5TH GRADE MATH CURRICULUM MAP
2nd QUARTER- 45 DAYS

Days	Standard	practices	explanation	resources
6 days	5.NBT.B.6. Find whole-number quotients of whole numbers with up to four-digit dividends and two-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.	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.	⍰ Using expanded notation ~ 2682 ÷ 25 = (2000 + 600 + 80 + 2) ÷ 25 ⍰ Using his or her understanding of the relationship between 100 and 25, a student might think: o I know that 100 divided by 25 is 4 so 200 divided by 25 is 8 and 2000 divided by 25 is 80. o 600 divided by 25 has to be 24. o Since 3 x 25 is 75, I know that 80 divided by 25 is 3 with a reminder of 5. (Note that a student might divide into 82 and not 80.) o I can't divide 2 by 25 so 2 plus the 5 leaves a remainder of 7. o 80 + 24 + 3 = 107. So, the answer is 107 with a remainder of 7. ⍰ Using an equation that relates division to multiplication, 25 x n = 2682, a student might estimate the answer to be slightly larger than 100 because she recognizes that 25 x 100 = 2500. ⍰ Example: 968 ÷ 21 Using base ten models, a student can represent 962 and use the models to make an array with one dimension of 21. The student continues to make the array until no more groups of 21 can be made. Remainders are not part of the array.	Engage 16-23 envision topics 3,4,5 galileo

7 days	5.NF.A.1. Add and subtract fractions with unlike denominators (including mixed numbers) by replacing given fractions with equivalent fractions in such a way as to produce an equivalent sum or difference of fractions with like denominators	5.MP.2. Reason abstractly and quantitatively. 5.MP.4. Model with mathematics. 5.MP.7. Look for and make use of structure	Students should apply their understanding of equivalent fractions developed in fourth grade and their ability to rewrite fractions in an equivalent form to find common denominators. They should know that multiplying the denominators will always give a common denominator but may not result in the smallest denominator.	engage NY 1-16 envisions topic 9,10 galileo
6 days	5.NF.A.2. Solve word problems involving addition and subtraction of fractions referring to the same whole, including cases of unlike denominators, e.g., by using visual fraction models or equations to represent the problem. Use benchmark fractions and number sense of fractions to estimate mentally and assess the reasonableness of answers.	5.MP.1. Make sense of problems and persevere in solving them. 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.	Jerry was making two different types of cookies. One recipe needed ¾ cup of sugar and the other needed (2)⁄3 cup of sugar. How much sugar did he need to make both recipes? Mental estimation: A student may say that Jerry needs more than 1 cup of sugar but less than 2 cups. An explanation may compare both fractions to ½ and state that both are larger than ½ so the total must be more than 1. In addition, both fractions are slightly less than 1 so the sum cannot be more than 2.	Engage Ny 3-16 envisions topic 9,10 galileo

6 days	5.NF.B.3. Interpret a fraction as division of the numerator by the denominator (a/b = a ¸ b). Solve word problems involving division of whole numbers leading to answers in the form of fractions or mixed numbers, e.g., by using visual fraction models or equations to represent the problem. For example, interpret 3/4 as the result of dividing 3 by 4, noting that 3/4 multiplied by 4 equals 3, and that when 3 wholes are shared equally among 4 people each person has a share of size 3/4. If 9 people want to share a 50-pound sack of rice equally by weight, how many pounds of rice should each person get? Between what two whole numbers does your answer lie?	5.MP.1. Make sense of problems and persevere in solving them. 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.	Ten team members are sharing 3 boxes of cookies. How much of a box will each student get? When working this problem a student should recognize that the 3 boxes are being divided into 10 groups, so s/he is seeing the solution to the following equation, 10 x n = 3 (10 groups of some amount is 3 boxes) which can also be written as n = 3 ÷ 10. Using models or diagram, they divide each box into 10 groups, resulting in each team member getting 3/10 of a box. Two afterschool clubs are having pizza parties. For the Math Club, the teacher will order 3 pizzas for every 5 students. For the student council, the teacher will order 5 pizzas for every 8 students. Since you are in both groups, you need to decide which party to attend. How much pizza would you get at each party? If you want to have the most pizza, which party should you attend? The six fifth grade classrooms have a total of 27 boxes of pencils. How many boxes will each classroom receive? Students may recognize this as a whole number division problem but should also express this equal sharing problem as 27⁄6. They explain that each classroom gets 27⁄6 boxes of pencils and can further determine that each classroom get 4 3⁄6 or 4(1)⁄2	Engage Ny 2-5 envisions topic 11 galileo

7 days	5.NF.B.4. Apply and extend previous understandings of multiplication to multiply a fraction or whole number by a fraction. a. Interpret the product (a/b) ´ q as a parts of a partition of q into b equal parts; equivalently, as the result of a sequence of operations a ´ q ÷ b. For example, use a visual fraction model to show (2/3) ´ 4 = 8/3, and create a story context for this equation. Do the same with (2/3) ´ (4/5) = 8/15. (In general, (a/b) ´ (c/d) = ac/bd).	5.MP.1. Make sense of problems and persevere in solving them. 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.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.	Students are expected to multiply fractions including proper fractions, improper fractions, and mixed numbers. They multiply fractions efficiently and accurately as well as solve problems in both contextual and non-contextual situations. • As they multiply fractions such as 3/5 x 6, they can think of the operation in more than one way. 3 x (6 ÷ 5) or (3 x 6/5) (3 x 6) ÷ 5 or 18 ÷ 5 (18/5) • Students create a story problem for 3/5 x 6 such as: Isabel had 6 feet of wrapping paper. She used 3/5 of the paper to wrap some presents. How much does she have left? Every day Tim ran 3/5 of mile. How far did he run after 6 days? (Interpreting this as 6 x 3/5) Examples: Building on previous understandings of multiplication • Rectangle with dimensions of 2 and 3 showing that 2 x 3 = 6. • Rectangle with dimensions of 2 and 2/3 showing that 2 x 2/3 = 4/3	Engage NY 6-12 envisions topic 11 galileo

7 days	5.NF.B.6. Solve real world problems involving multiplication of fractions and mixed numbers, e.g., by using visual fraction models or equations to represent the problem.	5.MP.1. Make sense of problems and persevere in solving them. 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.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.	Evan bought 6 roses for his mother. 2/3 of them were red. How many red roses were there? Using a visual, a student divides the 6 roses into 3 groups and counts how many are in 2 of the 3 groups. A student can use an equation to solve. 2/3×6=12/3=4 red roses Mary and Joe determined that the dimensions of their school flag needed to be 1 1/3 ft. by 2 1/4 ft. What will be the area of the school flag? A student can draw an array to find this product and can also use his or her understanding of decomposing numbers to explain the multiplication. Thinking ahead a student may decide to multiply by 1 1/3 instead of 2 1/4. The explanation may include the following: First, I am going to multiply 2 1/4 by 1 and then by 1/3. When I multiply 2 1/4 by 1, it equals 2 1/4. Now I have to multiply 2 1/4 by 1/3. 1/3 times 2 is 2/3. 1/3 times 1/4 is 1/12. So the answer is 2 1/4 + 2/3 + 1/12 or 2 3/12 + 8/12 + 1/12 = 2 12/12 = 3	Engage Ny 10-12 envisions topic 11 galileo

6 days	5.MD.B.2. Make a line plot to display a data set of measurements in fractions of a unit (1/2, 1/4, 1/8). Use operations on fractions for this grade to solve problems involving information presented in line plots. For example, given different measurements of liquid in identical beakers, find the amount of liquid each beaker would contain if the total amount in all the beakers were redistributed equally.	5.MP.1. Make sense of problems and persevere in solving them. 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.	• Ten beakers, measured in liters, are filled with a liquid. The line plot above shows the amount of liquid in liters in 10 beakers. If the liquid is redistributed equally, how much liquid would each beaker have? (This amount is the mean.) Students apply their understanding of operations with fractions. They use either addition and/or multiplication to determine the total number of liters in the beakers. Then the sum of the liters is shared evenly among the ten beakers	Engage NY 1 envisions topic 14 galileo