Second Grade
Mathematics

Key Instructional Activities

In second grade, students focus on four critical areas: (1) extending understanding of base ten notation; (2) building fluency with addition and subtraction; (3) using standard units of measure; and (4) describing and analyzing shapes. Activities in these areas will include:

- Quickly and accurately adding numbers together that total 20 or less or subtracting from numbers up through 20
- Solving one-step or two-step word problems by adding or subtracting numbers up through 100
- Understanding what the different digits mean in a three-digit number
- Adding and subtracting up to 100 with a written strategy
- Adding and subtracting three digit numbers with models or drawings
- Measuring lengths of objects in standard units such as inches and centimeters
- Solving addition and subtraction word problems involving length
- Solving problems involving money
- Breaking up a rectangle into same-size squares
- Partitioning circles and rectangles into halves, thirds, or fourths
- Solving addition, subtraction, and comparison word problems using information presented in a bar graph
- Writing equations to represent addition of equal numbers

Elementary Math Wakelet
 Additional Online Resources

HOUSTON COUNTY
BOARD OF EDUCATION
HIGH-ACHIEVING STUDENTS

What resources are available for students and parents?

https://hcbemath.weebly.com/

Helping Your Student in Second Grade Mathematics

Learning does not end in the classroom. Students need help and support at home to succeed in their studies. Try to create a quiet place for your student to study, and carve out time every day when your student can concentrate uninterrupted by distractions. Sit down with your student at least once a week for 15 to 30 minutes while he or she works on homework. This will keep you informed about what your student is working on, and it will help you be the first to know if your student needs help with specific topics. By taking these small steps, you will be helping your student become successful both in and outside the classroom.

Partnering with your child's teacher

- Get to know your child's math teacher! Your child will thank you (someday) for being involved in his or her learning. Also – know about the online resources that are available!

- Don't be afraid to reach out to your child's teacher—you are an important part of your child's education. Ask to see a sample of your child's work or bring a sample with you.

- Talk with your child's teacher about difficulties he/she may be experiencing. When teachers and parents work together, children benefit.

- Ask the teacher questions like:

    - Where is my child excelling? How can I support this success?

    - What do you think is giving my child the most trouble? How can I help my child improve in this area?

    - What can I do to help my child with upcoming work?

Helping your child learn outside of school

- Talk about math in a positive way. A positive attitude about math is infectious. Encourage your child to stick with it whenever a problem seems difficult. This will help your child see that everyone can learn math.

- Encourage persistence. Some problems take time to solve. Praise your child when he or she makes an effort, and share in the excitement when he or she solves a problem or understands something for the first time

- Encourage your child to talk about and show a math problem in a way that makes sense.

- When your child is solving math problems ask questions such as: Why did you...? What can you do next? Do you see any patterns? Does the answer make sense? How do you know? This helps to encourage thinking about mathematics.

- Connect math to everyday life and help your child understand how math influences them (i.e. shapes of traffic signs, walking distance to school, telling time).

- Computers + math = fun! There are great computer math games available on the internet that you can discover with your child

Second Grade Mathematics System Pacing Overview

This guide provides an overview of what your student will learn in his or her Second Grade Mathematics course. It focuses on the key skills your student will learn, which will build a strong foundation for success. This guide is based on the state-adopted Georgia Standards of Excellence.

August
Unit 1: Applying Strategies for Addition and Subtraction

During Unit 1, students will work with addition and subtraction situations involving numbers they are already familiar with. They will review strategies used with numbers within 20 before working with larger numbers.
- Add and subtract within 20 using mental strategies.
- Solve addition & subtraction word problems within 20.
- Organize, represent, and interpret data in picture graphs.
- Recognize coins.

August - November
Unit 2: Extending Base Ten Understanding

During Unit 2, students will extend their understanding of the base-ten system by viewing 10 tens as a hundred. Reading and writing the expanded form of numbers is also introduced in this unit. Students will write multi-digit numbers in expanded form as a sum of single-digit multiples of powers of ten. For example 643 = 600 + 40 + 3.
- Place Value- Understand place value to one thousand.
- Read and write numbers to 1000 using base-ten numerals, number names, & expanded form.
- Count within 1000.
- Skip count by 5s, 10s, and 100s within 1000.
- Compare two three-digit numbers using symbols: > (greater than), = (equal to), or < (less than).
- Add & subtract within 100.
- Solve word problems involving quarters, dimes, nickels, and pennies less than $1.00.
- Organize, represent, and interpret data in bar graphs.

November - December
Unit 3: Understanding Measurement, Length, and Time

During Unit 3, students will apply their understanding of measuring with non-standard units to develop proficiency in measuring length with both customary and metric units of measure (inches, feet, centimeter, and meters). They will also apply their understanding of measurement to incorporate the use of a number line as a tool to solve addition and subtraction problems. Students will also apply skip counting by 5's and 10's to support telling and writing time to the nearest five minutes.
- Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes.
- Measure the length of an object twice, using two different units of lengths.
- Estimate lengths using units of inches, feet, centimeters, and meters.
- Measure to determine how much longer one object is than another.
- Use a number line to add and subtract. Solve addition and subtraction word problems within 100 involving lengths.
- Create and read line plots.
- Tell and write time to the nearest five minutes, using a.m. and p.m.

January - March
Unit 4: Applying Strategies for Addition and Subtraction within 1000

During Unit 4, students will apply computational strategies they have been developing in earlier units to make sense of calculations with numbers up to 1000. They generalize their understanding of addition and subtraction using concrete models or drawing and apply decomposition strategies.
- Add up to four two-digit numbers.
- Mentally adds or subtracts 10 or 100 to or from a given number 100-900.
- Add and subtract within 1000 using concrete models or drawing and strategies.
- Explain why addition and subtraction strategies work.
- Solve word problems involving money.
- Organize, represent, and interpret data in picture and bar graphs.

March - April
Unit 5: Understanding Plane and Solid Figures
During Unit 5, students will name and describe defining attributes of two-dimensional shapes by examining their sides and angles. Students extend their work from Grade 1 of partitioning geometric figures into halves and fourths to now include thirds. Students will use this experience to reason about equal area and part-whole relationships.   ➢ Recognize and draw shapes having specified attributes.   ➢ Partition circles and rectangles into two, three, or four equal shares.
March - May
Unit 6: Repeated Addition with Arrays
During Unit 6, students will explore the structure of equal groups using odd and even numbers. This supports doubling strategies for addition and subtraction fluency to 20 and helps set the stage for introducing multiplication and division in Grade 3.   ➢ Identify odd and even numbers.   ➢ Partition a rectangle into rows and columns of same-size squares.   ➢ Use addition to find the total number of objects arranged in rectangular arrays with up to 5 rows and up to 5 columns.   ➢ Explain why addition and subtraction strategies work.   ➢ Draw a picture graph and a bar graph to represent a data set with up to four categories.
May
Unit 7: Skills to Maintain and Review
During Unit 7, students are reviewing, mastering and/or extending their understanding of 2nd grade standards.