



## Alaska State Kindergarten Math Standards Alignment to Starfall

### Counting and Cardinality

Know number names and the count sequence.

Alaska Standards	Starfall Kindergarten Alignment
K.CC.1 Count to 100 by ones and by tens.	Teacher's Guide <i>Read Me First</i> p. 6 - Hundredth Day Chart Teacher's Guide <i>Read Me First</i> 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 &amp; Subtract: Place Value</i> <i>Starfall.com: Math: Kindergarten Mathematics Generators: Counting - Count to 100</i>
K.CC.2 Count forward beginning from a given number within the known sequence.	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>
K.CC.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).	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 Teacher's Guide p. 248 - Learning Centers: A Walk in the Park

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

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

Alaska Standards	Starfall Kindergarten Alignment
<p>K.CC.4.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 on one object.</p>	<p>Teacher's Guide <i>Read Me First</i> p. 9 - Backpack Bear's Math Games - "Race to 20"  Teacher's Guide p. 87 - Using Math Strategies  Teacher's Guide p.92 - Learning Centers: Ways to Represent Numbers  Teacher's Guide pp. 109-110 - One-to-One Correspondence and the Number Nine  Teacher's Guide pp.112-113 - The Number Zero  Teacher's Guide p. 116 - Formative Assessment  Teacher's Guide p. 282 - Seeing Number Patterns  <i>Starfall.com</i>: Math: Numbers  <i>Starfall.com</i>: Math Songs  <i>Starfall.com</i>: Math: Numbers: Count Cookies</p>
<p>K.CC.4.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.</p>	<p>Teacher's Guide pp. 87- 88 - The Number Seven  Teacher's Guide p.120 - Learning Centers: Number Activity Mats  Teacher's Guide pp. 318-319 - Number Representations 1-5  Teacher's Guide p. 323 - Match Dominoes to Number Cards  Teacher's Guide pp. 323-324 - Number Representations 6-10  <i>Starfall.com</i>: Math: Numbers</p>
<p>K.CC.4.C 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)  Teacher's Guide p. 44 - Daily Routines: Hundreds Chart (daily)  Teacher's Guide p.60 - Daily Routines: Place Value (daily)  Teacher's Guide p. 81 - Count to Five  Teacher's Guide pp. 84-85 - The Number Six  <i>Starfall.com</i>: Math: Numbers  <i>Starfall.com</i>: Math Songs</p>
<p>K.CC.5 Count to answer "how many?" question about as many as 20 things arranged in a line, 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 object</p>	<p>Teacher's Guide p. 60 - Daily Routines: Number Line - "How Many Days Have We Been in School?"  Teacher's Guide p. 277 - Learning Centers: Race to 20  Teacher's Guide pp. 354-356 - Arrays to 20  Teacher's Guide pp. 357-359 - Subitizing and Array Review  Teacher's Guide p. 360 - Learning Center: Arrays</p>

Compare numbers.

Alaska Standards	Starfall Kindergarten Alignment
<p><b>K.CC.6</b> 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. <sup>1</sup></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><b>K.CC.7</b> 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 &amp; Subtract: Base Ten Practice</p>

<sup>1</sup> (Include groups with up to ten objects.)

Operations & Algebraic Thinking

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

Alaska Standards	Starfall K Math Alignment
<p><b>K.OA.1</b> Represent addition and subtraction with objects, fingers, mental images, drawings 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</p>

	<p>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 Problem  Teacher's Guide pp. 428-429 - Little Boy Blue Story Problems  Teacher's Guide pp. 430-431 - Subtraction Story Problem  Teacher's Guide pp. 457-458 -Subtraction  <i>Starfall.com: Math: Add &amp; Subtract: Math Helpers</i></p>
<p><b>K.OA.2 Add or subtract whole numbers to 10 (e.g., by using objects or drawings to solve word problems)</b></p>	<p>Teacher's Guide pp. 377-378 - Using Counters and Ten-Frames  Teacher's Guide pp. 382-383 - Create an Addition Story; Drawing Pictures  Teacher's Guide p. 383 - Solve Number Stories  Teacher's Guide p. 396 - Story Maps  Teacher's Guide pp. 418-419 - Subtraction Practice  Teacher's Guide pp. 420-421 - Five Little Teddy Bear Subtraction  Teacher's Guide p. 422 - Learning Centers: Add and Subtract  <i>Starfall.com: Math: Addition &amp; Subtraction: Addition Intro</i>  <i>Starfall.com: Math: Addition &amp; Subtraction: Addition Practice</i>  <i>Starfall.com: Math: Addition &amp; Subtraction: Addition Within 10</i>  <i>Starfall.com: Math: Addition &amp; Subtraction: Subtraction Intro</i>  <i>Starfall.com: Math: Addition &amp; Subtraction: Subtraction Within 10</i>  <i>Starfall.com: Math: Add &amp; Subtract: Word Problems</i>  <i>Starfall.com: Math: Addition &amp; Subtraction: Word Problems Add To: Change Unknown</i></p>
<p><b>K.OA.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., <math>5 = 2 + 3</math> and <math>5 = 4 + 1</math>).</b></p>	<p>Teacher's Guide pp. 350 - Number Bonds to 10  Teacher's Guide pp. 351-352 - Review Number Bonds  Teacher Guide p. 353 - Write Equations for Ten  Teacher's Guide p. 377 - Using Counters and Ten-Frames  Teacher's Guide p. 384 - Learning Centers: Shake, Spill, and Add  Teacher's Guide p. 400 - Create Addition Problems to 10  Teacher's Guide pp. 452-453 - Review Addition  Teacher's Guide pp. 468-469 - Creating Addition and Subtraction Equations  Teacher's Guide pp. 620-621 -Composing and Decomposing Numbers 6-10  <i>Starfall.com: Math: Add &amp; Subtract: Compose/Decompose Tens and Ones</i>  <i>Starfall.com: Math: Add &amp; Subtract: Math Helpers</i></p>
<p><b>K.OA.4 For any number from 1 - 4, find the number that makes 5 when added to the given number and, 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.</b></p>	<p>Teacher's Guide p. 352 - Hanger Activity to 10  Teacher's Guide pp. 374-375 - Introduction to Addition  Teacher's Guide pp. 381-383 - Act It Out!  Teacher's Guide pp. 453-454 - Ways to Write an Addition Equation/Writing Equations/Solving Addition Equations  Teacher's Guide p. 468 - Plus and Minus Game  Teacher's Guide p. 474 - Addition and Subtraction Journal Page  Teacher's Guide p. 508 - Missing Number  <i>Starfall.com: Math: Add &amp; Subtract: Math Helpers</i>  <i>Starfall.com: Math: Add &amp; Subtract: Make 10 Numbers</i></p>

	<i>Starfall.com</i> : Math: Make 10 Objects
K.OA.5 Fluently add and subtract numbers up to 5.	<p>Teacher’s Guide p. 466 - Addition and Subtraction Equation 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 &amp; Subtract: Addition Intro</p> <p><i>Starfall.com</i>: Math: Add &amp; Subtract: Addition Within 10</p> <p><i>Starfall.com</i>: Math: Add &amp; Subtract: Addition Practice</p> <p><i>Starfall.com</i>: Math: Add &amp; Subtract: Subtraction Intro</p> <p><i>Starfall.com</i>: Math: Add &amp; Subtract: Subtraction Within 10</p> <p><i>Starfall.com</i>: Math: Add &amp; Subtract: Subtraction Practice</p>

**Number & Operations in Base Ten**

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

Alaska Standards	Starfall K Math Alignment
K.NBT.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 drawing or equation (such as $18 = 10 + 8$ ); understand that these numbers are composed of ten ones and one, two, three, four, five, six, seven, eight, or nine ones.	<p>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 &amp; Subtract: Place Value</p> <p><i>Starfall.com</i>: Math: Add &amp; Subtract: Addition Within 20</p> <p><i>Starfall.com</i>: Math: Add &amp; Subtract: Subtraction: Within 20</p> <p><i>Starfall.com</i>: Math: Add &amp; Subtract: Compose/Decompose</p>

**Measurement & Data**

Describe and compare measurable attributes.

Alaska Standards	Starfall K Math Alignment
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<p><b>K.MD.1</b> Describe measurable attributes of objects, such as length or weight. Match measuring tools to attribute (e.g., ruler to length). 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: Math: Geometry &amp; Measurement: Measurement</i>  <i>Starfall.com: Math: Geometry &amp; Measurement: Weight</i></p>
<p><b>K.MD.2</b> 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. <i>For example, directly compare the heights of two children and describe one child as taller/shorter.</i></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: Math: Geometry &amp; Measurement: Measurement</i></p>

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

Alaska Standards	Starfall K Math Alignment
<p><b>K.MD.3</b> Classify objects into given categories(attributes) Count the numbers of objects in each category (limit category counts to be less than or equal to 10).</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: Math: Geometry &amp; Measurement: Button Sort</i></p>

Work with time and money.

Alaska Standards	Starfall K Math Alignment
<p><b>K.MD.4</b> Name in sequence the days of the week</p>	<p>Teacher's Guide p. 17 - Calendar Routine  Teacher's Guide p. 20 - Calendar Routine  Teacher's Guide p. 23 - Calendar Routine  Teacher's Guide p. 26 - Calendar Routine  Teacher's Guide p. 34 - Calendar Routine  Teacher's Guide p. 37 - Calendar Routine  Teacher's Guide p. 40 - Calendar Routine  Teacher's Guide p. 43 - Calendar Routine  Teacher's Guide p. 46 - Calendar Routine  Teacher's Guide - Calendar Routine (daily)  <i>Starfall.com: Calendar Icon</i></p>

	<i>Starfall.com: Math Songs: "Today is Monday"</i>
<b>K.MD.5. Tell time to the hour using both analog and digital clocks</b>	<p>Teacher's Guide p. 583 - Which Measuring Tool Would I Use?</p> <p>Teacher's Guide p. 586 - Numbers on a Clock</p> <p>Teacher's Guide p. 589 - Hands of a Clock/Different Types of Clocks</p> <p>Teacher's Guide p. 590 - Hands on the Clock</p> <p>Teacher's Guide p. 593 - Summative Assessment</p> <p><i>Starfall.com: - Geometry &amp; Measurement: Time</i></p> <p><i>Starfall.com: Math Songs: "The Time Song"</i></p>
<b>K.MD.6 Identify coins by name.</b>	<p>Teacher's Guide p. 166 - Introduce the Penny</p> <p>Teacher's Guide p. 167 - Introduce the Penny Rhyme</p> <p>Teacher's Guide p. 169 - Introduce the Nickel</p> <p>Teacher's Guide p. 170 - Examine the Nickel</p> <p>Teacher's Guide p. 171 - Compare Nickel and Penny</p> <p>Teacher's Guide p. 172 - Introduce a Dime</p> <p>Teacher's Guide p. 173 - Examine the Dime</p> <p>Teacher's Guide p. 174 - Partner Share</p> <p>Teacher's Guide p. 175 - Introduce "Coin Town"</p> <p>Teacher's Guide p. 176 - Color Pennies, Nickels, and Dimes</p> <p>Teacher's Guide p. 177 - "Coin Town" Game</p> <p>Teacher's Guide p. 177 - Coin Concentration</p> <p>Teacher's Guide p. 189 - Money Review</p> <p>Teacher's Guide p. 191 - Which is Worth More?</p> <p>Teacher's Guide p. 192 - Solving Addition Equations Using Money</p> <p>Teacher's Guide p. 193 - Demonstrate Story Problems</p> <p>Teacher's Guide p. 471 - Adding and Subtracting with Money</p> <p>Teacher's Guide p. 624 - Patterns Using Coins</p> <p><i>Starfall.com: Math - "Coin Concentration"</i></p> <p><i>Starfall.com: Math - "Coin Sort"</i></p>

## Geometry

### Identify and describe shapes.

Alaska Standards	Starfall K Math Alignment
<b>K.G.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 to.</i></b>	<p>Teacher's Guide pp.128-129 - Ordinal Numbers</p> <p>Teacher's Guide pp. 152-153 - Introduce Positional Words</p> <p>Teacher's Guide p. 160 - Positional Words</p> <p>Teacher's Guide p. 623 - Position Words</p>
<b>K.G.2 Name shapes regardless of their orientations or overall size.</b>	Teacher's Guide pp. 18-19 - Review One, Preview Two (Properties of a circle)

	<p>Teacher's Guide pp. 21-22 - Preview Three (Properties of a Triangle)</p> <p>Teacher's Guide pp. 24-25 - Preview Four (Properties of a rectangle and square)</p> <p>Teacher's Guide p. 134 - Computer Center</p> <p>Teacher's Guide p. 150 - Identify shapes in the Environment</p> <p>Teacher's Guide pp. 265-266 - Shape Properties</p> <p><i>Starfall.com</i>: Math - Geometry and Measurement: Triangles &amp; Make Shapes</p> <p><i>Starfall.com</i>: Math - Geometry and Measurement: Puzzles</p> <p><i>Starfall.com</i>: Math - Geometry and Measurement: 2D/3D Shape</p>
K.G.3 Identify shapes as two-dimensional (flat) or three-dimensional (solid).	<p>Teacher's Guide pp. 265-267 - Shape Properties</p> <p>Teacher's Guide pp. 268-269 - Introduce Cube</p> <p>Teacher's Guide pp. 271-273 - Introduce the Rectangular Prism</p> <p>Teacher's Guide pp. 274-275 - Introduce the Cone</p> <p>Teacher's Guide pp. 282-283 - Introduce the Cylinder</p> <p>Teacher's Guide p. 284 - Introduce the Sphere</p> <p>Teacher's Guide pp. 286-287 - Introduce the Square Pyramid</p> <p>Teacher's Guide p. 302 - Sorting 2D and 3D Shapes</p> <p><i>Starfall.com</i>: Math: Geometry and Measurement: 2D/3D Sort</p> <p><i>Starfall.com</i>: Math: Geometry and Measurement: 2-D/3D Shape</p> <p><i>Starfall.com</i>: Math: Geometry and Measurement: 3D Space</p>

Analyze, compare, create, and compose shapes.

Alaska Standards	Starfall K Math Alignment
K.G.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>Teacher's Guide pp. 265-266 - Shape Properties</p> <p>Teacher's Guide p. 269 - Introduce the Math Net</p> <p>Teacher's Guide p. 272- Introduce the Rectangular Prism Math Net</p> <p>Teacher's Guide p. 275 - Introduce the Cone Math Net</p> <p>Teacher's Guide p. 282 - Introduce the Cylinder Math Net</p> <p>Teacher's Guide p. 283 - Properties of a Cylinder</p> <p>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>
K.G.5 Build shapes (e.g., using sticks and clay) and draw shapes.	<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</p>



	<p><b>Town</b>  <b>Teacher's Guide p. 297 - Draw Shapes</b>  <b>Teacher's Guide p. 304 - Learning Centers: Play Dough 3-D Shapes</b>  <b>Teacher's Guide p. 304 - Learning Centers: Constructing 3-D Shapes</b></p>
<p><b>K.G.6 Put together two-dimensional shapes to form larger shapes (e.g., join two triangles with full sides touching to make a rectangle).</b></p>	<p><b>Teacher's Guide p. 134 - Computer Center</b>  <b>Teacher's Guide pp. 265-266 - Shape Properties</b>  <b>Teacher's Guide p. 273 - Cubes and Rectangular Prisms</b>  <b>Starfall.com: Math: Geometry and Measurement: Triangles &amp; Make Shapes</b>  <b>Starfall.com: Math: Geometry and Measurement: Puzzles</b></p>

**\*The standards in this document were copied from the *Alaska English/Language Arts and Mathematics Standards*.**

