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

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

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	Vocabulary
Lesson 1 *pp. 157-162* **Relate Division to Multiplication**	Understand how division and multiplication are related.	• counters	**fact family** **unknown** **variable**

				M
				M 5.1
Lesson 2 *pp. 163-168* **Hands On: Division Models**	Explore division using models.	• base-ten blocks (tens and ones)		**M**
				M 5.1
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**	**M**
				M 5.1
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		**M**
				M 5.1
Lesson 5 *pp. 183-188* **Estimate Quotients**	Estimate quotients by using rounding and compatible numbers.			**M**
				M 5.1
Lesson 6 *pp. 189-194* **Hands On: Division Models with Greater Numbers**	Explore division with greater numbers using models.	• base-ten blocks		**M**
				M 5.1
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 quotients**	**M**
				M 5.1
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		**M**
				M 5.1
Lesson 9 *pp. 209-214* **Place the First Digit**	Understand how to place the first digit in a quotient.	• base-ten blocks		**M**
				M 5.1
Lesson 10 *pp. 215-220* **Quotients with Zeros**	Solve division problems that result in quotients that have zeros.	• base-ten blocks		**M**
				M 5.1
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		**M**

		M 5.1
Lesson 12 *pp. 227-232* **Interpret the Remainder**	Interpret the remainder in a division problem.	**M**
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.	**M** 5.1 **M** **M**

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.CRP1	Act as a responsible and contributing citizen and employee.
CRP.K-12.CRP2	Apply appropriate academic and technical skills.
CRP.K-12.CRP4	Communicate clearly and effectively and with reason.
CRP.K-12.CRP5	Consider the environmental, social and economic impacts of decisions.
CRP.K-12.CRP8	Utilize critical thinking to make sense of problems and persevere in solving them.
CRP.K-12.CRP9	Model integrity, ethical leadership and effective management.
CRP.K-12.CRP11	Use technology to enhance productivity.
CRP.K-12.CRP12	Work productively in teams while using cultural global competence.

Technology Integration

Students will intereact 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.5.4	Determine the meaning of general academic and domain-specific words and phrases in a text relevant to a grade 5 topic or subject area.
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.

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.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.
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.