



Utah State Standards / Excel Math Correlation
2nd Grade

Utah State Standards / Objectives	Excel Math Lesson Numbers	Stretch Lesson Numbers Activity Numbers
Standard 1: Students will acquire number sense and perform operations with whole numbers.		
Objective 1: Represent whole numbers in a variety of ways.		
a. Relate number words to the numerals that represent the quantities 0-100.	17, 24, 28, 33, 38, 41, 74, 76, 88, 91, 92, 94, 97, 107, 109, 116, 118, 120, 123, 129, 139, 145, 148, 150	
b. Represent whole numbers up to 1,000 in groups of hundreds, tens, and ones using base ten models, and write the numeral representing the set.	1, 9, 11, 13, 14, 16, 22, 23, 24, 31, 32, 39, 46, 49, 51, 54, 56, 59, 64, 71, 72, 73, 74, 82, 88, 91, 94, 106, 107, 116, 118, 122, 123, 129, 145	
c. Read and write a three-digit numeral, relating it to a set of objects and a pictorial representation.	91, 92, 106, 116, 122, 123, 129, 139, 145 Three-digit decimal: 79, 86, 138	
d. Write a numeral to 999 in expanded form (e.g., 539 is 5 hundreds, 3 tens, 9 ones or 500+30+9).	46, 49, 51, *64, 71, 72, 73, 74, 82, 88, 91, 92, 94, 106, 107, 116, 118, 122, 123, 129, 139, 145	
e. Identify the place and the value of a given digit in a three-digit numeral (e.g., the two in 281 means 2 hundreds or 200).	*86, 91, 92, 106, 107, 116, 122, 123, 129, 139, 145 Two-digit: 71, 72, 74, 84, 88, 118	
f. Demonstrate multiple ways to represent numbers using symbolic representations (e.g., thirty is the same as two groups of 15, the number of pennies in three dimes, or 58-28).	9, 11, 13, 14, 16, 22, 23, 24, 26, 31, 32, 39, 42, 43, 46, 49, 51, 54, 56, 59, 64, 67, 71, 72, 73, 74, 83, 88, 91, 94, 106, 107, 111, 116, 118, 122, 123, 129, 145 Decimals: 79, 86, 109, 138	
Objective 2: Identify simple relationships among whole numbers.		
a. Identify the number that is one more, one less, ten more, or ten less than any whole number up to 100.	6, 11, *13, 18, *20, 97	63, 69, 71, 79, 83, 86, 93, 95, 152 Other than 1 or 10: 30, 37, 43, 67, 76, 108, 123, 124
b. Write number sentences using the terms “greater than,” “less than,” or “equal to,” to compare numbers.	3, 12, 21, 22, 23, 38, 42, 46, 48, 51, 56, 57, 67, 81, 102, 103, 104, 105, 112 , 122, 123, 124 , 125, 142, 153	29, 30, 37, 40, 41, 43, 45, 49, 57, 61, 63, 65, 67, 70, 71, 76, 80, 86, 87, 90, 93, 95, 96, 100, 104, 108, 109, 114, 115, 119, 121, 134, 142
c. Order four whole numbers less than 100 from least to greatest and from greatest to least.	3, 14, 61, 73, 142	Consecutive numbers: 25, 32, 39, 90, 91, 113, 136, 149, 150, 153
d. Use ordinal numbers 1st through 10th.	7, 76	
Objective 3: Model and illustrate meanings of the operations of addition and subtraction and describe how they relate.		

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a. Demonstrate the joining and separating of sets with eighteen or fewer objects and record the results with pictures or symbols.	1, 9, 13, 16, 22, 23, 24, 28, 31, 32, 36, 38, 39, 42, 46, 48, 49, 51, 52, 56, 57, 58, 59, 66, 67, 71, 72, 73, 82, 88, 92, 94, 106, 107, 109, 111, 118, 122, 123, 125, 129, 141, 145, 146	21, 33, 35, 37, 40, 43, 45, 52, 57, 61, 63, 65, 67, 70, 71, 76, 79, 80, 83, 86, 100, 101, 108, 109, 114, 118, 121, 131, 134, 137, 142
b. Model three meanings of subtraction: separating of sets (“take away”), comparison of sets (“how many more/fewer”), and missing addends using objects, pictorial representations, and symbols.	1, 11, 13, 16, 20, 23, 31, 32, 38, 39, 42, 48, 49, 51, 52, 56, 57, 58, 59, 67, 71, 72, 73, 82, 88, 92, 94, 106, 107, 109, 116, 118, 122, 123, 125, 129, 145 Multiplication: 95, 108, 121, 131 Division: 113, 114, 115, 127, 128, 136, 153, 154	21, 22, 26, 31, 33, 35, 37, 38, 40, 43, 45, 46, 51, 52, 56, 57, 60, 61, 63, 65, 67, 68, 70, 71, 75, 76, 79, 80, 83, 86, 100, 101, 108, 109, 114, 118, 121, 131, 142 Multiplication: 58, 72, 95, 101, 109, 114, 119, 134, 137, 143, 147, 151, 155
c. Separate a given set of objects into two, three, five, or ten groups of equal size.	22, 23, 24, 31, 32, 39, 59, 71, 72, 106, 107, 111, 113, 114, 115, 127, 136, 153	99, 110, 121, 154
d. Model addition and subtraction of two-digit whole numbers in a variety of ways (e.g., expanded form, compensation, partial sums, regrouping).	11, 13, 16, 22, 23, 24, 31, 32, 34, 36, 39, 42, 49, 51, 54, 56, 59, 67, 68, 71, 72, 73, 76, 82, 88, 94, 116, 118, 133, 141 Three-digits: 92, 106, 107, 122, 129, 133, 139, 145, 146 Decimals: 79, 86, 109, 138, 140	40, 43, 61, 65, 70, 75, 82, 90, 95, 104, 109, 114, 118, 128, 131, 133, 136, 150, 153
e. Select an addition or subtraction sentence to solve a problem involving joining or separating of sets with eighteen or fewer objects.	27, 38, 42, 46, 48, 51, 56, 57, 59, 67, 104, 117, 124	33, 43, 45, 52, 57, 61, 65, 70, 75, 80, 87, 100, 108, 128
f. Recognize that addition number sentences have related subtraction sentences (e.g., $8-5=3$, $3+5=8$).	1, 13, 20, 42, 56, 67 Multiplication / Division: 137, 152	
Objective 4: Use fractions to identify parts of the whole.		
a. Separate geometric shapes and sets of objects into halves, thirds, and fourths using a variety of models and illustrations.	63, 77, 80, 113, 114, 115, 120, 126, 150, 155	Activity 2
b. Specify a region of a geometric shape (e.g., as “___ out of ___ equal parts” when given four or fewer equal parts).	63, 80, 100, 115, 126, 150, 155	Activity 2
c. Represent the unit fractions $1/2$, $1/3$, and $1/4$ with objects, pictures, and symbols.	63, 77, 80, 111, 113, 114, 115, 120, 126, 150, 155 Add / Subtract: 150	Activity 2
Objective 5: Solve whole number problems using addition and subtraction in vertical and horizontal notation.		



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a. Use a variety of methods and tools to facilitate computation (e.g., estimation, mental math strategies, paper and pencil, calculator).	1, 4, 9, 11, 13, 16, 20, 21, 22, 23, 24, 28, 31, 32, 34, 36, 38, 39, 42, 46, 49, 51, 52, 54, 56, 58, 59, 66, 67, 71, 72, 73, 82, 88, 92, 94, 116, 118, 122, 125, 129, 131, 141, 145 Multiplication: 95, 108, 121, 131, 141 Division: 113, 114, 115, 127, 128, 136, 153, 154	21, 22, 26, 31, 33, 35, 38, 40, 45, 46, 49, 51, 52, 56, 57, 60, 61, 65, 68, 70, 75, 80, 87, 95, 100, 101, 109, 114, 115, 118, 130 Activity 2
b. Compute accurately with basic number combinations for addition and subtraction facts to eighteen.	1, 2, 3, 4, 7, 8, 9, 11, 12, 13, 14, 16, 17, 18, 19, 20, 21, 23, 24, 26, 28, 31, 32, 34, 36, 41, 42, 43, 44, 46, 48, 49, 51, 52, 53, 54, 56, 58, 59, 61, 62, 64, 66, 67, 68, 69, 70, 76, 77, 79, 81, 82, 83, 84, 87, 90, 92, 98, 99, 101, 102, 103, 106, 107, 108, 109, 111, 112, 114, 116, 119, 126, 131, 133, 137, 138, 140, 142, 146, 147, 148, 152, 154 Multiplication: 108, 121, 124, 126, 131, 132, 133, 134, 137, 138, 139, 140, 141, 142, 144, 146, 147, 148, 149, 152, 154	21, 22, 26, 31, 33, 35, 38, 40, 45, 46, 49, 51, 52, 56, 57, 60, 61, 65, 68, 70, 71, 75, 80, 87, 95, 100, 101, 108, 109, 114, 118, 130 Activity 2
c. Add three whole numbers with sums to eighteen.	4, 16, 21, 28, 34, 46, 48, 49, 51, 54, 95, 104, 118, 133, 146 Four Whole Numbers: 147	22, 26, 31, 33, 38, 46, 51, 56, 60, 68, 71, 90, 114, 115, 121, 125, 128, 130, 133, 134, 142
d. Find the sum of two-digit whole numbers and describe the process used.	11, 13, 16, 22, 23, 24, 28, 31, 32, 34, 36, 39, 42, 46, 48, 49, 51, 52, 54, 56, 58, 59, 67, 68, 71, 72, 73, 76, 82, 88, 94, 102, 104, 111, 116, 118, 122 Three Digit: 92, 106, 107, 116, 122, 129, 133, 139, 145, 146	49, 82, 90, 95, 104, 108, 115, 118, 128, 131, 133, 136, 143, 150, 153 Subtraction of two digit whole numbers: 40, 49, 61, 65, 70, 75, 87, 95, 101, 109, 114
Standard 2: Students will identify and use patterns and relations to represent mathematical situations.		
Objective 1: Recognize and represent patterns having multiple attributes.		
a. Sort, classify, and label objects by three or more attributes.	47, 78	Activity 4, 8
b. Identify and label repeating and growing patterns using objects, pictures, and symbolic notation (e.g., ABAABBAAABBB . . .).	2, 18, 26, 37, 47, 70, 87, 93, 96, 99, 101, 111	25, 32, 39, 42, 47, 91, 97, 124, 151, 152, 154 Activity 8
c. Identify repeating and growing patterns in the environment.		48 Activity 8



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d. Construct models and skip count by twos, threes, fives, and tens and relate to repeated addition.	37, 47, 70, 87, 93, 99, 105, 111	42, 47, 97, 110, 124
Objective 2: Recognize and represent relations using mathematical symbols.		
a. Recognize that “ \neq ” indicates a relationship in which the quantities on each side are not of equal value.	*102, *103, 112 , *117	100, 118, 131
b. Recognize that symbols such as \sim , Δ , or \diamond , in an addition or subtraction equation represent a value that will make the statement true (e.g., $\sim + 3 = 6$, $5 + 7 = \Delta$, $7 = 9 - \diamond$)	*38, *52, *58, *102, *103, *117, 127, 136	21, 96 Letters vs. symbols: 41, 45, 52, 57, 61, 65, 70, 75, 80, 82, 87, 95, 101, 114, 119, 125, 130, 134, 137, 143, 147, 155
c. Demonstrate that changing the order of addends does not change the sum (e.g., $3 + 2 + 7 = 12$, $7 + 3 + 2 = 12$) and that changing the grouping of three or more addends does not change the sum (e.g., $(2 + 3) + 7 = 12$, $2 + (3 + 7) = 12$).	1, 20, *21, *27, 28, 36, *38, 42, 48, *52, *57, 67, 102, 103, 137 Order of Operations: 102, 103	*21, *41, *45, *52, *57, *61, *65, *70, *75, *80, *87, 100 , *101
Standard 3: Students will describe, identify, and create geometric shapes and describe spatial relationships.		
Objective 1: Describe, identify, and create geometric shapes.		
a. Identify, name, draw, sort, and compare circles, triangles, and parallelograms.	8, 10, 78, 90, 101, 135, 144	23, 24, 27, 34, 36, 62, 66, 74, 77, 85, 92, 94, 103, 105, 112, 127, 129, 138, 139, 144 Activity 9, 13
b. Identify and name spheres, cones, and cylinders.	110	Activity 10
c. Find and identify familiar geometric shapes in the students’ environment.	*8, 75, 110	Activity: 6, *7, *10
d. Determine whether a circle, triangle, square, or rectangle has a line of symmetry.	75 Flip / Slide / Turn: 135	Activity 12 Flip: 66, 77
Objective 2: Describe spatial relationships.		
a. Create and use verbal or written instructions to move within the environment.		Move within a shape: 27, 34, 62, 66, 74, 77, 92, 103, 112, 127, 138, 144 Activity 8
b. Find and name locations using coordinates (A, 1).		
c. Identify shapes in various orientations (e.g., Δ and \blacktriangledown).	78	23, 24, 27, 34, 36, 66, 74, 77, 85, 92, 94, 103, 105, 112, 127, 129, 139 Activity 9, 10, 13
Standard 4: Students will understand and use measurement tools and techniques.		



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Objective 1: Identify measurable attributes of objects and units of measurement.		
a. Sequence a series of events of a day in order by time (e.g., breakfast at 7:00, school begins at 9:00).	40, 44	44, 54, 89 Order other than time: 48, 59, 64, 73, 78, 84, 88, 98, 102, 106, 107, 111, 116, 117, 120, 121, 122, 135, 141, 145, 148
b. Identify the name and value of a penny, nickel, dime, quarter, and dollar.	43, 79, 83, 119, 149	
c. Estimate length, capacity, and weight using customary units.	84, 85	53, 100, 118, 131 Measurement Activity-Distance: 5, 6
Objective 2: Use appropriate techniques and tools to determine measurements.		
a. Compare and order objects, using nonstandard units, according to their length, weight, or capacity.	81	53 Measurement Activity-Vol: 1, 2 Measurement Activity-Wgt: 1, 2 Measurement Activity-Dist: 1, 2 Activity 11
b. Measure length using inches and feet, weight using pounds, and capacity using cups.	53, 55, 60, 81, 84, 85 Volume: 65	53 Measurement Activity-Vol: 3, 4, 5, 6, 7, 8 Measurement Activity-Wgt: 3, 4, 5, 6, 7 Measurement Activity-Dist: 3, 4, 5, 6 Activity 11
c. Determine the value of a set of up to five coins that total \$1.00 or less (e.g., two quarters and one dime equals 60¢; three dimes, one nickel, and one penny equals 36¢).	43, 66, 79, 83, 119, 149	
d. Read, tell, and write time to the hour and half-hour.	19, 29, 45, 62, 69, 89, 98, 142	*28
e. Use a calendar to determine the day of the week and date.	44, 134, 151	40, 49, 104, 133
f. Determine the perimeter of a square, triangle, and rectangle by measuring with nonstandard units.	132 Area: 90	
Standard 5: Students will collect and draw conclusions from data and understand basic concepts of probability.		
Objective 1: Collect, organize, and display simple data.		



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a. Gather data by vote or survey.	5, 10, 25, *50	48, 55, 99, 110, 117, 126, 132, 140, 146 Meas. Act.-Vol: 1, 2, 3, 4, 5, 6, 7, 8 Meas. Act.-Wgt: 1, 2, 3, 4, 5, 6, 7 Meas. Act.-Dist: 1, 2, 3, 4, 5, 6 Activity 5, 6, 7, 8, 14
b. Sort, classify, and organize data in a variety of ways.	5, 10, 25, *50, 130	48, 55, 99, 110, 117, 126, 132, 140, 146 Meas. Act.-Vol: 1, 2, 3, 4, 5, 6, 7, 8 Meas. Act.-Wgt: 1, 2, 3, 4, 5, 6, 7 Meas. Act.-Dist: 1, 2, 3, 4, 5, 6 Activity 5, 6, 7, 8, 14
c. Use a variety of methods to organize, display, and label information, including keys, using pictographs, tallies, bar graphs, and organized tables.	5, 10, 15, 25, 50, 100, 102, 130	48, 55, 99, 110, 117, 126, 132, 140, 146 Meas. Act.-Vol: 1, 2, 3, 4, 5, 6, 7, 8 Meas. Act.-Wgt: 1, 2, 3, 4, 5, 6, 7 Meas. Act.-Dist: 1, 2, 3, 4, 5, 6 Activity 5, 6, 7, 8, 14
d. Report information from a data display.	5, 10, 15, 25, 35, 50, 100, 102, 130	48, 55, 99, 110, 117, 126, 132, 140, 146 Meas. Act.-Vol: 1, 2, 3, 4, 5, 6, 7, 8 Meas. Act.-Wgt: 1, 2, 3, 4, 5, 6, 7 Meas. Act.-Dist: 1, 2, 3, 4, 5, 6 Activity 5, 6, 7, 8, 14
Objective 2: Determine the likelihood of an event.		
a. Predict events that will be the same in one day or one week.	*25, *35, 40 , *100, *130	*50 Activity 7
b. Predict the outcome when there are only two possible outcomes (e.g., tossing a coin).	25, 35, 100, 130	Activity 1 Possibilities: 33, 50, 81, 99, 110, Activity 8

*** Gives opportunity to teach specific Standard**

Story Problems / Logic / Deductive Reasoning: 27, 30, 33, 57, 66, 77, 81, 95, 104, 109, 117, 125, 127, 128, 130, 153, 154

29, 30, 35, 37, 43, 44, 48, 50, 53, 54, 55, 58, 59, 63, 67, 69, 71, 72, 73, 76, 78, 79, 81, 83, 84, 88, 89, 93, 98, 99, 102, 106, 107, 123, 126, 132, 135, 140, 141, 145, 148
Activity: 3, 4, 5, 6, 14