Unit 4: Place Value and Division

Unit #:	APSDO-00040502	Duration:	16.0 Day(s)	Date(s)	

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Grade(s)
4
Subject(s)
Mathematics

Unit Focus

In our this unit, students will divide whole number dividends (up to 4 digits) by 1-digit divisors. They will solve multiplication and division word problems, using arrays and area models. Primary instructional materials for this unit include On Core and Everyday Mathematics.

Stage 1: Desired Results - Key Understandings

Standard(s)	Transfer
Common Core *Mathematics: 4* • Find whole-number quotients and remainders with up to four-digit dividends and one-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. *CCSS.MATH.CONTENT.4.NBT.B.6*	**T1** (T20) Compose and decompose numbers to establish relationships, perform operations, and solve problems. **T2** (T10) Describe, classify, and compare objects/numbers and sets of objects/numbers. **T3** (T13) Move from one representation to another without changing the quantity. **T4** (T50) Based on an understanding of any problem, initiate a plan, execute it and evaluate the reasonableness of the solution. **T5** (T53) Articulate how mathematical concepts relate to one another in the context of a problem or in the theoretical sense. **T6** (T51) Examine alternate methods to accurately and efficiently solve problems. **T7** (T52) Use appropriate tools strategically to deepen understanding of mathematical concepts.

Meaning

Understanding(s)	Essential Question(s)
U1 (U203) Certain mathematical	**Q1** (Q200) What rule or pattern can help me

manipulations preserve the relationship in an expression or equation, even though they change the representation.
U2 (U103) The same value can be represented in multiple ways.
U3 (U102) The value of a number is quantified by the placement of its digits.
U4 (U502) Effective problem solvers identify and apply an appropriate model, tool, or strategy.
U5 (U530) Every problem belongs to a category of problems that has a similar structure and set of characteristics; which means it can be solved using a similar model.

simplify the expression or solve this problem?
Q2 (Q203) What is the relationship between/among these values?
Q3 (Q103) What is the value of this number/relationship and how can I represent it in different ways?
Q4 (Q104) How do I use my number sense to perform operations?
Q5 (Q500) What is a reasonable estimate?
Q6 (Q503) What strategies/approaches are best for this problem?
Q7 (Q532) Which model best represents this problem?

Acquisition of Knowledge and Skill

Knowledge	Skill(s)
	S1 Write the number value for a digit within the actual number **S2** Round numbers up to different place values, up to the nearest 1,000,000 place **S3** Divide whole number dividends (up to 4 digits) by one digit divisors **S4** Solve division word problems by identifying and comparing digit values, with and without equations, rectangular arrays, and area models