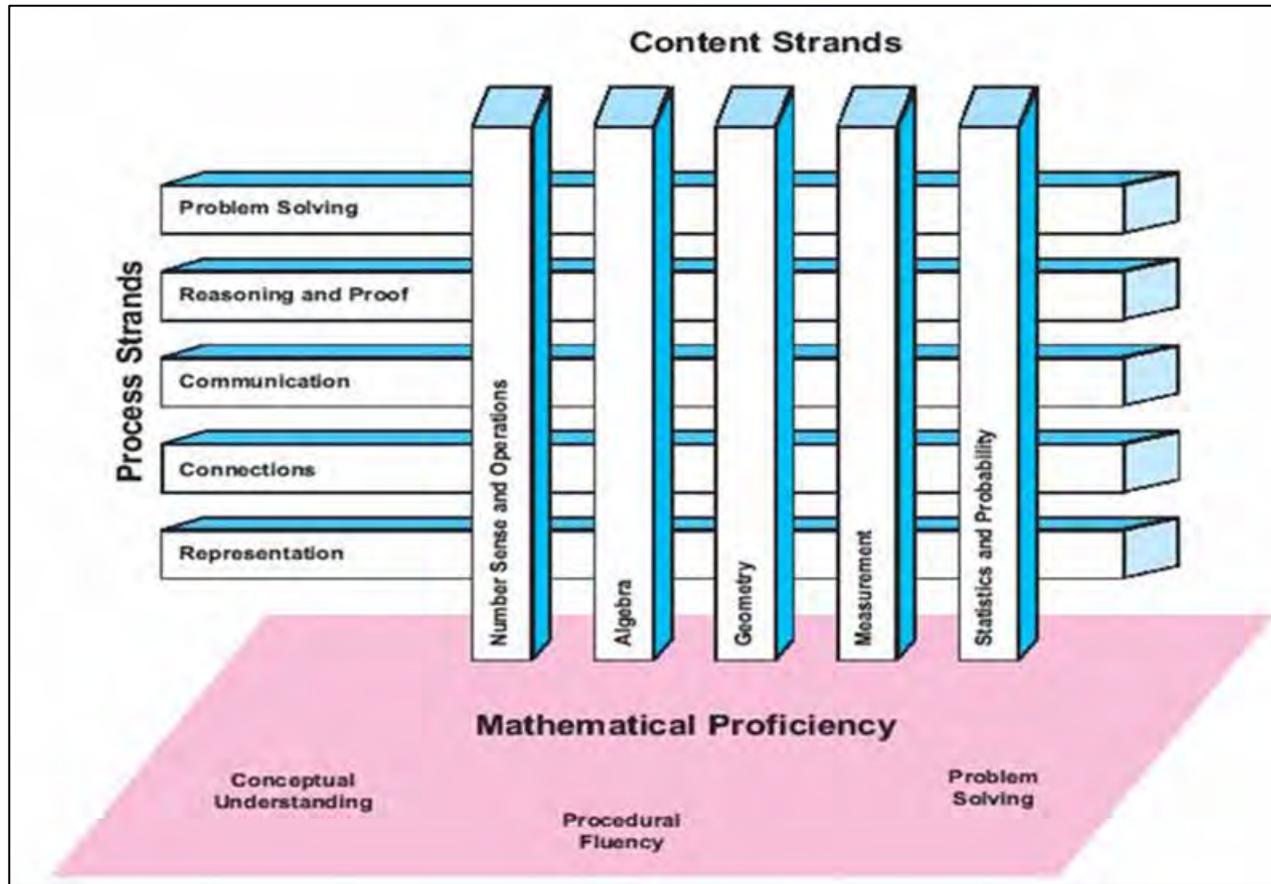


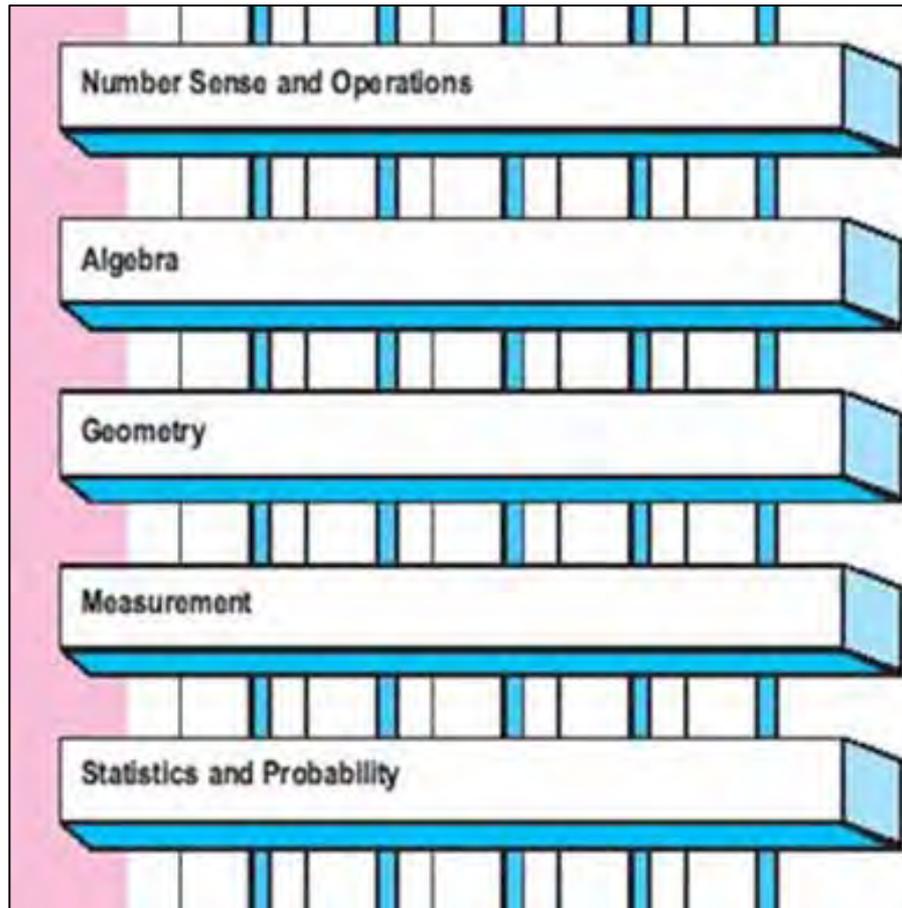


**Bringing the
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April 28, 2011**

NYS 2005 Mathematics Standards



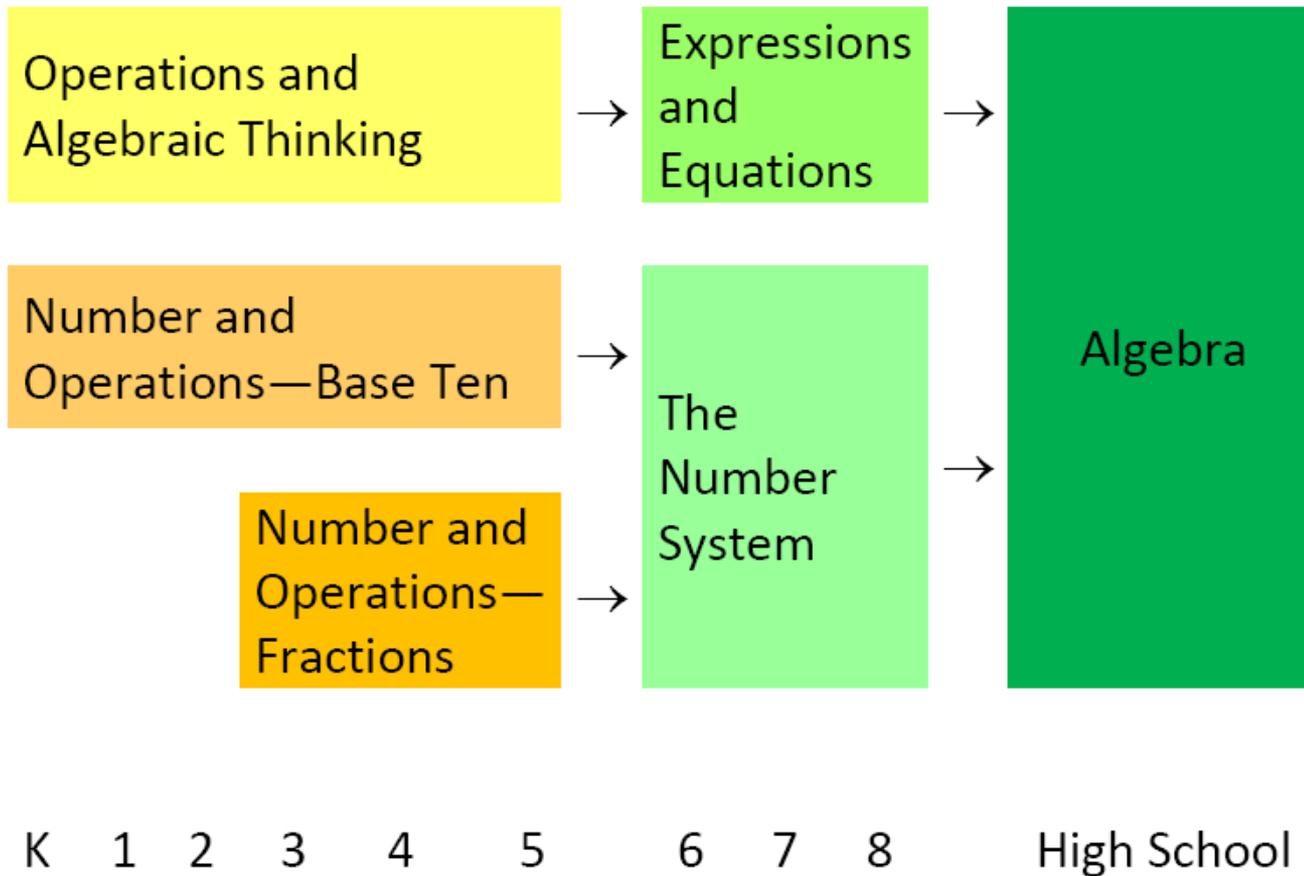
Shopping Aisles



Major Flows Leading to

Algebra

pre-Algebra and
linear algebra



Fractions

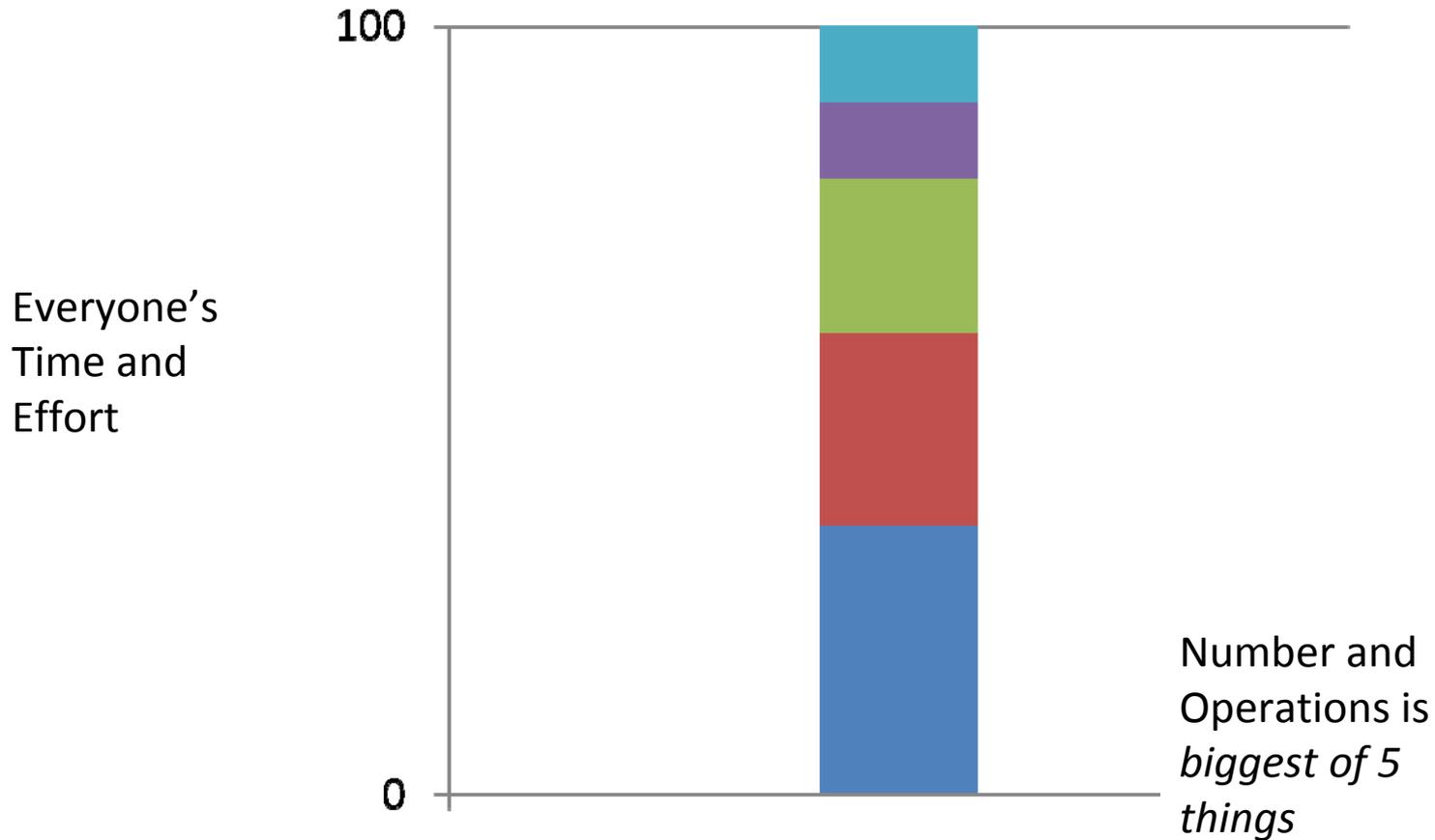
6.N.17 Multiply and divide fractions with unlike denominators.

4.NF

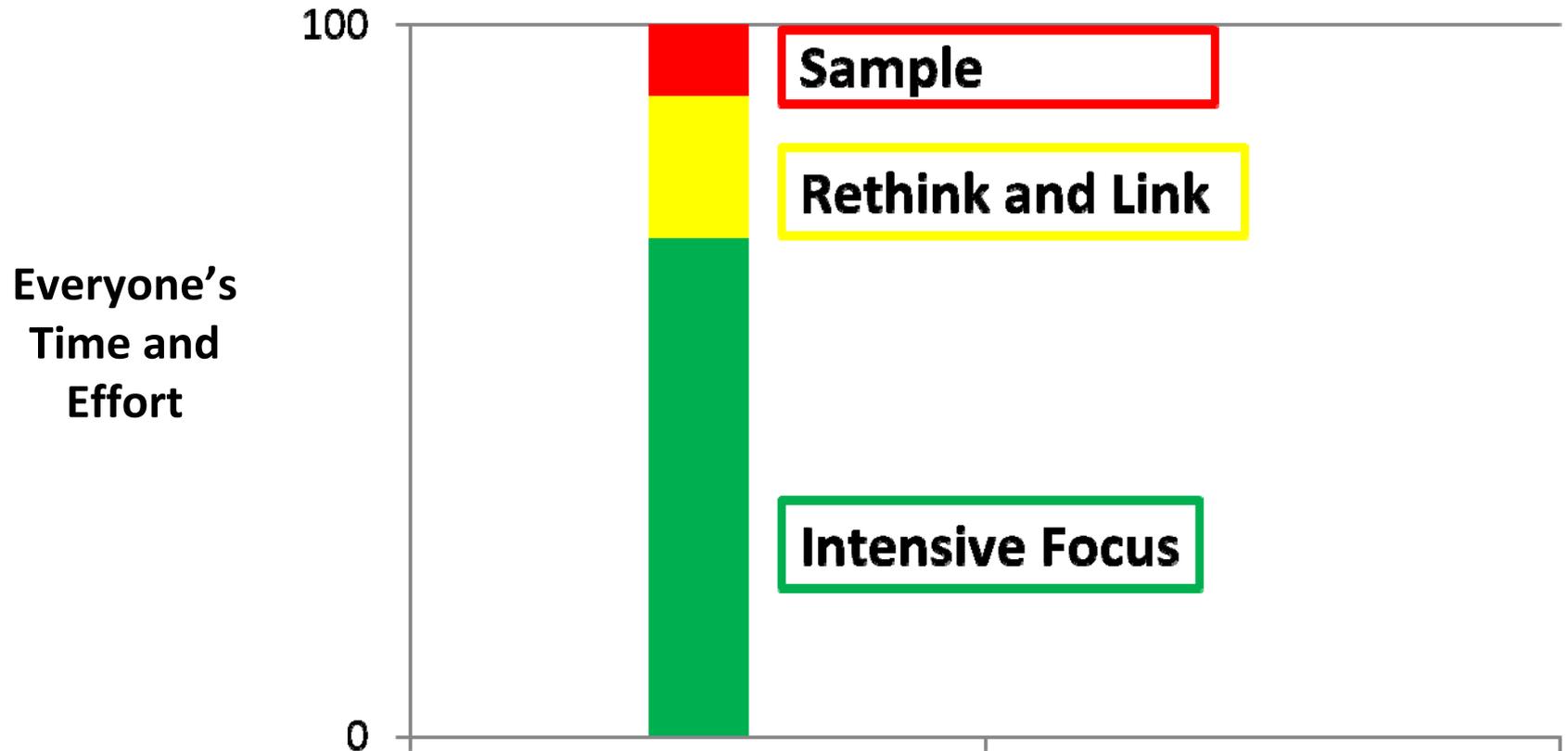
4. Apply and extend previous understandings of multiplication to multiply a fraction by a whole number.
 - a. Understand a fraction a/b as a multiple of $1/b$. *For example, use a visual fraction model to represent $5/4$ as the product $5 \times (1/4)$, recording the conclusion by the equation $5/4 = 5 \times (1/4)$.*
 - b. Understand a multiple of a/b as a multiple of $1/b$, and use this understanding to multiply a fraction by a whole number. *For example, use a visual fraction model to express $3 \times (2/5)$ as $6 \times (1/5)$, recognizing this product as $6/5$. (In general, $n \times (a/b) = (n \times a)/b$.)*
 - c. Solve word problems involving multiplication of a fraction by a whole number, e.g., by using visual fraction models and equations to represent the problem. *For example, if each person at a party will eat $3/8$ of a pound of roast beef, and there will be 5 people at the party, how many pounds of roast beef will be needed? Between what two whole numbers does your answer lie?*

- Key moments in the curriculum (like 4.NF.4) demand that we slow down and devote more time to allow for reasoning / thinking / discussing as well as the necessary hard work and practice.
- Demands we revamp the mile-wide, inch-deep approach in curriculum and textbooks

Focus in K-5: The shopping aisle version



Focus in K-5: The new version



	10% Sample	20% Rethink and Link	70% Intensive Focus
K-2 examples	<ul style="list-style-type: none"> • Patterns • Statistics/Data • Probability • Estimating computations 	<ul style="list-style-type: none"> • Geometry and measurement 	<ul style="list-style-type: none"> • Addition and subtraction concepts, skills, and problem solving
3-5 examples	<ul style="list-style-type: none"> • Patterns • Statistics/Data • Probability 	<ul style="list-style-type: none"> • Area, volume 	<ul style="list-style-type: none"> • Multiplication and division of whole numbers and fractions, balance of concepts, skills, problem solving
6-8 examples	<ul style="list-style-type: none"> • Statistics 	<ul style="list-style-type: none"> • Quantitative relationships and functions 	<ul style="list-style-type: none"> • Proportional reasoning and linearity • Algebra • Geometric measurement



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