

# Grade 6 Topic 05 - Number and Fraction Concepts

Content Area: **Mathematics**  
Course(s):  
Time Period: **Week1**  
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.4

Find the greatest common factor of two whole numbers less than or equal to 100 and the least common multiple of two whole numbers less than or equal to 12. Use the distributive property to express a sum of two whole numbers 1–100 with a common factor as a multiple of a sum of two whole numbers with no common factor.

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

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**Number Uses, Classification, and Representation** - Numbers can be used for different purposes, and numbers can be classified and represented in different ways.

**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.

**Patterns, Relations and Functions** – Relationships can be described and generalizations made for mathematical situations that have numbers or objects that repeat in predictable ways. For some relationships, mathematical expressions and equations can be used to describe how members of one set are related to members of a second set.

**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**

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## **learning**

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How can numbers be broken apart into factors?

How can fractions be represented and simplified?

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

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Find the greatest common factor of two numbers.

Use the distributive property.

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

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Use divisibility rules to find factors and multiples of whole numbers.

Identify numbers as prime or composite and give the prime factorization for numbers.

Find common factors and the greatest common factor of numbers.

Describe fractions as part of regions or sets, or as locations on a number line.

Write equivalent fractions.

Simplify fractions, expressing them in lowest terms.

Make and test conjectures and then revise or reject them.

## **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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Find and compare the factors of a number and the numbers by which it is divisible.

Name prime and composite numbers and find the prime factorization of numbers.

Find the greatest common factor of two numbers.

Draw regions, sets, and number lines to represent fractions.

Use fraction strips to identify equivalent fractions.

Write a fraction in simplest form.

Make and test a conjecture.

### **Resources**

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1/4-Inch Grid Paper (Teaching Tool 10)

Color Tiles (or Teaching Tool 18)

Fraction Cards, Set 1 (Teaching Tool 24)

Fraction Models: Strips (Teaching Tool 26)