Curriculum Units by Fellows of the National Initiative 2023 Volume III: Transitions in the Conception of Number: From Whole Numbers to Rational Numbers to Algebra

Teaching Elementary Fractions Using Fractions Strips

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This curriculum unit, Teaching Elementary Fractions using Fractions Strips, is intended as an introduction to fractions for elementary students. In this unit, students will be introduced to fractions using different models, with emphasis on fractions strips. It provides different teaching strategies to help students learn and enjoy working with fractions. By the end of the unit students will learn that fractional parts are equal shares or equal-sized portions of a whole or unit. A unit can be a single object or a collection of things. Fractional parts have special names that tell how many parts of that size are needed to make the whole. For example, thirds require three parts to make a whole. The more fractional parts used to make a whole, the smaller the parts. For example, eighths are smaller than fifths. Partitioning shares involves dividing an object, set of objects or number into parts. Knowing that shapes, sets and quantities can be partitioned into equal-sized parts, and understanding the importance of equal-sized partitions, is fundamental to recognizing the part-whole relationship between the numerator and denominator in fractions. An area model represents a fraction as a certain part of a rectangle divided into equal parts. It can provide students with a visual way to think about fractions.

Fraction strips are a versatile and engaging tool for teaching fractions in the classroom. They essentially provide a length model for thinking about fractions. By using fraction strips, students can develop a deep understanding of fractions and build their math skills in a fun and interactive way. Teaching with fraction strips can help struggling students who have spatial abilities. This unit is designed for second and third grade students to build a foundation in fractions. However, it can be used to introduce fractions to all students.

(Developed for Mathematics, grade 2; recommended for Mathematics, grades 2-3)

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