

P.Cert.Gr.5 My Math Unit 3: Dividing whole numbers

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

Unit Overview

This unit explores strategies for dividing whole numbers.

Enduring Understandings

It is important to remember and apply certain strategies when dividing whole numbers.

Essential Questions

What strategies can be used to divide whole numbers?

Instructional Strategies & Learning Activities

Chapter 3

Pacing Guide

Suggested Pacing

Instruction	14 days
Review/Assessment	2 days
Total*	16 days

*Includes additional time for remediation and differentiation.

Lesson	Objective	Material & Manipulatives	Vocabul fact family unknown variable
Lesson 1 <i>pp. 157-162</i> Relate Division to Multiplication	Understand how division and multiplication are related.	• counters	

Lesson 2 *pp. 163-168*
Hands On: Division Models

Explore division using models.

- base-ten blocks (tens and ones)

Lesson 3 *pp. 169-174*
Two-Digit Dividends

Carry out division with and without remainders.

- sticky notes
- fruit snacks
- base-ten blocks

dividend
divisor
quotient
remainder

Lesson 4 *pp. 175-180*
Division Patterns
Check My Progress

Use basic facts and patterns to divide multiples of 10, 100, and 1,000 mentally.

- individual dry-erase boards

Lesson 5 *pp. 183-188*
Estimate Quotients

Estimate quotients by using rounding and compatible numbers.

Lesson 6 *pp. 189-194*
Hands On: Division Models with Greater Numbers

Explore division with greater numbers using models.

- base-ten blocks

Lesson 7 *pp. 195-200*
Hands On: Distributive Property and Partial Quotients
Check My Progress

Divide using the Distributive Property and partial quotients.

- base-ten blocks
- bar diagrams

partial quo

Lesson 8 *pp. 201-206*
Divide Three- and Four-Digit Dividends

Divide up to a four-digit number by a one-digit number.

- quarter-inch grid paper

Lesson 9 *pp. 209-214*
Place the First Digit

Understand how to place the first digit in a quotient.

- base-ten blocks

Lesson 10 *pp. 215-220*
Quotients with Zeros

Solve division problems that result in quotients that have zeros.

- base-ten blocks

Lesson 11 *pp. 221-226*
Hands On: Use Models to Interpret the Remainder

Explore how to interpret the remainder in a division problem.

- connecting cubes
- paper plates

Lesson 12 *pp. 227-232*
Interpret the Remainder

Interpret the remainder in a division problem.

Lesson 13 *pp. 233-238*
Problem-Solving Investigation: Determine Extra or Missing Information
My Review and Reflect

Identify extra information or missing information needed to solve a problem.

Integration of 21st Century Themes and Career Exploration

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.CRP1

Act as a responsible and contributing citizen and employee.

CRP.K-12.CRP12

Work productively in teams while using cultural global competence.

CRP.K-12.CRP8	Utilize critical thinking to make sense of problems and persevere in solving them.
CRP.K-12.CRP11	Use technology to enhance productivity.
CRP.K-12.CRP9	Model integrity, ethical leadership and effective management.

Technology Integration

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

Students will read and write throughout the entire unit. They will also use art supplies to interpret remainders.

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

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

Modifications & Accommodations:

- In class support and scaffolding based on the individual IEP's

- Independent levels on My Math and Splash Math

Benchmark Assessments

Students will complete AimsWeb testing.

Formative Assessments

Formative Assessments:

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

Summative Assessments

Summative Assessments:

- Quizzes
- Final Test

Instructional Materials

My Math Textbook series grade 5

See materials in lessons above

Standards

MA.5.NBT.B.5

Fluently multiply multi-digit whole numbers using the standard algorithm.

MA.5.NBT.B.6

Find whole-number quotients of whole numbers with up to four-digit dividends and two-

digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.

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.