

Curriculum Parent Overview - Unit 6 (Grade 3)

MATHEMATICS

UNIT #6: FAIR SHARES AND FRACTIONS ON NUMBER LINES (FRACTIONS)

CONTENT FOCUS:

This unit focuses on understanding the meaning of fraction as numbers and as equal parts of a whole; reasoning about equivalent fractions; comparing fractions; and using notation to model fractions and fraction relationships.

UNIT FOCUS:

- Understanding the meaning of fractions as equal parts of a whole: Students work with halves, fourths, eighths, thirds, and sixths. Although students have encountered words and notation for fractions in earlier grades, and have been introduced to the idea that fractions are equal parts of something, they develop ideas about the meaning of fractions more deeply in this unit. They represent fractional parts as equal parts of an area, name each of the equal parts as a unit fraction, and learn to interpret and name fractional parts that are multiples of unit fractions.
- Understanding the meaning of fractions as numbers: Using the number line, students focus on fractions as numbers. They are learning to extend their ideas about our number system to include these numbers.
- Comparing fractions and reasoning about fraction equivalencies with representations: Students compare fractions by using representations to reason about sizes of the fraction. They use number lines, rectangular “brownies”, pattern blocks, and Fraction sets to compare fractions and explain how they know which is greater or if the fractions are equivalent.
- Modeling with fraction notation: Fraction notation looks very different to students than notation for whole numbers. They focus on what this notation means and use it to model fractional parts of wholes and fractions as numbers on the number line. It is important that students encounter and use this notation in both of these contexts, as the notation helps them understand and coordinate different ways in which fractions are used.

MATHEMATICAL PRACTICES:

MP4: Model with mathematics.

CONNECTIONS TO PREVIOUS CONTENT:

In Grade 2, students began to develop an understanding of what fractions are and how they can be used to name quantities. Through working on problems about equal shares of a single object or of a set of objects, students worked with halves, thirds, and fourths. Students learned how the notation and words for fractions related to the meaning of these numbers. They also encountered mixed numbers, such as $1\frac{1}{2}$, to represent equal shares greater than one. Students worked with a small set of fractions and focused on two big ideas: that a fraction represents a part of a whole, and that the part it represents is one or more equal parts, which together make a whole. In Unit 2, students generated measurement data to the nearest $\frac{1}{2}$ inch, and placed that data on line plots. It is expected that most students have basic understandings of fractions, and can measure objects to the nearest $\frac{1}{2}$ inch.

CONNECTIONS TO FUTURE CONTENT:

In Grade 4, students continue to use contexts and representations, such as area models and number lines, to develop their understanding of the meaning of fractions and to begin their work with decimal fractions. Students compare and order fractions with different numerators and denominators, and compare and order decimals, explaining how they know which one is greater. They also begin more formal work on computation with fractions. They add and subtract fractions with the same denominator, add decimals, and multiply fractions by whole numbers.

MATH AT HOME:

- Play any of the following games with your child on Pearson Site after it has been introduced in the classroom:
 - Fraction Cookie
 - Visit [Investigations Math At-Home](#) for ideas
- Review the Math Words and Ideas videos for this unit on [Pearson Site](#)