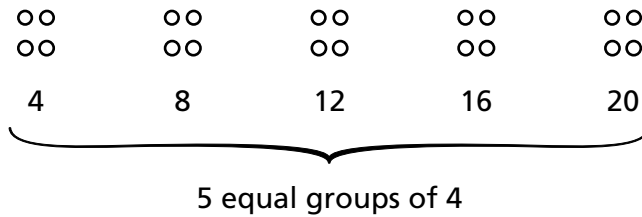
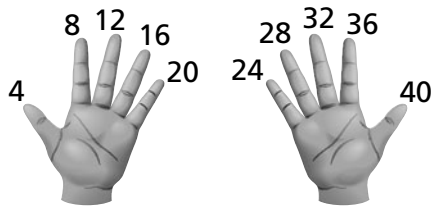


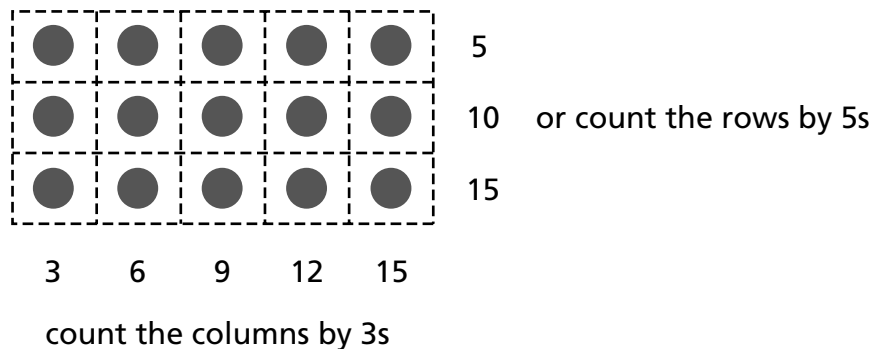
Math Background

Strategies for Multiplying

Use Fingers to Show Each Multiplier of an Equal Group Children raise fingers to show each multiplier as they say the multiplication. Children practice count-bys for each number. For example, the 4s count-bys are 4, 8, 12, 16, 20, 24, 28, 32, 36, 40. Each count-by has a pattern. Children explore and describe these patterns.

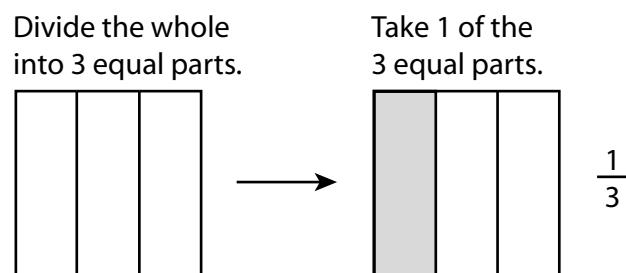


Use Arrays to Show Multiplication Arrays are introduced as another way to show what multiplication means. When presented with an array, children learn to see the equal groups in the rows or columns. They practice using repeated addition or count-bys to help find the product.



Understanding Fractions and Probability

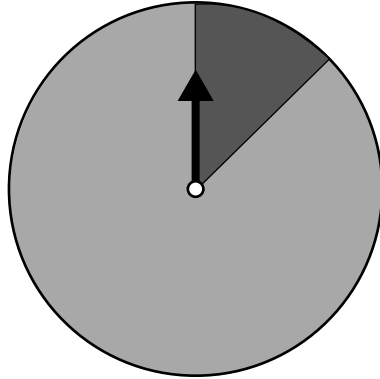
Fractions Children will shade halves, thirds, and fourths of simple geometric shapes that have been divided into the corresponding number of equal parts. From there, children write the appropriate fraction and learn what each part (top and bottom) of the fraction means.



Children will also solve problems using simple fractions of a set. For example: Kathy has **half** as many marbles as Yao. Kathy has 6. Yao has 12.

Teaching Unit 7 (Continued)

Probability Children will continue their understanding of fractions of a figure as they color in the parts of a spinner and play a spinner game. They describe the outcome using simple probability language: *more likely, less likely, fair, unfair*.



Connections Between Mathematical Topics

In this program, making connections between mathematical topics is a central goal. Many connections can be made between concepts in addition and multiplication. In this unit, we build on what children already know about counting and skip-counting to introduce the concept of multiplication. Children are able to see yet another connection when they find they can also use repeated addition to help find products in multiplication.

Once children have grasped the idea of equal groups in multiplication, we have them further explore ideas about equal parts or equal shares in fractions. Children develop an understanding that fractions mean equal parts of a figure, and that fractions can mean equal parts of a set.

When children are able to apply what they already know to new topics, they become more confident in their mathematical abilities.

Daily Routines:

Continue with the *Money Routine* throughout Unit 7. Introduce the *2s, 3s, and 4s Count-Bys Routine*. The description begins on page xxiii of the Introduction.