

# Wyoming Department of Education Required Virtual Education Course Syllabus

## Sheridan County School District # 1

Program Name	Sheridan County School District #1 Virtual School	Content Area	MA
Course ID	AC02030-K	Grade Level	1
Course Name	Grade 1 Math-CCSS	# of Credits	1
SCED Code	02031	Curriculum Type	Acellus

### COURSE DESCRIPTION

Acellus Grade 1 Math course focuses on addition, subtraction through the number 20, whole number relationships and place value, linear measurement, measuring lengths, and geometric shapes. Acellus Grade 1 Math helps build a conceptual foundation in number, operation, and quantitative reasoning; patterns, relationships, and algebraic thinking; geometry and spatial reasoning; and measurement. These courses require students to develop their numerical fluency and to make calculation predictions.

### WYOMING CONTENT AND PERFORMANCE STANDARDS

STANDARD#	BENCHMARK (Standard/Indicator) Use the Standards and Benchmarks as <a href="#">Spreadsheets</a>
1.OA.1	Use addition and subtraction within 20 to solve word problems 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 with a symbol for the unknown number to represent the problem.
1.OA.2	Solve word problems that call for addition of three whole numbers whose sum is less than or equal to 20, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.
1.OA.3	Apply properties of operations as strategies to add and subtract. Examples: If $8 + 3 = 11$ is known, then $3 + 8 = 11$ is also known. (Commutative property of addition.) To add $2 + 6 + 4$ , the second two numbers can be added to make a ten, so $2 + 6 + 4 = 2 + 10 = 12$ . (Associative property of addition.) (Students need not use formal terms for these properties.)
1.OA.4	Understand subtraction as an unknown-addend problem. For example, subtract $10 - 8$ by finding the number that makes 10 when added to 8.
1.OA.5	Relate counting to addition and subtraction (e.g., by counting on 2 to add 2).
1.OA.6	Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use strategies such as counting on; making ten (e.g., $8 + 6 = 8 + 2 + 4 = 10 + 4 = 14$ ); decomposing a number leading to a ten (e.g., $13 - 4 = 13 - 3 - 1 = 10 - 1 = 9$ ); using the relationship between addition and subtraction (e.g., knowing that $8 + 4 = 12$ , one knows $12 - 8 = 4$ ); and creating equivalent but easier or known sums (e.g., adding $6 + 7$ by creating the known equivalent $6 + 6 + 1 = 12 + 1 = 13$ ).
1.OA.7	Understand the meaning of the equal sign, and determine if equations involving addition and subtraction are true or false. For example, which of the following equations are true and which are false? $6 = 6$ , $7 = 8 - 1$ , $5 + 2 = 2 + 5$ , $4 + 1 = 5 + 2$ .
1.OA.8	Determine the unknown whole number in an addition or subtraction equation relating three whole numbers. For example, determine the unknown number that makes the equation true in each of the equations $8 + ? = 11$ , $5 = \square - 3$ , $6 + \square = 10$ .
1.NBT.1	Count to 120, starting at any number less than 120. In this range, read and write numerals and represent a number of objects with a written numeral.
1.NBT.2	Understand that the two digits of a two-digit number represent amounts of tens and ones. Understand the following as special cases: a. 10 can be thought of as a bundle of ten ones — called a “ten.” b. The numbers from 11 to 19 are composed of a ten and one, two, three, four, five, six, seven, eight, or nine ones. c. The numbers 10, 20, 30, 40, 50, 60, 70, 80, 90 refer to one, two, three, four, five, six, seven, eight, or nine tens (and 0 ones).
1.NBT.3	Compare two two-digit numbers based on meanings of the tens and ones digits, recording the results of comparisons with the symbols $>$ , $=$ , and $<$ .
1.NBT.4	Add within 100, including adding a two-digit number and a one-digit number, and adding a two-digit number and a multiple of 10, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used. Understand that in adding two-digit numbers, one adds tens and tens, ones and ones; and sometimes it is necessary to compose a ten.
1.NBT.5	Given a two-digit number, mentally find 10 more or 10 less than the number, without having to count; explain the reasoning used.

1.NBT.6	Subtract multiples of 10 in the range 10-90 from multiples of 10 in the range 10-90 (positive or zero differences), using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.
1.MD.1	Order three objects by length; compare the lengths of two objects indirectly by using a third object.
1.MD.2	Express the length of an object as a whole number of length units, by laying multiple copies of a shorter object (the length unit) end to end; understand that the length measurement of an object is the number of same-size length units that span it with no gaps or overlaps. Limit to contexts where the object being measured is spanned by a whole number of length units with no gaps or overlaps.
1.MD.3	Tell and write time in hours and half-hours using analog and digital clocks.
1.MD.4	Organize, represent, and interpret data with up to three categories; ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another.
1.G.1	Reason with shapes and their attributes. Distinguish between defining attributes (e.g., triangles are closed and three-sided) versus non-defining attributes (e.g., color, orientation, overall size); for a wide variety of shapes; build and draw shapes to possess defining attributes.
1.G.2	Compose two-dimensional shapes (rectangles, squares, trapezoids, triangles, half-circles, and quarter-circles) or three-dimensional shapes (cubes, right rectangular prisms, right circular cones, and right circular cylinders) to create a composite shape, and compose new shapes from the composite shape. (Students do not need to learn formal names such as "right rectangular prism.")
1.G.3	Partition circles and rectangles into two and four equal shares, describe the shares using the words halves, fourths, and quarters, and use the phrases half of, fourth of, and quarter of. Describe the whole as two of, or four of the shares. Understand for these examples that decomposing into more equal shares creates smaller shares.

**SCOPE AND SEQUENCE**

UNIT OUTLINE	STANDARD#	OUTCOMES OBJECTIVES/STUDENT CENTERED GOALS
Unit 1 – Number Sense	1.OA.1; 1.OA.2	Students compare and recognize equal numbers of objects, number words and counting. Students then experience virtual lessons whereby ordering of numbers from 0 through 20, and ordinal numbers are introduced and practiced.
Unit 2 – Addition	1.OA.1; 1.OA.7;	Students are introduced to the various ways of calculating addition, including addition stories, horizontal and vertical sentences, and the practice of identifying "part-part-whole" units and numbers. Students are then introduced to the concept of adding zero, the order property, and using addition to make numbers.
Unit 3 – Subtraction	1.OA.1; 1.OA.7	Students experience calculating the various ways of solving subtraction problems, including subtraction stories, horizontal and vertical sentences, and the "part-part-whole" concept. Students are then guided to practice subtracting zero, subtracting all, and experience different ways to take numbers apart, and use subtraction to compare.
Unit 4 – More About Addition and Subtraction	1.OA.5; 1.OA.6; 1.NBT.4	Students are introduced to and analyze how addition and subtraction are related, how to know when to use addition and subtraction, and how to find related facts. Students then are guided to apply these mathematical concepts by practicing how to write number sentences.

Unit 5 – Addition and Subtraction Strategies	1.OA.2; 1.OA.6; 1.OA.7; .NBT.4	Students practice counting on and counting back, including using a number line. Students are then introduced to adding doubles and near doubles, and thinking about addition when subtracting.
Unit 6 – Relating Addition and Subtraction Facts to 12	1.OA.3; 1.OA.8;	Students observe and compare related addition and subtraction facts, and fact families. Students are then introduced to using sums and differences to make numbers. Students are then introduced to tables, and practice writing addition and subtraction problems.
Unit 7 – Graphs, Data, and Probability	1.MD.1; 1.MD.2; 1.MD.4; 1.G.1	Students observe and then practice sorting, classifying, and making picture, tally, and bar graphs. In addition, students engage in the virtual lesson involving concepts of possible and impossible, likely and less likely events.
Unit 8 – Place Value	1.NBT.2; 1.NBT.31.; NBT.6	In the context of place value, students are introduced to "tens" and "ones," the numbers 10 through 20, groups of ten, expanding numbers, and estimation. Students experience virtual lessons and then practice identifying place value.
Unit 9 – Compare and Order Numbers	1.MD.3; 1.NBT.1; 1.MD.4	Students are introduced to the value of greater than and less than and practice using the symbols, including applying the symbols to compare numbers. Students then begin practicing calculations involving "one less" and "one more," as well as "ten less" and "ten more,". Students then practicing identifying numbers that come before, between, after, and how to order larger numbers.
Unit 10 – Patterns of Numbers	1.OA.1; 1.OA.5; 1.MD.4	Students practice counting forward and backward, skip counting by twos, fives, and tens, beginning at any number and counting by tens. Students then expand their learning and practice skip counting on hundreds charts, identifying patterns in numbers, and recognizing even and odd numbers.
Unit 11 – Geometric Solid and Plane Figures	1.G.1; 1.G.2; 1.NBT.1; 1.MD.4	Students are introduced to and then explore the classification of solid and plane figures.
Unit 12 – Patterns	1.OA.1; 1.OA.2; 1.NBT.4; 1.MD.4	Students practice identifying, extending, transferring, creating, growing, and shrinking both pictorial and number patterns.
Unit 13 – Spatial Sense	1.OA.1; 1.MD.4	Students observe and then practice utilizing spatial sense, including congruent figures, words that indicate position, and how to follow directions.
Unit 14 – Fractions	1.G.3; 1.MD.4	Students are introduced to fractions by discussing equal and unequal parts, halves, fourths, and thirds.

Unit 15 – More Addition Practice	1.OA.3; 1.NBT.5	Students extend the discussion and practice of addition, calculating doubles and near doubles, adding onto ten, adding by making a ten, and adding three numbers. Students are given practice on addition facts to 20
Unit 16 – More Subtraction Practice	1.OA.4; 1.NBT.5	Students practicing using the number line to subtract, use subtraction to compare, and think about addition to subtract. Students then review more subtraction facts to practice memorizing math facts.
Unit 17 – Relating Addition/Subtraction Facts to 20	1.OA.4; 1.NT.6;	Students engage in recognizing fact families, finding missing numbers, adding and subtracting to make 20, practicing using tables, and writing addition and subtraction problems.
18 – Counting Money	1.MD.4; 1.G.1	Students experience understanding money value through identifying US monetary units of pennies, nickels, dimes, quarters and dollars, as well as counting pennies, nickels, and dimes.
Unit 19 – Clocks and Calendars	1.MD.3; 1.MD.4	Students participate in virtual lessons whereby the discussion of Analog and Digital Clocks are engaging. Students then practice telling time gaining the understanding of, what a "half hour" is, how calendars are used, and the concepts of morning, afternoon, and evening. Students are given practice reading the time.
Unit 20 – Temperature and Length	1.MD.1; 1.MD.2; 1.MD.4	Students are introduced to comparing, measuring, and estimating length, nonstandard units, and choosing appropriate nonstandard units of length. Students then observe and practice measuring with Inches, centimeters, and temperature.
Unit 21 – Weight and Capacity	1.MD.2; 1.MD.4	Students observe using a balance to measure weight; comparing weight; comparing capacity; choosing appropriate nonstandard units for weight and for capacity; the definitions of pounds, cups, pints, and quarts; and choosing the correct measuring tool.
Unit 22 – Two-digit Addition/Subtraction, Place Value	1.NBT.2; 1.NBT.3; 1.NBT.4; 1.NBT.5; 1.MD.4	Students practice using mental math, adding and subtracting tens and ones, adding and subtracting two-digit numbers, and making reasonable estimates.