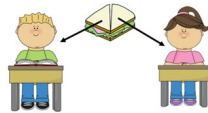


Fractions - Learning Progressions & Resources - Grades 1-3

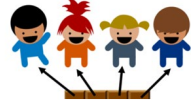
Grade 1

- Equal Shares
- Partitioning shapes into halves and quarters

one-half



one-fourth



Equal Sharing problems are a great way to introduce fractions.

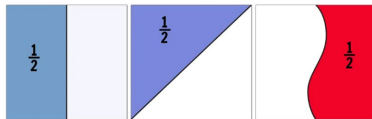
Grade 2

- Equal Shares
- Partitioning shapes into halves, thirds, and fourths



Connect fractions to geometry standards.

Recognize that equal shares of identical wholes need not have the same shape.



Resources:

- [I Spy Activity](#)
- [Equal Shares Recording Sheets](#)
- [Same But Different Fraction Talks](#)
- [Unitizing with Pattern Blocks](#)
- [12 Math Rules That Expire](#)
- [If..Then..Think!](#)
- [Sharing Sandwiches](#)



[NCTM Article](#)

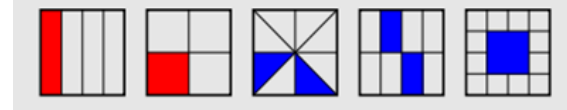


[Progressions Video](#)

Grade 3

- Fraction notation first introduced
- Unit fractions (sums)
- Comparing fractions with models
- The importance of specifying the whole.

Area representations of $\frac{1}{4}$



A number line diagram marked off in thirds

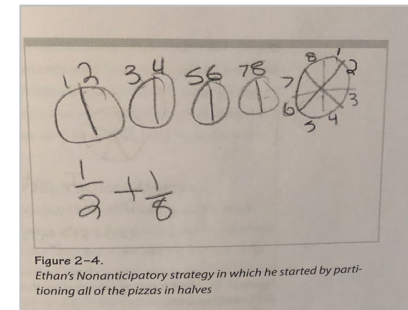
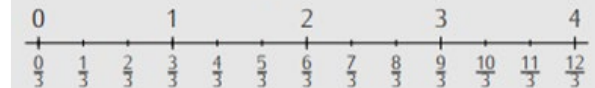


Figure 2-4.
Ethan's Nonanticipatory strategy in which he started by partitioning all of the pizzas in halves

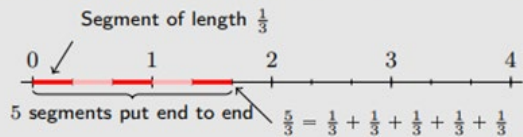
Equal Sharing problems can increase in rigor to explore multiple ways to share that might use different denominators.

Fractions - Learning Progressions & Resources - Grades 4-6

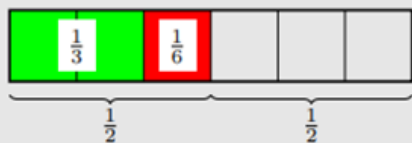
Grade 4

- Equivalent Fractions
- Adding and Subtracting Fractions
- Composing and Decomposing Fractions
- Unitizing Activities Increase in Complexity
- Comparing Fractions without Models
- Connection to Decimals

Using the number line to see that $\frac{5}{3} = \frac{1}{3} + \frac{1}{3} + \frac{1}{3} + \frac{1}{3} + \frac{1}{3}$

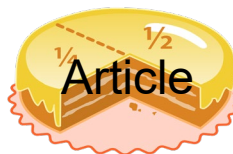
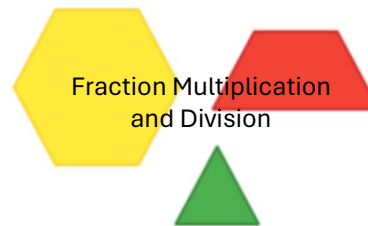


Using a fraction strip to show that $\frac{1}{3} + \frac{1}{6} = \frac{1}{2}$



Virtual Manipulatives

- [The Math Learning Center Pattern Blocks](#)
- [Toy Theater Fractions Strips](#)
- [Toy Theater Fraction Circles](#)
- [Toy Theater Cuisenaire Rods](#)
- [Math is Fun](#)
- [Fraction Tiles \(Blank\)](#)
- [Number Lines](#)
- [FREE TRIAL- Awesome Advanced Activities & Project M³](#)



[The Unusual Baker -Task](#)

Grade 5

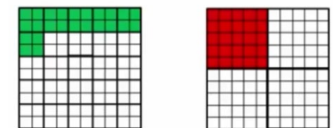
- Adding and Subtracting Fractions (both fractions need to be re-expressed)
- Connect fractions with division
- Multiplication as scaling



Proportional Reasoning

Grade 6

- Fractions, decimals, and percents
- Rational numbers less than one
- Ratios
- Multiplication and division of mixed numbers



$$\frac{6}{25} = \frac{24}{100}$$

$$\frac{1}{4} = \frac{25}{100}$$