



YOUR Elementary School

1st Grade Mathematics Curriculum Overview

Introduction

In Grade 1, the focus of mathematics content will be on four critical areas:

1. Fluently adding and subtracting within 20

Students will use a variety of tools and strategies to understand the meaning of addition and subtraction.

Students will use properties of addition to solve more and more complicated addition and subtraction problems.

2. Understanding place value and recognizing groups of tens and ones

Students will add and subtract multiples of 10.

Students will compare numbers up to 100 using $>$, $<$, $=$.

Students will recognize numbers between 10 and 100 as being made of groups of 10 and groups of 1.

3. Understanding measurement and measuring lengths by placing “copies” of an object along the length they want to measure

Students will understand the meaning of measurement as finding out how many “copies” of one thing are needed to “build” the same size as another object.

Students will practice finding length of objects by placing copies of other objects alongside. For example, place paperclips end to end in order to find out how many paperclips long a pencil is.

4. Making shapes and breaking shapes apart

Students will describe how two shapes are alike or different.

Students will combine shapes to make other shapes. For example, put two triangles together to make a rectangle.

Students will recognize shapes from different perspectives and orientations. For example, recognize a square even when it is rotated to look like a “diamond”.

Quarterly Overview

While many of the mathematics topics are related and will be integrated throughout the school year, mathematics lesson topics will generally follow the schedule outlined below:

First Quarter

- Extend understanding of numbers and counting from Kindergarten to count fluently to 120
- Relate addition and subtraction to counting forward and backward

Second Quarter

- Add and subtract numbers up to 20 using a variety of mental calculation strategies
- Solve word problems involving addition and subtraction up to 20

Third Quarter

- Understand place value of numbers up to 120
- Compare numbers up to 100 using $>$, $<$, and $=$
- Add 2-digit numbers using a variety of calculation strategies

Fourth Quarter

- Represent data in tables and graphs.
- Interpret data from graphs in order to answer questions and solve problems
- Put objects in order by length
- Build and draw shapes with certain characteristics
- Tell time to the nearest hour or half hour

Eight Mathematical Practices

Mathematics class is about much more than just “getting the right answer.” The goal is not to turn students into human computers. Rather, the goal is to help shape students (eventually) into fully-functioning adults who can think critically, communicate effectively, use resources wisely, and problem-solve creatively. The eight Mathematical Practices are “habits of mind” that help students form a deep understanding of mathematics concepts, but also extend far beyond the walls of the math classroom.

Therefore, in our math class, your student will have many opportunities to:

1. Be a good problem-solver, and not give up when something doesn't work perfectly the first time.
2. Think about problems in lots of different ways.
3. Communicate effectively to show and explain their thinking and learn from the way others think.
4. Understand how the concepts they learn relate to the world around them.
5. Use mathematical tools skillfully and wisely to help in the problem-solving process.
6. Pay attention to important details, but also keep the big picture in mind.
7. Analyze complicated problems and break them down into simpler parts.
8. Identify helpful patterns and find effective shortcuts to be more efficient in problem-solving.

Students who enjoy and are successful in mathematics are those who embrace being creative problem-solvers and who approach mathematics with a sense of curiosity and adventure.

How to Support Student Learning at Home

You can help your student by reinforcing mathematical concepts at home. Sometimes that might mean going through flash cards for a few minutes a day, but the best mathematical support happens by highlighting the math that is already around you.

Have your student practice reading a (non-digital) clock - just when the clock is on the hour or half hour.	Make a recipe together and talk about fractions of a cup of ingredients.	When you find that you need to add or subtract numbers, talk through how to do the calculation together (in your heads, when possible).
Count together by 2's or 5's or 10's. Take turns saying the next number.	Play "Higher or Lower" - One person thinks of a number from 1 to 100. The other guesses & gets "higher" or "lower" hints along the way.	Play "What's Next" - One person starts a counting pattern (like 10, 8, 6...) and the other person guesses the next number in the pattern.
Count Halloween candy (or M&Ms or Skittles or Starburst, etc.) before eating.	Sort Halloween candy into groups (by color or type or number of pieces in the package, etc.)	Make a graph of Halloween candy based on the way you sorted it.
Driving in the car, guess what time it will be when you get where you're going. Track progress along the way & see whose guess is closest.	Have your student help navigate around town. And be willing to go on an adventure by taking a "wrong" turn every once in awhile.	Buy groceries with cash. Have your student be in charge of the money. Count it together.
Play Monopoly or Scrabble or card games.	A regular Hershey bar has 12 pieces. Ask your student how to share it between 2 people. (Or 3. Or 4. Or 6. Or 5.)	Give your student some coins, have them count the value.

Be relaxed and positive in these interactions, and your student will learn to relax and think positively about mathematics. Don't put too much emphasis on speed or correct answers. Instead, ask questions about how they thought about the topic and share your thoughts. Try to think about things in different ways. (And don't be surprised if you start to enjoy doing math with them too!)