

Dept. of Education and
Early Development



ALASKA MATHEMATICS STANDARDS WITH LEARNING TARGETS GRADE 2

Adapted with permission from the Kentucky Department of Education, Frankfort, Kentucky 40601

Alaska Mathematics Standards Grade 2

Grade Level/Course	2
Domain	Operations and Algebraic Thinking
Cluster	Represent and solve problems involving addition and subtraction.
Standard	2.OA.1. Use addition and subtraction strategies to estimate, then solve one- and two-step word problems (using numbers up to 100) involving situations of adding to, taking from, putting together, taking apart and comparing, with unknowns in all positions (e.g., by using objects, drawings and equations). Record and explain using equation symbols and a symbol for the unknown number to represent the problem.

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.
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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 unknown in an addition or subtraction word problem. Write an addition and subtraction equation with a symbol for the unknown.	Use drawings or equations to represent one- and two-step word problems. Add and subtract within 100 to solve one-step word problems with unknowns in all positions. Add and subtract within 100 to solve two-step word problems with unknowns in all positions.		

	Determine operation needed to solve addition and subtraction problems in situations including add to, take from, put together, take apart, and compare.		
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Alaska Mathematics Standards Grade 2

Grade Level/Course	2
Domain	Operations and Algebraic Thinking
Cluster	Add and subtract using numbers up to 20.
Standard	2.OA.2.
	Fluently add and subtract using numbers up to 20 using mental strategies. Know from memory all sums of two one-digit numbers.

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 mental strategies for addition and subtraction. Know from memory all sums of two one-digit numbers.	Apply mental strategies to add and subtract fluently within 20.		

Alaska Mathematics Standards Grade 2

Grade Level/Course	2
Domain	Operations and Algebraic Thinking
Cluster	Work with equal groups of objects to gain foundations for multiplication.
Standard	2.OA.3. Determine whether a group of objects (up to 20) is odd or even (e.g., by pairing objects and comparing, counting by 2's). Model an even number as two equal groups of objects and then write an equation as a sum of two equal addends.

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 a group of objects up to 20 by 2's. Recognize in groups that have even numbers objects will pair up evenly. Recognize in groups of odd numbers objects will not pair up evenly.	Determine whether a group of objects is odd or even, using a variety of strategies. Generalize the fact that all even numbers can be formed from the addition of 2 equal addends. Write an equation to express a given even number as a sum of two equal addends.		

Alaska Mathematics Standards Grade 2

Grade Level/Course	2
Domain	Operations and Algebraic Thinking
Cluster	Work with equal groups of objects to gain foundations for multiplication.
Standard	2.OA.4.
	Use addition to find the total number of objects arranged in rectangular arrays with up to 5 rows and up to 5 columns. Write an equation to express the total as repeated addition (e.g., array of 4 by 5 would be $5 + 5 + 5 + 5 = 20$).

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 an equation with repeated equal addends from an array.	<p>Generalize the fact that arrays can be written as repeated addition problems.</p> <p>Solve repeated addition problems to find the number of objects using rectangular arrays.</p>		

Alaska Mathematics Standards Grade 2

Grade Level/Course	2
Domain	Operations and Algebraic Thinking
Cluster	Identify and continue patterns.
Standard	2.OA.5. Identify, continue and label number patterns (e.g., aabb, abab). Describe a rule that determines and continues a sequence or pattern.

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 label number patterns. Continue number patterns.	Describe the pattern and the rule that determines the pattern.		

Alaska Mathematics Standards Grade 2

Grade Level/Course	2
Domain	Number and Operations in Base Ten
Cluster	Understand place value.
Standard	<p>2.NBT.1.</p> <p>Model and identify place value positions of three digit numbers. Include;</p> <p>a. 100 can be thought of as a bundle of ten tens --called a "hundred";</p> <p>b. The numbers 100, 200, 300, 400, 500, 600, 700, 800, 900 refer to one, two, three, four, five, six, seven, eight, or nine hundreds (and 0 tens and 0 ones).</p>

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.
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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.
Explain the value of each digit in a 3-digit number.	Represents a three digit number with hundreds, tens, and ones.		
Identify a bundle of 10 tens as a "hundred."	Represent 200, 300, 400, 500, 600, 700, 800, 900 with one, two, three, four, five, six, seven, eight, or nine hundreds and 0 tens and 0 ones.		

Alaska Mathematics Standards Grade 2

Grade Level/Course	2
Domain	Number and Operations in Base Ten
Cluster	Understand place value.
Standard	2.NBT.2.
	Count up to 1000, skip-count by 5s, 10s and 100s.

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 within 1000.			
Skip-count by 5s.			
Skip-count by 10s.			
Skip-count by 100s.			

Alaska Mathematics Standards Grade 2

Grade Level/Course	2
Domain	Number and Operations in Base Ten
Cluster	Understand place value.
Standard	2.NBT.3.
	Read, write, order up to 1000 using base-ten numerals, number names and expanded form.

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.
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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.
<p>Know what expanded form means.</p> <p>Recognize that the digits in each place represent amounts of thousands, hundreds, tens, or ones.</p> <p>Read numbers to 1000 using base ten numerals.</p> <p>Read numbers to 1000 using number names.</p> <p>Read numbers to 1000 using expanded form.</p>			

<p>Write numbers to 1000 using base ten numerals.</p>			
<p>Write numbers to 1000 using number names.</p>			
<p>Write numbers to 1000 using expanded form.</p>			

Alaska Mathematics Standards Grade 2

Grade Level/Course	2
Domain	Number and Operations in Base Ten
Cluster	Understand place value.
Standard	2.NBT.4. Compare two three-digit numbers based on the meanings of the hundreds, tens and ones digits, using $>$, $=$, $<$ symbols to record the results.

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 value of each digit represented in the three-digit number. Know what each symbol represents $>$, $<$, and $=$.	Compare two three-digit numbers based on place value of each digit. Use $>$, $=$, and $<$ symbols to record the results of comparisons.		

Alaska Mathematics Standards Grade 2

Grade Level/Course	2
Domain	Number and Operations in Base Ten
Cluster	Use place value understanding and properties of operations to add and subtract.
Standard	<p>2.NBT.5.</p> <p>Fluently add and subtract using numbers up to 100; Use:</p> <ul style="list-style-type: none"> • strategies based on place value; • properties of operations; • and/or the relationship between addition and subtraction.

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.
<p>Know strategies for adding and subtracting based on place value.</p> <p>Know strategies for adding and subtracting based on properties of operations.</p> <p>Know strategies for adding and subtracting based on the</p>	<p>Chose a strategy (place value, properties of operations, and /or the relationship between addition and subtraction) to fluently add and subtract within 100.</p>		

relationship between addition and subtraction.			
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Alaska Mathematics Standards Grade 2

Grade Level/Course	2
Domain	Number and Operations in Base Ten
Cluster	Use place value understanding and properties of operations to add and subtract.
Standard	2.NBT.6.
	Add up to four two-digit numbers using strategies based on place value and properties of operations.

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 strategies for adding two digit numbers based on place value and properties of operations.	Use strategies to add up to four two-digit numbers.		

Alaska Mathematics Standards Grade 2

Grade Level/Course	2
Domain	Number and Operations in Base Ten
Cluster	Use place value understanding and properties of operations to add and subtract.
Standard	<p>2.NBT.7.</p> <p>Add and subtract using numbers up to 1000; Use:</p> <ul style="list-style-type: none"> • concrete models or drawings and strategies based on place value; • properties of operations; • and/or relationship between addition and subtraction. <p>Relate the strategy to a written method and explain the reasoning used. Demonstrate in adding or subtracting three-digit numbers, hundreds and hundreds are added or subtracted, tens and tens are added or subtracted, ones and ones are added or subtracted and sometimes it is necessary to compose a ten from ten ones or a hundred from ten tens.</p>

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.
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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.
Understand place value within 1000. Decompose any number within 1000 into hundred(s), ten(s), and one(s).	Choose an appropriate strategy for solving an addition or subtraction problem within 1000. Relate the chosen strategy (using concrete models or drawings and strategies based on place value,		

	<p>properties of operations, and/or the relationship between addition and subtraction) to a written method (equation) and explain the reasoning used.</p> <p>Use composition and decomposition of hundreds and tens when necessary to add and subtract within 1000.</p>		
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Alaska Mathematics Standards Grade 2

Grade Level/Course	2
Domain	Number and Operations in Base Ten
Cluster	Use place value understanding and properties of operations to add and subtract.
Standard	2.NBT.8.
	Mentally add 10 or 100 to a given number 100-900 and mentally subtract 10 or 100 from a given number.

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.
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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 place value within 1000.	Apply knowledge of place value to mentally add or subtract 10 or 100 to/from a given number 100-900.		

Alaska Mathematics Standards Grade 2

Grade Level/Course	2
Domain	Number and Operations in Base Ten
Cluster	Use place value understanding and properties of operations to add and subtract.
Standard	2.NBT.9.
	Explain or illustrate the processes of addition or subtraction and their relationship using place value and the properties of operations.

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 addition and subtraction strategies using place value and properties of operations related to addition and subtraction.	Explain why addition and subtraction strategies based on place value and properties of operations work.		

Alaska Mathematics Standards Grade 2

Grade Level/Course	2
Domain	Measurement and Data
Cluster	Measure and estimate length in standard units.
Standard	2.MD.1. Measure the length of an object by selecting and using standard tools such as rulers, yardsticks, meter sticks, and measuring tapes.

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 tools that can be used to measure length. Identify the unit of length for the tool used (inches, centimeters, feet, and meters).	Determine which tool to use to measure the length of an object.	Measure the length of objects by using appropriate tools.	

Alaska Mathematics Standards Grade 2

Grade Level/Course	2
Domain	Measurement and Data
Cluster	Measure and estimate length in standard units.
Standard	2.MD.2.
	Measure the length of an object twice using different length units for the two measurements. Describe how the two measurements relate to the size of the unit chosen.

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 how to measure the length of objects with different units.	<p>Compare measurements of an object taken with two different units.</p> <p>Describe why the measurements of an object taken with two different units are different.</p> <p>Explain the length of an object in relation to the size of the units used to measure it.</p>		

Alaska Mathematics Standards Grade 2

Grade Level/Course	2
Domain	Measurement and Data
Cluster	Measure and estimate length in standard units.
Standard	2.MD.3.
	Estimate, measure and draw lengths using whole units of inches, feet, yards, centimeters and meters.

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 strategies for estimating length. Recognize the size of inches, feet, centimeters, and meters.	Estimate lengths in units of inches, feet, centimeters, and meters. Determine if estimate is reasonable.		

Alaska Mathematics Standards Grade 2

Grade Level/Course	2
Domain	Measurement and Data
Cluster	Measure and estimate length in standard units.
Standard	2.MD.4.
	Measure to compare lengths of two objects, expressing the difference in terms of a standard length unit.

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.
Name standard length units.	Compare lengths of two objects. Determine how much longer one object is than another in standard length units.		

Alaska Mathematics Standards Grade 2

Grade Level/Course	2
Domain	Measurement and Data
Cluster	Relate addition and subtraction to length.
Standard	2.MD.5. Solve addition and subtraction word problems using numbers up to 100 involving length that are given in the same units (e.g., by using drawings of rulers). Write an equation with a symbol for the unknown to represent the problem.

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 lengths within 100.	Solve word problems involving lengths that are given in the same units. Solve word problems involving length that have equations with a symbol for the unknown number.		

Alaska Mathematics Standards Grade 2

Grade Level/Course	2
Domain	Measurement and Data
Cluster	Relate addition and subtraction to length.
Standard	2.MD.6. Represent whole numbers as lengths from 0 on a number line diagram with equally spaced points corresponding to the numbers 0, 1,2, ..., and represent whole-number sums and differences within 100 on a number line diagram.

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 whole numbers from 0 on a number line with equally spaced points.	<p>Explain length as the distance between zero and another mark on the number line diagram.</p> <p>Use a number line to represent the solution of whole-number sums and differences related to length within 100.</p>		

Alaska Mathematics Standards Grade 2

Grade Level/Course	2
Domain	Measurement and Data
Cluster	Work with time and money.
Standard	2.MD.7.
	Tell and write time to the nearest five minutes using a.m. and p.m. from 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.
<p>Tell time using analog clocks to the nearest 5 minutes.</p> <p>Tell time using digital clocks to the nearest 5 minutes.</p> <p>Write time using analog clocks and digital clocks.</p> <p>Identify the hour and minute hand on an analog clock.</p> <p>Identify and label when a.m. and p.m. occur.</p>	<p>Determine what time is represented by the combination of the number on the clock face and the position of the hands.</p>		

Alaska Mathematics Standards Grade 2

Grade Level/Course	2
Domain	Measurement and Data
Cluster	Work with time and money.
Standard	2.MD.8.
	Solve word problems involving dollar bills and coins using the \$ and ¢ symbols appropriately.

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.
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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 recognize the value of dollar bills, quarters, dimes, nickels, and pennies. Identify the \$ and ¢ symbol.	Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies using \$ and ¢ symbols appropriately.		

Alaska Mathematics Standards Grade 2

Grade Level/Course	2
Domain	Measurement and Data
Cluster	Represent and interpret data.
Standard	2.MD.9.
	Collect, record, interpret, represent, and describe data in a table, graph or line plot.

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.
Read tools of measurement to the nearest unit.	Represent measurement data on a line plot.	Measure lengths of several objects to the nearest whole unit. Measure lengths of objects by making repeated measurements of the same object.	Create a line plot with a horizontal scale marked in whole numbers using measurements.

Alaska Mathematics Standards Grade 2

Grade Level/Course	2
Domain	Measurement and Data
Cluster	Represent and interpret data.
Standard	2.MD.10.
	Draw a picture graph and a bar graph (with single-unit scale) to represent a data set with up to four categories. Solve simple put-together, take-apart, and compare problems using information presented in a bar graph.

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 picture graphs and bar graphs. Identify and label the components of a picture graph and bar graph.	Solve problems relating to data in graphs by using addition and subtraction. Make comparisons between categories in the graph using more than, less than, etc.		Draw a single-unit scale picture graph to represent a given set of data with up to four categories. Draw a single-unit scale bar graph to represent a given set of data with up to four categories.

Alaska Mathematics Standards Grade 2

Grade Level/Course	2
Domain	Geometry
Cluster	Reason with shapes and their attributes.
Standard	2.G.1. Identify and draw shapes having specified attributes, such as a given number of angles or a given number of equal faces compared visually, not by measuring. Identify triangles, quadrilaterals, pentagons, hexagons and cubes.

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.
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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 attributes of triangles, quadrilaterals, pentagons, hexagons, and cubes (e.g. faces, angles, sides, vertices, etc.). Identify triangles, quadrilaterals, pentagons, hexagons, and cubes based on the given attributes.	Describe and analyze shapes by examining their sides and angles, not by measuring. Compare shapes by their attributes (e.g. faces, angles).		Draw shapes with specified attributes.

Alaska Mathematics Standards Grade 2

Grade Level/Course	2
Domain	Geometry
Cluster	Reason with shapes and their attributes.
Standard	2.G.2.
	Partition a rectangle into rows and columns of same-size squares and count to find the total number of them.

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 to find the total number of same-size squares. Define partition. Identify a row. Identify a column.	Determine how to partition a rectangle into same-size squares.		

Alaska Mathematics Standards Grade 2

Grade Level/Course	2
Domain	Geometry
Cluster	Reason with shapes and their attributes.
Standard	2.G.3.
	Partition circles and rectangles into shares, describe the shares using the words halves, thirds, half of, a third of, etc., and describe the whole as two halves, three thirds, four fourths. Recognize that equal shares of identical wholes need not have the same shape.

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 two, three and four equal shares of a whole. Describe equal shares using vocabulary: halves, thirds, fourths half of, third of etc. Describe the whole as two halves, three thirds, or four fourths.	Justify why equal shares of identical wholes need not have the same shape.		