



## Topic D

## Division Using Units of 2 and 3

3.OA.2, 3.OA.4, 3.OA.6, 3.OA.7, 3.OA.3, 3.OA.8

<b>Focus Standard:</b>	3.OA.2	Interpret whole-number quotients of whole numbers, e.g., interpret $56 \div 8$ as the number of objects in each share when 56 objects are partitioned equally into 8 shares, or as a number of shares when 56 objects are partitioned into equal shares of 8 objects each. <i>For example, describe a context in which a number of shares or a number of groups can be expressed as <math>56 \div 8</math>.</i>
	3.OA.4	Determine the unknown whole number in a multiplication or division equation relating three whole numbers. <i>For example, determine the unknown number that makes the equation true in each of the equations <math>8 \times ? = 48</math>, <math>5 = \_ \div 3</math>, <math>6 \times 6 = ?</math></i>
	3.OA.6	Understand division as an unknown-factor problem. <i>For example, find <math>32 \div 8</math> by finding the number that makes 32 when multiplied by 8.</i>
	3.OA.7	Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that $8 \times 5 = 40$ , one knows $40 \div 5 = 8$ ) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers.
<b>Instructional Days:</b>	3	
<b>Coherence</b>	<b>-Links from:</b>	G2–M6 Foundations of Multiplication and Division
	<b>-Links to:</b>	G4–M3 Multi-Digit Multiplication and Division

In Topic D, students solve two types of division situations—partitive (group size unknown) and measurement (number of groups unknown)—using factors of 2 and 3. Students build on their background knowledge of tape diagrams and apply it to represent division. In Lesson 11, the tape diagram is used as a tool to help students recognize and distinguish between types of division. By the end of Lessons 11 and 12, students independently draw and label tape diagrams that help them to compare and analyze problems that may use the same division sentence but have quotients representing different things.

Lesson 13 solidifies growing understanding that the unknown can also be found from the related multiplication sentence. Students initially work through word problems using arrays and tape diagrams to practice solving the two types of division, and then transition to problem solving using abstract division and multiplication equations.

**A Teaching Sequence Towards Mastery of Division Using Units of 2 and 3**

**Objective 1:** Model division as the unknown factor in multiplication using arrays and tape diagrams.  
(Lesson 11)

**Objective 2:** Interpret the quotient as the number of groups or the number of objects in each group using units of 2.  
(Lesson 12)

**Objective 3:** Interpret the quotient as the number of groups or the number of objects in each group using units of 3.  
(Lesson 13)