5TH GRADE MATH CURRICULUM MAP
1ST QUARTER- 45 DAYS

Days	Standard	practices	explanation	resources
5 days	5.OA.A.1. Use parentheses, brackets, or braces in numerical expressions, and evaluate expressions with these symbols	5.MP.1. Make sense of problems and persevere in solving them. 5.MP.5, Use appropriate tools strategically. 5.MP.8. Look for and express regularity in repeated reasoning	This standard builds on the expectations of third grade where students are expected to start learning the conventional order. Students need experiences with multiple expressions that use grouping symbols throughout the year to develop understanding of when and how to use parentheses, brackets, and braces. First, students use these symbols with whole numbers. Then the symbols can be used as students add, subtract, multiply and divide decimals and fractions. Examples: □ (26 + 18) 4 Answer: 11 □ {[2 x (3+5)] – 9} + [5 x (23-18)] Answer: 32 □ 12 – (0.4 x 2) Answer: 11.2 □ (2 + 3) x (1.5 – 0.5) Answer: 5 □ 1 1 6 2 3 □ □ _ _ _ _	envisions 8.2 galileo Pemdas video teacher determined

3 days	5.OA.A.2. Write simple expressions that record calculations with numbers, and interpret numerical expressions without evaluating them. For example, express the calculation “add 8 and 7, then multiply by 2” as 2 □ (8 + 7). Recognize that 3 □ (18932 +921) is three times as large as 18932 + 921, without having to calculate the indicated sum or product.	5.MP.1. Make sense of problems and persevere in solving them. 5.MP.2. Reason abstractly and quantitatively. 5.MP.7. Look for and make use of structure. 5.MP.8. Look for and express regularity in repeated reasoning.	Students use their understanding of operations and grouping symbols to write expressions and interpret the meaning of a numerical expression. Examples: □ Students write an expression for calculations given in words such as “divide 144 by 12, and then subtract 7/8.” They write (144 ÷ 12) – 7/8. □ Students recognize that 0.5 x (300 ÷ 15) is ½ of (300 ÷ 15) without calculating the quotient.	envision topic 8 engage ny 3-12 other teacher resources
4 days	5.NBT.A.1. Recognize that in a multi-digit number, a digit in one place represents 10 times as much as it represents in the place to its right and 1/10 of what it represents in the place to its left.	5.MP.2. Reason abstractly and quantitatively. 5.MP.6. Attend to precision. 5.MP.7. Look for and make use of structure.	A student thinks, “I know that in the number 5555, the 5 in the tens place (5555) represents 50 and the 5 in the hundreds place (5555) represents 500. So a 5 in the hundreds place is ten times as much as a 5 in the tens place or a 5 in the tens place is 1/10 of the value of a 5 in the hundreds place.”	Envision topic 1 engage ny 1-4 galileo

4 days	5.NBT.A.2. Explain patterns in the number of zeros of the product when multiplying a number by powers of 10, and explain patterns in the placement of the decimal point when a decimal is multiplied or divided by a power of 10. Use whole-number exponents to denote powers of 10.	5.MP.2. Reason abstractly and quantitatively. 5.MP.6. Attend to precision. 5.MP.7. Look for and make use of structure	Students might write: 36 x 10 = 36 x 101 = 360 36 x 10 x 10 = 36 x 102 = 3600 36 x 10 x 10 x 10 = 36 x 103 = 36,000 36 x 10 x 10 x 10 x 10 = 36 x 104 = 360,000 Students should be able to use the same type of reasoning as above to explain why the following multiplication and division problem by powers of 10 make sense. 523 10 523,000 3 □ □ The place value of 523 is increased by 3 places. 5.223 10 522.3 2 □ □ The place value of 5.223 is increased by 2 places. 52.3 10 5.23 1 □ □ The place value of 52.3 is decreased by one plac	Engage Ny 1-4 Envisions topic 3,6,7 galileo

6 days	5.NBT.A.3. Read, write, and compare decimals to thousandths. a. Read and write decimals to thousandths using base-ten numerals, number names, and expanded form, e.g., 347.392 = 3 □ 100 + 4 □ 10 + 7 □ 1 + 3 □ (1/10) + 9 □ (1/100) + 2 □ (1/1000). b. Compare two decimals to thousandths based on meanings of the digits in each place, using >, =, and < symbols to record the results of comparisons.	5.MP.2. Reason abstractly and quantitatively. 5.MP.4. Model with mathematics. 5.MP.5. Use appropriate tools strategically. 5.MP.6. Attend to precision. 5.MP.7. Look for and make use of structure.	Some equivalent forms of 0.72 are: 72/100 7/10 + 2/100 7 x (1/10) + 2 x (1/100) 0.70 + 0.02 70/100 + 2/100 0.720 7 x (1/10) + 2 x (1/100) + 0 x (1/1000) 720/1000 Students need to understand the size of decimal numbers and relate them to common benchmarks such as 0, 0.5 (0.50 and 0.500), and 1. Comparing tenths to tenths, hundredths to hundredths, and thousandths to thousandths is simplified if students use their understanding of fractions to compare decimals. Examples: □ Comparing 0.25 and 0.17, a student might think, “25 hundredths is more than 17 hundredths.” They may also think that it is 8 hundredths more. They may write this comparison as 0.25 > 0.17 and recognize that 0.17 < 0.25 is another way to express this comparison. □ Comparing 0.207 to 0.26, a student might think, “Both numbers have 2 tenths, so I need to compare the hundredths. The second number has 6 hundredths	

6 days	5.NBT.A.4. Use place value understanding to round decimals to any place	5.MP.2. Reason abstractly and quantitatively. 5.MP.6. Attend to precision. 5.MP.7. Look for and make use of structure	When rounding a decimal to a given place, students may identify the two possible answers, and use their understanding of place value to compare the given number to the possible answers. Example: Round 14.235 to the nearest tenth. Students recognize that the possible answer must be in tenths thus, it is either 14.2 or 14.3. They then identify that 14.235 is closer to 14.2 (14.20) than to 14.3 (14.30).	Engage NY 7/8 envisions topic 1 galileo
6 days	5.NBT.B.5. Fluently multiply multi-digit whole numbers using the standard algorithm	5.MP.2. Reason abstractly and quantitatively. 5.MP.6. Attend to precision. 5.MP.7. Look for and make use of structure. 5.MP.8. Look for and express regularity in repeated reasoning.	In prior grades, students used various strategies to multiply. Students can continue to use these different strategies as long as they are efficient, but must also understand and be able to use the standard algorithm. In applying the standard algorithm, students recognize the importance of place value. Example: 123 x 34. When students apply the standard algorithm, they, decompose 34 into 30 + 4. Then they multiply 123 by 4, the value of the number in the ones place, and then multiply 123 by 30, the value of the 3 in the tens place, and add the two products	Engage ny 3-9 13-15 envisions topic 3

7 days	5.NBT.B.7. Add, subtract, multiply, and divide decimals to hundredths, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used	5.MP.2. Reason abstractly and quantitatively. 5.MP.3. Construct viable arguments and critique the reasoning of others. 5.MP.4. Model with mathematics. 5.MP.5. Use appropriate tools strategically. 5.MP.7. Look for and make use of structure.	Students should be able to express that when they add decimals they add tenths to tenths and hundredths to hundredths. So, when they are adding in a vertical format (numbers beneath each other), it is important that they write numbers with the same place value beneath each other. This understanding can be reinforced by connecting addition of decimals to their understanding of addition of fractions. Adding fractions with denominators of 10 and 100 is a standard in fourth grade. Example: 4 - 0.3 3 tenths subtracted from 4 wholes. The wholes must be divided into tenths. The answer is 3 and 7/10 or 3.7. Example: An area model can be useful for illustrating products. Students should be able to describe the partial products displayed by the area model. For example, "3/10 times 4/10 is 12/100. 3/10 times 2 is 6/10 or 60/100. 1 group of 4/10 is 4/10 or 40/100. 1 group of 2 is 2." Example: Finding the number in each group or share Students should be encouraged to apply a fair	Engage Ny 9-16 envisions 1,2,4,6,7

4 days	5.MD.A.1. Convert among different-sized standard measurement units within a given measurement system (e.g., convert 5 cm to 0.05 m), and use these conversions in solving multi-step, real world problems.	5.MP.1. Make sense of problems and persevere in solving them. 5.MP.2. Reason abstractly and quantitatively. 5.MP.5. Use appropriate tools strategically. 5.MP.6. Attend to precision	In fifth grade, students build on their prior knowledge of related measurement units to determine equivalent measurements. Prior to making actual conversions, they examine the units to be converted, determine if the converted amount will be more or less units than the original unit, and explain their reasoning. They use several strategies to convert measurements. When converting metric measurement, students apply their understanding of place value and decimals.	engage ny 13-15 envisions topic 13 galileo