

# 5 Math Unit 09: Divide Fractions

Content Area: **Mathematics**  
Course(s):  
Time Period: **February**  
Length: **3 weeks**  
Status: **Published**

## Unit Overview

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In Grade 5, students connect fractions with division, understanding that 5 divided by 3 =  $5/3$  or more generally,  $a/b = a$  divided by  $b$  for whole numbers  $a$  and  $b$ , with  $b$  not equal to zero.

How are fractions related to division? How can you divide with whole numbers and unit fractions?

## Goal

To divide unit fractions by non-zero whole numbers and divide whole numbers by unit fractions.

## Students will be able to...

apply understanding of division to divide unit fractions by non-zero whole numbers and whole numbers by unit fractions

## Standards

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MA.5.NF.B.3	Interpret a fraction as division of the numerator by the denominator ( $a/b = a \div b$ ). Solve word problems involving division of whole numbers leading to answers in the form of fractions or mixed numbers, e.g., by using visual fraction models or equations to represent the problem.
MA.5.NF.B.7	Apply and extend previous understandings of division to divide unit fractions by whole numbers and whole numbers by unit fractions.

## Materials

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- [EnVision Math](#)
- 9-1 Fractions and Division
- 9-2 Fractions and Mixed Numbers as Quotients
- 9-3 Use Multiplication to Divide
- 9-4 Divide Whole Numbers by Unit Fractions
- 9-5 Divide Unit Fractions by Non-Zero Whole Numbers
- 9-6 Divide Whole Numbers and Unit Fractions
- 9-7 Solve Problems Using Division
- 9-8 Math Practices and Problem Solving: Repeated Reasoning

- [ST Math](#)
- [Happy Numbers](#)

- [3 Act Lessons](#)
- [Building Fact Fluency Kit](#)
- [Brainiaccamp Manipulatives](#)
- [Nearpod Lessons](#)
- [Brainpop Resources](#)
- [Math Diagnosis and Intervention System](#)
- [Online Resources](#)

## **Technology**

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- 8.1.5.A.1,2,4 (solve problems, word processing, databases, spreadsheets)
- 8.1.5.F.1 (digital tools to support scientific finding)
- 8.2.5.C.1,2,3 (solve problems, troubleshoot repair tools)

## **Assessment**

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### **Formative Assessment**

- Teacher Observation
- Daily Quick Check
- Quizzes
- Exit Tickets

### **Summative Assessment**

- Topic Tests
- Benchmark Tests
- Alternative Assessments: Performance Tasks & Projects

## **Accommodations & Modifications**

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### **Special Education**

- Follow IEP Plan which may contain some of the following examples...
- In class/pull out support with special ed teacher
- Additional time during intervention time
- Preferred seating
- Questions read aloud

- Extended time for completing tasks
- Graphic organizers
- Vocabulary support
- Mnemonic devices
- Songs/videos to reinforce concepts
- Limit number of questions
- Scribe
- Manipulatives
- Calculators
- Reteach pages
- Leveled homework
- Lesson intervention activities
- Math Diagnosis & Intervention System
- Another look homework video
- Practice buddy

## **504**

- In class/pull out support with special ed teacher Additional time during intervention time
- Preferred seating
- Questions read aloud
- Extended time for completing tasks Graphic organizers
- Vocabulary support Mnemonic devices
- Songs/videos to reinforce concepts Limit number of questions
- Scribe Manipulatives Calculators Reteach pages Leveled homework
- Lesson intervention activities
- Math Diagnosis & Intervention System Another look homework video
- Practice buddy

## **ELL**

- Translation device/dictionary
- In class/pull out support with ESL teacher
- Preferred seating
- Questions read aloud
- Extended time for completing tasks
- Graphic organizers
- Vocabulary support
- Mnemonic devices
- Songs/videos to reinforce concepts
- Manipulatives
- Math Diagnosis & Intervention System

## **At-risk of Failure**

- Additional time during intervention time
- Questions read aloud
- Graphic organizers
- Vocabulary support
- Mnemonic devices
- Songs/videos to reinforce concepts
- Manipulatives

- Calculators
- Reteach pages
- Leveled homework
- Lesson intervention activities
- Math Diagnosis & Intervention System
- Another look homework video
- Practice buddy

### **Gifted & Talented**

- Independent projects
- Enrichment pages
- Online games
- Leveled Homework
- Extension Activities
- Today's Challenge

## **Interdisciplinary Connections**

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Topic 1 Math and Science Project - Using different presentations tools, students will collect different types of paper. Talk about the uses of paper. Tell how strong each type of paper is. Tell how the paper feels. Tell if the paper can soak up water.

### **ELA:**

NJSLSA.R10. Read and comprehend complex literary and informational texts independently and proficiently with scaffolding as needed.

### **Science:**

3-5-ETS1-2. Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem.

## **21st Century Life Literacies & Key Skills**

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### **Critical Thinking and Problem Solving:**

Problem-solving activities starting with the lesson "Solve and Share" and ending with higher order thinking questions that utilize the mathematical practices

### **Communication and Collaboration:**

Throughout the lesson, students are provided with opportunities to discuss their ideas as they investigate mathematical concepts.

**Creativity:**

Students have opportunities to express their creativity by solving problems their own way, participating in performance tasks, and group projects.

**Technology:**

Use of iPads, instructional apps, lab materials embedded in lessons. Programs such as BrainPop, Math Reflex, Google Slides are used to support instruction.

**Career Ready Practices**

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- CRP1. Act as a responsible and contributing citizen and employee.
- CRP2. Apply appropriate academic and technical skills.
- CRP4. Communicate clearly and effectively and with reason.
- CRP8. Utilize critical thinking to make sense of problems and persevere in solving them.
- CRP12. Work productively in teams while using cultural global competence.