

Gwinnett County Public Schools Mathematics: Grade 1 – Instructional Calendar 2022-2023

Standards for Mathematical Practice

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| 1 Make sense of problems and persevere in solving them. | 4 Model with mathematics. | 7 Look for and make use of structure. |
| 2 Reason abstractly and quantitatively. | 5 Use appropriate tools strategically. | 8 Look for and express regularity in repeated reasoning. |
| 3 Construct viable arguments and critique the reasoning of others. | 6 Attend to precision. | |

Please look to unit pacing guides for strategic clustering of AKS.

AKS in bold are historically challenging for students. Additional resources to support can be found [here](#).

1st 9 weeks: Units 1a & 1b

Unit 1a: Base Ten (4 weeks)

Big Idea #1: Extend the counting sequence

9.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

Big Idea #2: Understand place value

10.NBT.2 model and explain that a two-digit number represents amounts of tens and ones

11.NBT.2_a. explain that 10 can be thought of as a bundle of ten ones called a “ten”

12.NBT.2_b. model the numbers 11 to 19 showing they are composed of a ten and one, two, three, four, five, six, seven, eight, or nine ones

13.NBT.2_c. explain that the numbers 10, 20, 30, 40, 50, 60, 70, 80, and 90 refer to one, two, three, four, five, six, seven, eight, or nine tens and 0 ones

Unit 1b: Base Ten (5 weeks)

Big Idea #1: Extend the counting sequence

9.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

Big Idea #2: Understand place value

10.NBT.2 model and explain that a two-digit number represents amounts of tens and ones

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12.NBT.2_b. model the numbers 11 to 19 showing they are composed of a ten and one, two, three, four, five, six, seven, eight, or nine ones

13.NBT.2_c. explain that the numbers 10, 20, 30, 40, 50, 60, 70, 80, and 90 refer to one, two, three, four, five, six, seven, eight, or nine tens and 0 ones

14.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 $<$

2nd 9 weeks: Units 2a & 2b

Unit 2a: Operations and Algebraic Thinking (6 weeks)

Big Idea #1: Represent and solve problems involving addition and subtraction within 20

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)

4.OA.4 model and explain subtraction as an unknown-addend problem (e.g., subtract $10 - 8$ by finding the number that makes 10 when added to 8)

5.OA.5 relate counting to addition and subtraction (e.g., by counting on 2 to add 2)

6.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 $6 + 6 + 1 = 12 + 1 = 13$)

Unit 2b: Operations and Algebraic Thinking (3 weeks)

Big Idea #1: Represent and solve problems involving addition and subtraction within 20

2.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)

6.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 $6 + 6 + 1 = 12 + 1 = 13$)

3.OA.3 explore and apply properties of operations as strategies to add and subtract (e.g., 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))

Big Idea #2: Work with addition and subtraction equations

7.OA.7 model and explain the meaning of the equal sign, and determine if equations involving addition and subtraction are true or false. (e.g., which of the following equations are true and which are false? $6 = 6$, $7 = 8 - 1$, $5 + 2 = 2 + 5$, $4 + 1 = 5 + 2$)

8.OA.8 determine the unknown whole number in an addition or subtraction equation relating to three whole numbers by using symbols (e.g., determine the unknown number that makes the equation true in each of the equations $8 + ? = 11$; $5 = \square - 3$; $6 + 6 = \Delta$)

Unit 3: Number and Operations in Base Ten (6 weeks)

Big Idea #1: Use place value understanding and properties of operations to add and subtract multiples of 10

15.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

16.NBT.5 using mental math strategies identify one more than, one less than, 10 more than, or 10 less than a given two-digit number explaining strategy used

17.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 (e.g., $70 - 30$; $30 - 10$; $60 - 60$)

18.NBT.7 exchange equivalent values of coins by making fair trades involving combinations of pennies, nickels, dimes, and quarters and count out a combination needed to purchase items less than a dollar

Unit 4: Measurement and Data (3 weeks)

Big Idea #1: Measure lengths indirectly and by iterating units

19.MD.1 order the length of three objects; compare the lengths of two objects by using direct comparison or a third object

20.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.

Big Idea #2: Tell and write time

21.MD.3 tell and write time to the nearest hour and half-hour using analog and digital clocks

Unit 5a: Shapes and Fractions (5 weeks)

Big Idea #1: Reason with shapes and their attributes

23.G.1 distinguish between defining attributes (e.g., triangles are closed and three-sided) versus non-defining attributes (e.g., color, orientation, overall size); build and draw shapes to possess defining attributes

24.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 to compose new shapes from the composite shape. This is important for the future development of spatial relations which later connects to developing understanding of area, volume and fractions

Unit 5b: Shapes and Fractions (4 weeks)

Big Idea #1: Reason with shapes and their attributes

25.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

Big Idea #2: Represent and interpret data

22.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.