ALASKA MATHEMATICS STANDARDS WITH LEARNING TARGETS GRADE K

Alaska Mathematics Standards
Grade K

Grade Level/Course	K
Domain	Counting and Cardinality
Cluster	Know number names and the count sequence.
Standard	K.CC.1.
	Know number names and the count sequence.

Standards of Mathematical Practice

Make sense of problems and persevere to solve them.	Reason abstractly and quantitatively.	Construct viable arguments and critique the reasoning of others.	Model with mathematics.	Use appropriate tools strategically.	Attend to precision.	Look for and make use of structure.	Look for and express regularity in repeated reasoning.

Learning Targets

Knowledge	Reasoning	Skill	Products
Facts and concepts we want students to know.	Use what they know to reason or solve problems.	Use knowledge and reasoning to act skillfully.	Use knowledge, reasoning, and skills to create a concrete product.
Count (verbal sequence only) to 100 by ones starting at 1. Count (verbal sequence only) to 100 by 10's starting at 10.			

Alaska Mathematics Standards
Grade K

Grade Level/Course	K
Domain	Counting and Cardinality
Cluster	Know number names and the count sequence.
Standard	K.CC.2.
	Count forward beginning from a given number within the known sequence.

Standards of Mathematical Practice

Make sense of problems and persevere to solve them.	Reason abstractly and quantitatively.	Construct viable arguments and critique the reasoning of others.	Model with mathematics.	Use appropriate tools strategically.	Attend to precision.	Look for and make use of structure.	Look for and express regularity in repeated reasoning.

Learning Targets

Knowledge	Reasoning	Skill	Products
Facts and concepts we want students to know.	Use what they know to reason or solve problems.	Use knowledge and reasoning to act skillfully.	Use knowledge, reasoning, and skills to create a concrete product.
Count forward by 1's beginning with another number other than 1 (verbal sequence only).			

Alaska Mathematics Standards
Grade K

Grade Level/Course	K
Domain	Counting and Cardinality
Cluster	Know number names and the count sequence.
Standard	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).

Standards of Mathematical Practice

Make sense of problems and persevere to solve them.	Reason abstractly and quantitatively.	Construct viable arguments and critique the reasoning of others.	Model with mathematics.	Use appropriate tools strategically.	Attend to precision.	Look for and make use of structure.	Look for and express regularity in repeated reasoning.

Learning Targets

Knowledge	Reasoning	Skill	Products
Facts and concepts we want students to know.	Use what they know to reason or solve problems.	Use knowledge and reasoning to act skillfully.	Use knowledge, reasoning, and skills to create a concrete product.
Write numerals 0 to 20. Write the number that represents a given number of objects from 0-20.			

Alaska Mathematics Standards
Grade K

Grade Level/Course	K
Domain	Counting and Cardinality
Cluster	Count to tell the number of objects.
Standard	K.CC.4.

	Understand the relationship between numbers and quantities; connect counting to cardinality;
	   a. When counting objects, say the number names in standard order, pairing each object with one and only one number name and each number name with one and only one object;
	   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;
	   c. Understand that each successive number name refers to a quantity that is one larger.

Standards of Mathematical Practice

Make sense of problems and persevere to solve them.	Reason abstractly and quantitatively.	Construct viable arguments and critique the reasoning of others.	Model with mathematics.	Use appropriate tools strategically.	Attend to precision.	Look for and make use of structure.	Look for and express regularity in repeated reasoning.

Learning Targets

Knowledge	Reasoning	Skill	Products
Facts and concepts we want students to know.	Use what they know to reason or solve problems.	Use knowledge and reasoning to act skillfully.	Use knowledge, reasoning, and skills to create a concrete product.
Represent quantities using numbers and represent numbers using quantities	Match each object with one and only one number name and each number with one and only one object. Recognize the number of objects is the same regardless of their arrangement or the order in which they were counted.	When counting objects, say the number names in order while matching each object with a number.	

	Realize that the last number name said tells the number of objects counted. Generalizes that each successive number name refers to a quantity that is one larger.		

Alaska Mathematics Standards
Grade K

Grade Level/Course	K
Domain	Counting and Cardinality
Cluster	Count to tell the number of objects.
Standard	K.CC.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.

Standards of Mathematical Practice							
Make sense of problems and persevere to solve them.	Reason abstractly and quantitatively.	Construct viable arguments and critique the reasoning of others.	Model with mathematics.	Use appropriate tools strategically.	Attend to precision.	Look for and make use of structure.	Look for and express regularity in repeated reasoning.

Learning Targets			
Knowledge	**Reasoning**	**Skill**	**Products**
Facts and concepts we want students to know.	Use what they know to reason or solve problems.	Use knowledge and reasoning to act skillfully.	Use knowledge, reasoning, and skills to create a concrete product.
Count up to 20 objects that have been arranged in a line, rectangular array, or circle Count as many as 10 items in a scattered configuration	Match each object with one and only one number name and each number with one and only one object Conclude that the last number of the counted sequence signifies the quantity of the counted collection.	Given a number from 1-20, count out that many objects.	

Alaska Mathematics Standards
Grade K

Grade Level/Course	K
Domain	Counting and Cardinality
Cluster	Compare numbers.
Standard	K.CC.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, counting, or estimating strategies).

Standards of Mathematical Practice							
Make sense of problems and persevere to solve them.	Reason abstractly and quantitatively.	Construct viable arguments and critique the reasoning of others.	Model with mathematics.	Use appropriate tools strategically.	Attend to precision.	Look for and make use of structure.	Look for and express regularity in repeated reasoning.

Learning Targets			
Knowledge	**Reasoning**	**Skill**	**Products**
Facts and concepts we want students to know.	Use what they know to reason or solve problems.	Use knowledge and reasoning to act skillfully.	Use knowledge, reasoning, and skills to create a concrete product.
Describe greater than, less than, or equal to.	Determine whether a group of 10 or fewer objects is greater than, less than, or equal to another group of 10 or fewer objects		

Alaska Mathematics Standards
Grade K

Grade Level/Course	K
Domain	Counting and Cardinality
Cluster	Compare numbers.
Standard	K.CC.7.
	Compare and order two numbers between 1 and 10 presented as written numerals.

Standards of Mathematical Practice

Make sense of problems and persevere to solve them.	Reason abstractly and quantitatively.	Construct viable arguments and critique the reasoning of others.	Model with mathematics.	Use appropriate tools strategically.	Attend to precision.	Look for and make use of structure.	Look for and express regularity in repeated reasoning.

Learning Targets

Knowledge	Reasoning	Skill	Products
Facts and concepts we want students to know.	Use what they know to reason or solve problems.	Use knowledge and reasoning to act skillfully.	Use knowledge, reasoning, and skills to create a concrete product.
Know the quantity of each numeral.	Determine whether a written number is greater than, less than, or equal to another written number.		

Alaska Mathematics Standards
Grade K

Grade Level/Course	K
Domain	Operations and Algebraic Thinking
Cluster	Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from.
Standard	K.OA.1.
	Represent addition and subtraction with objects, fingers, mental images, drawings, sounds (e.g., claps) acting out situations, verbal explanations, expressions, or equations.

Standards of Mathematical Practice							
Make sense of problems and persevere to solve them.	Reason abstractly and quantitatively.	Construct viable arguments and critique the reasoning of others.	Model with mathematics.	Use appropriate tools strategically.	Attend to precision.	Look for and make use of structure.	Look for and express regularity in repeated reasoning.

Learning Targets			
Knowledge	**Reasoning**	**Skill**	**Products**
Facts and concepts we want students to know.	Use what they know to reason or solve problems.	Use knowledge and reasoning to act skillfully.	Use knowledge, reasoning, and skills to create a concrete product.
Know adding is putting together parts to make the whole. Know subtracting is taking apart or taking away from the whole to find the other part. Know the symbols (+, -, =) and the words (plus, minus, equal) for adding and subtracting.	Analyze addition or subtraction problem to determine whether to 'put together' or 'take apart'. Model an addition/subtraction problem given a real-life story.	Represent addition and subtraction with objects, fingers, mental images, drawings, sounds, acting out situations, verbal explanations, expressions, or equations in multiple ways, e.g., 2+3=5, 5=2+3, ||+|||=|||||, and vertically. (Writing equations in kindergarten is not required but encouraged.)	

Alaska Mathematics Standards
Grade K

Grade Level/Course	K
Domain	Operations and Algebraic Thinking
Cluster	Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from.
Standard	K.OA.2.
	Add or subtract whole numbers to 10 (e.g., by using objects or drawings to solve word problems).

Standards of Mathematical Practice

Make sense of problems and persevere to solve them.	Reason abstractly and quantitatively.	Construct viable arguments and critique the reasoning of others.	Model with mathematics.	Use appropriate tools strategically.	Attend to precision.	Look for and make use of structure.	Look for and express regularity in repeated reasoning.

Learning Targets

Knowledge	Reasoning	Skill	Products
Facts and concepts we want students to know.	Use what they know to reason or solve problems..	Use knowledge and reasoning to act skillfully.	Use knowledge, reasoning, and skills to create a concrete product.
Add and subtract within 10 (Maximum sum and minuend is 10)	Solve addition and subtraction word problems within 10. Use objects/drawings to represent an addition and subtraction word problem.		

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Alaska Mathematics Standards
Grade K

Grade Level/Course	K
Domain	Operations and Algebraic Thinking
Cluster	Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from.
Standard	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). For example, 5 = 2 + 3 and 5 = 4 + 1.

Standards of Mathematical Practice							
Make sense of problems and persevere to solve them.	Reason abstractly and quantitatively.	Construct viable arguments and critique the reasoning of others.	Model with mathematics.	Use appropriate tools strategically.	Attend to precision.	Look for and make use of structure.	Look for and express regularity in repeated reasoning.

Learning Targets			
Knowledge	**Reasoning**	**Skill**	**Products**
Facts and concepts we want students to know.	Use what they know to reason or solve problems..	Use knowledge and reasoning to act skillfully.	Use knowledge, reasoning, and skills to create a concrete product.
Solve addition number sentences within 10.	Decompose numbers less than or equal to 10 into pairs in more than one way. Use objects or drawings then record each composition by a drawing or writing an equation.		

Alaska Mathematics Standards
Grade K

Grade Level/Course	K
Domain	Operations and Algebraic Thinking
Cluster	Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from.
Standard	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 - 9, find the number that makes 10 when added to the given number (e.g., by using objects, drawings or 10 frames) and record the answer with a drawing or equation.

Standards of Mathematical Practice

Make sense of problems and persevere to solve them.	Reason abstractly and quantitatively.	Construct viable arguments and critique the reasoning of others.	Model with mathematics.	Use appropriate tools strategically.	Attend to precision.	Look for and make use of structure.	Look for and express regularity in repeated reasoning.

Learning Targets

Knowledge	Reasoning	Skill	Products
Facts and concepts we want students to know.	Use what they know to reason or solve problems.	Use knowledge and reasoning to act skillfully.	Use knowledge, reasoning, and skills to create a concrete product.
Know that two numbers can be added together to make five. Know that two numbers can be added together to make ten.	Using materials or representations, find the number that makes 10 when added to the given number for any number from 1 to 9, and record the answer using materials, representations, or equations. (Same process for numbers that add to 5)		

Alaska Mathematics Standards
Grade K

Grade Level/Course	K
Domain	Operations and Algebraic Thinking
Cluster	Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from.
Standard	K.OA.5.
	Fluently add and subtract numbers up to 5.

Standards of Mathematical Practice

Make sense of problems and persevere to solve them.	Reason abstractly and quantitatively.	Construct viable arguments and critique the reasoning of others.	Model with mathematics.	Use appropriate tools strategically.	Attend to precision.	Look for and make use of structure.	Look for and express regularity in repeated reasoning.

Learning Targets

Knowledge	Reasoning	Skill	Products
Facts and concepts we want students to know.	Use what they know to reason or solve problems.	Use knowledge and reasoning to act skillfully.	Use knowledge, reasoning, and skills to create a concrete product.
Fluently with speed and accuracy add and subtract within 5.			

Alaska Mathematics Standards
Grade K

Grade Level/Course	K
Domain	Operations and Algebraic Thinking
Cluster	Identify and continue patterns.
Standard	K.OA.6.
	Recognize, identify and continue simple patterns of color, shape, and size.

Standards of Mathematical Practice

Make sense of problems and persevere to solve them.	Reason abstractly and quantitatively.	Construct viable arguments and critique the reasoning of others.	Model with mathematics.	Use appropriate tools strategically.	Attend to precision.	Look for and make use of structure.	Look for and express regularity in repeated reasoning.

Learning Targets

Knowledge	Reasoning	Skill	Products
Facts and concepts we want students to know.	Use what they know to reason or solve problems.	Use knowledge and reasoning to act skillfully.	Use knowledge, reasoning, and skills to create a concrete product.

Alaska Mathematics Standards
Grade K

Grade Level/Course	K
Domain	Number and Operations in Base Ten
Cluster	Work with numbers 11-19 to gain foundations for place value.
Standard	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 and 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.

Standards of Mathematical Practice							
Make sense of problems and persevere to solve them.	Reason abstractly and quantitatively.	Construct viable arguments and critique the reasoning of others.	Model with mathematics.	Use appropriate tools strategically.	Attend to precision.	Look for and make use of structure.	Look for and express regularity in repeated reasoning.

Learning Targets			
Knowledge	**Reasoning**	**Skill**	**Products**
Facts and concepts we want students to know.	Use what they know to reason or solve problems.	Use knowledge and reasoning to act skillfully.	Use knowledge, reasoning, and skills to create a concrete product.
Know that a (spoken) number (11-19) represents a quantity.	Understand that numbers 11-19 are composed of 10 ones and one, two, three, four, five, six, seven, eight, or nine ones. Represent compositions or decompositions by a drawing or equation.	Compose numbers 11-19 into ten ones and some further ones using objects and drawings. Decompose numbers 11-19 into ten ones and some further ones using objects and drawings.	

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Alaska Mathematics Standards
Grade K

Grade Level/Course	K
Domain	Measurement and Data
Cluster	Describe and compare measurable attributes.
Standard	K.MD.1.
	Describe measurable attributes of objects (e.g., length or weight). Match measuring tools to attribute (e.g., ruler to length). Describe several measurable attributes of a single object.

Standards of Mathematical Practice							
Make sense of problems and persevere to solve them.	Reason abstractly and quantitatively.	Construct viable arguments and critique the reasoning of others.	Model with mathematics.	Use appropriate tools strategically.	Attend to precision.	Look for and make use of structure.	Look for and express regularity in repeated reasoning.

Learning Targets			
Knowledge	**Reasoning**	**Skill**	**Products**
Facts and concepts we want students to know.	Use what they know to reason or solve problems.	Use knowledge and reasoning to act skillfully.	Use knowledge, reasoning, and skills to create a concrete product.
Know that objects have measurable attributes and know what they are called, such as length and weight. Describe an object by using attributes such as: width, height, length, weight, etc. Describe more than one measurable attribute of a single object.			

Alaska Mathematics Standards
Grade K

Grade Level/Course	K
Domain	Measurement and Data
Cluster	Describe and compare measurable attributes.
Standard	K.MD.2.
	Make comparisons between 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.

Standards of Mathematical Practice

Make sense of problems and persevere to solve them.	Reason abstractly and quantitatively.	Construct viable arguments and critique the reasoning of others.	Model with mathematics.	Use appropriate tools strategically.	Attend to precision.	Look for and make use of structure.	Look for and express regularity in repeated reasoning.

Learning Targets

Knowledge	Reasoning	Skill	Products
Facts and concepts we want students to know.	Use what they know to reason or solve problems.	Use knowledge and reasoning to act skillfully.	Use knowledge, reasoning, and skills to create a concrete product.
Know the meaning of the following words: more/less, taller/shorter, etc. Know that two objects can be compared using a particular attribute.	Compare common measureable attributed between two objects. Describe the difference in common measureable attributes in terms of more/less of, taller/shorter, etc.		

Alaska Mathematics Standards
Grade K

Grade Level/Course	K
Domain	Measurement and Data
Cluster	Classify objects and count the number of objects in each category.
Standard	K.MD.3.
	Classify objects into given categories (attributes). Count the number of objects in each category (limit category counts to be less than or equal to 10).

Standards of Mathematical Practice							
Make sense of problems and persevere to solve them.	Reason abstractly and quantitatively.	Construct viable arguments and critique the reasoning of others.	Model with mathematics.	Use appropriate tools strategically.	Attend to precision.	Look for and make use of structure.	Look for and express regularity in repeated reasoning.

Learning Targets			
Knowledge	**Reasoning**	**Skill**	**Products**
Facts and concepts we want students to know.	Use what they know to reason or solve problems.	Use knowledge and reasoning to act skillfully.	Use knowledge, reasoning, and skills to create a concrete product.
Recognize non-measurable attributes such as shape, color. Recognize measurable attributes such as length, weight, height. Know what classify means. Know what sorting means. Know that a category is the group that an object belongs to according to a particular, selected attribute. Understand one to one correspondence with ten or less objects.	Classify objects into categories by particular attributes	Count objects in a given group. Note: This is addressed in another content standard. K.CC.5. It is important to integrate standards to assist students with making connections and building deeper understanding. Sort objects into categories then determine the order by number of objects in each category (limit category counts to be less than or equal to ten) For example, if m&m's are categorized by the attribute of color, then are "sorted" or ordered by the number in each group (there are more red than green, the blue group has fewer than the green.)	

Alaska Mathematics Standards
Grade K

Grade Level/Course	K
Domain	Measurement and Data
Cluster	Work with time and money.
Standard	K.MD.4.
	Name in sequence the days of the week.

Standards of Mathematical Practice

Make sense of problems and persevere to solve them.	Reason abstractly and quantitatively.	Construct viable arguments and critique the reasoning of others.	Model with mathematics.	Use appropriate tools strategically.	Attend to precision.	Look for and make use of structure.	Look for and express regularity in repeated reasoning.

Learning Targets

Knowledge	Reasoning	Skill	Products
Facts and concepts we want students to know.	Use what they know to reason or solve problems.	Use knowledge and reasoning to act skillfully.	Use knowledge, reasoning, and skills to create a concrete product.
Identify the days of the week in order		Locate the days of the week on a calendar	

Alaska Mathematics Standards
Grade K

Grade Level/Course	K
Domain	Measurement and Data
Cluster	Work with time and money.
Standard	K.MD.5.
	Tell time to the hour using both analog and digital clocks.

Standards of Mathematical Practice

Make sense of problems and persevere to solve them.	Reason abstractly and quantitatively.	Construct viable arguments and critique the reasoning of others.	Model with mathematics.	Use appropriate tools strategically.	Attend to precision.	Look for and make use of structure.	Look for and express regularity in repeated reasoning.

Learning Targets

Knowledge	Reasoning	Skill	Products
Facts and concepts we want students to know.	Use what they know to reason or solve problems.	Use knowledge and reasoning to act skillfully.	Use knowledge, reasoning, and skills to create a concrete product.
Recognize the difference between an analog and digital clock. Know the parts of the clock.		Tell time to the nearest hour on an analog clock. Tell time to the nearest hour on a digital clock.	

Alaska Mathematics Standards
Grade K

Grade Level/Course	K
Domain	Measurement and Data
Cluster	Work with time and money.
Standard	K.MD.6.
	Identify coins by name.

Standards of Mathematical Practice

Make sense of problems and persevere to solve them.	Reason abstractly and quantitatively.	Construct viable arguments and critique the reasoning of others.	Model with mathematics.	Use appropriate tools strategically.	Attend to precision.	Look for and make use of structure.	Look for and express regularity in repeated reasoning.

Learning Targets

Knowledge	Reasoning	Skill	Products
Facts and concepts we want students to know.	Use what they know to reason or solve problems.	Use knowledge and reasoning to act skillfully.	Use knowledge, reasoning, and skills to create a concrete product.
Identify penny, nickel, dime, and quarter			

Alaska Mathematics Standards
Grade K

Grade Level/Course	K
Domain	Geometry
Cluster	Identify and describe shapes.
Standard	K.G.1.
	Describe objects in the environment using names of shapes and describe their relative positions (e.g., above, below, beside, in front of, behind, next to).

Standards of Mathematical Practice							
Make sense of problems and persevere to solve them.	Reason abstractly and quantitatively.	Construct viable arguments and critique the reasoning of others.	Model with mathematics.	Use appropriate tools strategically.	Attend to precision.	Look for and make use of structure.	Look for and express regularity in repeated reasoning.

Learning Targets			
Knowledge	**Reasoning**	**Skill**	**Products**
Facts and concepts we want students to know.	Use what they know to reason or solve problems.	Use knowledge and reasoning to act skillfully.	Use knowledge, reasoning, and skills to create a concrete product.
Describe positions such as above, below, beside, in front of, behind, and next to.	Determine the relative position of the 2-dimensional or 3-dimensional shapes within the environment, using the appropriate positional words.		

Alaska Mathematics Standards
Grade K

Grade Level/Course	K
Domain	Geometry
Cluster	Identify and describe shapes.
Standard	K.G.2.
	Name shapes regardless of their orientation or overall size.

Standards of Mathematical Practice

Make sense of problems and persevere to solve them.	Reason abstractly and quantitatively.	Construct viable arguments and critique the reasoning of others.	Model with mathematics.	Use appropriate tools strategically.	Attend to precision.	Look for and make use of structure.	Look for and express regularity in repeated reasoning.

Learning Targets

Knowledge	Reasoning	Skill	Products
Facts and concepts we want students to know.	Use what they know to reason or solve problems.	Use knowledge and reasoning to act skillfully.	Use knowledge, reasoning, and skills to create a concrete product.
Know that size does not affect the name of the shape. Know that orientation does not affect the name of the shape.			

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Alaska Mathematics Standards
Grade K

Grade Level/Course	K
Domain	Geometry
Cluster	Identify and describe shapes.
Standard	K.G.3.
	Identify shapes as two-dimensional (flat) or three-dimensional (solid).

Standards of Mathematical Practice

Make sense of problems and persevere to solve them.	Reason abstractly and quantitatively.	Construct viable arguments and critique the reasoning of others.	Model with mathematics.	Use appropriate tools strategically.	Attend to precision.	Look for and make use of structure.	Look for and express regularity in repeated reasoning.

Learning Targets

Knowledge	Reasoning	Skill	Products
Facts and concepts we want students to know.	Use what they know to reason or solve problems.	Use knowledge and reasoning to act skillfully.	Use knowledge, reasoning, and skills to create a concrete product.
Identify 2-dimensional shapes as lying in a plane and flat. Identify 3-dimensional shapes as a solid.			

Alaska Mathematics Standards
Grade K

Grade Level/Course	K
Domain	Geometry
Cluster	Analyze, compare, create, and compose shapes.
Standard	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), and other attributes (e.g., having sides of equal lengths).

Standards of Mathematical Practice

Make sense of problems and persevere to solve them.	Reason abstractly and quantitatively.	Construct viable arguments and critique the reasoning of others.	Model with mathematics.	Use appropriate tools strategically.	Attend to precision.	Look for and make use of structure.	Look for and express regularity in repeated reasoning.

Learning Targets

Knowledge	Reasoning	Skill	Products
Facts and concepts we want students to know.	Use what they know to reason or solve problems.	Use knowledge and reasoning to act skillfully.	Use knowledge, reasoning, and skills to create a concrete product.
Identify and count number of sides, vertices/"corners", and other attributes of shapes	Describe similarities of various two- and three-dimensional shapes. Describe differences of various two- and three-dimensional shapes. Analyze and compare two-dimensional shapes, in different sizes and orientations, using informal language to describe their similarities, differences, and other attributes (e.g. having sides of equal length). Analyze and compare 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).		

Alaska Mathematics Standards
Grade K

Grade Level/Course	K
Domain	Geometry
Cluster	Analyze, compare, create, and compose shapes.
Standard	K.G.5.
	Build shapes (e.g., using sticks and clay) and draw shapes.

Standards of Mathematical Practice

Make sense of problems and persevere to solve them.	Reason abstractly and quantitatively.	Construct viable arguments and critique the reasoning of others.	Model with mathematics.	Use appropriate tools strategically.	Attend to precision.	Look for and make use of structure.	Look for and express regularity in repeated reasoning.

Learning Targets

Knowledge	Reasoning	Skill	Products
Facts and concepts we want students to know.	Use what they know to reason or solve problems.	Use knowledge and reasoning to act skillfully.	Use knowledge, reasoning, and skills to create a concrete product.
Recognize and identify (square, circles, triangles, rectangles, hexagons, cubes, cones, cylinders, spheres) Identify shapes in the real world.	Analyze the attributes of real world objects to identify shapes.		Construct shapes from components (e.g., sticks and clay balls). Draw shapes.

Alaska Mathematics Standards
Grade K

Grade Level/Course	K
Domain	Geometry
Cluster	Analyze, compare, create, and compose shapes.
Standard	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).

Standards of Mathematical Practice							
Make sense of problems and persevere to solve them.	Reason abstractly and quantitatively.	Construct viable arguments and critique the reasoning of others.	Model with mathematics.	Use appropriate tools strategically.	Attend to precision.	Look for and make use of structure.	Look for and express regularity in repeated reasoning.

Learning Targets			
Knowledge	**Reasoning**	**Skill**	**Products**
Facts and concepts we want students to know.	Use what they know to reason or solve problems.	Use knowledge and reasoning to act skillfully.	Use knowledge, reasoning, and skills to create a concrete product.
Identify simple shapes (squares, triangles, rectangles, hexagons).	Analyze how to put simple shapes together to compose a new or larger shape.	Compose a new or larger shape using more than one simple shape.	

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