

EnVision Math Unit Lesson Plan			Common Core Standards:	
Grade Level: Fourth Grade		Topic 1: Multiplication and Division: Meanings and Facts	4.OA.1; 4.OA.2; 4.OA.3; 4.OA.4; 4.OA.5	
Instructional Emphasis: Operations and Algebraic Thinking			Essential Questions:	
<b>Big Ideas:</b> <ul style="list-style-type: none"><li>1-1: Some real-world problems involving joining or separating equal groups or comparison can be solved using multiplication. Repeated addition and arrays involve joining equal groups and are two ways to think about multiplication.</li><li>1-2: There are patterns in the products for multiplication facts with factors of 2, 5, and 9.</li><li>1-3: Two numbers can be multiplied in any order. The product of any number and 0 is zero. The product of any number and 1 is that number.</li><li>1-4: Basic multiplication facts with 3, 4, 6, 7, or 8 as a factor can be found by breaking apart the unknown fact into known facts.</li><li>1-5: Some problems can be solved by identifying elements that repeat in a predictable way.</li><li>1-6: Some real-world problems involving joining or separating equal groups or comparison can be solved using division. Sharing and repeated subtraction involve separating equal groups and are two ways to think about division.</li><li>1-7, 1-9: Multiplication and division have an inverse relationship. The inverse relationship between multiplication and division can be used to find division facts; every division fact has a related multiplication fact.</li><li>1-8: Any number (except 0) divided by itself is equal to 1. Any number divided by 1 is that number. Zero divided by any number (except 0) is zero. Zero cannot be a divisor.</li><li>1-10: Information in a problem can often be shown using a picture or diagram and used to understand and solve the problem. Some problems can be solved by writing and completing a number sentence or equation.</li></ul>			<ul style="list-style-type: none"><li>How can we use arrays to understand multiplication? (1-1)</li><li>What patterns can help you remember multiplication facts for 2s and 5s? (1-2)</li><li>What happens when you multiply two numbers and switch the order of the factors? What happens when you multiply by 0? If you multiply by 1? (1-3)</li><li>How can you break apart facts? (1-4)</li><li>How can a pattern help you solve a problem? (1-5)</li><li>How can you use counters to show that division can be thought of as repeated subtraction or sharing equally? (1-6)</li><li>How are multiplication and division related? (1-7)</li><li>How does the inverse relationship of multiplication and division show why certain division calculations involving 1 make sense? (1-8)</li><li>How can the inverse relationship between multiplication and division be used to find division facts? (1-9)</li><li>How can a bat diagram help you solve a problem? (1-10)</li></ul>	
<b>Lesson 1:</b> Meanings of Multiplication	<b>Lesson 2:</b> Patterns for Facts	<b>Lesson 3:</b> Multiplication Properties	<b>Lesson 4:</b> 3, 4, 6, 7, and 8 as Factors	<b>Lesson 5:</b> Problem Solving: Look for a Pattern
<b>Vocabulary:</b> array; product; factors	<b>Vocabulary:</b> multiple	<b>Vocabulary:</b> Commutative Property of Multiplication; Zero Property of Multiplication; Identity Property of Multiplication	<b>Vocabulary:</b> Distributive Property	<b>Vocabulary:</b>
<b>Objective:</b> Students recognize multiplication as repeated addition of equal groups used in arrays and comparisons.	<b>Objective:</b> Use patterns to find products with factors of 2, 5, and 9.	<b>Objective:</b> Use multiplication properties to simplify computations.	<b>Objective:</b> Students will use the Distributive Property to find products of the factors of 3, 4, 6, 7, and 8 by breaking apart problems into simpler problems.	<b>Objective:</b> Students will recognize patterns and be able to continue the pattern.
<b>Materials:</b> Centimeter Grid Paper (Teaching Tool 4) Place-Value Blocks	<b>Materials:</b> Hundred Chart (Teaching Tool 11)	<b>Materials:</b> Index Cards (per pair)	<b>Materials:</b> Centimeter Grid Paper (Teaching Tool 4)	<b>Materials:</b>
	<b>Content Reviewed:</b> Place Value; Addition;	<b>Content Reviewed:</b>		<b>Content Reviewed:</b> Subtraction; Multiplication; Compare and Order; Estimation; Problem Solving;

(Teaching Tool 8) Crayons Colored Pencils or Markers  <b>Content Reviewed:</b> Relating Multiplication and Addition; Subtraction; Problem Solving; Place Value; Compare and Order; Compare Whole Numbers; Division; Patterns  <b>Standard:</b> 4.OA.1; 4.OA.2	Compare and Order; Subtraction; Patterns; Problem Solving  <b>Standard:</b> 4.OA.2	Rounding and Estimating; Subtraction; Multiplication; Patterns; Place Value; Multiples of Ten  <b>Standard:</b> 4.OA.1	Colored Pencils Colored Chalk  <b>Content Reviewed:</b> Distributive Property; Algebra; Multiplication; Compare Whole Numbers; Measurement Conversions; Geometry; Place Value  <b>Standard:</b> 4.OA.4	Multiples of 10  <b>Standard:</b> 4.OA.3; 4.OA.5
<b>Assessment</b>	<b>Assessment</b>	<b>Assessment</b>	<b>Assessment</b>	<b>Assessment</b>
Topic 1 Introduction Daily Common Core Review Problem-Based Interactive Learning Guided Practice Independent Practice Problem Solving Quick Check Master Center Activity Reteaching, Practice, and Enrichment Homework	Daily Common Core Review Problem-Based Interactive Learning Guided Practice Independent Practice Problem Solving Quick Check Master Center Activity Reteaching, Practice, and Enrichment Homework	Daily Common Core Review Problem-Based Interactive Learning Guided Practice Independent Practice Problem Solving Quick Check Master Center Activity Reteaching, Practice, and Enrichment Homework	Daily Common Core Review Problem-Based Interactive Learning Guided Practice Independent Practice Problem Solving Quick Check Master Center Activity Reteaching, Practice, and Enrichment Homework	Daily Common Core Review Problem-Based Interactive Learning Guided Practice Independent Practice Problem Solving Quick Check Master Center Activity Reteaching, Practice, and Enrichment Homework
<b>Lesson 6:</b> Meanings of Division	<b>Lesson 7:</b> Relating Multiplication and Division	<b>Lesson 8:</b> Special Quotients	<b>Lesson 9:</b> Using Multiplication Facts to Find Division Facts	<b>Lesson 10:</b> Problem Solving: Draw a Picture and Write an Equation
<b>Vocabulary:</b>  <b>Objective:</b> Students use and draw models to solve division problems.  <b>Materials:</b> Counters (or Teaching Tool 12)  <b>Content Reviewed:</b> Addition; Subtraction; Multiplication Facts;	<b>Vocabulary:</b> inverse operations; fact family  <b>Objective:</b> Students use arrays to write and complete multiplication and division fact families.  <b>Materials:</b> Counters (or Teaching Tool 12) (2 per group)  <b>Content Reviewed:</b>	<b>Vocabulary:</b>  <b>Objective:</b> Students use multiplication facts with 0 and 1 to learn about special division rules with 0 and 1.  <b>Materials:</b>  <b>Content Reviewed:</b> Addition; Subtraction; Estimation; Compare Whole Numbers	<b>Vocabulary:</b>  <b>Objective:</b> Students will identify multiplication facts related to division facts in order to solve division problems.  <b>Materials:</b> Counters (or Teaching Tool 12) Centimeter Grid Paper (Teaching Tool 4)	<b>Vocabulary:</b>  <b>Objective:</b> Students will draw pictures to problem solve multiplication situations and use their pictures to write number sentences.  <b>Materials:</b>  <b>Content Reviewed:</b> Place Value; Multiplication Facts; Subtraction; Two-

Division; Problem Solving <b>Standard:</b> 4.OA.2	Division; Arrays; Subtraction; Compare and Order; Multiplication Facts  <b>Standard:</b> 4.OA.1	<b>Standard:</b> 4.OA.2; 4.OA.3	<b>Content Reviewed:</b> Multiplication; Fact Families; Multiplication Facts; Problem Solving  <b>Standard:</b> 4.OA.2; 4.OA.3	Dimensional Figures; Fractions; Addition; Order Whole Numbers  <b>Standard:</b> 4.OA.2; 4.OA.3
<b>Assessment</b>	<b>Assessment</b>	<b>Assessment</b>	<b>Assessment</b>	<b>Assessment</b>
Daily Common Core Review Problem-Based Interactive Learning Guided Practice Independent Practice Problem Solving Quick Check Master Center Activity Reteaching, Practice, and Enrichment Homework	Daily Common Core Review Problem-Based Interactive Learning Guided Practice Independent Practice Problem Solving Quick Check Master Center Activity Reteaching, Practice, and Enrichment Homework	Daily Common Core Review Problem-Based Interactive Learning Guided Practice Independent Practice Problem Solving Quick Check Master Center Activity Reteaching, Practice, and Enrichment Homework	Daily Common Core Review Problem-Based Interactive Learning Guided Practice Independent Practice Problem Solving Quick Check Master Center Activity Reteaching, Practice, and Enrichment Homework	Daily Common Core Review Problem-Based Interactive Learning Guided Practice Independent Practice Problem Solving Quick Check Master Center Activity Reteaching, Practice, and Enrichment Homework Topic 1 Assessment