



**Kansas State Kindergarten Math Standards
Alignment to Starfall**

Counting and Cardinality K.CC

Know number names and the count sequence.

Kansas Standard	Starfall K Math Alignment
<p>1. Count to 100 by ones and by tens</p>	<p>Teacher's Guide Read Me First p. 6 - Hundredth Day Chart Teacher's Guide Read Me First p. 9 - Backpack Bear's Math Games: Count to 100 Teacher's Guide p. 108 - Daily Routines: Number Line (daily) Teacher's Guide p. 115 - Number Bundles Teacher's Guide p. 274 - Count by Fives and Tens <i>100th Day of School Supplement</i> pp. 2-4 - 100th Day of School Activities <i>Starfall.com: Math: Numbers</i> <i>Starfall.com: Math: Add & Subtract: Place Value</i> <i>Starfall.com: Math: Kindergarten Mathematics Generators: Counting - Count to 100</i></p>
<p>2. Count forward beginning from a given number within the known sequence (instead of having to begin at 1).</p>	<p>Teacher's Guide p. 64 - Daily Routine: Number Line (daily) Teacher's Guide p. 212 - Counting on from 10-20 Teacher's Guide p. 298 - Counting On Teacher's Guide p. 320 - Counting On from a Given Number Teacher's Guide p. 379 - Counting On Using the Number Line Teacher's Guide p. 546 - Counting on from 10 Teacher's Guide p. 560 - Counting On <i>Starfall.com: Math: Numbers: Train</i></p>
<p>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).</p>	<p>Teacher's Guide pp. 199 - 248 - Unit 5: Troublesome Teens Teacher's Guide pp. 246-247 - Introduce 20 Teacher's Guide p. 248 - Learning Centers: Computer</p>

	<p>Teacher's Guide p. 248 - Learning Centers: A Walk in the Park</p> <p>Teacher's Guide p.249 - Learning Centers: Dot-to-Dot (1-20)</p> <p>Teacher's Guide pp. 546-547- Numbers 10-20</p> <p>Backpack Bear's Math Workbook 1 - Numbers 1 - 20</p>
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Count to tell the number of objects.

Kansas Standard	Starfall K Math Alignment
<p>4. Understand the relationship between numbers and quantities; connect counting to cardinality.</p> <p>4a. 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.</p>	<p>Teacher's Guide Read Me First p. 9 - Backpack Bear's Math Games - "Race to 20"</p> <p>Teacher's Guide p. 87 - Using Math Strategies</p> <p>Teacher's Guide p.92 - Learning Centers: Ways to Represent Numbers</p> <p>Teacher's Guide pp. 109-110 - One-to-One Correspondence and the Number Nine</p> <p>Teacher's Guide pp.112-113 - The Number Zero</p> <p>Teacher's Guide p. 116 - Formative Assessment</p> <p>Teacher's Guide p. 282 - Seeing Number Patterns</p> <p><i>Starfall.com: Math: Numbers</i></p> <p><i>Starfall.com: Math Songs</i></p> <p><i>Starfall.com: Math: Numbers: Count Cookies</i></p>
<p>4b. 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.</p>	<p>Teacher's Guide pp. 87- 88 - The Number Seven</p> <p>Teacher's Guide p.120 - Learning Centers: Number Activity Mats</p> <p>Teacher's Guide pp. 318-319 - Number Representations 1-5</p> <p>Teacher's Guide p. 323 - Match Dominoes to Number Cards</p> <p>Teacher's Guide pp. 323-324 - Number Representations 6-10</p> <p><i>Starfall.com: Math: Numbers</i></p>
<p>4c. Understand that each successive number name refers to a quantity that is one larger.</p>	<p>Teacher's Guide p. 40 - Daily Routines: Number Line (daily)</p> <p>Teacher's Guide p. 44 - Daily Routines: Hundreds Chart (daily)</p> <p>Teacher's Guide p. 60 - Daily Routines: Place Value (daily)</p> <p>Teacher's Guide p. 81 - Count to Five</p> <p>Teacher's Guide pp. 84-85 - The Number Six</p> <p><i>Starfall.com: Math: Numbers</i></p> <p><i>Starfall.com: Math Songs</i></p>
<p>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.</p>	<p>Teacher's Guide p. 60 - Daily Routines: Number Line - "How Many Days Have We Been in School?"</p> <p>Teacher's Guide p. 277 - Learning Centers: Race to 20</p> <p>Teacher's Guide pp. 354-356 - Arrays to 20</p> <p>Teacher's Guide pp. 357-359 - Subitizing and Array Review</p> <p>Teacher's Guide p. 360 - Learning Center: Arrays</p>

Compare numbers

Kansas Standard	Starfall K Math Alignment
<p>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</p>	<p>Teacher's Guide p. 155 - Evaluate Most, Least, and Same Teacher's Guide pp. 156-158 - Greater Than and Less Than Teacher's Guide pp. 187-188 - Using Ten Frames to Demonstrate More Teacher's Guide p. 189 - Number Line Riddles Teacher's Guide p. 288 - One Less Teacher's Guide p. 342 - One More/One Less Teacher's Guide p. 415 - Pocket Chart Game Teacher's Guide p. 490 - Creating Equal Groups Teacher's Guide p. 633 - How Many More or Less? <i>Starfall.com</i>: Math: Greater Than/Less Than</p>
<p>7. Compare two numbers between 1 and 10 presented as written numerals.</p>	<p>Teacher's Guide p. 128 - Less Than Teacher's Guide p. 132 - One More Teacher's Guide p. 187 - "Thumbs Up/Thumbs Down" Teacher's Guide p. 195 - Learning Centers: Banker, Customer - "High/Low" Teacher's Guide p. 265 - Number Sense Teacher's Guide p. 415 - Mystery Number Game <i>Starfall.com</i>: Math: Add & Subtract: Base Ten Practice</p>

Operations and Algebraic Thinking K.OA

Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from.

Kansas Standard	Starfall K Math Alignment
<p>1. Represent addition and subtraction with objects, fingers, mental images, drawings,² sounds (e.g., claps), acting out situations, verbal explanations, expressions, or equations.</p>	<p>Teacher's Guide p.112 - Story Problems Teacher's Guide p. 296 - Act It Out: Subtraction Teacher's Guide pp. 374-375 - Introduction to Addition Teacher's Guide p. 376 - Using Addition Strategies to Solve Equations Teacher's Guide pp. 379-380 - Using a Number Line to Add Teacher's Guide pp. 381-383 - Acting It Out Teacher's Guide p. 417 - Partner to Solve Subtraction Problems Teacher's Guide pp. 428-429 - Little Boy Blue Story Problems Teacher's Guide pp. 430-431 - Subtraction Story Problem</p>

	Teacher's Guide pp. 457-458 -Subtraction
2. Solve addition and subtraction word problems, and add and subtract within 10, e.g., by using objects or drawings to represent the problem.	<p>Teacher's Guide pp. 377-378 - Using Counters and Ten-Frames</p> <p>Teacher's Guide pp. 382-383 - Create an Addition Story; Drawing Pictures</p> <p>Teacher's Guide p. 383 - Solve Number Stories</p> <p>Teacher's Guide p. 396 - Story Maps</p> <p>Teacher's Guide pp. 418-419 - Subtraction Practice</p> <p>Teacher's Guide pp. 420-421 - Five Little Teddy Bear Subtraction</p> <p>Teacher's Guide p. 422 - Learning Centers: Add and Subtract</p> <p><i>Starfall.com: Math: Addition & Subtraction: Addition Intro</i></p> <p><i>Starfall.com: Math: Addition & Subtraction: Addition Practice</i></p> <p><i>Starfall.com: Math: Addition & Subtraction: Addition Within 10</i></p> <p><i>Starfall.com: Math: Addition & Subtraction: Subtraction Intro</i></p> <p><i>Starfall.com: Math: Addition & Subtraction: Subtraction Within 10</i></p> <p><i>Starfall.com: Math: Add & Subtract: Word Problems</i></p> <p><i>Starfall.com: Math: Addition & Subtraction: Word Problems Add To: Change Unknown</i></p>
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 $5 = 4 + 1$).	<p>Teacher's Guide pp. 350 - Number Bonds to 10</p> <p>Teacher's Guide pp. 351-352 - Review Number Bonds</p> <p>Teacher Guide p. 353 - Write Equations for Ten</p> <p>Teacher's Guide p. 377 - Using Counters and Ten-Frames</p> <p>Teacher's Guide p. 384 - Learning Centers: Shake, Spill, and Add</p> <p>Teacher's Guide p. 400 - Create Addition Problems to 10</p> <p>Teacher's Guide pp. 452-453 - Review Addition</p> <p>Teacher's Guide pp. 468-469 - Creating Addition and Subtraction Equations</p> <p>Teacher's Guide pp. 620-621 -Composing and Decomposing Numbers 6-10</p> <p><i>Starfall.com: Math: Add & Subtract: Compose/Decompose Tens and Ones</i></p> <p><i>Starfall.com: Math: Add & Subtract: Math Helper</i></p>
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.	<p>Teacher's Guide p. 352 - Hanger Activity to 10</p> <p>Teacher's Guide pp. 374-375 - Introduction to Addition</p> <p>Teacher's Guide pp. 381-383 - Act It Out!</p> <p>Teacher's Guide pp. 453-454 - Ways to Write an Addition Equation/Writing Equations/Solving Addition Equations</p> <p>Teacher's Guide p. 468 - Plus and Minus Game</p> <p>Teacher's Guide p. 474 - Addition and Subtraction Journal Page</p> <p>Teacher's Guide p. 508 - Missing Number</p> <p><i>Starfall.com: Math: Add & Subtract: Math Helpers</i></p> <p><i>Starfall.com: Math: Add & Subtract: Make 10 Numbers</i></p> <p><i>Starfall.com: Math: Make 10 Objects</i></p>
5. Fluently add and subtract within 5.	Teacher's Guide p. 466 - Addition and Subtraction Equation

	<p>Cards</p> <p>Teacher's Guide p. 469 - What's My Sign?</p> <p>Teacher's Guide p. 475 - Learning Centers: Flash Card Game</p> <p>Teacher's Guide p. 622 - Addition Game Day</p> <p>Teacher's Guide p. 623 - Subtraction Ball Toss</p> <p>Teacher's Guide p. 625 - Play "What's the Operation?"</p> <p>Teacher's Guide p. 625 - What's the Operation?</p> <p>Teacher's Guide pp. 632-633 - Addition and Subtraction</p> <p><i>Starfall.com</i>: Math: Add & Subtract: Addition Intro</p> <p><i>Starfall.com</i>: Math: Add & Subtract: Addition Within 10</p> <p><i>Starfall.com</i>: Math: Add & Subtract: Addition Practice</p> <p><i>Starfall.com</i>: Math: Add & Subtract: Subtraction Intro</p> <p><i>Starfall.com</i>: Math: Add & Subtract: Subtraction Within 10</p> <p><i>Starfall.com</i>: Math: Add & Subtract: Subtraction Practice</p>
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Number and Operations in Base Ten K.NBT

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

Kansas Standard	Starfall K Math Alignment
<p>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.</p>	<p>Teacher's Guide pp. 546-547 - Numbers 10-20</p> <p>Teacher's Guide pp. 548-549 - Recognize Numbers and Sets of 10 to 20</p> <p>Teacher's Guide pp. 550-551 - Teens Practice</p> <p>Teacher's Guide pp. 552-553 - Place Value</p> <p>Teacher's Guide p. 555 - Learning Centers: Summative Assessment</p> <p><i>Starfall.com</i>: Math: Add & Subtract: Place Value</p> <p><i>Starfall.com</i>: Math: Add & Subtract: Addition Within 20</p> <p><i>Starfall.com</i>: Math: Add & Subtract: Subtraction: Within 20</p> <p><i>Starfall.com</i>: Math: Add & Subtract: Compose/Decompose</p>

Measurement and Data K.MD

Describe and compare measurable attributes.

Kansas Standard	Starfall K Math Alignment
<p>1. Describe measurable attributes of objects, such as length or weight. Describe several measurable attributes of a single object.</p>	<p>Teacher's Guide pp. 126-127 - Measurement Teacher's Guide pp.132-133 - Sort by Attribute Teacher's Guide pp. 508-509 - Measure Distance Teacher's Guide pp. 510-511- Classroom Size Comparison Teacher's Guide pp. 512-514 - Comparing Surface Area <i>Starfall.com</i>: Math: Geometry & Measurement: Measurement <i>Starfall.com</i>: Math: Geometry & Measurement: Weight</p>
<p>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.</p>	<p>Teacher's Guide pp. 28-29 - Introduce Measuring with Rectangles, Match Lengths, Compare Rectangles Teacher's Guide pp. 126 - 127 - Introduce Measurement Teacher's Guide p. 268 - Taller or Shorter? Teacher's Guide p. 284 - One Less Teacher's Guide p. 285 - One More <i>Starfall.com</i>: Math: Geometry & Measurement: Measurement</p>

Classify objects and count the number of objects in each category.

Kansas Standard	Starfall K Math Alignment
<p>3. Classify objects into given categories; count the numbers of objects in each category and sort the categories by count.³</p>	<p>Teacher's Guide pp. 36-37 - Explore Shapes Teacher's Guide pp. 41-42 - Introduce Octagon and Review 2D Shapes Teacher's Guide pp. 132-133 - Sort By Attribute Teacher's Guide p. 134 - Learning Centers: Sorting Objects Teacher's Guide pp. 288-289 - 3-D Shape Museum Day Teacher's Guide p. 290 - Sorting Shapes Teacher's Guide p. 624 - Pattern Using Coins <i>Starfall.com</i>: Math: Geometry & Measurement: Button Sort</p>

¹ Include groups with up to ten objects.

² Drawings need not show details, but should show the mathematics in the problem. (This applies wherever drawings are mentioned in the Standards.)

³ Limit category counts to be less than or equal to 10.

Geometry K..G

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

Kansas Standard	Starfall K Math Alignment
<p>1. Describe objects in the environment using names of shapes, and describe the relative positions of these objects using terms such as <i>above, below, beside, in front of, behind, and next</i></p>	<p>Teacher's Guide pp.128-129 - Ordinal Numbers Teacher's Guide pp. 152-153 - Introduce Positional Words Teacher's Guide p. 160 - Positional Words Teacher's Guide p. 623 - Position Words</p>
<p>2. Correctly name shapes regardless of their orientations or overall size.</p>	<p>Teacher's Guide pp. 18-19 - Review One, Preview Two (Properties of a circle) Teacher's Guide pp. 21-22 - Preview Three (Properties of a Triangle) Teacher's Guide pp. 24-25 - Preview Four (Properties of a rectangle and square) Teacher's Guide p. 134 - Computer Center Teacher's Guide p. 150 - Identify shapes in the Environment Teacher's Guide pp. 265-266 - Shape Properties <i>Starfall.com</i>: Math - Geometry and Measurement: Triangles & Make Shapes <i>Starfall.com</i>: Math - Geometry and Measurement: Puzzles <i>Starfall.com</i>: Math - Geometry and Measurement: 2D/3D Shapes</p>
<p>3. Identify shapes as two-dimensional (lying in a plane, "flat") or three- dimensional ("solid").</p>	<p>Teacher's Guide pp. 265-267 - Shape Properties Teacher's Guide pp. 268-269 - Introduce Cube Teacher's Guide pp. 271-273 - Introduce the Rectangular Prism Teacher's Guide pp. 274-275 - Introduce the Cone Teacher's Guide pp. 282-283 - Introduce the Cylinder Teacher's Guide p. 284 -Introduce the Sphere Teacher's Guide pp. 286-287 - Introduce the Square Pyramid Teacher's Guide p. 302 - Sorting 2D and 3D Shapes <i>Starfall.com</i>: Math: Geometry and Measurement: 2D/3D Sort <i>Starfall.com</i>: Math: Geometry and Measurement: 2-D/3D Shapes <i>Starfall.com</i>: Math: Geometry and Measurement: 3D Space</p>

Analyze, compare, create, and compose shapes.

Kansas Standard	Starfall K Math Alignment
<p>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.)</p>	<p>Teacher's Guide pp. 265-266 - Shape Properties Teacher's Guide p. 269 - Introduce the Math Net Teacher's Guide p. 272- Introduce the Rectangular Prism Math Net Teacher's Guide p. 275 - Introduce the Cone Math Net Teacher's Guide p. 282 - Introduce the Cylinder Math Net Teacher's Guide p. 283 - Properties of a Cylinder Teacher's Guide p. 285 - Compare Circles and Spheres</p>

	<p>Teacher's Guide p. 287 - Introduce the Square Pyramid Math Net</p> <p>Teacher's Guide p. 289 - Sort Items Into Groups</p> <p>Teacher's Guide p. 296-297 -Backpack Bear's Treasure Hunt</p> <p>Teacher's Guide p. 301 - Graphing 3-D Shapes</p> <p>Teacher's Guide p. 303 - Distinguishing 2D and 3D Shapes</p>
<p>5. Model shapes in the world by building shapes from components (e.g., sticks and clay balls) and drawing shapes.</p>	<p>Teacher's Guide p. 151 - Draw Shapes</p> <p>Teacher's Guide p. 267 - Draw Shapes with Shaving Cream</p> <p>Teacher's Guide p. 276 - Learning Centers: Play Dough Shape Town</p> <p>Teacher's Guide p. 297 - Draw Shapes</p> <p>Teacher's Guide p. 304 - Learning Centers:Play Dough 3-D Shapes</p> <p>Teacher's Guide p. 304 - Learning Centers: Constructing 3-D Shapes</p>
<p>6. Compose simple shapes to form larger shapes. For example, "Can you join these two triangles with full sides touching to make a rectangle?"</p>	<p>Teacher's Guide p. 134 - Computer Center</p> <p>Teacher's Guide pp. 265-266 - Shape Properties</p> <p>Teacher's Guide p. 273 - Cubes and Rectangular Prisms</p> <p><i>Starfall.com: Math: Geometry and Measurement: Triangles & Make Shapes</i></p> <p><i>Starfall.com: Math: Geometry and Measurement: Puzzles</i></p>

**The standards in this document were copied directly from Kansas College and Career Ready Standards based on the Common Core.*

****Publisher's Note:** The citations included in this alignment represent a sampling of the Starfall Kindergarten Math Curriculum. Each standard is covered in depth throughout the curriculum. Additional Starfall standards may be found in the Teacher's Guide.