

| EnVision Math Unit Lesson Plan | | | Common Core Standards: 4.NBT.5; 4.NBT.3; 4.OA.3 | |
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| Grade Level: Fourth Grade | | Topic 7: Number Sense: Multiplying by 2-Digit Numbers | | Essential Questions: <ul style="list-style-type: none">How can arrays help you multiply a 2-digit number by 10? (7-1)How can you multiply by multiples of 10? (7-2)How can you use rounding to estimate products? (7-3)How can you use compatible numbers to estimate products? (7-4)What is the hidden question or questions? (7-5) |
| Instructional Emphasis: Number and Operations in Base Ten | | | | |
| Big Ideas: <ul style="list-style-type: none">7-1: Making an array with place-value blocks provides a way to visualize and find products.7-2: Basic facts and place-value patterns can be used to mentally multiply a two-digit number by a multiple of 10 or 100.7-3: Products can be estimated by replacing numbers with the closest multiple of 10 or 100.7-4: Products can be estimated by replacing numbers with other numbers that are close and easy to multiply mentally.7-5: Some problems can be solved by first finding and solving a sub-problem(s) and then using that answer(s) to solve the original problem. | | | | |
| Lesson 1: Arrays and Multiplying 2-Digit Numbers by Multiples of 10 | Lesson 2: Using Mental Math to Multiply by 2-Digit Numbers | Lesson 3: Using Rounding to Estimate | Lesson 4: Using Compatible Numbers to Estimate | Lesson 5: Problem Solving: Multiple-Step Problems |
| Vocabulary: Objective: Students will use arrays to multiply 2-digit numbers by multiples by 10. Materials: 1/4-inch Grid Paper (Teaching Tool 5) Place-Value Blocks (or Teaching Tool 8) (20 less, 80 ones per pair) Colored Pencils or Crayons 1/4-inch Grid Paper Transparency Colored Markers Content Reviewed: Rounding; Multiplication; Number Patterns; Subtraction Standard: 4.NBT.5 | Vocabulary: Objective: Students will discover and use patterns to multiply by multiples of 10. Materials: Calculators (per group) Colored Chalk Content Reviewed: Multiplication; Division; Addition and Subtraction; Number Patterns Standard: 4.NBT.5; 4.OA.3 | Vocabulary: Objective: Students will use rounding to estimate solutions to multiplication problems involving 2-digit numbers. Materials: Content Reviewed: Comparing Numbers; Multiplication; Estimating Sums; Addition Standard: 4.NBT.3; 4.OA.3 | Vocabulary: compatible numbers Objective: Students will use compatible numbers and rounding to estimate solutions to multiplication problems involving two 2-digit numbers. Materials: Content Reviewed: Estimating Products; Multiplication; Rounding; Multiplication and Addition; Rounding; Multiplication and Subtraction Standard: 4.NBT.5; 4.NBT.3; 4.OA.3 | Vocabulary: Objective: Identify and answer hidden questions to solve multi-step problems with operations. Materials: Content Reviewed: Estimating Products; Multiplication; Division; Addition; Multiplication; Rounding Standard: 4.NBT.5; 4.OA.3 |

| Assessment | Assessment | Assessment | Assessment | Assessment |
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| Topic 7 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 Topic 7 Assessment |