

# Number and Operations—Fractions

Students in third grade develop an understanding of fractions, viewing fractions as being built out of unit fractions. They understand that the size of a fractional part is viewed relative to the size of the whole. Students express fractions as fair sharing, parts of a whole, and parts of a set. They use fractions to represent numbers equal to, less than, and greater than 1. Additionally, they solve problems that involve comparing fractions by using visual fraction models and strategies based on noticing equal numerators and denominators. They understand a fraction as a number on a number line and represent fractions on a number line diagram. This is the first time students work with a number line for numbers between whole numbers.

Students also explain equivalence of fractions and compare fractions by reasoning about their sizes. At this level, students explore equivalent fractions primarily through the use of visual area models and number lines. They understand two fractions as equivalent (equal) if they are the same size or lie at the same point on a number line.

## The Grade 3 Common Core State Standards for Number and Operations—Fractions specify that students should—

- Develop understanding of fractions as numbers.

The following hands-on activities provide students with opportunities to use a variety of models and contexts to develop foundational understanding of fractions. Experiences involving area models and number lines are important to developing number sense. It is also important that students have opportunities to represent problem-solving situations involving fractions in multiple ways, such as building and drawing, and using numbers and objects. Opportunities to model and explain connections among representations will lead to greater mathematical proficiency.