

# Get Ready to Learn

The first unit reviews big ideas from the previous grade with four-to-five topics that are key to new concepts in the current grade. This allows students to refresh their skills in these areas before building on them to learn new ideas.

**UNIT 1**  
**Big Ideas from Grade 5**

In grade 5, you learned about multiplying and dividing fractions and decimals, and solved problems with coordinate planes. Now you can use what you know about operations, algebraic thinking, and using the coordinate plane to practice multiplying fractions and decimals, analyze data on coordinate planes, and use the order of operations in verbal and numerical expressions.

**LESSON 1 Multiplying Fractions** In this lesson, you will convert improper fractions and mixed numbers, multiply fractions, and simplify fractions to lowest terms to solve real-world problems.

**LESSON 2 Operations with Decimals** In this lesson, you will examine the place value of digits within decimals, add and subtract decimals by lining up place values, and multiply and divide decimals, noting the location of the decimal point. You will also explain your reasoning when solving problems.

**LESSON 3 Using a Coordinate Plane** In this lesson, you will work with a coordinate plane. You will identify x-coordinates and y-coordinates, measure the distance from the x-axis and y-axis, and label points on a plane. You will also represent real-world and mathematical problems on a coordinate plane.

**LESSON 4 Writing and Evaluating Expressions** In this lesson, you will evaluate numerical expressions using the order of operations, and write verbal and numerical descriptions of situations. You will also use parentheses, brackets, or braces in numerical expressions.

**LESSON 1**  
**Multiplying Fractions**  
CC.2.1.S.C.2

**1 Introduction**

Fractions show parts of a whole or parts of a set. Multiplying fractions can help you solve problems with measurements, money, rates, and other types of problems.

To multiply a fraction by a fraction, multiply the numerators. Then multiply the denominators.

$$\frac{3}{4} \times \frac{1}{3} = \frac{3 \times 1}{4 \times 3} = \frac{3}{12} = \frac{1}{4}$$

To multiply a **mixed number** and a fraction or two mixed numbers, first change the mixed number to an **improper fraction**.

Multiply  $1\frac{2}{3} \times \frac{3}{4}$ .

Change the mixed number to an improper fraction. Multiply the denominator by the whole number. Then add the product to the numerator:  $3 \times 1 = 3$ ;  $3 + 2 = 5$ . Write the sum over the original denominator:  $\frac{5}{3}$ .

Now multiply the fractions. Remember to cross out common factors.

**2 ← Numerator**  
**5 ← Denominator**

You can cross out common factors to help you multiply:

$$1\frac{2}{4} \times \frac{1}{2} = \frac{1}{2} = \frac{1}{4}$$

To multiply a fraction by a whole number, first write the whole number as an improper fraction with a denominator of 1.

**LESSON 2**  
**Operations with Decimals**  
CC.2.1.S.B.2

**1 Introduction**

A **decimal** is a number with one or more digits to the right of a decimal point. Each

The decimal point separates the whole number digits from the decimal digits.

When you write 0s as placeholders, you do not change the value of the number.  
 $1.3 = 1.30$

To multiply a fraction by a whole number, first write the whole number as an improper fraction with a denominator of 1.

**LESSON 3**  
**Using a Coordinate Plane**  
CC.2.1.S.A.1

**1 Introduction**

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t number, or  
nd number,  
ation of the  
(x, y). The

decimal

decimal point in  
ints. Put the  
re are in the

Ordered pair  
(3, 4)  
y-axis  
x-axis

Car Dealership  
House  
Park  
Hospital  
School