Common Core Correlation - Grade 4

Common Core Standards & Essential Skills Mathematics Software

This document outlines the correlations between the Common Core Standards for Grade 4 (Operations & Algebraic Thinking, Number and Operations in Base Ten, Number and Operations - Fractions) and the Mathematics programs from Essential Skills Software. The Common Core Standards are noted on the left and are matched with the relevant Essential Skills program on the right. Where correlations are not exact, the difference is noted in brackets. **Essential Skills Mathematics programs cover 100% of the Grade 4 Common Core Standards for these three strands of the curriculum.**

Operations & Algebraic Thinking	
Common Core STANDARDS	**Essential Skills Software CORRELATING PROGRAMS**
1. Interpret a multiplication equation as a comparison, e.g., interpret 35 = 5 × 7 as a statement that 35 is 5 times as many as 7 and 7 times as many as 5. Represent verbal statements of multiplicative comparisons as multiplication equations.	**Math Operations Grade 4**
2. Multiply or divide to solve word problems involving multiplicative comparison, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem, distinguishing multiplicative comparison from additive comparison.	**Math Operations Grade 4**
3. Solve multistep word problems posed with whole numbers and having whole-number answers using the four operations, including problems in which remainders must be interpreted. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.	**Math Operations Grade 4**
4. Find all factor pairs for a whole number in the range 1–100. Recognize that a whole number is a multiple of each of its factors. Determine whether a given whole number in the range 1–100 is a multiple of a given one-digit number. Determine whether a given whole number in the range 1–100 is prime or composite.	**Math Operations Grade 4**

5. Generate a number or shape pattern that follows a given rule. Identify apparent features of the pattern that were not explicit in the rule itself. For example, given the rule "Add 3" and the starting number 1, generate terms in the resulting sequence and observe that the terms appear to alternate between odd and even numbers. Explain informally why the numbers will continue to alternate in this way.	**Math Operations Grade 4**
Number & Operations in Base Ten	
1. Recognize that in a multi-digit whole number, a digit in one place represents ten times what it represents in the place to its right. For example, recognize that 700 ÷ 70 = 10 by applying concepts of place value and division.	**Number Concepts Grade 4**
2. Read and write multi-digit whole numbers using base-ten numerals, number names, and expanded form. Compare two multi-digit numbers based on meanings of the digits in each place, using >, =, and < symbols to record the results of comparisons.	**Number Concepts Grade 4**
3. Use place value understanding to round multi-digit whole numbers to any place.	**Number Concepts Grade 4**
4. Fluently add and subtract multi-digit whole numbers using the standard algorithm.	**Math Operations Grade 4**
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.	**Math Operations Grade 4** (3 x 1, 2 x 2)
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.	**Math Operations Grade 4**

Common Core Correlation - Grade 4

Number & Operations - Fractions	
1. Explain why a fraction a/b is equivalent to a fraction (n × a)/(n × 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.	**Number Concepts Grade 6**
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.	**Number Concepts Grade 5**
3. Understand a fraction a/b with a > 1 as a sum of fractions 1/b.	**Number Concepts Grade 4**
4. Apply and extend previous understandings of multiplication to multiply a fraction by a whole number.	**Number Concepts Grade 6**
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 and 100.2 For example, express 3/10 as 30/100, and add 3/10 + 4/100 = 34/100.	**Number Concepts Grade 4** **Number Concepts Grade 5** **Number Concepts Grade 6**
6. Use decimal notation for fractions with denominators 10 or 100. For example, rewrite 0.62 as 62/100; describe a length as 0.62 meters; locate 0.62 on a number line diagram.	**Number Concepts Grade 4**
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.	**Number Concepts Grade 4**