



Dear Family,

Our class is starting a new unit in math called Multiplication and Division. In this unit, students will be introduced to the meaning of multiplication as repeated addition using skip counting and arrays. Division will also be introduced as making equal groups and repeated subtraction. Students will apply multiplication concepts to describe and represent ratios, use tables to represent and predict change, and work with numeric sequences as they construct, describe, and extend patterns.

The activities below are related to this unit. You can do these activities together to enrich your child's mathematical learning.

**Drawing Buildings** Using your home or a familiar building, your child can count the number of rooms on 1 floor. Draw this floor and label what the different rooms are. Then ask questions such as, "If there are 2 floors in this building that have the same number of rooms, how many rooms would there be?" "How many rooms on 3 floors?" Reinforce the connection between skip counting and multiplying using this context.

**Making Buildings** Use building blocks to make a building. Make the first floor of your building with each block representing one room. Discuss how many rooms there are and what the different rooms could be. Make a second floor that is exactly the same size and shape as the first. Use additional blocks to make the building higher, with each floor having the same number of rooms. As you add each floor, count the total number of rooms. Write down the total number of rooms for 1 floor, 2 floors, 3, floors, and so on. Ask, "What do you notice about how the total number of rooms changes?"

**Animal Legs** Choose an animal that your child likes (e.g., cats) and make a table about the number of cats and their legs (or paws, eyes, and so on). Start with 1 cat and fill in how many legs 1 cat has. Then add another cat and fill in the total number of legs that 2 cats have. Continue the table and discuss the pattern that emerges. See whether you can determine what comes next. Write multiplication expressions to represent the number of legs on different numbers of animals.

**Math and Literature** Here are some suggestions of children's books that contain ideas about patterns. Read them together, and discuss the patterns you find.

- ~ Clement, Rod, *Counting on Frank*
- ~ Jenkins, Steve, *Biggest, Strongest, Fastest*
- ~ Kassirer, Sue, *What's Next, Nina? Math Matters Series*
- ~ Murphy, Stuart J., *Beep Beep, Vroom Vroom!*
- ~ Schwartz, David M., *If You Hopped Like a Frog*
- ~ Watts, Barrie, *Watch It Grow Series*

Sincerely,

The Second Grade Team