

Gwinnett County Public Schools Mathematics: Grade 2 – 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 1 & 2

Unit 1: Base Ten (4 weeks)

Big Idea #1: Understand place value

- 5.NBT.1** explain that the three digits of a three-digit number represent amounts of hundreds, tens, and ones (e.g., 706 equals 7 hundreds, 0 tens, and 6 ones)
- 6.NBT.1_a.** explain that 100 can be thought of as a bundle of ten tens, called a “hundred”
- 7.NBT.1_b.** **explain 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)**
- 8.NBT.2** count within 1000; skip-count by 5s, 10s, and 100s
- 9.NBT.3** read, write, and represent numbers to 1000 using a variety of models, diagrams and base ten numerals including standard and expanded form
- 10.NBT.4** compare two three-digit numbers based on meanings of the hundreds, tens, and ones digits, using $>$, $=$, and $<$ symbols to record the results of comparisons

Unit 2: Addition and Subtraction (5 weeks)

Big Idea #1: Use place value understanding to represent and solve problems involving addition and subtraction

- 1.OA.1** use addition and subtraction within 100 to solve one- and two-step word problems by using drawings and equations with a symbol for the unknown numbers to represent the problem. Problems include contexts that involve adding to, taking from, putting together, taking apart (part/part/whole), and comparing with unknowns in all positions.
- 11.NBT.5** add and subtract fluently within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction

Big Idea #2: Add and subtract within 20

- 2.OA.2** fluently add and subtract within 20 using mental strategies. By the end of grade 2, know from memory all sums of two one-digit numbers

Unit 3a: Measurement (3.5 weeks)

Big Idea #1: Measure and estimate lengths in standard units

16.MD.1 measure length by determining, selecting and using an appropriate tool (rulers, yardsticks, meter sticks, measuring tapes) and unit (in., ft., yd., cm, m)

18.MD.3 estimate lengths using units of inches, feet, yards, centimeters and meters, then measure to determine if estimations were reasonable

17.MD.2 compare and explain the relationship of inches, feet, yards, centimeters and meters by measuring an object twice using different units. Understand the relative size of units in different systems of measurement. For example, an inch is longer than a centimeter; but students are not expected to convert between systems of measurement.

Unit 3b: Measurement (5.5 weeks)

Big Idea #1: Measure and estimate lengths in standard units

19.MD.4 measure to determine how much longer one object is than another, expressing the length difference in terms of a standard length unit (relate addition and subtraction to length)

Big Idea #2: Relate addition and subtraction to length

20.MD.5 solve word problems using addition and subtraction within 100 involving lengths of like units by using drawings (such as drawings of rulers) and equations with a symbol for the unknown number to represent the problem

21.MD.6 represent whole numbers as lengths from 0 on a number line 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

Big Idea #3: Represent and interpret data

24.MD.9 generate measurement data by measuring lengths of several objects to the nearest whole unit, or by making repeated measurements of the same object. Show the measurements by making a line plot, where the horizontal scale is marked off in whole-number units

25.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.

Unit 4a: Applying Base Ten (5.5 weeks)

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

15.NBT.9 explain why addition and subtraction strategies work using place value and the properties of operations [Embed with AKS 12-14]

12.NBT.6 add up to four two-digit numbers using strategies based on place value and properties of operations

13.NBT.7 add and subtract within 1000, 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. Understand that in adding or subtracting three-digit numbers, one adds or subtracts hundreds and hundreds, tens and tens, ones and ones; and sometimes it is necessary to compose or decompose tens or hundreds

14.NBT.8 use mental math strategies to add and subtract 10 or 100 to a given number between 100-900

Unit 4b: Applying Base Ten (3.5 weeks)

Big Idea #1: Work with time and money

23.MD.8 solve word problems involving dollar bills, quarters, dimes, nickels, and pennies, using \$ and ¢ symbols appropriately (e.g., If you have 2 dimes and 3 pennies, how many cents do you have?)

22.MD.7 use analog and digital clocks to tell and write time to the nearest five minutes using AM and PM.

Unit 5: Geometry (4.5 weeks)

Big Idea #1: Reason with shapes and their attributes

26.G.1 recognize and draw shapes having specified attributes, such as a given number of angles or a given number of equal faces and identify triangles, quadrilaterals, pentagons, hexagons, and cubes.

27.G.2 partition a rectangle into rows and columns of same-size squares and count to find the total number of them

28.G.3 partition circles and rectangles into two, three, or four equal 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

Unit 6: Developing Multiplication (4.5 weeks)

Big Idea #1: Work with equal groups of objects to gain foundations for multiplication

3.OA.3 determine whether a group of objects (up to 20) has an odd or even number of members. (e.g., by pairing objects or counting them by 2s; write an equation to express an even number as a sum of two equal addends)

4.OA.4 apply the use of repeated addition (skip counting), model arrays up to 5 rows and 5 columns to determine a total number of objects, and write an equation to express the total as a sum of equal addends