

District Aligned Curriculum
 Boone County Schools
 enVision Math 2.0
 Fourth Grade

multi-digit whole numbers to any place.																	
Use place value understanding and properties of operations to perform multi-digit arithmetic.			M	M	M	M											
4. Fluently add and subtract multi-digit whole numbers using the standard algorithm.			M														
5. Multiply a whole number of up to four digits by a one-digit whole number, and multiply two two-digit numbers, using strategies based on place value and the properties of operations. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.				M	M		M							M			
6. 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.							M	M									
Standards:		Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6	Unit 7	Unit 8	Unit 9	Unit 10	Unit 11	Unit 12	Unit 13	Unit 14	Unit 15	Unit 16
Number and Operations--Fractions									M	M	M		M				

4.NF																		
Extend understanding of fraction equivalence and ordering.									M									
1 Explain why a fraction a/b is equivalent to a fraction $(n \times a)/(n \times b)$ by using visual fraction models, with attention to how the number and size of the parts differ even though the two fractions themselves are the same size. Use this principle to recognize and generate equivalent fractions.									M			S						
2. Compare two fractions with different numerators and different denominators, e.g., by creating common denominators or numerators, or by comparing to a benchmark fraction such as $1/2$. Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of comparisons with symbols $>$, $=$, or $<$, and justify the conclusions, e.g., by using a visual fraction model.									M									
Build fractions from unit fractions by applying and extending previous understandings of operations on whole numbers.										M	M							
3. Understand a fraction a/b with $a > 1$ as										M								

District Aligned Curriculum
 Boone County Schools
 enVision Math 2.0
 Fourth Grade

a sum of fractions $1/b$																		
a. Understand addition and subtraction of fractions as joining and separating parts referring to the same whole..										M								
b. Decompose a fraction into a sum of fractions with the same denominator in more than one way, recording each decomposition by an equation. Justify decompositions, e.g., by using a visual fraction model. Examples: $3/8 = 1/8 + 1/8 + 1/8$; $3/8 = 1/8 + 2/8$; $2\ 1/8 = 1 + 1 + 1/8 = 8/8 + 8/8 + 1/8$										M								
c. Add and subtract mixed numbers with like denominators, e.g., by replacing each mixed number with an equivalent fraction, and/or by using properties of operations and the relationship between addition and subtraction.										M					M			
d. Solve word problems involving addition and subtraction of fractions referring to the same whole and having like denominators, e.g., by using visual fraction models and equations to represent the problem.										M		S			M			
4. Apply and extend previous understandings of multiplication to multiply a fraction by a whole number.											M							

District Aligned Curriculum
 Boone County Schools
 enVision Math 2.0
 Fourth Grade

<p>a. Understand a fraction a/b as a multiple of $1/b$. For example, use a visual fraction model to represent $5/4$ as the product $5 \times (1/4)$, recording the conclusion by the equation $5/4 = 5 \times (1/4)$.</p>											M						
<p>b. Understand a multiple of a/b as a multiple of $1/b$, and use this understanding to multiply a fraction by a whole number. For example, use a visual fraction model to express $3 \times (2/5)$ as $6 \times (1/5)$, recognizing this product as $6/5$. (In general, $n \times (a/b) = (n \times a)/b$.)</p>											M						
<p>c. Solve word problems involving multiplication of a fraction by a whole number, e.g., by using visual fraction models and equations to represent the problem. For example, if each person at a party will eat $3/8$ of a pound of roast beef, and there will be 5 people at the party, how many pounds of roast beef will be needed? Between what two whole numbers does your answer lie?</p>											M						
<p>Understand decimal notation for fractions, and compare decimal fractions</p>													M				
<p>5. Express a fraction with denominator 10 as an equivalent fraction with denominator 100, and use this technique to add two fractions with respective denominators 10</p>													M				

District Aligned Curriculum
 Boone County Schools
 enVision Math 2.0
 Fourth Grade

and 100.2 For example, express $\frac{3}{10}$ as $\frac{30}{100}$, and add $\frac{3}{10} + \frac{4}{100} = \frac{34}{100}$.																	
6. Use decimal notation for fractions with denominators 10 or 100. For example, rewrite 0.62 as $\frac{62}{100}$; describe a length as 0.62 meters; locate 0.62 on a number line diagram													M				
7. Compare two decimals to hundredths by reasoning about their size. Recognize that comparisons are valid only when the two decimals refer to the same whole. Record the results of comparisons with the symbols $>$, $=$, or $<$, and justify the conclusions, e.g., by using a visual model.													M				
Standards:		Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6	Unit 7	Unit 8	Unit 9	Unit 10	Unit 11	Unit 12	Unit 13	Unit 14	Unit 15	Unit 16
Measurement and Data 4.MD													S		S		AC
Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit.																	
1. Know relative sizes of measurement units within one system of units including km, m, cm; kg, g; lb, oz.; l, ml; hr, min, sec. Within a single system of measurement, express measurements in														S			

District Aligned Curriculum
 Boone County Schools
 enVision Math 2.0
 Fourth Grade

<p>a larger unit in terms of a smaller unit. Record measurement equivalents in a two column table. For example, know that 1 ft is 12 times as long as 1 in. Express the length of a 4 ft snake as 48 in. Generate a conversion table for feet and inches listing the number pairs (1, 12), (2, 24), (3, 36), ...</p>																
<p>2. Use the four operations to solve word problems involving distances, intervals of time, liquid volumes, masses of objects, and money, including problems involving simple fractions or decimals, and problems that require expressing measurements given in a larger unit in terms of a smaller unit. Represent measurement quantities using diagrams such as number line diagrams that feature a measurement scale.</p>										M		M	S			
<p>3 Apply the area and perimeter formulas for rectangles in real world and mathematical problems. For example, find the width of a rectangular room given the area of the flooring and the length, by viewing the area formula as a multiplication equation with an unknown factor.</p>																
<p>Represent and interpret data.</p>												S				
<p>4. Make a line plot to display a data set of</p>												S				

District Aligned Curriculum
 Boone County Schools
 enVision Math 2.0
 Fourth Grade

3. Recognize a line of symmetry for a two-dimensional figure as a line across the figure such that the figure can be folded along the line into matching parts. Identify line-symmetric figures and draw lines of symmetry.																	AC
Standards:		Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6	Unit 7	Unit 8	Unit 9	Unit 10	Unit 11	Unit 12	Unit 13	Unit 14	Unit 15	Unit 16
Standards for Mathematical Practice MP Math Practices and Problem Solving: (Last lesson each unit.) Bolded M=Priority *Lesson 3																	
1. Make sense of problems and persevere in solving them.		M	M	M	M	M	M	M*	M	M	M	M	M	M	M	M	M
2. Reason abstractly and quantitatively.		M	M	M	M	M	M	M*	M	M	M	M	M	M	M	M	M
3. Construct viable arguments and critique the reasoning of others.		M						M*	M			M	M				M
4. Model with mathematics.			M	M	M	M	M	M*		M	M	M	M	M		M	
5. Use appropriate tools strategically.				M					M	M						M	
6. Attend to precision.		M		M	M	M	M	M*			M		M	M			M
7. Look for and make use of structure.					M	M							M		M		M

District Aligned Curriculum
Boone County Schools
enVision Math 2.0
Fourth Grade

8. Look for and express regularity in repeated reasoning.			M			M		M*									
---	--	--	---	--	--	---	--	-----------	--	--	--	--	--	--	--	--	--

