

# Grade 6 Topic 06 - Decimals, Fractions, and Mixed Numbers

Content Area: **Mathematics**  
Course(s):  
Time Period: **Week 1**  
Length: **1 Week**  
Status: **Published**

## **Stage 1: Desired Results**

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## **Unit Overview/ Rationale**

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## **Standards & Indicators**

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MA.6.6.NS.B.3

Fluently add, subtract, multiply, and divide multi-digit decimals using the standard algorithm for each operation.

## **Big Ideas - Students will understand that...**

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**Numbers and the Number Line** – The set of real numbers is infinite and ordered. Whole numbers, integers, and fractions are real numbers. Each real number can be associated with a unique point on the number line.

**Equivalence** – Any number, measure, numerical expression, algebraic expression, or equation can be represented in an infinite number of ways that have the same value.

**Practices, Processes and Proficiencies** – Mathematics content and practices can be applied to solve problems.

## **Essential Questions - What provocative questions will foster inquiry and transfer of learning**

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How are decimals and fractions related?

## **Content - Students will know...**

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Fluently add multi-digit decimals using the standard algorithm.

Fluently subtract multi-digit decimals using the standard algorithm.

Fluently multiply multi-digit decimals using the standard algorithm.

Fluently divide decimals using the standard algorithm.

## **Skills - Students will be able to...**

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Use fractions to represent division, and they locate and place fractions on a number line.

Identify and write equivalent fractions and decimals.

Write improper fractions as mixed numbers and mixed numbers as improper fractions, and they place them on a number line.

Find equivalent decimals for fractions and mixed numbers, and they change terminating decimals to fractions and mixed numbers.

Draw pictures that represent information given in problems.

## **Stage 2: Assessment Evidence**

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## **Assessment**

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## **Stage 3: Learning Plan**

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## **Learning Activities**

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Divide circles and make a table to find how fractions are related to division.

Use decimal models, equivalent fractions, and division to write fractions as decimals.

Write improper fractions and mixed numbers for points on a number line.

Cut a 10 X 10 grid to model a repeating decimal.

Draw a number line to help solve a problem.

## **Resources**

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Scissors

Circle Patterns (Teaching Tool 36)

3 same-size circles per group

Decimals models (Teaching Tool 28) 1 per group

1/2-Inch Grid Paper (Teaching Tool 11)

1-foot ruler, 1 per group