2 sessions per week (e.g., Monday & Thursdays)

Overview

This engaging 2nd grade math course is designed to build strong foundational skills in numbers, operations, geometry, and early problem-solving. Through hands-on activities, logic games, and creative challenges, students will develop a love for math while gaining the confidence and fluency they need to succeed.

Our lessons focus on interactive learning, clear visuals, and structured practice to help students explore math concepts in a fun and supportive environment. Each class encourages curiosity, thinking, and collaboration, helping children make sense of numbers and shapes in the world around them.

By the end of the course, students will be able to:

- Add and subtract with ease using different strategies
- Understand how opposite operations work (like adding and taking away)
- Build and solve number expressions in the correct order
- Identify lines, rays, angles, and shapes in geometry
- Measure length, perimeter, and area using simple tools
- Think logically through games and mini math tournaments
- Explain their math thinking with growing confidence

Whether your child is brand new to these topics or looking to stretch their skills, this class offers a joyful, encouraging space where every young learner can shine.

Resources and Materials

All resources will be **provided by the instructor**—students don't need to purchase or prepare anything in advance.

What's Included:

- 📄 **All lesson materials and practice worksheets**
- 📝 **Homework assignments** after each session to reinforce learning
- 📸 **Screenshots of the shared whiteboard** with step-by-step solutions and notes after each class
- 💻 Access to digital resources if needed (e.g., review sheets, extra practice)

Just bring a notebook and a willingness to learn—everything else will be taken care of!

Class Objectives

Over the course of the term, students will explore operations, expressions, and geometry, while also being introduced to basic computer science thinking such as algorithms and decision-making. By the end of the semester, students will be able to confidently solve problems using addition and subtraction, understand geometric shapes and measurements, and apply logical thinking strategies in both math and everyday contexts.

Curriculum Area	Skill
Operations Inverse	🔢 **Math Operations** • Adding and subtracting numbers • Understanding opposite operations (like adding

operations

Geometry: Line, Ray, Line Segment

Computer Science: Algorithms and programs

Solving problems

Geometry: Polyline length, Perimeter

Expressions

Order of operations in expressions

and taking away)
- Solving math problems in the right order
- Learning different ways to group numbers when adding

📐 Geometry

- Telling the difference between lines, rays, and line segments
- Finding and measuring right angles
- Measuring how long shapes are (perimeter)
- Finding how much space a shape takes up (area)
- Knowing the names and features of rectangles and squares

🧠 Problem Solving

- Figuring out tricky math problems step by step
- Using what you know to solve real-life math questions

💻 Computer Thinking

- Learning to follow steps (algorithms) to solve problems
- Making simple “if-then” rules to decide what to do

🧱 Math Thinking

- Making number sentences (expressions)
- Seeing how numbers and operations work together

Summer Mathematics

2nd Grade

Dates and Teaching weeks	Main Topic and Subtopics	Curriculum Area and Learning Objectives
Week 1 June 9th June 12th	**Operations** – Learn to perform basic addition, subtraction, multiplication, and division. **Inverse operations** – Understand how addition and subtraction (or multiplication and division) undo each other.	BYOM Lesson 26 BYOM Lesson 27
Week 2 June 16th June 19th	**Geometry: Line, Ray, Line Segment** – Identify and describe lines, rays, and line segments in geometric figures. **Computer Science: Algorithms and programs** – Explore simple steps and instructions to solve problems or complete tasks.	BYOM Lesson 28 BYOM Lesson 29
Week 3 June 23rd June 26th	**Solving problems** – Use math strategies to solve real-world word problems. **Geometry: Polyline length, Perimeter** – Measure the length of connected lines and calculate the perimeter of shapes.	BYOM Lesson 30 BYOM Lesson 31

Week 4 June 30th July 3rd	**Expressions** – Create and understand number expressions using operations. **Order of operations in expressions** – Learn the correct sequence to solve math expressions.	BYOM Lesson 32 BYOM Lesson 33

Class Time Breakdown

Each class is carefully structured to balance learning, practice, and fun! Here's how we spend our time:

- **Classwork (75%)** – Most of our time is spent working together on new math concepts, solving problems, practicing skills, and doing hands-on activities.
- **Logic Games & Blitz Tournaments (15%)** – We dedicate time to exciting logic games and fast-paced math challenges that build critical thinking and number fluency.
- **Warm-Up & Transitions (10%)** – The beginning and end of each class are used for fun warm-up problems, math talks, or quick exit tickets to review what we've learned.