

# Standards for Mathematical Practice

## and Excel Math Kindergarten

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 Kindergarten students begin to develop problem solving skills by learning to focus attention, test hypotheses, take reasonable risks, remain flexible, try alternatives, self regulate, and persevere. They begin to explain the meaning of a problem, look for ways to solve it, and determine if their thinking makes sense or if another strategy is needed. The teacher uses thoughtful questioning and gives opportunities for students to share their thinking.

**2. Reason abstractly and quantitatively.** Mathematically proficient students begin to use numerals to represent a specific amount or quantity. A student may write the numeral "10" to represent an amount of objects counted, build a pile of counters of that amount or select the correct number card "17" to follow "16" on the calendar. Students begin to draw pictures, manipulate objects and use diagrams or charts to express quantitative ideas. Through joining and separating activities, students begin to understand how symbols (+, - and =) are used to represent quantitative ideas in writing.

**3. Construct viable arguments and critique the reasoning of others.** In Kindergarten, mathematically proficient students begin to express, explain, organize and consolidate their thinking using verbal and written representations. Through exploration, discovery, and discussion, kindergarten students begin to learn how to express opinions, actively listen to others, describe their reasoning and respond to others' reasoning. They begin to develop the ability to reason and analyze situations. Students ask questions such as, "Are you sure...?" , "Do you think that would happen all the time...?", and "I wonder why...?"

**4. Model with mathematics.** In Kindergarten, students begin to experiment with representing real-life problems in multiple ways such as with numbers, mathematical words, drawings, objects, acting out, charts, lists, and number sentences. For example, when using counters to show various combinations of the number "5," the student writes the numerals for the various parts (such as "4" and "1") or chooses a number sentence to represent it ( $5 = 4 + 1$ ).

**5. Use appropriate tools strategically.** Mathematically proficient students explore various tools and use them when solving a problem. They use concrete materials (cubes, ten frames, counters) and technological materials (virtual manipulatives, calculators, interactive websites) to explore concepts. They learn to decide which tools would be most helpful depending on the task.

**6. Attend to precision.** Kindergarten students begin to express their ideas and reasoning using words. Students begin to describe their actions and strategies more clearly, use vocabulary accurately, and begin to give precise explanations and reasoning regarding their process for finding solutions (such as using color words and descriptive words to describe a set of buttons).

**7. Look for and make use of structure.** Mathematically proficient students begin to look for patterns and structure in the number system and other areas of mathematics. For example, when looking for circles around the room, kindergartners begin to notice that some circles are larger than others or come in different colors even though they are all circles.

**8. Look for and express regularity in repeated reasoning.** Mathematically proficient students begin to notice repetitive actions in geometry, counting, comparing, etc. When counting out loud to 100, they may recognize the pattern 1-9 being repeated for each decade.

Standards / Objectives	Excel Math Lesson Numbers	Exercise Lesson Numbers
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## Counting and Cardinality

### Know number names and the count sequence.

1. Count to 100 by ones and by tens.	8, 10, 15, 16, 17, 20, 21, 22, 25, 28, 30, 31, 32, 40, 42, 44, 45, 50, 56, 58, 60, 65, 69, 80, 89, 90, 91, 95, 96, 98, 100, 101, 105, 108, 110, 111, 115, 120, 122, 124, 125, 127, 130, 131, 135, 136, 144	1, 2, 3, 4, 5, 6, 7, 10, 11, 12, 14, 19, 20
2. Count forward beginning from a given number within the known sequence (instead of having to begin at 1).	69, 91, 101, 102, 111, 112, 127, 135, 144	12, 14, 22
3. Write numbers from 0 to 20. Represent a number of objects with a written numeral 0-20 (with 0 representing a count of no objects).	8, 10, 15, 20, 25, 28, 40, 42, 44, 45, 50, 56, 60, 65, 66, 67, 69, 71, 73, 76, 77, 78, 80, 81, 82, 83, 86, 88, 89, 90, 91, 93, 95, 98, 100, 101, 102, 105, 108, 110, 111, 115, 116, 120, 124, 125, 127, 136, 144, 146	1, 2, 3, 4, 5, 7, 22

### Count to tell the number of objects.

#### 4. Understand the relationship between numbers and quantities; connect counting to cardinality.

a. When counting objects, say the number names in the standard order, pairing each object with one and only one number name and each number name with one and only one object.	8, 10, 15, 16, 20, 21, 22, 25, 28, 30, 31, 32, 40, 42, 44, 45, 50, 58, 60, 65, 80, 89, 90, 95, 96, 98, 100, 105, 108, 110, 115, 120, 122, 124, 130, 131, 138, 142, 143, 145, 151	7
b. Understand that the last number name said tells the number of objects counted. The number of objects is the same regardless of their arrangement or the order in which they were counted.	8, 10, 15, 16, 20, 21, 22, 25, 28, 30, 31, 32, 40, 42, 44, 45, 50, 58, 60, 65, 80, 89, 90, 95, 96, 98, 100, 105, 108, 110, 115, 120, 122, 124, 130, 131, 138, 142, 143, 145, 151	7
c. Understand that each successive number name refers to a quantity that is one larger.	8, 10, 15, 16, 20, 21, 22, 25, 28, 30, 31, 32, 40, <b>42</b> , 44, 45, <b>47, 49</b> , 50, <b>56</b> , 58, 60, 65, <b>71</b> , 80, 89, 90, 95, 96, 98, 100, 105, 108, 110, 115, 120, 122, 124, 130, 131, 138, 142, 143, 145, 151  One less 93, 96	7, 14
5. Count to answer “how many?” questions about as many as 20 things arranged in a line, a rectangular array, or a circle, or as many as 10 things in a scattered configuration; given a number from 1–20, count out that many objects.	42, 56, 85, 122, 125, 130, 131, 135, 136, 138, 142, 143, 145, 146, 151	7, 22

\*Gives opportunity to teach specific Standard

Standards / Objectives	Excel Math Lesson Numbers	Exercise Lesson Numbers
<b>Compare numbers.</b>		
6. Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group, e.g., by using matching and counting strategies.1	31, 32, 33, 42, *93, 97, 118, *136, *138, *143, *151 Most / Fewest 21, 26, 36, 37, 52, 55, 57 Even / Odd 148	
7. Compare two numbers between 1 and 10 presented as written numerals.	118, *148, 152 Objects 31, 32, 58	
<b>Operations and Algebraic Thinking</b>		
<b>Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from.</b>		
1. Represent addition and subtraction with objects, fingers, mental images, drawings <sup>2</sup> , sounds (e.g., claps), acting out situations, verbal explanations, expressions, or equations.	47, 49, 62, 64, 70, 81, 85, 86, 93, 97, 99, 103, 106, 113, 121, 131, 136, 138, 142, 143, 146, 147, 151	
2. Solve addition and subtraction word problems, and add and subtract within 10, e.g., by using objects or drawings to represent the problem.	64, 70, 81, 86, 93, 97, 99, 103, 106, 109, 113, 121, 131, 151	
3. Decompose numbers less than or equal to 10 into pairs in more than one way, e.g., by using objects or drawings, and record each decomposition by a drawing or equation (e.g., $5 = 2 + 3$ and $5 = 4 + 1$ ).	62, 64, 70, 81, 85, 86, 97, 99, 103, 106, 116, 121, 131, *138, *142, 143, 145, 146, 151	
4. For any number from 1 to 9, find the number that makes 10 when added to the given number, e.g., by using objects or drawings, and record the answer with a drawing or equation.	*136, *142, *143, *146, *147, *149	
5. Fluently add and subtract within 5.	62, 64, 70, 81, 109, 116, 149, 150, 151 (Within 6) 85, 86, 106, 133 (Within 7) 99, 121 (Within 8) 103, 123 (Within 9) 113, 131, 138, 147, 150 (Within 10) 136, 145 (Within 12) 142, 143 (Within 15) 146	

\*Gives opportunity to teach specific Standard

Standards / Objectives	Excel Math Lesson Numbers	Exercise Lesson Numbers
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**Number and Operations in Base Ten**

**Work with numbers 11–19 to gain foundations for place value.**

1. Compose and decompose numbers from 11 to 19 into ten ones and some further ones, e.g., by using objects or drawings, and record each composition or decomposition by a drawing or equation (e.g., $18 = 10 + 8$ ); understand that these numbers are composed of ten ones and one, two, three, four, five, six, seven, eight, or nine ones.	60, 65, 80, 90, 95, 100, 105, 110, 120, 124, 125, 130, 135, 144	22
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**Measurement and Data**

**Describe and compare measurable attributes.**

1. Describe measurable attributes of objects, such as length or weight. Describe several measurable attributes of a single object.	19, 34, 39, 94, 114, 119, 126, 129 Volume 54, 84 Time / Days 2, 53, 73, 78, 82, 83, 87, 88	13, 21, 23
2. Directly compare two objects with a measurable attribute in common, to see which object has “more of”/“less of” the attribute, and describe the difference. For example, directly compare the heights of two children and describe one child as taller/shorter.	5, 11, 14, 19, 22, 23, 24, 51, 66, 68, 76, 141	18

**Classify objects and count the number of objects in categories.**

3. Classify objects into given categories; count the numbers of objects in each category and sort the categories by count.	17, 19, 35, 43, 48, 111, 134, 137, 153, 154, 155	8, 18
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Standards / Objectives	Excel Math Lesson Numbers	Exercise Lesson Numbers
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**Geometry**

**Identify and describe shapes (squares, circles, triangles, rectangles, hexagons, cubes, cones, cylinders, and spheres).**

1. Describe objects in the environment using names of shapes, and describe the relative positions of these objects using terms such as above, below, beside, in front of, behind, and next to.	1, 3, 4, 5, 6, 7, 9, 29, 61, 74, 92, 128, 139  Ordinals 27, 59, 75	5, 8, 10, 15, 16, 17
2. Correctly name shapes regardless of their orientations or overall size.	17, 43, 48, 61, 92, 128, 134, 139, 141	5, 8, 9, 15, 16
3. Identify shapes as two-dimensional (lying in a plane, “flat”) or three-dimensional (“solid”)	*17, *48, 61, 92, *134, *141	*5, *8, 15, 16

**Analyze, compare, create, and compose shapes.**

4. Analyze and compare two- and three-dimensional shapes, in different sizes and orientations, using informal language to describe their similarities, differences, parts (e.g., number of sides and vertices/“corners”) and other attributes (e.g., having sides of equal length)	17, 43, 48, 61, 92, 134, 141  No Three-Dimensional	*16
5. Model shapes in the world by building shapes from components (e.g., sticks and clay balls) and drawing shapes.	*17, *43, *48, *61, *92, *139	8, *16
6. Compose simple shapes to form larger shapes. For example, “Can you join these two triangles with full sides touching to make a rectangle?”	*43, *48, *128, *134	8, *17

\*Gives opportunity to teach specific Standard



Standards / Objectives	Excel Math Lesson Numbers	Exercise Lesson Numbers
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<b>Mathematical Practices</b>		
1. Make sense of problems and persevere in solving them.	5, 14, 22, 23, 34, 46, 51, 57, 63, 66, 68, 74, 76, 79, 87, 94, 97, 102, 104, 106, 107, 111, 114, 121, 132, 139, 140, 147, 148, 151, 152, 153, 154, 155	13, 18, 19, 21, 23, 24
2. Reason abstractly and quantitatively.	5, 14, 22, 23, 34, 46, 51, 57, 63, 66, 68, 74, 76, 79, 87, 94, 97, 102, 104, 106, 107, 111, 114, 121, 132, 139, 140, 147, 148, 151, 152, 153, 154, 155	13, 18, 19, 21, 23, 24
3. Construct viable arguments and critique the reasoning of others.	5, 14, 22, 23, 34, 46, 51, 57, 63, 66, 68, 74, 76, 79, 87, 94, 97, 102, 104, 106, 107, 111, 114, 121, 132, 139, 140, 147, 148, 151, 152, 153, 154, 155	13, 18, 19, 21, 23, 24
4. Model with mathematics.	94, 97, 102, 104, 106, 107, 111, 114, 121, 132, 140, 147, 148, 151, 154, 155	18
5. Use appropriate tools strategically.	5, 14, 22, 23, 34, 46, 51, 57, 63, 66, 68, 74, 76, 79, 87, 94, 97, 102, 104, 106, 107, 111, 114, 121, 132, 139, 140, 147, 148, 151, 152, 153, 154, 155	13, 18, 19, 21, 23, 24
6. Attend to precision.	5, 14, 22, 23, 34, 46, 51, 57, 63, 66, 68, 74, 76, 79, 87, 94, 97, 102, 104, 106, 107, 111, 114, 121, 132, 139, 140, 147, 148, 151, 152, 153, 154, 155	13, 18, 19, 21, 23, 24
7. Look for and make use of structure.	5, 14, 22, 23, 34, 46, 51, 57, 63, 66, 68, 74, 76, 79, 87, 94, 97, 102, 104, 106, 107, 111, 114, 121, 132, 139, 140, 147, 148, 151, 152, 153, 154, 155	13, 18, 19, 21, 23, 24
8. Look for and express regularity in repeated reasoning.	5, 14, 22, 23, 34, 46, 51, 57, 63, 66, 68, 74, 76, 79, 87, 94, 97, 102, 104, 106, 107, 111, 114, 121, 132, 139, 140, 147, 148, 151, 152, 153, 154, 155	13, 18, 19, 21, 23, 24



## Kindergarten Common Core Standards / *Excel Math* Correlation

**Standards / Objectives**

**Excel Math  
Lesson Numbers**

**Exercise  
Lesson Numbers**

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

**Alternate CCS Lessons are included in the Teacher Edition:**

<b>Concept</b>	<b>Lesson</b>	<b>Exercise</b>
Patterns	12, 13, 18, 38, 41, 72, 134	
Reasoning	46, 63, 79	24
Money	67, 77, 102, 107, 117, 132, 137	
Graphs / Probability / Combinations	35, 94, 104, 111, 114, 140, 153, 154, 155	18

## Common Core Kindergarten Standards / Excel Math Correlation by Lesson Number

Lesson (Activity) Number	Excel Math Lesson Objective	Common Core Standard
L1	Recognizing and using position words: above, below, top, bottom, over, under	Geometry 1
L2	Describing objects in the environment; recognizing position words beside, in front of, behind and next to; Opt. time words: morning, afternoon, evening and night; days of the week	Geometry 1
L3	Recognizing and using position words: beside, in front of, behind and next to; Opt. left, right, between and middle	Geometry 1
L4	Recognizing and using terms: above, below, beside, in front of, behind, and next to; Opt. left and right	Geometry 1
L5	Comparing two items with a measurable attribute in common; identifying which of 3 items is different from others in the set	Measurement Data 2; Geometry 1; Mathematical Practices 1, 2, 3, 5, 6, 7, 8
Exercise 1	Recognizing the shape of numerals 0, 1, 2, 3	Counting / Cardinality 1, 3
L6	Comparing two items with a measurable attribute in common; Opt. recognizing and using position words: inside, outside	Geometry 1
L7	Comparing two items with a measurable attribute in common; Opt. recognizing and using time words: before and after	Geometry 1
L8	Learning the concept of 1 and 2, saying the names in order	Counting / Cardinality 1, 3, 4a, b, c
L9	Describing objects in the environment using names of shapes and their relative positions, using the terms above, below, beside, in front of, behind, and next to; Opt. recognizing left and right and moving in those directions when asked	Geometry 1
L10	Learning the concept of 3 and understanding that the last number name said tells the number of objects counted	Counting / Cardinality 1, 3, 4a, b, c
Exercise 2	Recognizing the shape of numerals 0, 1, 2, 3, 4, 5	Counting / Cardinality 1, 3
L11	Describing several measurable attributes of a single object and recognizing measurement words: taller, shorter, same height	Measurement Data 2
L12	Noticing repetitive actions in geometry, counting, and comparing; copying a pattern of shapes	Geometry 1
Activity 12	Creating shapes with string	Geometry 1, 2, 4, 5
L13	Noticing repetitive actions in geometry and comparing; copying a pattern of hand motions using cards with 2 colors and letters	Geometry 1



## Common Core Kindergarten Standards / Excel Math Correlation by Lesson Number

Lesson (Activity) Number	Excel Math Lesson Objective	Common Core Standard
L14	Comparing two objects with a measurable attribute in common; identifying which of 3 items is unique	Measurement / Data 2 Mathematical Practices 1, 2, 3, 5, 6, 7, 8
L15	Learning the concept of 4, saying the number names in order, pairing each object with one number name	Counting / Cardinality 1, 3, 4a, b, c
Exercise 3	Counting and showing numbers 0-5 with fingers; connecting counting to cardinality	Counting / Cardinality 1, 3
L16	Circling 1 to 4 items in a set; understanding that the last number name said tells the number of objects counted; the number of objects is the same regardless of their arrangement or the order in which they were counted	Counting / Cardinality 1, 4a, b, c
L17	Counting objects in a set; sorting shapes based on similar characteristics; classifying, counting and sorting objects by count	Counting / Cardinality 1; Measurement / Data 3; Geometry 2, *3, 4, *5
L18	Comparing two objects with a measurable attribute in common; repeating a pattern of postures or body movements	Geometry 1
L19	Comparing pairs of lines of different lengths; describing measurable attributes of objects, such as length	Measurement / Data 1, 2, 3
L20	Learning the concept of 5 and saying the number names in order when counting, pairing each object with one number name	Counting / Cardinality 1, 3, 4a, b, c
Exercise 4	Coloring by numbers	Counting / Cardinality 1, 3
L21	Identifying a set with the most items by using matching and counting strategies	Counting / Cardinality 1, 4a, b, c; 6
L22	Classifying, sorting and counting objects; circling an object that does not belong in a set	Counting / Cardinality 1, 4a, b, c; Measurement / Data 2; Mathematical Practices 1, 2, 3, 5, 6, 7, 8
Activity 22	Comparing attributes of shapes in the environment: length and size	Measurement / Data 1, 2; Geometry 1
L23	Circling an item that is different; comparing objects with a measurable attribute in common	Measurement / Data 2 Mathematical Practices 1, 2, 3, 5, 6, 7, 8
L24	Recognizing items that are taller, shorter and same height; identifying objects correctly	Measurement / Data 1, 2
L25	Learning the concept of 0; writing numbers from 0 to 3 and recognizing numerals 0-3 (with 0 representing a count of no objects)	Counting / Cardinality 1, 3, 4a, b, c
Exercise 5	Numbering shapes from smallest to largest; numbering vertices/corners on a shape	Counting / Cardinality 1, 3; Geometry 1, 2, *3
L26	Identifying a set with the least or fewest items	Counting / Cardinality 1, 4a, b, c; 6

## Common Core Kindergarten Standards / Excel Math Correlation by Lesson Number

Lesson (Activity) Number	Excel Math Lesson Objective	Common Core Standard
L27	Describing objects and their relative positions using terms: behind, in front of, beside, next to; Opt. recognizing ordinals first through third	Geometry 1
L28	Matching numerals 0-5 with pictures of 0-5 objects; saying the number names in order, pairing each object with one number name	Counting / Cardinality 1, 3, 4a, b, c
L29	Using the position words before and after, in front and behind in stories	Geometry 1
L30	Learning the concept of 6; understanding the relationship between numbers and quantities and connecting counting to cardinality.	Counting / Cardinality 1, 4a, b, c
Activity 30	Classifying, sorting and counting pictures	Counting / Cardinality 1, 3, 4b, 5; Measurement / Data 3
L31	Matching a set of objects to a set with an equal number of objects	Counting / Cardinality 1, 4a, b, c, 6
L32	Circling the same number of objects as members in a given set	Counting / Cardinality 1, 4a, b, c; 6
L33	Drawing the same number of objects as members in a given set	Counting / Cardinality 6
Activity 33	Finger painting numerals 1 to 6	Counting / Cardinality 3
L34	Comparing objects that are lighter, heavier or the same weight; recognizing measurement words: heavier, lighter and same weight	Measurement / Data 1; Mathematical Practices 1, 2, 3, 5, 6, 7, 8
L35	Creating picture graphs	Measurement / Data 3
Exercise 6	Finding a path counting up from 0 to 6	Counting / Cardinality 1
L36	Identifying a set with the most items	Counting / Cardinality 6
L37	Identifying a set with the fewest items	Counting / Cardinality 6
Activity 37	Playing hopscotch to identify numbers 0 - 6 (optional 7 - 19)	Counting / Cardinality 1, 4a, c
L38	Copying a pattern of hand motions using cards with 3 colors and letters	Geometry 1
L39	Arranging strips of paper by length	Measurement / Data 1
L40	Learning the concept of 7	Counting / Cardinality 1, 3, 4a, b, c
Exercise 7	Writing numbers 0 - 9 and representing a number of objects with numbers 0 - 9; creating and interacting with number lines	Counting / Cardinality 1, 3, 4a, b, c, 5
L41	Noticing repetitive actions in geometry, counting and comparing; copying patterns of cards with 3 colors and letters	Measurement / Data 3
L42	Adding one to a set of objects to make it equal with another set	Counting / Cardinality 1, 3, 4a, b, c, 5, 6
L43	Identifying circles, squares, rectangles and ovals by sight and feel; comparing 2- and 3-dimensional shapes in different sizes	Measurement / Data 3; Geometry 2, 4, *5, *6

## Common Core Kindergarten Standards / Excel Math Correlation by Lesson Number

<b>Lesson (Activity) Number</b>	<b>Excel Math Lesson Objective</b>	<b>Common Core Standard</b>
Activity 43	Filling larger containers using smaller containers of varying sizes	Measurement / Data 1, 2; Mathematical Practices 1, 2, 3, 4, 5, 6, 7, 8
L44	Matching numerals 0-7 with pictures of 0-7 objects	Counting / Cardinality 1, 3, 4a, b, c
L45	Learning the concept of 8; recognizing the spoken word eight and matching it with 8 claps or objects	Counting / Cardinality 1, 3, 4a, b, c
Exercise 8	Locating and coloring geometric shapes to make a pattern; correctly naming shapes regardless of their orientation or size	Measurement / Data 3; Geometry 1, 2, *3, 5, 6
L46	Comparing two objects with a measurable attribute in common, to see which object has “more of”/“less of” the attribute	Measurement / Data 1, 2 Mathematical Practices 1, 2, 3, 5, 6, 7, 8
Activity 46	Determine the lesser value in a pair of numerals between 0-9	Counting / Cardinality 7
L47	Learning that each successive number name refers to a quantity that is one larger; making a set with one more than a given number	Counting / Cardinality 4c; Operations / Algebraic Thinking 1
L48	Identifying attributes of circles, squares, triangles, rectangles, diamonds (rhombus) and ovals (ellipse)	Measurement / Data 3; Geometry 2, *3, 4, *5, *6
L49	Adding one to a set of objects to make it equal with another set	Counting / Cardinality 4c; Operations / Algebraic Thinking 1
L50	Learning the concept of 9; recognizing the spoken word nine and matching it with 9 claps or objects	Counting / Cardinality 1, 3, 4a, b, c
Exercise 9	Following geometric shapes through a maze; classifying objects into categories and counting the number in each category	Geometry 2
L51	Selecting an item that best fits with a given set	Counting / Cardinality 5; Measurement / Data 2, 3; Geometry 1 Mathematical Practices 1, 2, 3, 5, 6, 7, 8
L52	Selecting a set with the most or fewest items; counting the number of objects in each category and sorting the categories by count	Counting / Cardinality 6
Activity 52	Counting 0 - 6 items	Counting / Cardinality 1, 4a, b, c, 5; Operations / Algebraic Thinking 1, 2, 5
L53	Classifying objects by category, counting them and sorting the categories by count; Opt. learning the days of the week in order	Measurement / Data 3; Geometry 1, 2
L54	Describing measurable attributes of objects, including height; comparing measures of volume with non-standard units	Measurement / Data 1, 2
L55	Selecting a set with the most or fewest items; drawing an object for each item of a set	Counting / Cardinality 6

## Common Core Kindergarten Standards / Excel Math Correlation by Lesson Number

Lesson (Activity) Number	Excel Math Lesson Objective	Common Core Standard
L56	Creating a set with one more item than a given set; writing numbers from 0 – 9	Counting / Cardinality 1, 3, 4c, 5
L57	Comparing two numbers between 1 and 9 presented as written numerals; Opt. comparing the time needed to do activities: less time, more time, the same time; recognizing and using time words	Counting / Cardinality 6; Mathematical Practices 1, 2, 3, 5, 6, 7, 8
L58	Understanding the relationship between counting and cardinality; circling a group of items equal to a given number	Counting / Cardinality 1, 4a, b, c
L59	Identifying whether the number of objects in one group is greater than, less than or equal to the number in another group; Opt. recognizing and using ordinals first through fifth	Counting / Cardinality 1, 4a, b, c, 6
L60	Learning the concept of 10; recognizing the spoken word ten and matching it with 10 claps or objects	Counting / Cardinality 1, 3, 4a, b, c; Number / Operations Base Ten 1
Exercise 10	Reviewing the terms behind, in front of, next to and beside; Opt. finding positions using ordinals and number lines	Counting / Cardinality 1; Geometry 1
L61	Recognizing attributes of shapes: sides, vertices/corners, inside, outside and curves	Geometry 1, 2, 3, 4
Activity 61	Counting 0 - 7 items; finding the number that makes 10 when added to the given number	Counting / Cardinality 1, 4a, b, c, 5; Operations / Algebraic Thinking 1, 2, 3, 4, 5
L62	Combining two groups to a total of 5	Operations / Algebraic Thinking 1, 3, 5
L63	Selecting a choice out of 3 options, given 2 clues	Measurement / Data 1, 2; Geometry 1 Mathematical Practices 1, 2, 3, 5, 6, 7, 8
L64	Creating story problems that add to 5	Operations / Algebraic Thinking 1, 2, 3, 5
L65	Learning the concept of 11	Counting / Cardinality 1, 3, 4a, b, c; Number / Operations Base Ten 1
Exercise 11	Finding a path counting up and down by 1s and 10s (opt. counting by 2s)	Counting / Cardinality 1
L66	Identifying objects with common characteristics	Counting / Cardinality 3; Measurement / Data 1, 2 Mathematical Practices 1, 2, 3, 5, 6, 7, 8
L67	Recognizing pennies and using the cents symbol	Counting / Cardinality 3, 4b, 5
L68	Circling an item that shares the characteristics of a given set	Measurement / Data 1, 2; Mathematical Practices 1, 2, 3, 5, 6, 7, 8
L69	Completing a sequence of numerals to 12 when one is missing	Counting / Cardinality 1, 2, 3
L70	Creating story problems that add to 5	Operations / Algebraic Thinking 1, 2, 3, 5
Exercise 12	Finding a path counting up and down 0-20 by 2s and 0-25 by 5s	Counting / Cardinality 1, 2
L71	Calculating the total when 1 is added to a given set	Counting / Cardinality 3, 4c; Operations / Algebraic Thinking 1, 2, 5

## Common Core Kindergarten Standards / Excel Math Correlation by Lesson Number

<b>Lesson (Activity) Number</b>	<b>Excel Math Lesson Objective</b>	<b>Common Core Standard</b>
Activity 71	Counting to answer “how many” about as many as 11 things arranged in an array or as many as 10 scattered items	Counting / Cardinality 1, 2, 4a, b, c, 5
L72	Copying a pattern of pictures	Measurement / Data 3; Geometry 1
L73	Keeping track of time: clocks (less than a day) and calendars (more than a day)	Counting / Cardinality 3 Measurement / Data 1, 2
L74	Putting things in order and using position words: first, next and last	Counting / Cardinality 1, 4a, b, c; Geometry 1; Mathematical Practices 1, 2, 3, 5, 6, 7, 8
L75	Saying the number names in the standard order; Opt. recognizing and using ordinals sixth through tenth	Counting / Cardinality 1, 3, 4a, b, c
Exercise 13	Estimating and comparing objects without counting or measuring; distinguishing letters from numbers	Measurement / Data 1, 2; Mathematical Practices 1, 2, 3, 5, 6, 7, 8
L76	Identifying attributes/characteristics shared by several items	Counting / Cardinality 3 Measurement / Data 1, 2; Mathematical Practices 1, 2, 3, 5, 6, 7, 8
L77	Describing measurable attributes of objects, classifying objects into categories; Opt. recognizing and adding nickels	Counting / Cardinality 1, 3; Measurement / Data 1, 3; Geometry 1, 2, 4
L78	Telling time on the hour using an analog clock	Counting / Cardinality 1, 3, 4a, b, c, 5; Measurement / Data 1
L79	Describing measurable attributes of an object such as length or weight; Opt. identifying a choice by asking yes or no questions	Measurement / Data 1, 2; Geometry 1; Mathematical Practices 1, 2, 3, 5, 6, 7, 8
L80	Learning the concept of 12; the word: dozen	Counting / Cardinality 1, 2, 4a, b, c, 5; Number / Operations Base Ten 1
L81	Creating story problems that add to 5	Counting / Cardinality 3; Operations / Algebraic Thinking 1, 2, 3, 5
Activity 81	Representing addition with objects, drawings, acting out situations, expressions or equations	Counting / Cardinality 1, 4a, b, c, 5; Operations / Algebraic Thinking 1, 2, 3, 5
L82	Count to answer ‘how many.’ Telling time with a clock and telling time with a calendar	Counting / Cardinality 1, 3, 4a, b, c, 5
L83	Telling time on the hour using a digital clock	Counting / Cardinality 3; Measurement / Data 1, 2, 3; Geometry 2, 3, 4, 5
L84	Comparing containers of different capacities (volumes)	Measurement / Data 1, 2
L85	Combining two groups to a total of 6	Counting / Cardinality 1, 3, 4a, b, c, 5; Operations / Algebraic Thinking 1, 2, 3, 5
Exercise 14	Finding a given number on a number line	Counting / Cardinality 1, 2, 4c
L86	Creating story problems that add to 6	Counting / Cardinality 1, 3, 4a, b, c, 5; Operations / Algebraic Thinking 1, 2, 3, 5

## Common Core Kindergarten Standards / Excel Math Correlation by Lesson Number

Lesson (Activity) Number	Excel Math Lesson Objective	Common Core Standard
L87	Putting things in order and using time words yesterday, today and tomorrow; days of the week in order	Counting / Cardinality 1, 2, 4a, b, c; Mathematical Practices 1, 2, 3, 5, 6, 7, 8
L88	Counting forward beginning from a given number within the known sequence; Opt. naming the months and the seasons in order	Counting / Cardinality 1, 2, 3
L89	Recognizing number words: zero to ten	Counting / Cardinality 1, 3, 4a, b, c, 7
L90	Learning the concept of 13	Counting / Cardinality 1, 3, 4a, b, c; Number / Operations Base Ten 1
Activity 90	Determining the lesser value in a pair of numerals	Counting / Cardinality 7
Exercise 15	Identifying attributes of shapes using: side, vertex/corner, edge and curve	Geometry 1, 2, 3
L91	Completing a sequence to 12 when one or two are missing; Opt. using a number line	Counting / Cardinality 1, 2, 3, 4c
L92	Naming shapes correctly regardless of their orientations or overall size; Opt. drawing lines of symmetry	Geometry 1, 2, 3, 4
L93	Determining the number of items remaining when one or two are removed	Counting / Cardinality 3, 6; Operations / Algebraic Thinking 1, 2, 5; Number / Operations Base Ten 1
L94	Measuring weight with non-standard units	Measurement / Data 1, 2; Mathematical Practices 1, 2, 3, 4, 5, 6, 7, 8
L95	Learning the concept of 14	Counting / Cardinality 1, 3, 4a, b, c; Number / Operations Base Ten 1
Exercise 16	Identifying geometric shapes of common objects	Geometry 1, 2, 3, *4, *5
L96	Selecting a set that has one less than a given set	Counting / Cardinality 1, 3, 4a, b, c
L97	Creating story problems that subtract from 5	Counting / Cardinality 1, 3, 4a, b, c, 5, 6; Operations / Algebraic Thinking 1, 2, 3, 5; Mathematical Practices 1, 2, 3, 4, 5, 6, 7, 8
L98	Recognizing number words: zero to ten	Counting / Cardinality 1, 2, 4a, b, c, 7
Activity 98	Creating numerals out of common textured materials	Counting / Cardinality 3
L99	Creating story problems that add to 7; commutative property of addition	Counting / Cardinality 1, 3, 4a, b, c, 5, 6; Operations / Algebraic Thinking 1, 2, 3, 5
L100	Learning the concept of 15	Counting / Cardinality 1, 3, 4a, b, c; Number / Operations Base Ten 1
Exercise 17	Navigating a maze and naming the geometric shapes used to create the maze	Geometry 1, *6
L101	Completing a sequence to 12 when one or two are missing at the beginning	Counting / Cardinality 1, 2, 3
L102	Counting to answer “how many?” about as many as 16 things in a rectangular array; Opt. using pennies or nickels to pay for items	Counting / Cardinality 1, 2, 3, 4a, b, c, 5, 6; Mathematical Practices 1, 2, 3, 4, 5, 6, 7, 8
L103	Creating story problems that add to 8	Counting / Cardinality 1, 3, 4a, b, c; Operations / Algebraic Thinking 1, 2, 3, 5

## Common Core Kindergarten Standards / Excel Math Correlation by Lesson Number

<b>Lesson (Activity) Number</b>	<b>Excel Math Lesson Objective</b>	<b>Common Core Standard</b>
L104	Classifying objects by category, counting them and sorting the categories by count; Opt. creating circle graphs, discussing probability	Counting / Cardinality 1, 3, 4a, b, c, 5, 6, 7; Measurement / Data 3; Mathematical Practices 1, 2, 3, 4, 5, 6, 7, 8
L105	Learning the concept of 16	Counting / Cardinality 1, 3, 4a, b, c, 5
L106	Creating story problems that subtract from 6	Counting / Cardinality 1, 2, 3, 4a, b, c; Operations / Algebraic Thinking 1, 2, 3, 5; Number / Operations Base Ten 1; Mathematical Practices 1, 2, 3, 4, 5, 6, 7, 8
Activity 106	Composing simple shapes to form larger shapes	Geometry 2 3, 4, 6
L107	Writing numbers from 0 to 20 and representing objects with a written numeral 0-20; Opt. using pennies or nickels to pay for items	Counting / Cardinality 1, 2, 3, 4a, b, c, 5; Operations / Algebraic Thinking 1, 2, 3, 4, 5; Mathematical Practices 1, 2, 3, 4, 5, 6, 7, 8
L108	Recognizing number words: zero to ten	Counting / Cardinality 1, 3, 4a, b, c, 7 Number / Operations Base Ten 1
L109	Adding vertically to 5; learning words: horizontal and vertical	Counting / Cardinality 1, 3, 4a, b, c, 5, 6; Operations / Algebraic Thinking 1, 2, 3, 5
L110	Learning the concept of 17 and 18	Counting / Cardinality 1, 3, 4a, b, c Number / Operations Base Ten 1
Exercise 18	Dividing items into multiple groups using a circle graph; fractions	Measurement / Data 2, 3; Mathematical Practices 1, 2, 3, 4, 5, 6, 7, 8
L111	Classifying objects by category, counting them and sorting the categories by count; creating picture graphs and circle graphs	Counting / Cardinality 1, 2, 3, 4a, b, c, 5; Measurement / Data 3; Mathematical Practices 1, 2, 3, 4, 5, 6, 7, 8
L112	Completing a sequence to 18 when one or two are missing at the beginning	Counting / Cardinality 2
L113	Creating story problems that add to 9	Counting / Cardinality 1, 2, 3, 4a, b, c; Operations / Algebraic Thinking 1, 2, 3, 5
Activity 113	Solving addition word problems using ten frames	Counting / Cardinality 1, 2, 3, 4a, b, c; Operations / Algebraic Thinking 1, 2, 3, 4, 5
L114	Measuring length with non-standard units	Measurement / Data 1, 2; Mathematical Practices 1, 2, 3, 4, 5, 6, 7, 8
L115	Recognizing number words: eleven, twelve and thirteen	Counting / Cardinality 1, 3, 4a, b, c Number / Operations Base Ten 1
Exercise 19	Coloring shapes so no adjacent edges share a color	Geometry 1, 2; Mathematical Practices 1, 2, 3, 5, 6, 7, 8
L116	Adding vertically to 5	Counting / Cardinality 1, 2, 3, 4a, b, c, 5, 6; Operations / Algebraic Thinking 1, 2, 3, 5
L117	Finding the number that makes 10 when added to a given number; Opt. adding dimes, using the dollar symbol and decimal	Counting / Cardinality 1, 2, 4a; Operations / Algebraic Thinking 1, 2, 4; Number / Operations Base Ten 1
L118	Selecting the number with the greatest value in a given set	Counting / Cardinality 6, 7
Activity 118	Recognizing numeral equivalents and adding 2-digit numbers using dice	Counting / Cardinality 1, 4a, b, c, 5, 6; Operations / Algebraic Thinking 1, 2, 4, 5; Number / Operations Base Ten 1

## Common Core Kindergarten Standards / Excel Math Correlation by Lesson Number

<b>Lesson (Activity) Number</b>	<b>Excel Math Lesson Objective</b>	<b>Common Core Standard</b>
L119	Measuring distance with non-standard units	Measurement / Data 1, 2
L120	Learning the concept of 19 and 20	Counting / Cardinality 1, 3, 4a, b, c Number / Operations Base Ten 1
Exercise 20	Comparing two numbers between 1 and 10 presented as written numerals; Opt. finding pairs of numbers on a number line	Counting / Cardinality 1, 7
L121	Creating story problems that subtract from 7	Operations / Algebraic Thinking 1, 2, 3, 5; Mathematical Practices 1, 2, 3, 4, 5, 6, 7, 8
L122	Matching a number 0-9 with a set of items	Counting / Cardinality 1, 2, 4a, b, c, 5
Activity 122	Determining the higher value in a pair of numerals between 0 and 9	Counting / Cardinality 7
L123	Adding vertically to 8	Operations / Algebraic Thinking 1, 2, 5
L124	Recognizing number words: fourteen through nineteen; twenty, thirty, forty and fifty	Counting / Cardinality 1, 3, 4a, b, c Number / Operations Base Ten 1
L125	Learning the concepts of 20 through 30; learning rows and columns	Counting / Cardinality 1, 3, 4a, b, c, 5 Number / Operations Base Ten 1
Exercise 21	Comparing and sorting objects by length	Measurement / Data 1, 2
L126	Comparing weights using non-standard units; sorting objects by weight	Measurement / Data 1, 2
L127	Completing a sequence to 20 when two are missing	Counting / Cardinality 1, 2, 3
Activity 127	Practicing addition facts with a partner game	Operations / Algebraic Thinking 1, 2
L128	Recognizing position of an item and using position words inside and outside with geometric figures	Geometry 1, 2, *6
L129	Sorting objects by temperature; measuring temperature on Celsius and Fahrenheit scales	Measurement / Data 1; Geometry 2, 3, 6
L130	Learning the concepts of 31 through 50; learning rows and columns	Counting / Cardinality 1, 3, 4a, b, c, 5; Number / Operations Base Ten 1
L131	Adding vertically to 9	Counting / Cardinality 1, 2, 3, 4a, b, c, 5; Operations / Algebraic Thinking 1, 2, 3, 5
Activity 131	Adding vertically to 9; addition word problems; addition with objects	Counting / Cardinality 3
L132	Writing numbers from 0 to 20 and representing objects with a numeral 0-20; Opt. using pennies or nickels to pay for items up to 19 cents	Counting / Cardinality 1, 2, 4a, b, c, 5, *6; Mathematical Practices 1, 2, 3, 4, 5, 6, 7, 8
L133	Subtracting vertically from 6	Counting / Cardinality 1, 4a, b, c; Operations / Algebraic Thinking 1, 2, 3, 5
Activity 133	Practicing subtraction facts with a partner game	Operations / Algebraic Thinking 1, 2, 3, 4, 5
L134	Completing a pattern of geometric shapes	Measurement / Data 3; Geometry *1, 2, 3, 4, 6
L135	Learning the concepts of 51 through 100	Counting / Cardinality 1, 2, 5
Exercise 22	Counting to 100 by 10s (opt. counting by 2s and 5s)	Counting / Cardinality 1, 2, 3, 5; Number / Operations Base Ten 1



## Common Core Kindergarten Standards / Excel Math Correlation by Lesson Number

Lesson (Activity) Number	Excel Math Lesson Objective	Common Core Standard
L136	Adding vertically to 10	Counting / Cardinality 1, 3, 5, *6; Operations / Algebraic Thinking 1, 5
L137	Writing numbers from 0 to 20, representing a number of objects with a written numeral 0-20; Opt. recognizing quarters and 50 state designs; comparing coins	Counting / Cardinality 1, 2, 3, 4a, b, c, 5; Measurement / Data 3
L138	Subtracting vertically from 9	Counting / Cardinality 1, 2, 3, 4a, b, c, 5, *6; Operations / Algebraic Thinking 1, 2, 3, *4, 5
Activity 138	Recognizing numeral equivalents and adding 2-digit numbers using dice	Operations / Algebraic Thinking 1, 3
L139	Describing objects in the environment using names of shapes; Opt. selecting the best route on a map, giving directions using left, right, etc.	Geometry 1, 2, 3; Mathematical Practices 1, 2, 3, 5, 6, 7, 8
L140	Analyzing and comparing attributes of two- and three-dimensional shapes; Opt. Charting the results of rolling a cube 20 times	Geometry 4; Mathematical Practices 1, 2, 3, 4, 5, 6, 7, 8
Exercise 23	Comparing objects and descriptions of different temperatures	Operations / Algebraic Thinking 1, 3, 4, 5
L141	Solving addition and subtraction word problems; Opt. moving a figure using flips, slides and turns	Geometry 1, 2, 3, 4, 5, 6
L142	Adding vertically to 12	Counting / Cardinality 1, 2, 3, 4a, b, c, 5, *6; Operations / Algebraic Thinking 1, *2, *3, 5
L143	Adding horizontally to 12	Counting / Cardinality 1, 2, 3, 4a, b, c, 5, *6; Operations / Algebraic Thinking 1, 2, 3, *4, 5
L144	Recognizing number words: fifty, sixty, seventy, eighty, ninety and one hundred	Counting / Cardinality 1, 2, 3; Number / Operations Base Ten 1
L145	Subtracting vertically from 10	Counting / Cardinality 1, 3, 4a, b, c, 5; Operations / Algebraic Thinking 1, 2, 3, 5
Exercise 24	Using simple shapes to compose larger shapes and pictures; Opt. describing conditions using qualitative or quantitative	Geometry 1, 2, 6
L146	Adding to 15	Counting / Cardinality 1, 2, 3, 5 Operations / Algebraic Thinking 1, 2, 3, 4, 5; Number / Operations Base Ten 1
Activity 146	Practicing addition facts with a partner game	Operations / Algebraic Thinking 1, 2, 3, 4, 5
L147	Selecting addition or subtraction to solve a problem	Operations / Algebraic Thinking 1, 2, 3, *4, 5; Mathematical Practices 1, 2, 3, 4, 5, 6, 7, 8



## Common Core Kindergarten Standards / Excel Math Correlation by Lesson Number

Lesson (Activity) Number	Excel Math Lesson Objective	Common Core Standard
L148	Selecting addition or subtraction to solve a problem; learning odd and even	Operations / Algebraic Thinking 1, 2, 3, *4, 5; Mathematical Practices 1, 2, 3, 4, 5, 6, 7, 8
L149	Working with addition and subtraction fact families	Operations / Algebraic Thinking 1, 2, 3, *4, 5
L150	Working with addition and subtraction fact families	Operations / Algebraic Thinking 1, 2, 3, *4, 5
Activity 150	Practicing subtraction facts with a partner game	Operations / Algebraic Thinking 1, 2, 3, *4, 5
L151	Decomposing numbers less than or equal to 10 into pairs in more than one way; Opt. finding a number using trial and error	Counting / Cardinality 4a, b, c, 5, *6 Operations / Algebraic Thinking 1, 2, 3, 4, 5; Mathematical Practices 1, 2, 3, 4, 5, 6, 7, 8
L152	Comparing two numbers to identify smaller, larger or the same; Opt. using a number line	Counting / Cardinality 7; Mathematical Practices 1, 2, 3, 5, 6, 7, 8
L153	Finding the number that makes 10 when added to a given number; Opt. arranging 4 items to show possible combinations	Operations / Algebraic Thinking 1, 2, 3, 4; Mathematical Practices 1, 2, 3, 5, 6, 7, 8
L154	Composing and decomposing numbers 11 - 19 into ten ones and further ones; Opt. charting the results of flipping a coin 12 times	Operations / Algebraic Thinking 1, 2, 3; Number / Operations Base Ten 1; Mathematical Practices 1, 2, 3, 4, 5, 6, 7, 8
L155	Composing and decomposing numbers 11 - 19 into ten ones and further ones; Opt. creating bar graphs to analyze data; using the terms range and mode; fractions	Operations / Algebraic Thinking 1, 2, 3; Number / Operations Base Ten 1; Mathematical Practices 1, 2, 3, 4, 5, 6, 7, 8