

# Standards for Mathematical Practice

and Excel Math Grade 5

The Common Core State Standards for Mathematical Practice are integrated into Excel Math lessons. Below are some examples of how to include these Practices into the tasks and activities your students will complete throughout the year.

## Mathematical Practices

**1. Make sense of problems and persevere in solving them.** Mathematically proficient students examine problems and tasks, and solve problems by applying their understanding of operations with whole numbers, decimals and fractions including mixed numbers. They solve problems related to volume and measurement conversions. They look for efficient ways to represent and solve problems. They complete a task by asking, "Does this make sense?" "What is the most efficient way to solve this problem?" and "Can I solve the problem a different way?"

**2. Reason abstractly and quantitatively.** Mathematically proficient students recognize that a number represents a specific quantity. They connect quantities to written symbols and create a logical representation of the problem. They extend this understanding from whole numbers to their work with fractions and decimals. Students write simple expressions that record calculations with numbers and represent or round numbers using place value concepts.

**3. Construct viable arguments and critique the reasoning of others.** In Fifth Grade, mathematically proficient students may construct arguments using objects, pictures and drawings. They explain calculations based on models, properties of operations and rules that generate patterns. They explain the relationship between volume and multiplication. Students may ask questions such as, "How did you get that?" and "Why is that true?" They can explain their thinking to others and critique each others' reasoning and strategies.

**4. Model with mathematics.** Mathematically proficient students represent problems in multiple ways including numbers, words, drawing pictures, using objects, making a chart or list, completing a graph, creating equations, etc. Students need opportunities to connect these representations and explain their connections. They complete a task by asking, "Does this make sense?" They evaluate the utility of models to find which are the most efficient and useful to solve problems.

**5. Use appropriate tools strategically.** In Fifth Grade, mathematically proficient students consider the available tools when solving an equation. For example, they may use unit cubes to fill a rectangular prism and then use a ruler to measure the dimensions. They use graph paper to accurately create graphs and solve problems or make predictions from real-world data.

**6. Attend to precision.** Mathematically proficient students use clear and precise language in discussions. They use appropriate terminology when referring to expressions, fractions, geometric figures and coordinate grids. They are careful when specifying units of measure and using symbols. For example, when calculating the volume of a rectangular prism they use cubic units.

**7. Look for and make use of structure.** In Fifth Grade, mathematically proficient students carefully look for patterns and structure. Students use properties of operations as strategies to add, subtract, multiply and divide whole numbers, fractions and decimals. Students notice numerical patterns and relate them to a rule or a graphical representation.

**8. Look for and express regularity in repeated reasoning.** Mathematically proficient students use repeated reasoning to understand algorithms and to fluently multiply multi-digit numbers, decimals and fractions. Students explore operations with fractions using visual models.

Standards / Objectives	<i>Excel Math</i> Lesson Numbers	Stretch Lesson Numbers Activity Numbers
<b>Operations and Algebraic Thinking</b>		
<b>Write and interpret numerical expressions.</b>		
1. Use parentheses, brackets, or braces in numerical expressions, and evaluate expressions with these symbols.	*14, 18, 19, 39, 43, 58, 84, 95, 96, 120, 124, 138, 144, 152, 153, 154, 155	21, 52, 81, 82, 91, 110, 120, 127, 129, 130, 147, 155
2. Write simple expressions that record calculations with numbers, and interpret numerical expressions without evaluating them. Recognize that $3 \times (18932 + 921)$ is three times as large as $18932 + 921$ , without having to calculate the indicated sum or product.	1, 4, 7, 11, 14, 15, 16, 18, 19, 32, 37, 39, 43, 55, 61, 70, 73, 74, 79, 82, 86, 96, 124, 138, 140, 143, 144, 145, 152, 153, 154, 155	1, 2, 3, 4, 5, 7, 8, 9, 10, 12, 13, 18, 19, 21, 31, 32, 33, 36, 41, 52, 54, 58, 67, 69, 72, 81, 82, 87, 91, 92, 96, 98, 103, 107, 109, 110, 111, 113, 116, 120, 124, 125, 130, 141, 144, 145, 146, 154  Activity 5
<b>Analyze patterns and relationships.</b>		
3. Generate two numerical patterns using two given rules. Identify apparent relationships between corresponding terms. Form ordered pairs consisting of corresponding terms from the two patterns, and graph the ordered pairs on a coordinate plane.	6, *7, 9, 13, 28, 38, 42, 55, 86, 87, 91, 93, 95, 98, 104, 108, 111, 120, 123, 138, 140, *141, 143	3, 5, 7, 9, 12, 13, 17, 18, 24, 31, 36, 45, 47, 56, 59, 66, 69, 94, 96, 102, 105, 111, 118, 128, 131, 134, 141, 142, 149, 150  Activity 1, 5
<b>Number and Operations in Base Ten</b>		
<b>Understand the place value system.</b>		
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.	1, 22, 24, 41, 79, 80, 81, 82, 85, 92, 98, 100, 111, 119, 120, 130, 138, 146, 147, 149	70  Activity 7
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.	22, 41, *81, *82, 83, 84, 85, 86, 98, 100, 111, 113, 119, 120, 125, 138, 146, 149	70  Activity 7
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., $347.392 = 3 \times 100 + 4 \times 10 + 7 \times 1 + 3 \times (1/10) + 9 \times (1/100) + 2 \times (1/1000)$ .	3, 4, 65, 79, 82, 85, *86, 92, 98, 100, 111, 113, 120, 121, 125, 131, 132, 145, 146, 147, 149	



## 5<sup>th</sup> Grade Common Core Standards / *Excel Math* Correlation

Standards / Objectives	<i>Excel Math</i> Lesson Numbers	Stretch Lesson Numbers Activity Numbers
b. Compare two decimals to thousandths based on meanings of the digits in each place, using $>$ , $=$ , and $<$ symbols to record the results of comparisons.	4, 65, 82, 85, 92, 98, 100, 111, 121, 148  Whole Numbers: 6, 37  Fractions: 31, 43, 105, 109  Fractions / Decimals: 112, 113, 136, 149	144  Activity 7  Whole Numbers: 8
4. Use place value understanding to round decimals to any place.	41, 82, 92, 121  Whole Numbers: 25	Activity 6, 7
<b>Perform operations with multi-digit whole numbers and with decimals to hundredths.</b>		
5. Fluently multiply multi-digit whole numbers using the standard algorithm.	2, 11, 16, 22, 24, 28, 33, 34, 36, 37, 38, 46, 49, 55, 61, 62, 70, 73, 74, 84, 86, 88, 91, 92, 97, 107, 119, 138, 139, 141, 143, 152, 155	10, 21, 29, 32, 61, 70, 106, 113, 155  Activity 7
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.	11, 16, 21, 26, 27, 28, 29, 33, 34, 36, 38, 44, 46, 47, 49, 51, 55, 63, 70, 71, 73, 74, 86, 97, 101, 102, 103, 106, 114, 119, 121, 128, 131, 141, 146, 155	21  Activity 7
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.	3, 4, 41, 47, 55, 66, 70, 79, 81, 82, 86, 92, 94, 97, 100, 107, 112, 120, 131, 132, 135, 145, 146, 147, 149, *155	20, 64, 79, 80, 89, 119, 121, 127, 129, 130  Activity 6, 7

\*Gives opportunity to teach specific Standard

Standards / Objectives	<i>Excel Math</i> Lesson Numbers	Stretch Lesson Numbers Activity Numbers
<b>Number and Operations - Fractions</b>		
<b>Use equivalent fractions as a strategy to add and subtract fractions.</b>		
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.	8, 15, 23, 50, 77, 99, 113, 117, 122, 127, 151, 153, 154  Equivalent fractions: 31, 39, 59, 68, 78, 109  Compare Fractions: 43, 78, 105, 106, 125	132, 133  Activity 3
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.	8, 15, *23, *50, 69, 75, 109, 113, *122, 130	8, 132, 133  Activity 8, 13, 14
<b>Apply and extend previous understandings of multiplication and division to multiply and divide fractions.</b>		
3. Interpret a fraction as division of the numerator by the denominator ( $a/b = a \div b$ ). 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.	9, 31, 44, 68, 78, 83, 98, 105, 109, 113, 126, *129, 130, 136, 146, 149  Whole Numbers: 29	8, 10, 44, 99, 132, 133  Activity 8
4. Apply and extend previous understandings of multiplication to multiply a fraction or whole number by a fraction.		
a. Interpret the product $(a/b) \times q$ as a parts of a partition of $q$ into $b$ equal parts; equivalently, as the result of a sequence of operations $a \times q \div b$ .	9, 39, 68, 75, 83, 85, 98, 102, 109, 110, 113, 118, 126, 130, 133, 142, 144, 145, 153, 154	Activity 8, 13, 14
b. Find the area of a rectangle with fractional side lengths by tiling it with unit squares of the appropriate unit fraction side lengths, and show that the area is the same as would be found by multiplying the side lengths. Multiply fractional side lengths to find areas of rectangles, and represent fraction products as rectangular areas.	*56, *63, *95  Whole Numbers: 134, 137, 152  Circle: 145  Area of Triangle: 144	97  Activity 8, 13, 14  Whole Numbers: 106, 122, 139, 140, 147

Standards / Objectives	<i>Excel Math</i> Lesson Numbers	Stretch Lesson Numbers Activity Numbers
5. Interpret multiplication as scaling (resizing), by:		
a. Comparing the size of a product to the size of one factor on the basis of the size of the other factor, without performing the indicated multiplication.	28, 31, 32, 38, 39, 79, 83, 85, 96, 98, 102, 105, 109, *110, 113, 118, 126, 130, 133, 144, 145, 149, 153, 154	106 Activity 8, 12, 14
b. Explaining why multiplying a given number by a fraction greater than 1 results in a product greater than the given number (recognizing multiplication by whole numbers greater than 1 as a familiar case); explaining why multiplying a given number by a fraction less than 1 results in a product smaller than the given number; and relating the principle of fraction equivalence $a/b = (n \times a)/(n \times b)$ to the effect of multiplying $a/b$ by 1.	31, 39, 83, 110, 113, 118, 126, 129, 133, 135, 142, 144, 145, 153, 154	Activity 14
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.	31, 83, 109, 130, 133, 135, 142, 149, 153	Activity 8, 14
7. Apply and extend previous understandings of division to divide unit fractions by whole numbers and whole numbers by unit fractions.		
a. Interpret division of a unit fraction by a non-zero whole number, and compute such quotients. Use the relationship between multiplication and division to explain that $(1/3) \div 4 = 1/12$ because $(1/12) \times 4 = 1/3$ .	76, 77, 83, 109, 126, 129, 136, 146, 149, 153	
b. Interpret division of a whole number by a unit fraction, and compute such quotients. For example, create a story context for $4 \div (1/5)$ , and use a visual fraction model to show the quotient. Use the relationship between multiplication and division to explain that $4 \div (1/5) = 20$ because $20 \times (1/5) = 4$ .	9, 109, 126, 129, 135, 136, 142, 146, 149, 153	
c. Solve real world problems involving division of unit fractions by non-zero whole numbers and division of whole numbers by unit fractions, e.g., by using visual fraction models and equations to represent the problem.	9, 83, 109, *129, 135, *136, 149, *153	133

Standards / Objectives	<i>Excel Math</i> Lesson Numbers	Stretch Lesson Numbers Activity Numbers
<b>Measurement and Data</b>		
<b>Convert like measurement units within a given measurement system.</b>		
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.	7, 8, 12, 17, 48, 54, 57, 58, 67, 103	122, 137, 138, 151 Activity 2
<b>Represent and interpret data.</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.	8, *5, *114 Number Line: 148	19, 44, 53, 137, 148, 152 Activity 2, 4
<b>Geometric measurement: understand concepts of volume and relate volume to multiplication and to addition.</b>		
3. Recognize volume as an attribute of solid figures and understand concepts of volume measurement.		
a. A cube with side length 1 unit, called a “unit cube,” is said to have “one cubic unit” of volume, and can be used to measure volume.	72, 84, *134, *137	76, 93 Activity 9, 12
b. A solid figure which can be packed without gaps or overlaps using n unit cubes is said to have a volume of n cubic units.	72, 84, *134, *137	*14, *76, 93 Activity 9, 12
4. Measure volumes by counting unit cubes, using cubic cm, cubic in, cubic ft, and improvised units.	72, 84, *134, *137 Perimeter: 54, 63, 95	*14, *76, 93 Activity 9, 12 Perimeter: 138, Activity 8
5. Relate volume to the operations of multiplication and addition; solve real world and mathematical problems involving volume.		
a. Find the volume of a right rectangular prism with whole-number side lengths by packing it with unit cubes, and show that the volume is the same as would be found by multiplying the edge lengths, equivalently by multiplying the height by the area of the base. Represent threefold whole-number products as volumes, e.g., to represent the associative property of multiplication.	*20, 72, 84, 134, 137	93, 143 Activity 9, 12
b. Apply the formulas $V = l \times w \times h$ and $V = b \times h$ for rectangular prisms to find volumes of right rectangular prisms with whole number edge lengths in the context of solving real world and mathematical problems.	*20, 72, 84, 134, 137	93, 143 Activity 9, 12
c. Recognize volume as additive. Find volumes of solid figures composed of two non-overlapping right rectangular prisms by adding the volumes of the non-overlapping parts, applying this technique to solve real world problems.	*20, 72, 84, 134, 137	93, 143 Activity 9, 12

Standards / Objectives	<i>Excel Math</i> Lesson Numbers	Stretch Lesson Numbers Activity Numbers
<b>Geometry</b>		
<b>Graph points on the coordinate plane to solve real-world and mathematical problems.</b>		
1. Use a pair of perpendicular number lines, called axes, to define a coordinate system, with the intersection of the lines (the origin) arranged to coincide with the 0 on each line and a given point in the plane located by using an ordered pair of numbers, called its coordinates. Understand that the first number indicates how far to travel from the origin in the direction of one axis, and the second number indicates how far to travel in the direction of the second axis, with the convention that the names of the two axes and the coordinates correspond (e.g., x-axis and x-coordinate, y-axis and y-coordinate).	52, 64, 90, 95, 123, 140 Graphing: 5, 40, 116	Activity 1, 3, 5, 11
2. Represent real world and mathematical problems by graphing points in the first quadrant of the coordinate plane, and interpret coordinate values of points in the context of the situation.	*5, *52, *64, *90, 95, *123, *140 Graphing: 5, 40, 116	Activity 1, 3, 5, 11
<b>Classify two-dimensional figures into categories based on their properties.</b>		
3. Understand that attributes belonging to a category of two-dimensional figures also belong to all subcategories of that category.	30, 35, 42, 45, 53, 54, 56, 71, 75, 95, 102, 134, 144, 145, 152 Three-dimensional: 20 Angles: 30	15, 22, 25, 34, 40, 42, 49, 50, 60, 63, 71, 73, 78, 85, 88, 93, 97, 100, 104, 112, 136 Activity 10,
4. Classify two-dimensional figures in a hierarchy based on properties.	30, 35, 42, 45, 53, 54, 56, 71, 75, 95, 102, 134, 144, 145, 152 Three-dimensional: 20 Parts of Circle: 75	*15, 22, 25, 34, 40, 42, 49, 50, 60, 63, 71, 88, 97, 100, 122 Activity 10 Three-dimensional: activity 10, 11, 12

Standards / Objectives	<i>Excel Math</i> Lesson Numbers	Stretch Lesson Numbers Activity Numbers
<b>Mathematical Practices</b>		
1. Make sense of problems and persevere in solving them.	2, 4, 5, 6, 8, 9, 10, 11, 12, 13, 14, 16, 19, 25, 29, 31, 32, 37, 38, 40, 44, 48, 49, 51, 55, 57, 58, 60, 61, 62, 67, 69, 70, 73, 74, 79, 82, 86, 88, 89, 91, 92, 97, 98, 100, 102, 103, 104, 105, 109, 111, 114, 115, 116, 117, 124, 130, 133, 135, 142, 143, 149, 150, 151, 152,	3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 14, 15, 16, 17, 19, 20, 23, 24, 26, 27, 28, 29, 30, 31, 33, 35, 35, 36, 37, 38, 39, 42, 44, 45, 46, 47, 48, 49, 51, 53, 54, 55, 56, 57, 58, 59, 61, 62, 64, 65, 67, 68, 69, 70, 71, 72, 73, 74, 75, 77, 79, 80, 83, 86, 87, 88, 89, 90, 92, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 105, 106, 107, 108, 110, 111, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 128, 129, 130, 131, 133, 134, 135, 136, 137, 138, 139, 140, 142, 143, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154  Activity 3, 4, 6, 7, 8, 11, 13, 14
2. Reason abstractly and quantitatively.	2, 4, 5, 6, 8, 9, 10, 11, 12, 13, 14, 16, 19, 25, 29, 31, 32, 37, 38, 40, 44, 48, 49, 51, 55, 57, 58, 60, 61, 62, 67, 69, 70, 73, 74, 79, 82, 86, 88, 89, 91, 92, 97, 98, 100, 102, 103, 104, 105, 109, 111, 114, 115, 116, 117, 124, 130, 133, 135, 142, 143, 149, 150, 151, 152,	3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 14, 15, 16, 17, 19, 20, 23, 24, 26, 27, 28, 29, 30, 31, 33, 35, 35, 36, 37, 38, 39, 42, 44, 45, 46, 47, 48, 49, 51, 53, 54, 55, 56, 57, 58, 59, 61, 62, 64, 65, 67, 68, 69, 70, 71, 72, 73, 74, 75, 77, 79, 80, 83, 86, 87, 88, 89, 90, 92, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 105, 106, 107, 108, 110, 111, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 128, 129, 130, 131, 133, 134, 135, 136, 137, 138, 139, 140, 142, 143, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154  Activity 3, 4, 6, 7, 8, 11, 13, 14
3. Construct viable arguments and critique the reasoning of others.	2, 4, 5, 6, 8, 9, 10, 11, 12, 13, 14, 16, 19, 25, 29, 31, 32, 37, 38, 40, 44, 48, 49, 51, 55, 57, 58, 60, 61, 62, 67, 69, 70, 73, 74, 79, 82, 86, 88, 89, 91, 92, 97, 98, 100, 102, 103, 104, 105, 109, 111, 114, 115, 116, 117, 124, 130, 133, 135, 142, 143, 149, 150, 151, 152,	3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 14, 15, 16, 17, 19, 20, 23, 24, 26, 27, 28, 29, 30, 31, 33, 35, 35, 36, 37, 38, 39, 42, 44, 45, 46, 47, 48, 49, 51, 53, 54, 55, 56, 57, 58, 59, 61, 62, 64, 65, 67, 68, 69, 70, 71, 72, 73, 74, 75, 77, 79, 80, 83, 86, 87, 88, 89, 90, 92, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 105, 106, 107, 108, 110, 111, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 128, 129, 130, 131, 133, 134, 135, 136, 137, 138, 139, 140, 142, 143, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154  Activity 3, 4, 6, 7, 8, 11, 13, 14





## 5<sup>th</sup> Grade Common Core Standards / *Excel Math* Correlation

Standards / Objectives	<i>Excel Math</i> Lesson Numbers	Stretch Lesson Numbers Activity Numbers
4. Model with mathematics.	2, 4, 5, 7, 8, 9, 10, 11, 12, 13, 15, 16, 18, 19, 21, 26, 27, 29, 31, 32, 33, 34, 37, 38, 39, 40, 44, 48, 49, 51, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 67, 68, 69, 70, 72, 73, 74, 77, 79, 82, 83, 84, 88, 89, 92, 93, 95, 97, 102, 103, 104, 105, 109, 111, 112, 114, 115, 116, 117, 119, 120, 124, 129, 130, 133, 134, 135, 137, 138, 140, 141, 142, 143, 144, 145, 149, 150, 151, 152,	1, 2, 3, 4, 5, 7, 8, 9, 10, 11, 12, 13, 14, 17, 18, 19, 20, 21, 24, 29, 31, 32, 33, 36, 41, 44, 47, 52, 54, 55, 58, 59, 61, 64, 67, 69, 70, 71, 72, 79, 80, 81, 84, 87, 89, 92, 95, 96, 97, 98, 99, 102, 103, 105, 106, 107, 110, 111, 113, 114, 116, 118, 119, 120, 121, 122, 124, 125, 126, 127, 129, 130, 132, 133, 137, 138, 139, 140, 143, 145, 146, 147, 148, 149, 150, 154, 155  Activity 3, 4, 6, 7, 8, 11, 13, 14
5. Use appropriate tools strategically.	2, 4, 5, 6, 8, 9, 10, 11, 12, 13, 14, 16, 19, 25, 29, 31, 32, 37, 38, 40, 44, 48, 49, 51, 55, 57, 58, 60, 61, 62, 67, 69, 70, 73, 74, 79, 82, 86, 88, 89, 91, 92, 97, 98, 100, 102, 103, 104, 105, 109, 111, 114, 115, 116, 117, 124, 130, 133, 135, 142, 143, 149, 150, 151, 152,	3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 14, 15, 16, 17, 19, 20, 23, 24, 26, 27, 28, 29, 30, 31, 33, 35, 35, 36, 37, 38, 39, 42, 44, 45, 46, 47, 48, 49, 51, 53, 54, 55, 56, 57, 58, 59, 61, 62, 64, 65, 67, 68, 69, 70, 71, 72, 73, 74, 75, 77, 79, 80, 83, 86, 87, 88, 89, 90, 92, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 105, 106, 107, 108, 110, 111, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 128, 129, 130, 131, 133, 134, 135, 136, 137, 138, 139, 140, 142, 143, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154  Activity 3, 4, 6, 7, 8, 11, 13, 14
6. Attend to precision.	2, 4, 5, 6, 8, 9, 10, 11, 12, 13, 14, 16, 19, 25, 29, 31, 32, 37, 38, 40, 44, 48, 49, 51, 55, 57, 58, 60, 61, 62, 67, 69, 70, 73, 74, 79, 82, 86, 88, 89, 91, 92, 97, 98, 100, 102, 103, 104, 105, 109, 111, 114, 115, 116, 117, 124, 130, 133, 135, 142, 143, 149, 150, 151, 152,	3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 14, 15, 16, 17, 19, 20, 23, 24, 26, 27, 28, 29, 30, 31, 33, 35, 35, 36, 37, 38, 39, 42, 44, 45, 46, 47, 48, 49, 51, 53, 54, 55, 56, 57, 58, 59, 61, 62, 64, 65, 67, 68, 69, 70, 71, 72, 73, 74, 75, 77, 79, 80, 83, 86, 87, 88, 89, 90, 92, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 105, 106, 107, 108, 110, 111, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 128, 129, 130, 131, 133, 134, 135, 136, 137, 138, 139, 140, 142, 143, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154  Activity 3, 4, 6, 7, 8, 11, 13, 14

\*Gives opportunity to teach specific Standard

<b>Standards / Objectives</b>	<b>Excel Math Lesson Numbers</b>	<b>Stretch Lesson Numbers Activity Numbers</b>
7. Look for and make use of structure.	2, 4, 5, 6, 8, 9, 10, 11, 12, 13, 14, 16, 19, 25, 29, 31, 32, 37, 38, 40, 44, 48, 49, 51, 55, 57, 58, 60, 61, 62, 67, 69, 70, 73, 74, 79, 82, 86, 88, 89, 91, 92, 97, 98, 100, 102, 103, 104, 105, 109, 111, 114, 115, 116, 117, 124, 130, 133, 135, 142, 143, 149, 150, 151, 152,	3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 14, 15, 16, 17, 19, 20, 23, 24, 26, 27, 28, 29, 30, 31, 33, 35, 35, 36, 37, 38, 39, 42, 44, 45, 46, 47, 48, 49, 51, 53, 54, 55, 56, 57, 58, 59, 61, 62, 64, 65, 67, 68, 69, 70, 71, 72, 73, 74, 75, 77, 79, 80, 83, 86, 87, 88, 89, 90, 92, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 105, 106, 107, 108, 110, 111, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 128, 129, 130, 131, 133, 134, 135, 136, 137, 138, 139, 140, 142, 143, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154 Activity 3, 4, 6, 7, 8, 11, 13, 14
8. Look for and express regularity in repeated reasoning.	2, 4, 5, 6, 8, 9, 10, 11, 12, 13, 14, 16, 19, 25, 29, 31, 32, 37, 38, 40, 44, 48, 49, 51, 55, 57, 58, 60, 61, 62, 67, 69, 70, 73, 74, 79, 82, 86, 88, 89, 91, 92, 97, 98, 100, 102, 103, 104, 105, 109, 111, 114, 115, 116, 117, 124, 130, 133, 135, 142, 143, 149, 150, 151, 152,	3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 14, 15, 16, 17, 19, 20, 23, 24, 26, 27, 28, 29, 30, 31, 33, 35, 35, 36, 37, 38, 39, 42, 44, 45, 46, 47, 48, 49, 51, 53, 54, 55, 56, 57, 58, 59, 61, 62, 64, 65, 67, 68, 69, 70, 71, 72, 73, 74, 75, 77, 79, 80, 83, 86, 87, 88, 89, 90, 92, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 105, 106, 107, 108, 110, 111, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 128, 129, 130, 131, 133, 134, 135, 136, 137, 138, 139, 140, 142, 143, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154 Activity 3, 4, 6, 7, 8, 11, 13, 14

The following are concepts not required by the CCS but are lessons in Excel Math:

<b>Concept</b>	<b>Lesson</b>	<b>Stretch</b>
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<b>Concept</b>	<b>Lesson</b>	<b>Stretch</b>
Positive / Negative numbers	89, 150, 151, 154, 155	
Graphs	5, 40, 116	11
Reasoning	10, 70	6, 11, 14, 16, 19, 23, 26, 27, 28, 30, 33, 35, 37, 38, 39, 42, 46, 48, 51, 53, 54, 55, 57, 61, 62, 68, 74, 75, 77, 83, 86, 90, 95, 101, 108, 114, 115, 117, 126, 133, 135, 142, 148, 151, 152, 153 Activity 1, 2, 3, 4
Probability / combinations	60, 117	65, 123, Activity 6
Time	8	
Intersection of sets	53	
Mean / Median / Mode	115	
Area of Irregular figures	152	
Three-dimensional Figures	20	Activity 10, 11, 12

\*Gives opportunity to teach specific Standard



## Common Core 5<sup>th</sup> Grade Standards / Excel Math Correlation by Lesson Number

Lesson (Activity) Number	<i>Excel Math Lesson Objective</i>	Common Core Standard / Objective
L1	Recognizing numbers less than a million given in words or place value; recognizing addition and subtraction fact families; subtracting 2 three-digit numbers with regrouping; adding 4 four-digit numbers with regrouping	Operations / Algebraic 2 Number / Operations Base Ten *1
L2	Learning the multiplication facts with products up through 30 and products with 5 (up to 45), 10 (up to 90), 11 (up to 99) or 12 (up to 48) as a factor; multiplying a two- or three-digit number by a one-digit multiplier; solving multi-step word problems using addition and subtraction	Number / Operations Base Ten 5 Mathematical Practices 1, 2, 3, 4, 5, 6, 7, 8
L3	Subtracting four-digit numbers with regrouping; recognizing money number words; recognizing the dollar symbol and decimal point; regrouping with money amounts when adding, subtracting or multiplying money amounts	Number / Operations Base Ten *3a, 7
L4	Learning change equivalents up to \$1.00; recognizing coins; solving word problems involving money; calculating change using the least number of coins	Operations / Algebraic 2 Number / Operations Base Ten 3a, *3b, 7 Mathematical Practices 1, 2, 3, 4, 5, 6, 7, 8
L5	Interpreting circle graphs, picture graphs, bar graphs and line graphs	Measurement / Data *2 Mathematical Practices 1, 2, 3, 4, 5, 6, 7, 8
L6	Recognizing the symbols < less than, > greater than; arranging 4 four-digit numbers in order from least to greatest and from greatest to least; filling in missing numbers in sequences counting by 1, 2, 3, 4, 5, 6, 7, 8, 9 or 10	Operations / Algebraic 3 Mathematical Practices 1, 2, 3, 5, 6, 7, 8
L7	Computing the date; learning 7 days = 1 week; learning the abbreviations for days and months; learning the number of days in each month; learning 1 year = 12 months	Operations / Algebraic 2, *3 Measurement / Data 1 Mathematical Practices 4
L8	Telling time to the minute; recognizing a quarter past or before the hour or half past the hour; calculating minutes before the hour; learning 60 minutes = 1 hour; calculating elapsed time	Mathematical Practices 1, 2, 3, 4, 5, 6, 7, 8
L9	Computing one half of a group; recognizing odd and even numbers less than 100	Operations / Algebraic 3 Number / Operations – Fractions 3 Mathematical Practices 1, 2, 3, 4, 5, 6, 7, 8
L10	Solving word problems using deductive reasoning; determining if there is sufficient information to answer the question; determining what information is needed to answer the question in a word problem; solving word problems using reasoning	Mathematical Practices 1, 2, 3, 4, 5, 6, 7, 8
L11	Learning division facts with dividends up through 30 and dividends that are multiples of 5 (to 45), 10 (to 90), 11 (to 99) or 12 (to 48); recognizing multiplication and division fact families; learning the terminology for multiplication and division	Operations / Algebraic 2 Number / Operations Base Ten *1, 5, 6 Mathematical Practices 1, 2, 3, 4, 5, 6, 7, 8

\*Gives opportunity to teach specific State Standard



## Common Core 5<sup>th</sup> Grade Standards / Excel Math Correlation by Lesson Number

Lesson (Activity) Number	Excel Math Lesson Objective	Common Core Standard / Objective
L12	Estimating standard measurements; reading measuring devices	Measurement / Data 1 Mathematical Practices 1, 2, 3, 4, 5, 6, 7, 8
L13	Completing patterns in a chart; recognizing ordinal number words up to 100	Operations / Algebraic 3 Mathematical Practices 1, 2, 3, 4, 5, 6, 7, 8
L14	Determining whether statements are true; filling in a missing number in an <i>equation</i> ; determining the value of a letter that has been substituted for a number; solving algebraic equations; selecting the correct operation	Operations / Algebraic *1, 2 Mathematical Practices 1, 2, 3, 5, 6, 7, 8
L15	Defining numerator and denominator; determining the fractional part of a group of items when modeled or given in words, including extraneous information or the word “not”; learning that the whole is the sum of its parts; adding and subtracting fractions	Operations / Algebraic 2 Number / Operations – Fractions 1, 2 Mathematical Practices 4 Mathematical Practices 1, 2, 3, 4, 5, 6, 7, 8
L16	Solving word problems involving multiplication and division; learning multiplication facts with products up to 50	Operations / Algebraic 2 Number / Operations Base Ten 5
L17	Measuring line segments to the nearest half inch, quarter inch and half centimeter; learning the equivalents for feet, inches and yards	Measurement / Data 1
L18	Filling in missing numbers in equations with parentheses; learning the order of operations when solving an equation; replacing letters with numbers in an equation	Operations / Algebraic 1, 2 Mathematical Practices 4
L19	Changing a number sentence from $\neq$ to $=$ ; finding the value of an unknown by performing the same operation on both sides of an equation	Operations / Algebraic 1, 2 Mathematical Practices 1, 2, 3, 4, 5, 6, 7, 8
L20	Recognizing three-dimensional figures - sphere, cube, cone, cylinder; rectangular, square and triangular pyramid; rectangular and triangular prism; learning the terminology of flat and curved faces, vertices and edges	
L21	Dividing a one-digit divisor into a three-digit dividend with a three-digit quotient, no regrouping or remainders	Number / Operations Base Ten 6 Mathematical Practices 4
L22	Multiplying 2 two-digit numbers, no regrouping	Number / Operations Base Ten *1, 2, 5
L23	Adding and subtracting fractions and mixed numbers with like denominators	Number / Operations – Fractions 1, *2
L24	Multiplying 2 two-digit numbers, regrouping only with the ones or the tens place; learning multiplication facts with products to 81	Number / Operations Base Ten *1, 5
L25	Rounding to the nearest ten, hundred or thousand; estimating the answers for addition, subtraction and multiplication word problems using rounding; estimating range for an answer; rounding numbers so there is only one non-zero digit	Mathematical Practices 1, 2, 3, 5, 6, 7, 8

\*Gives opportunity to teach specific State Standard



## Common Core 5<sup>th</sup> Grade Standards / Excel Math Correlation by Lesson Number

Lesson (Activity) Number	<i>Excel Math Lesson Objective</i>	Common Core Standard / Objective
L26	Dividing a one-digit divisor into a three-digit dividend with a two-digit quotient, no regrouping or remainders	Number / Operations Base Ten 6 Mathematical Practices 4
L27	Continued – Dividing a one-digit divisor into a three-digit dividend with a two-digit quotient, no regrouping or remainders	Number / Operations Base Ten 6 Mathematical Practices 4
L28	Learning division facts with dividends up through 50; learning multiplication facts with products less than 100 with 12 as a factor; recognizing multiples	Operations / Algebraic 3 Number / Operations Base Ten 5, 6 Number / Operations – Fractions 5a
L29	Learning division facts with remainders with dividends up to 30 and dividends with 5 as a factor; solving word problems involving division with remainders	Number / Operations Base Ten 6 Mathematical Practices 1, 2, 3, 4, 5, 6, 7, 8
L30	Measuring angles; learning the sum of the angles for triangles and rectangles; recognizing right, obtuse and acute angles; recognizing equilateral, isosceles and scalene triangles	Geometry 3, 4
L31	Determining equivalent fractions using models or money	Mathematical Practices 1, 2, 3, 4, 5, 6, 7, 8
L32	Selecting the correct equation; learning about the Commutative Property of Addition and Commutative Property of Multiplication	Operations / Algebraic 2 Number / Operations – Fractions 5a Mathematical Practices 1, 2, 3, 4, 5, 6, 7, 8
L33	Dividing a one-digit divisor into a three-digit dividend resulting in a two-digit or three-digit quotient, with regrouping and remainders	Number / Operations Base Ten 5, 6 Mathematical Practices 4
L34	Continued – Dividing a one-digit divisor into a three-digit dividend resulting in a two-digit or three-digit quotient, with regrouping and remainders	Number / Operations Base Ten 5, 6 Mathematical Practices 4
L35	Learning the terminology of parallel, intersecting and perpendicular, plane figure, polygon, quadrilateral, parallelogram, and diagonal	Geometry 3, 4
L36	Multiplying 2 two-digit numbers, regrouping twice	Number / Operations Base Ten 5, 6
L37	Recognizing true and not true number sentences; selecting the correct symbol for a number sentence; using trial and error to replace unknowns in an equation	Operations / Algebraic 2 Number / Operations Base Ten 5 Mathematical Practices 1, 2, 3, 4, 5, 6, 7, 8
L38	Determining the lowest common multiple; learning multiplication facts with products with 11 (up to 121) and 12 (up to 144) as a factor; learning division facts with remainders with dividends up to 50	Operations / Algebraic 3 Number / Operations Base Ten 5, 6 Number / Operations – Fractions 5a Mathematical Practices 1, 2, 3, 4, 5, 6, 7, 8
L39	Calculating equivalent fractions using multiplication	Number / Operations – Fractions 4a, *5b Mathematical Practices 4

\*Gives opportunity to teach specific State Standard



## Common Core 5<sup>th</sup> Grade Standards / Excel Math Correlation by Lesson Number

Lesson (Activity) Number	Excel Math Lesson Objective	Common Core Standard / Objective
L40	Comparing two or more sets of data using bar or line graphs; interpreting information given in a histogram	Mathematical Practices 1, 2, 3, 4, 5, 6, 7, 8
L41	Rounding to the nearest dollar; dividing money amounts by a one-digit divisor	Number / Operations Base Ten *1, 2, 4, 7
L42	Recognizing patterns; learning the terminology of pentagon, hexagon, and octagon; determining figures that do or do not belong in a set	Operations / Algebraic 3 Geometry 3, 4
L43	Comparing fractions; putting simple fractions in order from least to greatest and greatest to least	
L44	Computing $\frac{1}{2}$ to $\frac{1}{9}$ of a group of items	Number / Operations – Fractions 3 Mathematical Practices 1, 2, 3, 4, 5, 6, 7, 8
L45	Recognizing when figures are similar or congruent; recognizing flips, slides and turns; recognizing lines of symmetry; recognizing bilateral and rotational symmetry; recognizing the symbol for a triangle	Geometry 3
L46	Dividing a one-digit divisor into a four-digit dividend with a three-digit quotient and a zero in the tens place	Number / Operations Base Ten 5, 6
L47	Continued – Dividing a one-digit divisor into a four-digit dividend with a three-digit quotient and a zero in the tens place	Number / Operations Base Ten 6, 7
L48	Learning measurement equivalents for centimeters, meters, kilometers, kilograms, liters, milliliters, millimeters, gallons, pounds, tons, dozens; converting measurements using multiplication; determining the measurement that is longer or shorter or heavier or lighter	Measurement / Data 1 Mathematical Practices 1, 2, 3, 4, 5, 6, 7, 8
L49	Dividing with a two-digit divisor and a dividend less than 100 with remainders; learning division facts with dividends up to 81 and less than 100 with 12 as a factor	Number / Operations Base Ten 5, 6 Mathematical Practices 1, 2, 3, 4, 5, 6, 7, 8
L50	Adding and subtracting fractions with unlike denominators	Number / Operations – Fractions 1, *2
L51	Learning the equivalent for one year in days and in weeks; learning about leap year; calculating elapsed time crossing months	Number / Operations Base Ten 6 Mathematical Practices 1, 2, 3, 4, 5, 6, 7, 8
L52	Determining coordinate points	Geometry 1, *2
L53	Using Venn Diagrams to understand the union and intersection of sets	Geometry 3, 4
L54	Calculating perimeters; learning length abbreviations	Measurement / Data 1 Geometry 3 Mathematical Practices 4
L55	Recognizing multiplication without the “x” symbol; calculating the answer to a word problem using 2 to 1 and 5 to 1 ratios	Operations / Algebraic 2, 3 Number / Operations Base Ten 5, 6, 7 Mathematical Practices 1, 2, 3, 4, 5, 6, 7, 8
L56	Calculating the area of a rectangle	Number / Operations – Fractions *4b Geometry 3 Mathematical Practices 4

\*Gives opportunity to teach specific State Standard



## Common Core 5<sup>th</sup> Grade Standards / Excel Math Correlation by Lesson Number

Lesson (Activity) Number	Excel Math Lesson Objective	Common Core Standard / Objective
L57	Calculating elapsed time (hours) involving AM and PM	Measurement / Data 1 Mathematical Practices 1, 2, 3, 4, 5, 6, 7, 8
L58	Solving word problems by listing the possibilities; converting measurements using division	Operations / Algebraic 1 Measurement / Data 1 Mathematical Practices 1, 2, 3, 4, 5, 6, 7, 8
L59	Calculating equivalent fractions using division	Mathematical Practices 4
L60	Determining the probability of an event	Mathematical Practices 1, 2, 3, 4, 5, 6, 7, 8
L61	Determining factors	Operations / Algebraic 2 Number / Operations Base Ten 5 Mathematical Practices 1, 2, 3, 4, 5, 6, 7, 8
L62	Determining composite numbers, prime numbers and prime factors	Number / Operations Base Ten 5 Mathematical Practices 1, 2, 3, 4, 5, 6, 7, 8
L63	Solving word problems involving area and perimeter	Number / Operations Base Ten 6 Number / Operations – Fractions *4b Mathematical Practices 4
L64	Measuring vertical and horizontal lines by subtracting X- and Y-coordinates	Geometry 1, *2
L65	Recognizing tenths and hundredths places; recognizing decimal number words; writing decimal numbers as mixed numbers; writing mixed numbers as decimals	Number / Operations Base Ten 3a, 3b
L66	Adding and subtracting decimal numbers	Number / Operations Base Ten 7
L67	Comparing U.S. customary and metric units	Measurement / Data 1 Mathematical Practices 1, 2, 3, 4, 5, 6, 7, 8
L68	Changing an improper fraction to a mixed or whole number	Number / Operations – Fractions 3, 4a Mathematical Practices 4
L69	Adding and subtracting fractions in word problems	Number / Operations – Fractions 2 Mathematical Practices 1, 2, 3, 4, 5, 6, 7, 8
L70	Determining the question when given the information and the answer; estimating which answer is most reasonable	Operations / Algebraic 2 Mathematical Practices 1, 2, 3, 4, 5, 6, 7, 8
L71	Learning the terminology of rhombus and trapezoid; learning division facts with remainders with dividends to 81	Number / Operations Base Ten 6 Geometry 3, 4
L72	Calculating the volume of a rectangular prism with one or more layers of cubes	Measurement / Data 3a, 3b, 4, 5a, 5b, 5c Mathematical Practices 4
L73	Calculating elapsed time in minutes across the 12 on the clock; learning division facts with dividends up to 121 with 11 as a factor and up to 144 with 12 as a factor	Operations / Algebraic 2 Number / Operations Base Ten 5, 6 Mathematical Practices 1, 2, 3, 4, 5, 6, 7, 8
L74	Calculating distance, time and speed in word problems	Operations / Algebraic 2 Number / Operations Base Ten 5, 6 Mathematical Practices 1, 2, 3, 4, 5, 6, 7, 8
L75	Recognizing parts of a circle; calculating the diameter given the radius; associating the 360 degrees in a circle with one-quarter, one-half, three-quarter and full turns	Geometry 3
L76	Simplifying fractions	Number / Operations – Fractions 7a

\*Gives opportunity to teach specific State Standard



## Common Core 5<sup>th</sup> Grade Standards / Excel Math Correlation by Lesson Number

Lesson (Activity) Number	Excel Math Lesson Objective	Common Core Standard / Objective
L77	Converting improper fractions as part of mixed numbers; recognizing division without the ÷ symbol	Number / Operations – Fractions 1, 7a Mathematical Practices 4
L78	Determining the improper fraction with the greatest or least value in a set of fractions; putting fractions in order from least to greatest and greatest to least	Number / Operations – Fractions 3
L79	Dividing dollars by dollars	Number / Operations Base Ten 7 Mathematical Practices 1, 2, 3, 4, 5, 6, 7, 8
L80	Recognizing numbers up through trillions; recognizing numbers given in expanded notation	Number / Operations Base Ten *1
L81	Multiplying a decimal number by a whole number	Number / Operations Base Ten *1, *2, 7
L82	Estimating answers to problems involving numbers with up to nine digits; solving equations involving decimals	Number / Operations Base Ten *1, *2, 3a, 3b, 4, 7 Mathematical Practices 1, 2, 3, 4, 5, 6, 7, 8
L83	Converting fractions and decimals to percents by setting up equivalent fractions	Number / Operations – Fractions 4a, *5a, 6 Mathematical Practices 4
L84	Calculating the volume of a rectangular prism using the formula $L \times W \times H$	Measurement / Data 3a, 3b, 4, 5a, 5b, 5c Mathematical Practices 4
L85	Comparing decimal numbers in true and not true statements; comparing decimal numbers in less than and greater than problems	Number / Operations Base Ten 1, 2, 3b
L86	Recognizing the pattern in a sequence of figures or pattern of shading	Operations / Algebraic 3 Number / Operations Base Ten 6 Mathematical Practices 1, 2, 3, 5, 6, 7, 8
L87	Recognizing three-digit odd and even numbers; filling in missing numbers in sequences counting by 11 or 12	Operations / Algebraic 3
L88	Determining the greatest common factor	Number / Operations Base Ten 5 Mathematical Practices 1, 2, 3, 4, 5, 6, 7, 8
L89	Comparing positive and negative numbers	Mathematical Practices 1, 2, 3, 4, 5, 6, 7, 8
L90	Determining if coordinate points are on a given line	Geometry 1, *2
L91	Determining numbers that are multiples of one number and factors of another	Operations / Algebraic 3 Number / Operations Base Ten 5 Mathematical Practices 1, 2, 3, 5, 6, 7, 8
L92	Estimating to the nearest dollar or whole number	Number / Operations Base Ten 3a, 3b, 4 Number / Operations Base Ten 7 Mathematical Practices 1, 2, 3, 4, 5, 6, 7, 8
L93	Determining if a number is a prime number	Operations / Algebraic 3 Mathematical Practices 4
L94	Dividing a decimal number by a whole number	Number / Operations Base Ten 7
L95	Calculating area and perimeter given coordinates on a coordinate grid; calculating the perimeter of an irregular figure	Number / Operations – Fractions *4b Geometry 1, 2 Mathematical Practices 4
L96	Learning the Distributive Property of Multiplication and the Associative Property of Multiplication and Addition; learning the Property of One and Zero Property	Operations / Algebraic 1, 2 Number / Operations – Fractions 5a

\*Gives opportunity to teach specific State Standard





## Common Core 5<sup>th</sup> Grade Standards / Excel Math Correlation by Lesson Number

Lesson (Activity) Number	<i>Excel Math Lesson Objective</i>	Common Core Standard / Objective
L97	Calculating cost per unit	Number / Operations Base Ten 5, 6, 7 Mathematical Practices 1, 2, 3, 4, 5, 6, 7, 8
L98	Putting decimal numbers in order from least to greatest and greatest to least	Number / Operations Base Ten 3b Mathematical Practices 1, 2, 3, 5, 6, 7, 8
L99	Simplifying improper fractions as part of mixed number answers	Number / Operations – Fractions 1
L100	Calculating a decimal answer in division problems when zeroes need to be added to the right of the dividend; solving word problems involving decimals	Number / Operations Base Ten 1, 2, 3b, 7 Mathematical Practices 1, 2, 3, 5, 6, 7, 8
L101	Dividing using short division	Number / Operations Base Ten 6
L102	Calculating averages	Number / Operations Base Ten 6 Mathematical Practices 1, 2, 3, 4, 5, 6, 7, 8
L103	Continuing to calculate averages; learning the abbreviations for quarts, gallons, kilograms, grams, pounds, ounces, liters, milliliters and millimeters	Number / Operations Base Ten 6 Measurement / Data 1 Mathematical Practices 1, 2, 3, 4, 5, 6, 7, 8
L104	Filling in missing numbers in sequences counting by varying amounts	Operations / Algebraic 3 Mathematical Practices 1, 2, 3, 4, 5, 6, 7, 8
L105	Comparing fractions in less than and greater than problems and in true and not true equations by setting up equivalent fractions; comparing fractions in word problems	Mathematical Practices 1, 2, 3, 4, 5, 6, 7, 8
L106	Selecting the fraction that best represents a shaded region	Number / Operations Base Ten 6
L107	Multiplying a three-digit whole or decimal number or money amount by a two-digit number	Number / Operations Base Ten 5, 7
L108	Recognizing Roman Numerals: I, V, X, L, C, D and M	Operations / Algebraic 3
L109	Determining percent in word problems	Mathematical Practices 1, 2, 3, 4, 5, 6, 7, 8
L110	Multiplying fractions and whole numbers by fractions	Number / Operations – Fractions 4a, *5a, 5b
L111	Filling in missing numbers in a sequence of decimal numbers	Operations / Algebraic 3 Number / Operations Base Ten 3a Mathematical Practices 1, 2, 3, 4, 5, 6, 7, 8
L112	Converting percents to decimals; computing the percent of a whole number	Number / Operations Base Ten 7 Mathematical Practices 4
L113	Converting mixed numbers to decimal numbers by setting up equivalent fractions	Number / Operations – Fractions *3, *4a
L114	Reading maps drawn to scale	Number / Operations Base Ten 6 Measurement / Data *2 Mathematical Practices 1, 2, 3, 4, 5, 6, 7, 8
L115	Calculating the mean, median and mode; stem and leaf plots	Mathematical Practices 1, 2, 3, 4, 5, 6, 7, 8
L116	Solving problems using data displayed as percent pie graphs	Mathematical Practices 1, 2, 3, 4, 5, 6, 7, 8
L117	Writing probabilities as lowest-terms fractions	Number / Operations – Fractions 1 Mathematical Practices 1, 2, 3, 4, 5, 6, 7, 8
L118	Determining the reciprocal of a whole number or fraction	Number / Operations – Fractions 4a, 5b

\*Gives opportunity to teach specific State Standard



**Common Core 5<sup>th</sup> Grade Standards /  
Excel Math Correlation by Lesson Number**

<b>Lesson (Activity) Number</b>	<b>Excel Math Lesson Objective</b>	<b>Common Core Standard / Objective</b>
L119	Dividing a three-digit divisor into a three- or four-digit dividend with a one-digit quotient	Number / Operations Base Ten 5, 6 Mathematical Practices 4
L120	Determining where to place the decimal when multiplying and dividing decimal numbers by powers of ten	Number / Operations Base Ten 1, 2 Mathematical Practices 4
L121	Recognizing the thousandths place; rounding decimal numbers to the nearest tenth or hundredth	Number / Operations Base Ten 3a Number / Operations Base Ten 4
L122	Subtracting fractions with regrouping	Number / Operations – Fractions 1, *2
L123	Determining negative numbers using coordinate points	Geometry 1
L124	Determining the equation that represents a problem and the equation that solves it	Operations / Algebraic 2 Mathematical Practices 1, 2, 3, 4, 5, 6, 7, 8
L125	Selecting the decimal or percent that best represents a shaded region	
L126	Using multiplication and division to cross simplify fraction problems	Number / Operations – Fractions 4a, 5b, 7a, 7b
L127	Converting mixed numbers to improper fractions	Number / Operations – Fractions 1
L128	Dividing a two-digit divisor into a three-digit dividend with a two-digit quotient	Number / Operations Base Ten 6
L129	Dividing fractions	Number / Operations – Fractions *3, 7a, 7b, *7c Mathematical Practices 4
L130	Solving word problems involving percent	Number / Operations – Fractions 4a, 6 Mathematical Practices 1, 2, 3, 4, 5, 6, 7, 8
L131	Computing products involving two decimal numbers	Number / Operations Base Ten 6, 7
L132	Continued – Computing products involving two decimal numbers	Number / Operations Base Ten 7
L133	Solving word problems involving the multiplication of fractions	Number / Operations – Fractions 4a, 5b, 6 Mathematical Practices 1, 2, 3, 4, 5, 6, 7, 8
L134	Calculating the area of a parallelogram	Mathematical Practices 4
L135	Calculating averages involving decimals or fractions	Number / Operations Base Ten 7 Number / Operations – Fractions 5b, 6, 7b, 7c Mathematical Practices 1, 2, 3, 4, 5, 6, 7, 8
L136	Converting fractions to decimals using division	Number / Operations – Fractions 3, 7a, 7b, *7c
L137	Calculating the surface area of a rectangular prism	Mathematical Practices 4
L138	Calculating using exponents	Operations / Algebraic 1, 2, 3 Number / Operations Base Ten *2, 5 Mathematical Practices 4
L139	Multiplying a three-digit number by a three-digit number	Number / Operations Base Ten 5
L140	Identifying the equation that represents a line on a coordinate graph	Geometry 1, *2 Mathematical Practices 4
L141	Dividing a two-digit divisor into a three-digit dividend with a one-digit quotient	Operations / Algebraic 3 Number / Operations Base Ten 5, 6 Mathematical Practices 4
L142	Computing expected numbers based on probabilities	Number / Operations – Fractions 4a, 5b, 6, 7b Mathematical Practices 1, 2, 3, 4, 5, 6, 7, 8

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## Common Core 5<sup>th</sup> Grade Standards / Excel Math Correlation by Lesson Number

Lesson (Activity) Number	Excel Math Lesson Objective	Common Core Standard / Objective
L143	Determining the rule that creates a pattern	Operations / Algebraic 2, 3 Number / Operations Base Ten 5 Mathematical Practices 1, 2, 3, 4, 5, 6, 7, 8
L144	Calculating the area of a triangle	Geometry 3, 4 Mathematical Practices 4
L145	Calculating the circumference and area of a circle; recognizing $\pi$ ( $\pi$ ) and squared	Geometry 3, 4 Mathematical Practices 4
L146	Simplifying division problems using powers of ten	Number / Operations Base Ten 1, 2, 3a, 6, 7 Number / Operations – Fractions 7b
L147	Dividing a decimal number by a decimal number	Number / Operations Base Ten 7
L148	Arranging fractions, decimals and mixed numbers on a number line	Number / Operations Base Ten 3b
L149	Computing sales tax	Number / Operations Base Ten 7 Mathematical Practices 1, 2, 3, 4, 5, 6, 7, 8
L150	Adding positive and negative integers	Mathematical Practices 1, 2, 3, 4, 5, 6, 7, 8
L151	Continued – Adding positive and negative integers	Mathematical Practices 1, 2, 3, 4, 5, 6, 7, 8
L152	Calculating the area of an irregular figure	
L153	Multiplying and dividing mixed numbers	Number / Operations – Fractions 4a, *5b, 6, 7a, 7b, *7c Mathematical Practices 1, 2, 3, 4, 5, 6, 7, 8
L154	Subtracting positive and negative integers	
L155	Continued – Subtracting positive and negative integers	
Activity 1	Deductive Reasoning 1 – Rearranging	Mathematical Practices 1, 2, 3, 5, 6, 7, 8
Activity 2	Deductive Reasoning 2 - Making Notes	Mathematical Practices 1, 2, 3, 5, 6, 7, 8
Activity 3	Deductive Reasoning 3 - Numerical	Mathematical Practices 1, 2, 3, 5, 6, 7, 8
Activity 4	Deductive Reasoning 4 – Charts	Mathematical Practices 1, 2, 3, 5, 6, 7, 8
Activity 5	Using Calculators	Operations / Algebraic 2 Mathematical Practices 1, 2, 3, 4, 5, 6, 7, 8
Activity 6	Probability Problems	Mathematical Practices 1, 2, 3, 4, 5, 6, 7, 8
Activity 7	Estimating Money Amounts	Number / Operations Base Ten 4 Mathematical Practices 1, 2, 3, 4, 5, 6, 7, 8
Activity 8	Area & Perimeter	Number / Operations – Fractions 4b Mathematical Practices 4
Activity 9	Surface Area & Volume	Measurement / Data 3a, 3b, 4, 5a, 5b, 5c Mathematical Practices 4
Activity 10	3-Dimensional Figures	Mathematical Practices 1, 2, 3, 5, 6, 7, 8
Activity 11	Comparing 3-D Figures	Mathematical Practices 1, 2, 3, 5, 6, 7, 8
Activity 12	Creating 3-D Figures	Mathematical Practices 1, 2, 3, 5, 6, 7, 8
Activity 13	Comparing Volumes	Measurement / Data 3a, 3b, 4, 5a, 5b, 5c Mathematical Practices 1, 2, 3, 4, 5, 6, 7, 8
Activity 14	Percent Problems	Number / Operations – Fractions 1, 2, 4b Mathematical Practices 4

\*Gives opportunity to teach specific State Standard