

EnVision Math Unit Lesson Plan			Common Core Standards:	
Grade Level: Fourth Grade	Topic 5: Number Sense: Multiplying by 1-Digit Numbers		4.NBT.3; 4.NBT.5; 4.OA.3	
Instructional Emphasis: Number and Operations in Base Ten			Essential Questions:	
Big Ideas: <ul style="list-style-type: none"> 5-1: Making an array with place-value blocks provides a way to visualize and find products. 5-2: Basic facts and place value patterns can be used to find products when one factor is 10 or 100. 5-3: Making an array with place-value blocks provides a way to visualize and find products. A 2-digit by 1-digit multiplication calculation can be broken into simpler problems; a basic fact and a 1-digit number times a multiple of 10. Answers to the simpler problems can be added to give the product. 5-4: There is more than one way to do a mental calculation. Techniques for doing multiplication calculations mentally involve changing the numbers or the expression so the calculation is easy to do mentally. 5-5: Rounding is one way to estimate products. 5-6: Answers to problems should always be checked for reasonableness and this can be done in different ways. Two ways are to use estimation and to check the answer against the question and conditions in the problem. 			<ul style="list-style-type: none"> How can you use arrays to multiply by 10 and 100? (5-1) What place-value patterns can be seen when you multiply 1-digit numbers by multiples of 10 and 100? (5-2) How can you break apart arrays to help you multiply with greater numbers? (5-3) What are some ways to multiply mentally? (5-4) How can you use rounding to estimate when you multiply? (5-5) How do you know if your answer is reasonable? (5-6) 	
Lesson 1: Arrays and Multiplying by 10 and 100	Lesson 2: Multiplying by Multiples of 10 and 100	Lesson 3: Breaking Apart to Multiply	Lesson 4: Using Mental Math to Multiply	Lesson 5: Using Rounding to Estimate
Vocabulary: Objective: Students will use arrays to multiply by 10 and 100. Materials: Place-Value Blocks (Teaching Tool 8) ¼ inch Grid Paper (Teaching Tool 5) Content Reviewed: Place Value; Customary Measurement; Fraction Models; Estimation; Comparing Fractions Standard: 4.NBT.5	Vocabulary: Objective: Students will use basic multiplication facts and number patterns to multiply by multiples of 10 and 100. Materials: Multiplication Recording Sheet (Teaching Tool 29) Content Reviewed: Multiplication; Mental Math; Identify Fractions; Count Money; Perimeter Standard: 4.NBT.5	Vocabulary: partial products Objective: Students will break apart numbers and use arrays to multiply 2-digit by 1-digit numbers. Materials: Place-Value Blocks (Teaching Tool 8) (10 tens, 15 ones per group) Content Reviewed: Number Patterns; Multiplication; Fractions; Subtraction; Problem Solving Standard: 4.NBT.5	Vocabulary: compensation Objective: Students will use compensation to multiply numbers mentally. Materials: Content Reviewed: Mental Math; Multiplication; Equal Parts; Addition; Comparing Whole Numbers Standard: 4.NBT.5; 4.NBT.3; 4.OA.3	Vocabulary: Objective: Students will use rounding to estimate solutions to multiplication problems. Materials: Rounding Recording Sheet (Teaching Tool 30) Content Reviewed: Problem Solving; Division; Fraction Models; Mental Math; Multiplication and Division Fact Families Standard: 4.NBT.5; 4.NBT.3

Assessment	Assessment	Assessment	Assessment	Assessment
Topic 5 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
Lesson 6: Problem Solving: Reasonableness				
Vocabulary: Objective: Students will check for reasonableness by making sure their calculations answer the questions asked and by using estimation to make sure the calculation was performed correctly. Materials: Content Reviewed: Addition; Fraction Models; Subtraction; Division Facts; Estimation Standard: 4.OA.3; 4.NBT.3; 4.NBT.5				
Assessment				
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 5 Assessment				
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