

Wyoming Department of Education Required Virtual Education Course Syllabus

Washakie County School District # 1

Program Name	Washakie #1 Online	Content Area	MA
Course ID	WOL-MAK	Grade Level	K
Course Name	WOL-Math Plus K – Blue	# of Credits	NA
SCED Code	NA	Curriculum Type	K-12 Fuel Education

COURSE DESCRIPTION

MATH PLUS BLUE (K)

This research-based course focuses on computational fluency, conceptual understanding, and problem solving. The engaging course features new graphics, learning tools, and games; adaptive activities that help struggling students master concepts and skills before moving on; and more support for Learning Coaches to guide their students to success.

This course introduces students to numbers through 30.

Students learn through reading, writing, counting, comparing, ordering, adding, and subtracting. They experience problem solving and encounter early concepts in place value, time, length, weight, and capacity. They learn to gather and display simple data.

Students also study two- and three-dimensional figures—they identify, sort, study patterns, and relate mathematical figures to objects within their environment.

WYOMING CONTENT AND PERFORMANCE STANDARDS

STANDARD#	BENCHMARK (Standard/Indicator) Use the Standards and Benchmarks as Spreadsheets
K.CC.1	Count to 100 by ones and by tens.
K.CC.2	Count forward beginning from a given number within the known sequence (instead of having to begin at 1).
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).
K.CC.4	Understand the relationship between numbers and quantities; connect counting to cardinality.
K.CC.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.
K.CC.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.
K.CC.4c	Understand that each successive number name refers to a quantity that is one larger.
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.
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 and counting strategies. (Include groups with up to ten objects.)
K.CC.7	Compare two numbers between 1 and 10 presented as written numerals.
K.OA.1	Represent addition and subtraction with objects, fingers, mental images, drawings (drawings need not show details, but should show the mathematics in the problem), sounds (e.g., claps), acting out situations, verbal explanations, expressions, or equations.
K.OA.2	Solve addition and subtraction word problems, and add and subtract within 10, e.g., by using objects or drawings to represent the problem.
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., $5 = 2 + 3$ and $5 = 4 + 1$).

WYOMING CONTENT AND PERFORMANCE STANDARDS

STANDARD#	BENCHMARK (Standard/Indicator) Use the Standards and Benchmarks as Spreadsheets
K.OA.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.
K.OA.5	Fluently add and subtract within 5.
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 a 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.
K.MD.1	Describe measurable attributes of objects, such as length or weight. Describe several measurable attributes of a single object.
K.MD.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.
K.MD.3	Classify objects into given categories; count the numbers of objects in each category and sort the categories by count. (Limit category counts to be less than or equal to 10.)
K.G.1	Describe objects in the environment using names of shapes, and describe the relative positions of these objects using terms such as above, below, beside, in front of, behind, and next to.
K.G.2	Correctly name shapes regardless of their orientations or overall size.
K.G.3	Identify shapes as two-dimensional (lying in a plane, “flat”) or three-dimensional (“solid”).
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).
K.G.5	Model shapes in the world by building shapes from components (e.g., sticks and clay balls) and drawing shapes.
K.G.6	Compose simple shapes to form larger shapes. For example, “can you join these two triangles with full sides touching to make a rectangle?”

Scope and Sequence

UNIT OUTLINE	STANDARD#	OUTCOMES OBJECTIVES/ STUDENT CENTERED GOALS
Shapes and Sorting	K.MD.3 K.G.1 K.G.2 K.G.4	<p>Unit 1: Shapes and Sorting</p> <ul style="list-style-type: none"> This unit focuses on describing, sorting, and classifying objects according to attributes, or features, of the objects. Attributes such as color, shape, and size are some of the ways that students can describe objects in order to sort and classify them. Students will investigate the attributes of geometric shapes, such as circles, triangles, squares, and rectangles. They can also use everyday objects, such as beads, stuffed animals, or types of fruit to improve their skills of describing, sorting, and classifying.
Shapes and Patterns		<p>Unit 2: Shapes and Patterns</p> <ul style="list-style-type: none"> Students will identify which object from a group does not belong according to the color, shape, or size of the objects. Students will also learn what a pattern and a pattern core are and view different pattern types. Students will begin using the letters A, B, and C to describe pattern rules AB, ABB, AAAB, AAB, ABB, ABC, and ABCC. Students will identify and extend these patterns with attribute blocks and other objects.

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Numbers Through 5 and Plane Figures	K.CC.4 K.MD.3 K.G.4	Unit 3: Numbers Through 5 and Plane Figures <ul style="list-style-type: none"> • Students will begin by counting and grouping objects into groups of up to five, and then will learn to write the numerals 1 through 5. • Students will review triangles, squares, rectangles, and circles. • They will learn to identify and count sides and corners. • They will find out that circles do not have sides or corners.
Numbers Through 10	K.CC.4 K.CC.6 K.CC.7	Unit 4: Numbers Through 10 <ul style="list-style-type: none"> • Students begin by hearing the counting sequence of numbers from 1 through 10, and then counting aloud on their own. • They represent the quantity 10 using objects and drawings to show amounts through 10. • Students then move to counting sets with up to 10 objects, learning that they can count the objects in any order as long as each item is counted exactly one time. • Students begin reading the numbers 1 through 10 to prepare them for writing numbers through 10. • They learn to write the numbers by watching a virtual pencil write each number, and then they practice forming the numbers themselves using pencil and paper. • Students learn to compare and order groups of objects, learning that numbers with greater values describe groups with more objects than numbers with lesser values. • They will move to comparing and ordering numbers that describe groups of objects.
Calendar and Time		Unit 5: Calendar and Time Summary <ul style="list-style-type: none"> • This unit focuses on assessing time and calendar. • Students have already completed several time and calendar activities through out the course.
Data and Graphs		Unit 6: Data and Graphs Summary <ul style="list-style-type: none"> • Students will learn how to collect data and represent the data with objects, pictures, and finally picture graphs. • They will pose questions, collect data, record the results, compare, and answer questions about the data. • Students will also learn to compare and answer questions about data in graphs that they have not prepared themselves.
Numbers Through 20	K.CC.3 K.CC.5 K.CC.6	Unit 7: Numbers Through 20 <ul style="list-style-type: none"> • Student count, compare and write numerals through 20.
Introduction to Addition	K.OA.1 K.OA.5	Unit 8: Introduction to Addition Summary <ul style="list-style-type: none"> • This unit focuses on the meaning of addition by combining two groups of objects to find the total. • By experimenting with groups of objects, they will learn that changing the order in which the numbers are added does

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		<p>not change the sum.</p> <ul style="list-style-type: none"> This unit will also cover addition with sums through 20 by using a number line, models, and sketches. It will also cover learn to add by counting on by 1 and by 2 from a number.
Problem Solving with Addition	K.CC.2 K.OA.2	<p>Unit 9: Problem Solving with Addition</p> <ul style="list-style-type: none"> Use concrete objects to explain how to solve addition and subtraction problem-solving situations involving numbers up to 10. Check the accuracy of calculations for the solutions to addition problems with sums up through 20. Recognize and solve word problems involving sums up through 20 in which two quantities are combined. Make reasonable estimates for the solutions to addition problems (for sums up through 20). Use concrete objects or sketches to model and solve addition or subtraction computation problems involving sums or minuends up through 20. Compare plane figures by common attributes, such as number of sides and number of corners of triangles, rectangles, squares, pentagons, and circles.
Introduction to Subtraction	K.OA.1 K.OA.5	<p>Unit 10: Introduction to Subtraction</p> <ul style="list-style-type: none"> Use concrete objects or sketches to model and solve addition or subtraction computation problems involving sums or minuends up through 20. Make reasonable estimates for the solutions to subtraction problems with minuends up through 20. Demonstrate the meaning of subtraction as taking away an amount from a given quantity (with minuends up through 20). Check the accuracy of calculations for the solutions to subtraction problems with minuends up through 20. Count aloud a number of objects up through 20. Extend AB and ABB patterns of colors, shapes, or sizes. Use objects, pictures, and picture graphs to record the results of data collection from a sample size up through 10. Identify and describe ABCC and ABC patterns of colors, shapes, or sizes.
Problem Solving with Subtraction	K.OA.1 K.OA.2	<p>Unit 11: Problem Solving with Subtraction</p> <ul style="list-style-type: none"> Check the accuracy of calculations for the solutions to subtraction problems with minuends up through 20. Recognize and solve word problems involving sums or minuends up through 20 in which one quantity changes through addition or subtraction. Make reasonable estimates for the solutions to subtraction problems with minuends up through 20. Use concrete objects to explain how to solve addition and subtraction problem-solving situations involving numbers up to 10.

Scope and Sequence

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Subtraction as Comparison	K.OA.1	Unit 12: Subtraction as Comparison <ul style="list-style-type: none"> • Identify tools that measure time within a day, such as a clock, and describe what those tools measure (for example, a clock measures minutes and hours). • Use concrete objects or sketches to model and solve addition or subtraction computation problems involving sums or minuends up through 20.
Comparison Subtraction: Story Problems	K.OA.1 K.OA.2	Unit 13: Comparison Subtraction: Story Problems <ul style="list-style-type: none"> • Check the accuracy of calculations for the solutions to subtraction problems with minuends up through 20. • Recognize and solve word problems involving numbers up to 10 in which two quantities are compared by the use of addition or subtraction. • Make reasonable estimates for the solutions to subtraction problems with minuends up through 20.
Add or Subtract: Problem Solving	K.OA.1 K.OA.2 K.OA.5	Unit 14: Add or Subtract: Problem Solving <ul style="list-style-type: none"> • Recognize and solve word problems involving sums or minuends up through 20 in which one quantity changes through addition or subtraction. • Recognize and solve word problems involving numbers up to 10 in which two quantities are compared by the use of addition or subtraction. • Recognize and solve word problems involving sums up through 20 in which two quantities are combined
Measurement	K.MD.1 K.MD.2	Unit 15: Measurement <ul style="list-style-type: none"> • Measure the length of objects by using nonstandard units. • Compare objects by weight (for example, note which object is heavier). • Compare objects by length (for example, note which object is shorter, longer, or taller). • Compare the capacity of objects by making direct comparisons between two objects (for example, note which object holds more).
Numbers Through 30	K.CC.1 K.CC.6	Unit 16: Write numerals from 1 through 30. <ul style="list-style-type: none"> • Given two or more sets of 30 or fewer objects, identify which set has more or fewer objects than another set, or which sets have an equal number of objects. • Use concrete objects or sketches to represent a quantity up through 30. • Recognize that numbers with greater values describe sets with more objects in them than numbers with lesser values do (for sets of 30 or fewer objects). • Count aloud a number of objects up through 30.
Solid Figures	K.G.1 K.G.2 K.G.3 K.G.4 K.G.6	Unit 17: Solid Figures <ul style="list-style-type: none"> • Given a set of solid figures, identify which figure does not belong according to color, shape, or size. • Identify common solid figures, such as cube, sphere, and cone. • Show how two or more plane figures can be taken apart to create different shapes (circles, triangles, rectangles, and

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		<p>squares only).</p> <ul style="list-style-type: none">• Compare common solid figures according to attributes (e.g., position, shape, size, roundness, or number of corners).• Use concrete objects or sketches to show how two or more plane figures can be put together to create a different shape (circles, triangles, rectangles, and squares only).