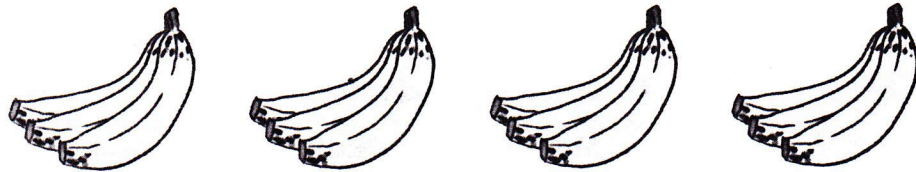To help students understand the concept of multiplication, the *Math Expressions* program presents three ways to think about multiplication.

- **Repeated groups:** Multiplication can be used to find the total in repeated groups of the same size. In early lessons, students circle the group size in repeated-groups equations to help keep track of which factor is the group size and which is the number of groups.
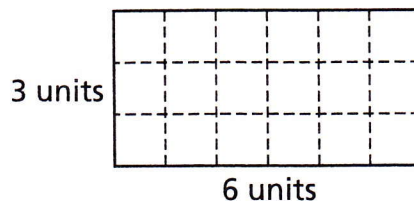
4 groups of bananas

$$4 \times \textcircled{3} = 3 + 3 + 3 + 3 = 12$$

- **Arrays:** Multiplication can be used to find the total number of items in an *array*—an arrangement of objects into rows and columns.

5 columns

2 rows   2-by-5 array

2 rows of pennies = $2 \times 5 = 10$

- **Area:** Multiplication can be used to find the area of a rectangle.

3 units

6 units

Area: 3 units $\times$ 6 units = 18 square units

Please call if you have any questions or comments.

Thank you.

Sincerely,
Your child's teacher

Dear Family,

In this unit and the next, your child will be practicing basic multiplications and divisions. *Math Expressions* incorporates studying, practicing, and testing of the basic multiplications and divisions in class. Your child is also expected to practice at home.

Homework Helper Your child will have math homework almost every day. He or she needs a Homework Helper. The helper may be anyone — you, an older brother or sister (or other family member), a neighbor, or a friend. Please decide who the main Homework Helper will be and ask your child to tell the teacher tomorrow. Make a specific time for homework and provide your child with a quiet place to work.

Study Plans Each day your child will fill out a study plan, indicating which basic multiplications and divisions he or she will study that evening. When your child has finished studying (practicing), his or her Homework Helper should sign the study plan.

1–1	Name _____	Date _____

Homework

Study Plan

_____
Homework Helper

Practice Charts Each time a new number is introduced, students' homework will include a practice chart. To practice, students can cover the products with a pencil or a strip of heavy paper. They will say the multiplications, sliding the pencil or paper down the column to see each product after saying it. Students can also start with the last problem in a column and slide up. It is important that your child studies count-bys and multiplications at least 5 minutes every night. Your child can also use these charts to practice division on the mixed up column by covering the first factor.

	In Order	Mixed Up
5s	$1 \times 5 = 5$	$9 \times 5 = 45$
	$2 \times 5 = 10$	$5 \times 5 = 25$
	$3 \times 5 = 15$	$2 \times 5 = 10$
	$4 \times 5 = 20$	$7 \times 5 = 35$
	$5 \times 5 = 25$	$4 \times 5 = 20$
	$6 \times 5 = 30$	$6 \times 5 = 30$
	$7 \times 5 = 35$	$10 \times 5 = 50$
	$8 \times 5 = 40$	$8 \times 5 = 40$
	$9 \times 5 = 45$	$1 \times 5 = 5$
	$10 \times 5 = 50$	$3 \times 5 = 15$