Home Connection

In this chapter, students learn about multiples and factors as well as prime and composite numbers. Factors and multiples facilitate simplifying fractions and finding common denominators when adding fractions. This foundation of understanding multiples and factors is essential to the rest of grade 4 math and beyond.

Multiples: A multiple is a name given to the product of a given number and a whole number. A number is always the first multiple of itself because any number times 1 is the number: 1 x 6 = 6, so 6 is the first multiple of 6.

Students will list some multiples and discern if a number is a multiple using division.   For example: 78 is a multiple of 6 because 78 ÷ 6 = 13.

Students will find common Multiples of numbers by listing and comparing the multiples of each number.

Find the first two common multiples of 4 and 6.

Multiples of 4: 4, 8, 12, 16, 20, 24...
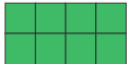
Multiples of 6: 6, 12, 18, 24, 30, 36...

12 and 24 are the first two common multiples of 4 and 6.

Factors: Students will apply their knowledge of multiples to factors. Factors are two numbers multiplied together that yield a multiple.

Students will also find common factors of two or more numbers. For Example:

Factors of 18: **1, 2, 3, 6**, 9, 18
Factors of 12: **1, 2, 3**, 4, **6,** 12
1, 2, 3, and **6** are common factors of 12 and 18.

What are the factors of 8?

1 × 8 = 8

2 × 4 = 8

The factors of 8 are 1, 2, 4, and 8.

The factors of a number always include 1 and the number itself.

Prime and Composite Numbers: If a number has only two factors, 1 and itself, the number is called a prime number. 7 is a prime number as its only factors are 1 and 7. Numbers with more than two factors are called composite numbers. The number 8 is a composite number as its factors are 1, 2, 4, and 8.   The numbers 0 and 1 are neither prime nor composite since a prime number has exactly two factors. The number 1 has only one factor and therefore does not meet the definition of a prime number or composite number. The number 0 has an infinite number of factors because any number multiplied by 0 is 0.

What can we do at home?

Automatic recall of multiplication and division facts is a critical foundation for multiples and factors. At this point in fourth grade your child should have mastered all multiplication and division facts up to 12 x 12.   One effective way to track your child's progress is with the activity called Traffic Lights.

Traffic Light Flash Cards
Materials: Flash cards and a large piece of paper with a red circle, a yellow circle, and a green circle
Directions:
- Go through the flash cards and sort them according to this:
    - 🔴 The cards they do not know or must count to determine the answer.
    - 🟡 The cards that your child knows, but not very quickly.
    - 🟢 The cards that your child knows automatically. (responds within 3 to 4 seconds)
- Then discuss strategies to help your child with the cards in the red pile. (doubles plus 1, use a known fact, number bond)
- Practice daily and celebrate as the green pile grows.

There is a video for this activity on our TCA Website.

https://www.tcatitans.org/Domain/200 It is located in the math resources folder. Scroll down to find the multiplication and division folder.   This folder has additional resources for practicing multiplication and division.