

# P.Cert.Gr.5 My Math Unit 6: Multiplying Decimals

Content Area: **Math**  
Course(s):  
Time Period: **January**  
Length: **4-6 Weeks**  
Status: **Published**

## Unit Overview

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This unit explores strategies to be used when multiplying decimals.

## Enduring Understandings

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It is important to remember and apply certain strategies when multiplying decimals.

## Essential Questions

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What strategies can be used to multiply decimals?

## Instructional Strategies & Learning Activities

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### Chapter 6

#### Pacing Guide

##### Suggested Pacing

Instruction	15 days
Review/Assessment	2 days
Total*	17 days

\*Includes additional time for remediation and differentiation.

Lesson	Objective	Material & Manipulatives	Vocabulary
Lesson 1 <i>pp.</i> 379-384 <b>Estimate Products of Whole Numbers and Decimals</b>	Estimate products of whole numbers and decimals.	• 10-by-10 grids	

<p>Lesson 2 <i>pp. 385-390</i>  <b>Hands On:</b>  <b>Use Models to Multiply</b></p>	<p>Explore multiplying decimals by whole numbers.</p>	<ul style="list-style-type: none"> <li>• 10-by-10 grids</li> </ul>	
<p>Lesson 3 <i>pp. 391-396</i>  <b>Multiply Decimals by Whole Numbers</b></p>	<p>Multiply decimals by whole numbers.</p>	<ul style="list-style-type: none"> <li>• shopping catalogs</li> <li>• 10-by-10 grids</li> </ul>	
<p>Lesson 4 <i>pp. 397-402</i>  <b>Hands On:</b>  <b>Use Models to Multiply Decimals</b></p>	<p>Explore using decimal models to multiply decimals.</p>	<ul style="list-style-type: none"> <li>• 10-by-10 grids</li> </ul>	
<p>Lesson 5 <i>pp. 403-408</i>  <b>Multiply Decimals</b>  <b>Check My Progress</b></p>	<p>Multiply decimals by decimals.</p>	<ul style="list-style-type: none"> <li>• index cards</li> </ul>	
<p>Lesson 6 <i>pp. 411-416</i>  <b>Multiply Decimals by Powers of Ten</b></p>	<p>Multiply decimals by powers of ten.</p>	<ul style="list-style-type: none"> <li>• index cards numbered 0-9</li> </ul>	
<p>Lesson 7 <i>pp. 417-422</i>  <b>Problem Solving</b>  <b>Investigation: Look for a Pattern</b></p>	<p>Solve problems by looking for a pattern.</p>		
<p>Lesson 8 <i>pp. 423-428</i>  <b>Multiplication Properties</b></p>	<p>Use the Associative, Commutative, and Identity Properties to multiply mentally.</p>	<ul style="list-style-type: none"> <li>• index cards</li> </ul>	<p><b>Associative Property of Multiplicati</b></p> <p><b>Commutative Property of</b></p>

## Multiplication

### Identity Properties Multiplication

Lesson 9 *pp. 429-434*  
**Estimate Quotients**

Estimate quotients of decimals and whole numbers.

- play money

**My Chapter Progress**  
Lesson 10 *pp. 437-442*  
**Hands On:**  
**Divide Decimals**

Explore dividing decimals by whole numbers.

- base-ten blocks

Lesson 11 *pp. 443-448*  
**Divide Decimals by Whole Numbers**

Divide decimals by whole numbers.

- counters
- base-ten blocks

Lesson 12 *pp. 449-454*  
**Hands On:**  
**Use Models to Divide Decimals**

Explore using models to divide decimals by decimals.

- base-ten blocks
- 10-by-10 grids

Lesson 13 *pp. 455-460*  
**Divide Decimals**

Divide decimals by decimals.

- number cubes

Lesson 14 *pp. 461-466*  
**Divide Decimals by Powers of Ten**

Divide decimals by powers of ten.

**My Chapter Review**

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

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Students will work in cooperative groups to solve problems. Students will interact with the Smartboard to enhance the learning process.

CRP.K-12.CRP2	Apply appropriate academic and technical skills.
CRP.K-12.CRP5	Consider the environmental, social and economic impacts of decisions.
CRP.K-12.CRP4	Communicate clearly and effectively and with reason.
CRP.K-12.CRP11	Use technology to enhance productivity.
CRP.K-12.CRP9	Model integrity, ethical leadership and effective management.
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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Students will interact with the Smartboard to enhance the learning process. Students will use various web-based, interactive sites to expand the content, as needed.

## **Interdisciplinary Connections**

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Students will read and write throughout the whole unit.

LA.RL.5.4	Determine the meaning of words and phrases as they are used in a text, including figurative language such as metaphors and similes.
LA.RI.5.10	By the end of year, read and comprehend literary nonfiction at grade level text-complexity or above, with scaffolding as needed.
LA.RF.5.4	Read with sufficient accuracy and fluency to support comprehension.
LA.RF.5.4.A	Read grade-level text with purpose and understanding.
LA.RI.5.4	Determine the meaning of general academic and domain-specific words and phrases in a text relevant to a grade 5 topic or subject area.

## **Differentiation**

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Differentiation:

- Use of different resources to match the readiness levels of the students when working on the activities in the daily lessons.

- Respond to students' needs for reteaching, reinforcing, and extending learning.
- Use of a variety of instructional strategies to engage students in learning.
- Question prompts to promote student engagement
- Small group settings as needed for specific skills
- Use discussion to promote collaboration among students
- Integrate technology to offer varied learning experiences
- Adjust instruction based on formative tasks/assessments

## **Modifications & Accommodations**

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Modifications & Accommodations:

- In class support and scaffolding based on the individual IEP's
- Independent levels on My Math and Splash Math

## **Benchmark Assessments**

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Students will complete AimsWeb testing.

## **Formative Assessments**

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Formative Assessments:

- Task completion
- Answers and discussions
- Student maps
- Bingo
- Quizzes
- Participation

## **Summative Assessments**

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Summative Assessments:

- Quizzes
- Final Test

## **Instructional Materials**

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My Math Textbook series grade 5

See materials in lessons above

## **Standards**

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MA.5.NBT.A.4	Use place value understanding to round decimals to any place.
MA.5.NBT.B.5	Fluently multiply multi-digit whole numbers using the standard algorithm.
MA.5.NBT.B.7	Add, subtract, multiply, and divide decimals to hundredths, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.
MA.5.NBT.A.2	Explain patterns in the number of zeros of the product when multiplying a number by powers of 10, and explain patterns in the placement of the decimal point when a decimal is multiplied or divided by a power of 10. Use whole-number exponents to denote powers of 10.