

# Pub.:Gr 4 My Math Unit 9: Operations w/fractions

Content Area: **Math**  
Course(s):  
Time Period: **March**  
Length: **4-5 Weeks**  
Status: **Published**

## Unit Overview

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Students will learn to do operations with fractions.

## Enduring Understandings

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We can use fraction tiles to model the sum of fractions.

We can add and subtract like fractions.

We can add and subtract mixed numbers.

We can use an equation to write a fraction as a multiple of a unit fraction.

We can multiply a fraction by a whole number.

## Essential Questions

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How can I use operations to model real-world fractions?

## Instructional Strategies & Learning Activities

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Lesson	Objective	Material & Manipulatives	Vocabulary	Standard
Lesson 1 <i>pp. 561-566</i> Hands On: Use Models to Add Like Fractions	Use models to add like fractions.	• fraction models • fraction tiles	like fractions	4.NF.3 4.NF.3a 4.NF.3b 4.NF.3d  Major Cluster  MP 1, 2, 4, 5, 7,

Lesson 2 *pp.* 567-572  
Add like Fractions

Add like fractions. • fraction circles  
• fraction tiles

8  
4.NF.3  
4.NF.3a  
4.NF.3b  
4.NF.3d

Major  
Cluster

MP  
2, 3, 4, 5, 6,  
7

Lesson 3 *pp.* 573-578  
Hands On: Use Models to Subtract  
Like Fractions

Use models to subtract like  
fractions. • fraction tiles

4.NF.3  
4.NF.3a  
4.NF.3d

Major  
Cluster

MP  
2, 3, 4, 7, 8

Lesson 4 *pp.* 579-584  
Subtract Like Fractions

Subtract like fractions. • fraction tiles

4.NF.3  
4.NF.3a  
4.NF.3d

Major  
Cluster

MP  
1, 2, 3, 4, 5,  
6

### Check My Progress

Lesson 5 *pp.* 587-592  
Problem-Solving Investigation:  
Work Backward

Work backward to  
solve problems.

4.NF.3  
4.NF.4c  
4.NF.3d

Major  
Cluster

MP  
1, 2, 3, 4, 5

Lesson 6 *pp. 593-598*  
Add Mixed Numbers

Add mixed numbers.

- fraction tiles
- fraction circles

4.NF.3  
4.NF.3b  
4.NF.3c  
4.NF.3d

Major Cluster

MP  
1, 2, 3, 4, 7, 8

Lesson 7 *pp. 599-604*  
Subtract Mixed Numbers

Subtract mixed numbers.

- play dollars and coins
- fraction circles
- fraction tiles

4.NF.3  
4.NF.3b  
4.NF.3c  
4.NF.3d

Major Cluster

MP  
1, 2, 3, 6, 7, 8

### Check My Progress

Lesson 8 *pp. 607-612*  
Hands On: Model Fractions and Multiplication

Use models to multiply fractions.

- fraction tiles

4.NF.4  
4.NF.4a  
4.NF.4b  
4.NF.4c

Major Cluster

MP  
2, 4, 5, 6, 7

Lesson 9 *pp. 613-618*  
Multiply Fractions by Whole Numbers

Multiply fractions by whole numbers. • play money

4.NF.4  
4.NF.4a  
4.NF.4b  
4.NF.4c

Major

## My Review and Reflect

### **Integration of 21st Century Themes and Career Exploration**

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CRP.K-12.CRP2	Apply appropriate academic and technical skills.
CRP.K-12.CRP4	Communicate clearly and effectively and with reason.
CRP.K-12.CRP8	Utilize critical thinking to make sense of problems and persevere in solving them.
CRP.K-12.CRP1	Act as a responsible and contributing citizen and employee.
CRP.K-12.CRP12	Work productively in teams while using cultural global competence.

### **Technology Integration**

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- SMARTboard technology
- Google Applications (documents, forms, spreadsheets, presentation)
- Dreambox
- Online textbook

TECH.8.1.5.A.CS1	Understand and use technology systems
TECH.8.1.5.D.4	Understand digital citizenship and demonstrate an understanding of the personal consequences of inappropriate use of technology and social media.
TECH.8.1.5.A.1	Select and use the appropriate digital tools and resources to accomplish a variety of tasks including solving problems.
TECH.8.1.5.A.CS2	Select and use applications effectively and productively.
TECH.8.1.5.D.CS1	Advocate and practice safe, legal, and responsible use of information and technology.

### **Interdisciplinary Connections**

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Leveled readers, "Life in the United States".

LA.RI.4.4	Determine the meaning of general academic and domain-specific words or phrases in a text relevant to a grade 4 topic or subject area.
LA.RI.4.1	Refer to details and examples in a text and make relevant connections when explaining what the text says explicitly and when drawing inferences from the text.
LA.SL.4.1	Engage effectively in a range of collaborative discussions (one-on-one, in groups, and

teacher-led) with diverse partners on grade 4 topics and texts, building on others' ideas and expressing their own clearly.

## **Differentiation**

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- Reteach Master
- Hands-On Activity
- Enrich Master

## **Modifications & Accommodations**

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IEP and 504 accommodations will be utilized.

Provide an outline of material to be covered

- Individualized assignments, e.g., length, number, due date, topic
- Allow student to use technology-online textbook
- Use of graphic organizers
- Use highlighter for key information
- Read directions, passages, and word problems aloud as needed-online presentation
- Use of calculator and matrix for multiplication and division
- Provide textbook in audio format
- Demonstrate directions and procedures/give examples

## **Benchmark Assessments**

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- Aimsweb
- Diagnostic
- End of Year Assessment

## Formative Assessments

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Check My Progress

-My Chapter Review

-Homework Practice

-Independent Practice

## Summative Assessments

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Chapter 9 assessment

## Instructional Materials

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See instructional materials listed above.

## Standards

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MA.4.NF.B.4c	Solve word problems involving multiplication of a fraction by a whole number, e.g., by using visual fraction models and equations to represent the problem.
MA.4.NF.B.3	Understand a fraction $\frac{a}{b}$ with $a > 1$ as a sum of fractions $1/b$ .
MA.4.NF.B.3a	Understand addition and subtraction of fractions as joining and separating parts referring to the same whole.
MA.4.NF.B.3b	Decompose a fraction into a sum of fractions with the same denominator in more than one way, recording each decomposition by an equation. Justify decompositions, e.g., by using a visual fraction model.
MA.4.NF.B.3c	Add and subtract mixed numbers with like denominators, e.g., by replacing each mixed number with an equivalent fraction, and/or by using properties of operations and the relationship between addition and subtraction.
MA.4.NF.B.3d	Solve word problems involving addition and subtraction of fractions referring to the same whole and having like denominators, e.g., by using visual fraction models and equations to represent the problem.