Grade Level Notes for CCSS Fraction Module 2: Implementing the Fraction Content Standards

Grade 3:

Content	Skills	Visual Representations
• Understand unit fractions as the basic building blocks of fractions • Understand fractions as numbers • Recognize the connection between fractions and whole numbers • Understand that equivalent fractions mark the same point on a number line • Compare fractions with the same numerator or denominator • Recognize the importance of referring to the same whole when comparing fractions	• Partition into and recognize equal parts • Build fractions from unit fractions • Represent and locate a fraction on a number line • Use visual models to represent fractions • Recognize and generate simple equivalent fractions using visual models • Express whole numbers as fractions	• Shapes – circle, rectangles, line segments • Number lines • Area models • Tape diagrams • Strips of paper • Fraction strips • Ruler

Grade 4:

Content	Skills	Visual Representations
• Learn the fundamental property of equivalent fractions • Connect the numerical process of multiplying to physically partitioning each unit fraction piece • Understand that the meaning of addition and subtraction is the same for fractions as for whole numbers • Connect conversion of improper fractions and mixed numbers to addition and decomposition • Connect their understanding of multiplication as repeated addition to multiplying a fraction by a whole number • Understand that fractions with a denominator of 10 and 100 are called decimal fractions and connect these to money	• Use visual models to reason about equivalence • Compare fractions with different numerators and denominators by creating common denominators or using benchmark fractions • Recognize and generate equivalent fractions • Compose and decompose fractions with the same denominator in multiple ways • Add and subtract fractions, mixed numbers, and whole numbers with the same denominator • Solve word problems involving addition and subtraction • Solve word problems involving multiplication of a fraction by a whole number • Use decimal notation for fractions with denominators of 10 or 100 • Compare decimals with the same denominator	• Area model • Number line • Arrays

Grade 5:

Content	Skills	Visual Representations
- Interpret multiplication of fractions as scaling - Make sense of fractional quantities in order to estimate and reason about answers - Develop a general formula for the product of two fractions - Understand that multiplying by a quantity smaller than one produces a smaller quantity - Connect fractions to division - Use story problems to make sense of fraction division - Use the relationship between multiplication and division to work with simple fraction division problems	- Add and subtract fractions with unlike denominators (including mixed numbers) using equivalent fractions - Multiply any quantity by a fraction - Solve word problems involving addition and subtraction - Solve word problems involving multiplication and division - Divide unit fractions by whole numbers and visa versa	- Fraction strips - Number line - Area model - Collections of objects