NC Strawberry Investigations Math Questions for 2nd Grade

Standard	Question
2OA1	Students will complete one and two step word problems within 100. *One-step: The farmer had 3 rolls of drip line. One roll had 6 feet, the second roll had 8 feet and the third roll had 7 feet. How many feet of drip line does the farmer have? *Two-step: Mrs. Smith bought 3 containers of strawberry plants. She had a total of 15 plants. The first container had 6 plants, the second container had 4 plants. How many plants were in the third container?
2OA2	
2OA3	Given pints or smaller containers of strawberries, students will determine whether each container has an odd or even number of strawberries. Use knowledge of odd and even numbers to determine if the sum of two rows of strawberries will be odd or even. (Students should use higher order thinking skills to recognize that the plants will be paired as they walk down the row therefore giving an even number.)
2OA4	Students will use addition to determine the number of strawberry plants in a field no larger than 5 rows by 5 columns. Students will create an array showing 25 plants in even columns and rows.
2NBT1	In 2012, NC Strawberries had an average yield of 135 cwt (centum weight or hundredweight which means 100 pounds per acre). Students will show 135 using base 10 blocks and recognize that 135 = 1 100, 3 10's, and 5 1's.
2NBT2	Students can determine what numbers come before and after a number. Using 135 (cwt) as a focal point, fill in the numbers before and after. _____, _____, 135, _____, _____
2NBT3	Using the NC Department of Agriculture's Strawberry Statistics Sheet, students will write numbers up to 1000 in base-ten numerals, number names, and expanded form.
2NBT4	Using the NC Department of Agriculture's Strawberry Statistics Sheet, students will compare the yields per acre from year to year. They will write the number sentence and used the correct symbol. Ex. 2003 was 100 and 2004 was 110. Students will write 100 > 110 and use that knowledge to understand there were more strawberries in 2004 than 2003.
2NBT5	
2NBT6	Students will count the number of leaves on four different strawberry plants and record the data. They will then make a number sentence and add the 4 numbers. Ex. Plant A has 21 leaves. Plant B has 24 leaves. Plant C has 33 leaves. Plant 4 has 30 leaves. Number sentence: 21 + 24 + 33 + 30 = *If students have access to a strawberry garden or a greenhouse, this can be an ongoing journal activity that will allow students to monitor plant growth.
2NBT7	Using the NC Department of Agriculture's Strawberry Statistics Sheet, students will subtract to determine the amount of increase or decrease in strawberry yields per acre and production. Ex. 2004 production was 176. 2003 production was 170. 176 - 170 = 6. *Include the vocabulary concept of increase and decrease.
2NBT8	
2NBT9	Students will write to explain their mathematical computation. Ask students, "How do you know there were fewer strawberries harvested in 2012 than in 2003?" Multiple answers would be acceptable.
2MD1	Students will use a ruler to measure the height of strawberry plants in inches and centimeters. Students can also measure the leaves in inches and centimeters. *If students have access to a strawberry garden or a greenhouse, this can be an ongoing journal activity that will allow students to monitor plant growth.
2MD2	If students have access to a strawberry garden or a green house, they will measure the length of the bed in inches and feet. They will compare the numbers and explain why the number of

	inches is greater than the number of feet. Student should also use meters and centimeters to do the same. (Students should understand that farmers measure the rows to know how many strawberries they can plant in each row.)
2MD3	Estimate the length of a strawberry in inches and centimeters. Estimate the height of a strawberry plant in inches and centimeters. Estimate the width of a strawberry plant in inches and centimeters.
2MD4	Students will measure 1 feature (length, width, etc.) of 2 different strawberry plants and determine how much longer, taller, etc. one is than the other. *If students have access to a strawberry garden or a green house, this can be an ongoing journal activity that will allow students to monitor plant growth.
2MD5	The strawberry farmer has two fields. In Field A, the rows are 80 feet long. In Field B, the rows are 72 feet long. How much longer are rows in Field 1? Students will explain how they determined the answer. This could lead to a discussion as to why some fields have longer rows than others.
2MD6	
2MD7	
2MD8	Students will solve problems with money using dollar bills and coins. Check the local grocery stores and strawberry farms to collect a variety of prices for a pound or quart of strawberries. Students will show the prices of the strawberries using money manipulatives and/or by writing or drawing the correct amount of money. Ex. $2.36 - Students can show 2 dollar bills, 3 dimes, and 6 pennies OR 1 dollar bill, 4 quarters, 2 dimes, 3 nickels, and 1 penny. Challenge students to find several ways to make the same amount. *Students can also use the cost of diesel fuel per gallon. Relate this as a cost for operating the tractors and for transporting the strawberries to and from the markets.
2MD9	Students will measure all strawberries in a container to the nearest centimeter and create a line plot using the data. If students have access to a strawberry garden or a green house, they can also measure the height, width, number of leaves, number of berries, etc. and create a line plot to show the data.
2MD10	Students will create a picture graph or bar graph with up to 4 categories showing their favorite way to eat strawberries - fresh, ice cream, cake, jam. (Teacher may want to have samples for students to try - 4 survey items may vary.) If students have access to a strawberry garden or a greenhouse, they can also measure the height, width, number of leaves, number of berries, etc. and create graphs to show the data.
2G1	
2G2	Students will divide different size rectangles into rows and columns of the same size squares to represent a strawberry field. Students will explain how they created equal sized squares. They may discuss why a farmer would want to divide his field.
2G3	Students can divide strawberry fields into halves, thirds, fourths (quarters) and understand that dividing the fields make them smaller plots of land. Have students create several examples of how a field could be divided. (Explain to students that farmers divide their fields at harvest time to maximize continuous growth, especially at "you pick" farms. Explain to students that people will pick strawberries in different sections of the field on a daily basis.)