



**Arizona Math Standards /Excel Math Correlation  
Grade - Kindergarten**

ARIZONA MATH STANDARDS	Excel Math Lesson Numbers
<b>Strand 1: Number Sense and Operations</b>	
<b>Concept 1: Number Sense</b> Understand and apply numbers, ways of representing numbers, the relationships among numbers and different number systems.	
PO 1. Make a model to represent a given whole number 0 through 20.	22, 38, 40, 44, 46, 47, 49, 51, 52, 54, 60, 67, 68, 78, 83, 87, 88, 95, 96, 102, 105, 107, 113, 114, 119, 121, 123, 124, 126, 127, 128, 129, 131, 132, 133, 134, 140, 144, 145, 153, 155, 157, 160, 162, 163, 164, 168, 169, 174, 177, 179, 180, 181, 183, 186, 187, 188, 189, 192, 195, 196
PO 2. Identify orally a whole number represented by a model with a word name and symbol 0 through 20. (Say 3 and write number 3 when presented with three objects.)	12, 13, 17, 18, 22, 23, 24, 27, 28, 32, 33, 37, 38, 40, 41, 43, 48, 49, 60, 68, 76, 78, 87, 88, 91, 99, 100, 101, 109, 111, 113, 114, 120, 121, 122, 123, 128, 145, 155, 157, 162, 163, 168, 169, 177
PO 3. Count aloud, forward to 20 or backward from 10, in consecutive order (0 through 20).	12, 13, 17, 22, 23, 27, 28, 32, 33, 36, 38, 40, 41, 42, 43, 44, 47, 48, 49, 51, 58, 60, 62, 67, 68, 70, 72, 73, 74, 78, 79, 81, 82, 83, 87, 88, 90, 92, 95, 96, 99, 100, 101, 102, 103, 105, 107, 113, 114, 118, 119, 121, 123, 124, 126, 127, 128, 129, 130, 131, 132, 133, 134, 136, 137, 140, 141, 143, 144, 145, 153, 155, 157, 160, 162, 163, 164, 168, 169, 177, 181, 182, 183, 188, 192, 195
PO 4. Identify whole numbers through 20 in or out of order.	12, 13, 14, 17, 18, 22, 23, 24, 27, 28, 32, 33, 38, 40, 43, 46, 48, 49, 52, 53, 60, 66, 67, 68, 76, 78, 83, 85, 87, 88, 91, 99, 100, 101, 102, 109, 113, 114, 118, 120, 122, 123, 124, 128, 129, 130, 133, 134, 136, 140, 141, 142, 144, 145, 153, 155, 156, 157, 160, 162, 163, 164, 166, 169, 177, 188, 192
PO 5. Write whole numbers through 20 in or out of order.	27, 32, 37, 46, 48, 53, 60, 66, 76, 85, 91, 99, 100, 102, 109, 111, 113, 118, 120, 124, 129, 130, 131, 136, 141, 142, 153, 156, 160, 163, 166, 170, 175, 179, 180, 182, 189
PO 6. Construct equivalent forms of whole numbers, using manipulatives, through 10 (e.g., $\square\square+\square\square=\square\square\square+\square$ ).	27, 33, 38, 41, 43, 44, 48, 49, 52, 64, 67, 73, 79, 82, 83, 87, 88, 90, 102, 105, 113, 119, 121, 124, 126, 129, 133, 136, 141, 153, 163
PO 7. Compare two whole numbers through 20.	74
PO 8. Recognize the ordinal numbers through fifth (e.g., first, second, third).	42, 148
PO 9. Order three or more whole numbers through 20 (least to greatest or greatest to least).	84, 157
PO 10. Identify penny, nickel, dime, quarter, and dollar by using manipulatives or pictures.	96, 116, 137, 149, 159, 176, 185
<b>Concept 2: Numerical Operations</b> Understand and apply numerical operations and their relationship to one another.	
PO 1. Model addition through sums of 10 using manipulatives.	72, 73, 79, 82, 90, 92, 95, 102, 103, 105, 113, 119, 124, 126, 129, 136, 141, 150, 153, 156, 160, 166, 175, 182, 183, 189, 190, 196, 199, 200
PO 2. Model subtraction with minuends of 10 using manipulatives.	107, 121, 127, 131, 132, 143, 160, 163, 174, 179, 180, 186, 187, 190, 194, 195, 199, 200
PO 3. Select the operation to solve word problems using numbers 0 through 9.	113, 160, 163, 183, 194, 197, 198

\* Gives opportunity to teach



**Arizona Math Standards /Excel Math Correlation  
Grade - Kindergarten**

<b>ARIZONA MATH STANDARDS</b>	<b>Excel Math Lesson Numbers</b>
PO 4. Solve word problems presented orally using addition or subtraction with numbers through 9.	92, 95, 102, 113, 119, 124, 129, 132, 136, 141, 143, 150, 153, 160, 163, 174, 176, 183, 194
PO 5. Identify the symbols: +, -, =.	92, 95, 102, 105, 113, 119, 124, 129, 131, 132, 136, 141, 143, 150, 153, 160, 163, 174, 175, 176, 179, 180, 183, 186, 187, 189
PO 6. Use grade-level appropriate mathematical terminology.	36, 39, 47, 50, 54, 58, 61, 62, 64, 70, 72, 73, 74, 77, 79, 81, 86, 90, 92, 93, 95, 102, 106, 110, 113, 119, 121, 124, 127, 129, 131, 132, 136, 141, 143, 150, 153, 157, 160, 163, 164, 171, 174, 175, 176, 179, 180, 194, 195, 196, 199, 200
<b>Concept 3: Estimation</b> Use estimation strategies reasonably and fluently.	
PO 1. Solve problems using a variety of mental computations and reasonable estimations.	54, 64, 77, 84, 115, 125
<b>Strand 2: Data Analysis</b>	
<b>Concept 1: Data Analysis (Statistics)</b> Understand and apply data collection, organization and representation to analyze and sort data.	
PO 1. Formulate questions to collect data in contextual situations.	34, 50, 61, 77, 98, 106, 112, 125, 135, 151, 167
PO 2. Interpret a pictograph.	61, 77, 98, 106, 146, 151, 158, 167, 173, 184
PO 3. Answer questions about a pictograph.	61, 77, 98, 106, 146, 151, 158, 167, 173, 184
PO 4. Formulate questions based on data displayed in graphs, charts, and tables.	34, 50, 61, 77, 93, 98, 106, 125, 146, 151, 158, 167, 173, 184
PO 5. Solve problems based on simple graphs, charts, and tables.	34, 50, 61, 77, 93, 98, 125, 146, 151, 158, 167, 173, 184
<b>Concept 2: Probability</b> Understand and apply the basic concepts of probability. ( <i>Grades 2-HS</i> )	
<b>Concept 3: Discrete Mathematics – Systematic Listing and Counting</b> Understand and demonstrate the systematic listing and counting of possible outcomes.	
PO 1. Make arrangements that represent the number of combinations that can be formed by pairing items taken from 2 sets, using manipulatives (e.g., How many outfits can one make with 2 different color shirts and 2 different pairs of pants?).	93, 106, 117, 138, 165, 173, 193
<b>Concept 4: Vertex-Edge Graphs</b> Understand and apply vertex-edge graphs.	
PO 1. Color pictures with the least number of colors so that no common edges share the same color (increased complexity throughout grade levels).	*171
<b>Strand 3: Patterns</b>	
<b>Concept 1: Patterns</b> Identify patterns and apply pattern recognition to reason mathematically.	
PO 1. Communicate orally a grade-level appropriate pattern.	10, 19, 20, 29, 30, 45, 56, 57, 63, 71, 104, 118, 139, 147, 170, 172, 178
PO 2. Extend simple repetitive patterns using manipulatives.	10, 19, 20, 29, 30, 45, 56, 57, 63, 71, 100, 104, 118, 139, 147, 170, 172, 178



**Arizona Math Standards /Excel Math Correlation  
Grade - Kindergarten**

<b>ARIZONA MATH STANDARDS</b>	<b>Excel Math Lesson Numbers</b>
PO 3. Create grade-level appropriate patterns.	10, 19, 29, 45, 56, 57, 63, 71, 104, 154, 172, 178
<b>STRAND 4: GEOMETRY AND MEASUREMENT</b>	
<b>Concept 1: Geometric Properties</b> Analyze the attributes and properties of 2- and 3- dimensional shapes and develop mathematical arguments about their relationships.	
PO 1. Identify 2-dimensional shapes by attribute (size, shape, number of sides).	56, 65, 80, 121, 171, 191 3-dimensional: 173
PO 2. Identify concepts and terms of position and size in contextual situations:	
• Inside/outside,	9, 106, 171, 191 On/Off: 3
• Above/below/between,	1, 5, 35 Left/Right: 5, 7, 15, 31, 35, 39, 55
• Smaller/larger, and	8, 56, 58, 135
• Longer/shorter.	2, 6, 11, 25, 34, 56, 151
PO 3. Identify shapes in different environments (e.g., nature, buildings, classroom).	4, 11, 16, 22, 26, 28, 135, 152 Tell time/ Clock: 110, 111, 161
<b>Concept 4: Measurement - Units of Measure</b>	
PO 1. Verbally compare objects according to observable and measurable attributes.	4, 6, 8, 11, 16, 25, 50, 65, 77, 115, 125, 151, 152, 158, 167, 184 Non-standard length: 151, 184 Non-standard weight: 125, 167 Distance: 158
PO 2. Communicate orally how different attributes of an object can be measured.	11, 16, 50, 77, 115, 125, 151, 152, 158, 167, 184
PO 3. Order objects according to observable and measurable attributes.	11, 56, 77, 151
<b>Strand 5: Structure and Logic</b>	
<b>Concept 1: Algorithms and Algorithmic Thinking (Grades 1-HS)</b>	
<b>Concept 2: Logic, Reasoning, Arguments, and Mathematical Proof</b> Evaluate situations, select problem-solving strategies, draw logical conclusions, develop and describe solutions and recognize their applications.	
PO 1. Sort objects according to observable attributes.	4, 16, 21, 22, 26, 28, 31, 38, 39, 56, 59, 65, 69, 75, 89, 97, 106, 108, 112, 135
PO 2. Provide rationale for classifying objects according to observable attributes (color, size, shape, weight, etc.).	4, 16, 21, 22, 26, 28, 31, 38, 39, 56, 59, 65, 69, 75, 89, 97, 106, 108, 112, 135