Number and Operations–Fractions

In fifth grade, students use their understanding of **fractions** to model and perform addition and subtraction of fractions with unlike denominators and solve related word problems. They use benchmark fractions and fraction number sense to estimate and assess the reasonableness of answers. They also use number sense to move between decimal and fraction equivalents.

Students in fifth grade apply and extend previous learning to multiply a fraction or a whole number by a fraction. They extend their understanding of multiplication beyond the concept of repeated addition. For example, they interpret multiplication as scaling, or resizing, to compare the size of a product to the size of one factor based on the size of the other factor.

Students learn that fractions represent the division of two quantities. They apply and extend previous understanding of division to divide unit fractions by whole numbers and whole numbers by unit fractions and solve related real-world problems. They understand and explain why the procedures for multiplying and dividing fractions make sense.

The Grade 5 Common Core State Standards for Number and Operations–Fractions specify that students should–

- Use equivalent fractions as a strategy to add and subtract fractions.
- Apply and extend previous understandings of multiplication and division to multiply and divide fractions.

The following hands-on activities provide students opportunities to use concrete models and create visual representations that help them understand fractions. Students should be able to evaluate the utility of models and determine which are most useful in different problem solving contexts. A good concrete foundation helps students evaluate the results of problems and tell whether results make sense.