

How to Read a Math Progression

November 2018

This is a 4th grader's progression.

- The student has mastered many of the learning goals for 3rd grade and is working on the 4th grade learning goals.
- The student has some 3rd grade learning goals to master. This student will continue to work on these learning goals in 4th grade.
- The student can see the learning goals which will be taught later in 4th grade and/or in 5th grade.
- There are three progressions: Addition/Subtraction/Multiplication/Division, Fractions & Decimals, and Measurement & Geometry. The students will use these progressions during grades 3 - 5. The progressions are available to students and families at all times (in the student's binder).

Addition, Subtraction, Multiplication, & Division Progression										
Mental Math & Estimation	Given a 2-digit number, find 10 more or 10 less without having to count. (1.NBT.C.5) (1.NBT.C.9)	Mentally add or subtract 10 or 100 to a number between 100-1000. (2.NBT.8)	Use place value understanding to round numbers to the nearest 10 or 100. (3.NBT.A.1)	Assess the reasonableness of answers using mental computation & estimation strategies including rounding. (3.OA.8)	Use place value understanding to round large numbers to 1,000,000 to any place. (4.NBT.A.3)	Use estimation and properties to estimate sums, differences, products, & quotients. (4.NBT.B.4) (4.NBT.B.5)	Use place value understanding to round decimals to any place. (5.NBT.A.4)			
Place Value	Read and write numbers to 1000 using base ten numerals, number name, and expanded form. (2.NBT.A.3)	Compare two 3-digit numbers using symbols to record the results. (2.NBT.A.4)	Recognize that in a multi-digit whole number, a digit in one place represents 10x the digit to its right. (4.NBT.A.1)	Read and write numbers to 1,000,000 using base ten numerals, number name, and expanded form. (4.NBT.A.2)	Compare multi-digit numbers up to 1,000,000 using symbols to record the results. (4.NBT.A.2)	Recognize that a digit in one place represents 10x the digit to its right, & 1/10 what it represents in the place to its left. (5.NBT.A.1)	Use exponents to show powers of 10. Explain patterns in the number of zeros & n in the placement of the decimal point. (5.NBT.A.2)	Read & write decimal to the thousandths using base ten numerals, number name, & expanded form. (5.NBT.A.3)	Compare two decimals to the thousandths using symbols to record the results. (5.NBT.A.3)	
Addition	Fluently add within 20 using mental strategies. Memorize all sums of two one-digit numbers. (2.OA.2)	Add within 1000, using a variety of strategies. (2.NBT.7)	Use addition within 100 to solve one- and two-step word problems. (2.OA.1)	Fluently add within 1000 using concrete models, place value, and a regrouping strategy. (3.NBT.A.2)	Solve two-step word problems using addition. Use equations with a variable. (3.OA.8)	Fluently add multi-digit whole numbers using the standard algorithm. (4.NBT.B.4)	Solve multi-step word problems posed with whole numbers. (4.OA.3)	Fluently add decimals to 100ths using concrete models, place value, & a regrouping strategy. (5.NBT.B.7)	Fluently add decimals using the standard algorithm.	
Subtraction	Fluently subtract within 20 using mental strategies. (2.OA.2)	Subtract within 1000, using a variety of strategies. (2.NBT.7)	Use subtraction within 100 to solve one- and two-step word problems. (2.OA.1)	Fluently subtract within 1000 using concrete models, place value, and a regrouping strategy. (3.NBT.A.2)	Solve two-step word problems using subtraction. Use equations with a variable. (3.OA.8)	Fluently subtract multi-digit whole numbers using the standard algorithm. (4.NBT.B.4)	Solve multi-step word problems posed with whole numbers. (4.OA.3)	Fluently subtract decimals to 100ths using concrete models, place value, & a regrouping strategy. (5.NBT.B.7)	Fluently subtract decimals using the standard algorithm.	
Multiplication	Use addition to find the total number of objects in arrays with up to 5 rows & columns. Write an equation for the total of equal addends. (2.OA.4)	Interpret products of whole numbers. For example, describe a context in which a total number of objects can be expressed as 5×7 . (3.OA.1)	Use multiplication within 100 to solve word problems. (3.OA.3)	Determine the unknown whole number in a multiplication equation. (3.OA.4)	Apply properties of operations as strategies to multiply. (3.OA.5)	Use strategies to fluently multiply within 100. (3.OA.7)	Use strategies to fluently multiply within 100. (3.OA.7)	Multiply 1-digit whole numbers by multiples of 10. (3.NBT.A.3)	Solve two-step word problems using multiplication. Use equations with a letter standing for the unknown quantity. (3.OA.8)	Multiply 4-digit numbers by 1-digit numbers using arrays, area models, or equations. (4.NBT.B.5)
Division	Interpret whole-number quotients of whole numbers. (3.OA.2)	Use division within 100 to solve word problems. (3.OA.3)	Determine the unknown whole number in a division equation. (3.OA.4)	Apply properties of operations as strategies to divide. (3.OA.5)	Use strategies to fluently divide within 100. (3.OA.7)	Solve two-step word problems using division. Use equations with a letter standing for the unknown quantity. (3.OA.8)	Find quotients & remainders with up to 4-digit dividends & 1-digit divisors using arrays, area models, or equations. (4.NBT.B.4)	Divide to solve word problems involving multiplication. (4.OA.2)	Solve multi-step word problems, including problems in which remainders must be interpreted. (4.OA.3)	

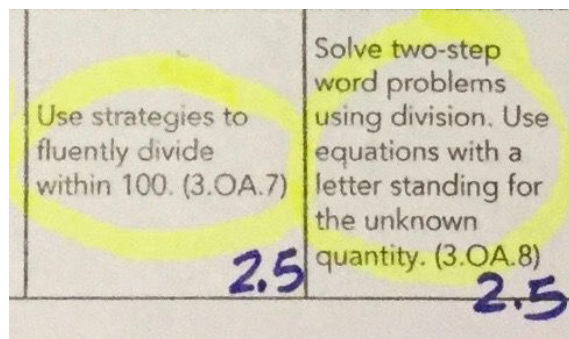
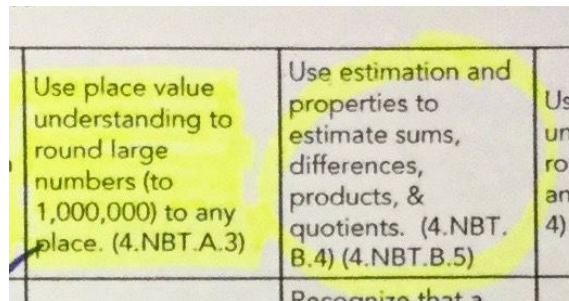
Highlighted Box:

This means the student has mastered this learning goal (& recorded as Level 3 on the student's report card).

The check marks mean the student has completed all learning at a grade level.

Parentheses in Each Box:

The FIRST number in the parentheses is the GRADE LEVEL and the rest of the code is the official name of the learning goal.



Circled Box:

This means the student is working on this learning goal.

If there is no number or letter in the box, the student is On Pace to meet this learning goal.

If there is a BP in the box, the student is Behind Pace to meet this learning goal.

If there is a number in the box, the student earned a Level 2 or 2.5 on the report card. The student needs continued practice with this learning goal.