



**North Carolina State Math Objectives /Excel Math Correlation
Grade 4**

NORTH CAROLINA MATH OBJECTIVES	<i>Excel Math</i> Lesson Numbers	<i>Excel Math</i> Stretch Lesson # Activity Number
Strand: Number and Operations		
Competency Goal 1: The learner will read, write, model, and compute with nonnegative rational numbers.		
1.01 Develop number sense for rational numbers 0.01 through 99,999.		
a) Connect model, number word, and number using a variety of representations.	1, 2, 3, 6, 7, 11, 14, 15, 17, 19, 22, 25, 26, 42, 43, 46, 50, 52, 53, 54, 55, 61, 75, 79, 81, 85, 88, 91, 99, 102, 112, 114, 122, 126, 133, 136, 137, 145	
b) Build understanding of place value (hundredths through ten thousands).	1, 2, 3, 7, 11, 12, 22, 42, 43, 46, 50, 52, 53, 55, 69, 85, 100, 102, 126, 131, 145	
c) Compare and order rational numbers.	6, 8, 17, 23, 46, 48, 74, 79, 85, 88, 100, 102, 103, 106, 112, 113, 114, 117, 118, 125, 127, 128, 133, 135, 136, 137, 145, 148	1, 2, 20, 21, 35, 37, 42, 50, 54, 57, 60, 61, 62, 64, 72, 74, 77, 124, 126
d) Make estimates of rational numbers in appropriate situations.	26, 29, 45, 55, 69, 104, 114, 122, 129, 131, 136, 137	
1.02 Develop fluency with multiplication and division:		
a) Two-digit by two-digit multiplication (larger numbers with calculator).	12, 32, 47, 59, 61, 62, 71, 91, 93, 98, 102, 103, 129, 131, 132, 137, 141, 142 Three-digit: 116, 146	16, 96
b) Up to three-digit by two-digit division (larger numbers with calculator).	21, 24, 27, 28, 33, 36, 42, 43, 46, 47, 48, 49, 51, 52, 53, 54, 56, 59, 61, 62, 64, 66, 70, 71, 73, 74, 75, 76, 77, 78, 79, 81, 82, 83, 87, 89, 91, 92, 93, 94, 96, 98, 102, 103, 107, 108, 109, 110, 114, 115, 116, 122, 123, 124, 129, 131, 132, 134, 136, 137, 138, 139, 141, 142, 148, 149, 151, 153, 154	
c) Strategies for multiplying and dividing numbers.	21, 24, 27, 28, 31, 32, 33, 36, 42, 43, 47, 49, 51, 52, 53, 54, 56, 59, 61, 62, 73, 82, 83, 87, 89, 91, 93, 94, 99, 106, 107, 109, 110, 115, 116, 127, 134, 135, 138, 139, 141, 142, 143, 146, 148, 151, 153, 154	
d) Estimation of products and quotients in appropriate situations.	33, 59, 104, 108	
e) Relationships between operations.	2, 21, 24, 27, 28, 31, 36, 42, 43, 49, 52, 53, 59, 61, 73, 82, 83, 87, 89, 107, 109, 115, 134, 138, 151	



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1.03 Solve problems using models, diagrams, and reasoning about fractions and relationships among fractions involving halves, fourths, eighths, thirds, sixths, twelfths, fifths, tenths, hundredths, and mixed numbers.	15, 16, 17, 54, 67, 75, 76, 79, 88, 99, 110, 112, 114, 118, 125, 127, 128, 132, 137, 148, 153	
1.04 Develop fluency with addition and subtraction of non-negative rational numbers with like denominators, including decimal fractions through hundredths.		
a) Develop and analyze strategies for adding and subtracting numbers.	9, 11, 16, 26, 67, 76, 81, 86	
b) Estimate sums and differences.	26, 45, 104, 129, 131	
c) Judge the reasonableness of solutions.	16, 26, 90, 104, 129, 136	
1.05 Develop flexibility in solving problems by selecting strategies and using mental computation, estimation, calculators or computers, and paper and pencil.	1, 4, 6, 8, 10, 13, 14, 15, 16, 17, 18, 19, 22, 23, 25, 31, 33, 34, 35, 41, 45, 46, 57, 58, 72, 77, 90, 92, 99, 101, 103, 106, 108, 109, 111, 113, 114, 117, 121, 122, 123, 124, 132, 133, 139, 141, 142, 143	1, 2, 5, 10, 14, 18, 22, 23, 27, 29, 33, 34, 35, 38, 40, 41, 43, 46, 47, 48, 50, 51, 54, 55, 57, 59, 64, 70, 73, 76, 84, 86, 88, 91, 97, 98, 101, 103, 108, 111, 112, 115, 117, 118, 120, 121, 124, 125, 127, 130, 133, 134, 135, 136, 138, 145, 147, 151 Activity 2, 6, 8, 11
Strand: Measurement		
Competency Goal 2: The learner will understand and use perimeter and area.		
2.01 Develop strategies to determine the area of rectangles and the perimeter of plane figures.	64, 68, 96, 120, 147, 149 Triangles: 155 Parts of a circle: 71 Identify shapes: 15, 39, 40, 58, 98, 144	118, 135, 137 Activity 3, 4, 7
2.02 Solve problems involving perimeter of plane figures and areas of rectangles.	64, 68, 96, 120, 147, 149 Volume: 95, 105 Triangles: 155 Angles: 70, 78, 98, 132 Equivalentents: 63, 87	118, 135, 137 Activity 3, 7, 10 Weight: 49, 76, 87, 95, 134, 139, 144, 149, 154 Volume: 23
Strand: Geometry		
Competency Goal 3: The learner will recognize and use geometric properties and relationships.		
3.01 Use the coordinate system to describe the location and relative position of points and draw figures in the first quadrant.	44, 65, 70, 97, 120, 130, 140	Activity 5, 12
3.02 Describe the relative position of lines using concepts of parallelism and perpendicularity.	37, 38, 39, 70	4, 36, 44, 53, 58, 66, 78, 82, 100, 107, 123 Activity 5, 12



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3.03 Identify, predict, and describe the results of transformations of plane figures. a) Reflections. b) Translations. c) Rotations.	30, 60	4, 32, 36, 44, 53, 58, 66, 78, 82, 94, 100, 107, 123, 131 Activity 9
Strand: Data Analysis and Probability		
Competency Goal 4: The learner will understand and use graphs, probability, and data analysis.		
4.01 Collect, organize, analyze, and display data (including line graphs and bar graphs) to solve problems.	5, 20, 56, 80, 119	86, 97, 112 Graph Activity 1, 2, 3, 4, 5, 6
4.02 Describe the distribution of data using median, range and mode.	69, 150 Averaging: 122	Graph Activity 4, 5, 6
4.03 Solve problems by comparing two sets of related data.	19, 20, 25, 35, 41, 56, 80, 119, 126, 152	Graph Activity 1, 2, 4, 5, 6 Activity 6
4.04 Design experiments and list all possible outcomes and probabilities for an event.	5, 41, 77	85 Graph Activity 1, 2 Activity 1
Strand: Algebra		
Competency Goal 5: The learner will demonstrate an understanding of mathematical relationships.		
5.01 Identify, describe, and generalize relationships in which:		
a) Quantities change proportionally.	23, 25, 34, 35, 54, 56, 87, 99, 110, 126, 127, 128, 134, 143, 152	9, 15, 19, 31, 39, 45, 52, 56, 69, 75, 80, 89, 93, 99, 109, 114
b) Change in one quantity relates to change in a second quantity.	19, 25, 34, 35, 54, 56, 87, 99, 110, 127, 128, 134, 143, 152	
5.02 Translate among symbolic, numeric, verbal, and pictorial representations of number relationships.	6, 8, 10, 14, 19, 21, 22, 33, 34, 35, 42, 43, 54, 56, 74, 87, 99, 110, 127, 134	Activity 8
5.03 Verify mathematical relationships using:		
a) Models, words, and numbers.	5, 6, 8, 14, 17, 18, 21, 31, 35, 41, 42, 43, 58, 90, 99, 110, 127, 128	
b) Order of operations and the identity, commutative, associative, and distributive properties.	13, 21, 22, 23, 27, 28, 31, 34, 35, 36, 42, 43, 49, 58, 72, 83, 84, 101, 103, 108, 113, 117, 124, 134	12, 16, 17, 63, 68, 81, 88, 90, 92, 102, 113, 122