

What is it we expect our students to learn?
Updated 4/23/20

Grade:4	Subject: Math		Ambrose, Hunt		
Description of Standard	Example of Rigor	Prerequisite Skills	When Taught?	Common Summative Assessment	Extension Standards
<i>What is the essential standard to be learned? Describe in a student-friendly vocabulary.</i>	<i>What does proficient student work look like? Provide an example and/or description.</i>	<i>What prior knowledge, skills, and/or vocabulary are needed for a student to master this standard?</i>	<i>When will this standard be taught?</i>	<i>What assessment(s) will be used to measure student mastery?</i>	<i>What will we do when students have already learned this standard?</i>
<p>NBT.5 I can multiply a whole number of up to three digits by a one-digit number, and multiply up to two two-digit numbers.</p>	<p style="text-align: center;">$123 \times 4 =$</p> <p style="text-align: center;">$12 \times 34 =$</p> <p>Students will solve using various strategies including partial products, area model, place value discs (<u>standard algorithm is not required until Grade 5</u>)</p> <p>There are 25 dozen cookies in the bakery. What is the total number of cookies at the bakery?</p> <p>In the cafeteria, there are 14 long tables. Each table seats 16 students. How many students can eat in the</p>	<p>3rd grade Previous Learning:</p> <p>multiplying up to 12×12</p> <p>Arrays</p> <p>Repeated addition</p> <p>Pictures with grouping</p> <p>Area</p> <p>Finding unknown</p> <p>Simple division as related to multiplication</p> <p>Factor</p> <p>Product</p> <p>Students will need to be proficient in multiplication facts.</p>	<p>Quarter 2: Cluster 4</p> <p>ENY Module 3 (Topics C,D,H)</p>	<p>CFA NBT5</p>	<p>NC.5.NBT.5</p> <p>Demonstrate fluency with the multiplication of two whole numbers up to a three-digit number by a two-digit number using the standard algorithm</p>

	<p>cafeteria at one time? → use partial products, area model, base ten blocks</p> <p>There are 38 buses in the parking lot, and each bus holds 74 people. How many people are able to ride the buses? → use an area model</p>				
<p>NBT.6 I can find whole number quotients and remainders with up to three-digit dividends and one-digit divisors.</p>	<p>Students will use rectangular arrays, area models, repeated subtraction, partial quotients, properties of operations, and relationship between multiplication and division</p> <p>4th grade teacher bought 4 new pencil boxes. She has 260 pencils. She wants to put the pencils in the boxes so that each box has the same number of pencils. How many pencils will there be in each box</p> <p>There are 592 students participating in Field Day. They are put into teams of 8 for the competition. How many teams get created?</p> <p>Use an area model to show $150/6$</p>	<p>3rd Grade Previous Learning</p> <p>Simple division in terms of multiplication and unknown factor problems</p> <p>divisor dividend remainder</p>	<p>Quarter 2: Cluster 4</p> <p>ENY Module 3 (Topics E,F,G)</p>	<p>CFA NBT6</p>	<p>NC.5.NBT.6 Find quotients with remainders when dividing whole numbers with up to four-digit dividends and two-digit divisors.</p>

<p>NF.2 I can compare two fractions with different numerators and different denominators.</p>	<p>Crystal and Katie are each running a mile. Crystal ran $\frac{3}{4}$ of a mile before stopping for water, while Katie ran $\frac{2}{3}$ of a mile before stopping. Who ran the farthest before stopping? Draw a picture or write a sentence to support your answer.</p> <p>Possible responses:</p> <p>Student 1: Crystal ran more since $\frac{3}{4}$ is farther from 0 than $\frac{2}{3}$.</p> <p>Student 2: I noticed that Crystal ran $\frac{1}{4}$ less than a whole and Katie ran $\frac{1}{3}$ less than a whole. Since $\frac{1}{4}$ is smaller than $\frac{1}{3}$ I know Crystal ran the farthest. I then drew a number line to check my work.</p>	<p>3rd Grade Previous Learning</p> <p>Comparing fractions with the same numerator or denominator.</p> <p>Reasoning about their size with visual models</p> <p>Students will need to know basic benchmark fractions.</p> <p>fraction numerator denominator benchmark</p>	<p>Quarter 3: Cluster 5</p> <p>ENY Module 5 (Topic C, E: L26 and 27)</p>	<p>CFA NF2</p>	<p>NC.5.NF.1 Add and subtract fractions, including mixed numbers, with unlike denominators using related fractions: halves, fourths and eighths; thirds, sixths, and twelfths; fifths, tenths, and hundredths.</p>
<p>NF.3 I can add and subtract fractions.</p>	<p>Improper fractions is not the accepted language any longer, it's just a fraction larger than one</p> $\frac{1}{8} + \frac{1}{8} + \frac{1}{8} =$	<p>3rd Grade Previous Learning</p> <p>Understanding unit fractions, how they combine to make one whole</p> <p>Whole numbers equivalent to fractions</p> <p>fraction</p>	<p>Quarter 3: Cluster 7</p> <p>ENY Module 5 (Topics A,D,E,F)</p>	<p>CFA NF3</p>	<p>NC.5.NF.1 Add and subtract fractions, including mixed numbers, with unlike denominators using related fractions: halves, fourths and eighths; thirds, sixths, and twelfths; fifths, tenths, and hundredths.</p>

	<p>4 The body and head of a fox measure $19\frac{4}{5}$ inches, and its tail measures $10\frac{4}{5}$ inches. What is the total length of the fox?</p> <p>A $30\frac{8}{10}$ inches B $30\frac{3}{5}$ inches C $29\frac{8}{10}$ inches D $29\frac{3}{5}$ inches</p> <p>16 Julie used $12\frac{3}{4}$ gallons of water on her garden on Monday. She used $15\frac{1}{4}$ gallons of water on Tuesday. What is the total amount of water Julie used to water her garden on Monday and Tuesday?</p> <p>A 27 gallons B $27\frac{1}{2}$ gallons C 28 gallons D $28\frac{1}{4}$ gallons</p>	<p>numerator denominator sum</p>			
<p>NF.4 I can multiply a fraction by a whole number.</p>	<p>$3 \times \frac{1}{6} =$</p> <p>3 Each day of the work week, Mr. Harbin uses $\frac{3}{4}$ of a gallon of gas. Which estimate best describes the amount of gas Mr. Harbin would use in a five-day work week?</p> <p>A less than one gallon B between 2 and 3 gallons C between 3 and 4 gallons D more than 4 gallons</p> <p>15 Four friends each ate $\frac{2}{3}$ of an apple. How many apples did the four friends eat in all?</p> <p>A $\frac{8}{12}$ of an apple B $\frac{6}{7}$ of an apple C 2 apples D $2\frac{2}{3}$ apples</p>	<p>3rd Grade Previous Learning</p> <p>Unit fractions and how they make up one whole</p> <p>fraction fraction whole number numerator denominator Product</p> <p>This standard also includes students finding fractions of a number, for example $\frac{2}{3}$ of 18 etc. This is usually a difficult skill to master and students need more focus on this concept.</p>	<p>Quarter 4: Cluster</p> <p>ENY Module 5 (Topics E,G)</p>	<p>CFA NF4</p>	<p>NC.5.NF.4 Apply and extend previous understandings of multiplication to multiply a fraction or whole number by a fraction, including mixed numbers.</p>

<p>NF.6 I can use decimals to represent fractions with denominators of 10 and 100. .</p>	<p>Rosita has $\frac{8}{10}$ of a meter of ribbon. However, the directions for her craft product have directions written about hundredths of a meter. What is an equivalent decimal to $\frac{8}{10}$ to the hundredths place?</p> <p>Possible response:</p> <p>I shaded in 8 columns on the decimal grid. That is the same as $\frac{80}{100}$ which can also be written as 0.8 or 0.80.</p> <p>Mitch swam $\frac{5}{10}$ of a mile on Saturday and $\frac{39}{100}$ a mile on Sunday. How much did Mitch swim on the two days? Use a decimal grid to show your answer and write your answer as a decimal.</p> <p>8 Dana ran on Monday and Tuesday.</p> <ul style="list-style-type: none"> • She ran $5\frac{2}{10}$ km on Monday. • She ran $4\frac{6}{100}$ km on Tuesday. <p>How far did Dana run altogether?</p> <p>A $9\frac{8}{10}$ km</p> <p>B $9\frac{8}{100}$ km</p> <p>C $9\frac{6}{10}$ km</p> <p>D $9\frac{26}{100}$ km</p>	<p>3rd Grade Previous Learning</p> <p>*Decimals are NEW for 4th Graders. Previous understanding would be related to fraction equivalence.</p> <p>fraction numerator denominator decimal tenth hundredth</p>	<p>Quarters 3: Cluster 7</p> <p>ENY Module 6 (Topics A,B,E)</p>	<p>CFANF6</p>	<p>NC.5.NBT.3 Read, write, and compare decimals to thousandths.</p>
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<p>OA3 Solve two-step word problems that involve the 4 operations.</p>	<p>On a vacation, your family travels 267 miles on the first day, 194 miles on the second day and 34 miles on the third day. How many miles did they travel total? How do you know your answer is reasonable?</p> <p>Your class is collecting bottled water for a service project. The goal is to collect 300 bottles of water. On the first day, Max brings in 6 packs with 6 bottles in each container. About how many bottles of water still need to be collected?</p> <p>There are 1,128 students going on a field trip. If each bus held 30 students, how many buses are needed?</p>	<p>3rd Grade Previous Learning</p> <p>One step equations with multiplication or division</p> <p>Writing and solving equations for unknown</p> <ul style="list-style-type: none"> -estimate -round -interpret remainder -benchmark -unknown 	<p>Quarter1: Cluster 2 (then revisited throughout the year within all clusters)</p>	<p>CFA OA3</p>	<p>NC.5.OA.2: Write, explain, and evaluate numerical expressions involving the four operations to solve up to two-step problems. Include expressions involving parentheses, using the order of operations commutative, associative, and distributive properties.</p>
<p>3.OA7 (3rd Grade standard) Fluency of isolated operations</p>	<p>Students must be able to master progressing operations, beginning with addition, and score a minimum of 48 out of 60 within 3 minutes.</p>	<p>Knowledge of basic fact fluency</p>	<p>Quarters 1,2,3,4</p>	<p>math-aids worksheet creator</p>	<p>Students who master all 4 operations will be tested on mixed operations for the remainder of the assessment period.</p>